



Ref. Enquiry No.: PE/PG/RTC/E-5649/2017

Dated: 14.06.2017

TENDER ENQUIRY

DUE DATE
05.07.2017
BY 1400 hrs

SUBJECT: OPEN TENDER ENQUIRY FOR RATE CONTRACT OF THERMAL INSULATION ROCKWOOL MATTRESSES AS PER TECHNICAL SPECIFICATION NO. PE-TS-20-169-M032

OUR REF: TENDER ENQUIRY NO: PE/PG/RTC/E-5649/2017, DTD-14.06.2017

Dear Sir/ Ma'am,

We are pleased to invite your offer for subject package in two parts strictly as per Clause-2.0 of the enclosed "Instructions to Bidders" of the General Conditions of Contract (GCC) Rev-06 available at following link:- <http://www.bhelpem.com/Documents/GCC/GCC-Rev-06.pdf>. Bidders are requested to submit their bids in quintuplicate (5 sets) in sealed covers. The details of the tender enquiry are as mentioned below:

Sl. No	Description for which Rate Contract is desired	Tentative Quantity	Delivery required
1	<u>THERMAL INSULATION ROCKWOOL MATTRESSES</u> - Refer Technical specification no PE-TS-20-169-M032 for detailed description.	As per BOQ cum price schedule in Annexure-I and Annexure-II (based on groups divided based on location) cumulative for the Prospective Projects as per Annexure-IV	Delivery: - Three (03) months from BHEL manufacturing clearance. BHEL will issue MDCC within 15 days after acceptance of inspection reports by BHEL/Customer.

Your best quotation/offer for the above requirement, in line with our terms and conditions, should be submitted in hard sets. It shall be the responsibility of the bidder to ensure that the Tender is submitted on or before the due date by 2 p.m. Part-I bids shall be opened at 3 p.m. on the due date in the presence of authorized representatives of the bidders, who may like to be present.

Note:-

1. Based on the locations of projects located, the projects have been divided in two Groups- Group I and Group II. Bidders can quote for either of Group-I or Group-II or both.
2. In a particular group, supplier has to quote for all the items mentioned in the BOQ (Annexure-I for Group-I and Annexure-II for Group-II).
3. Evaluation will be done on overall L1 (Total cost to BHEL) basis for EACH GROUP with necessary loading as applicable. Therefore, two Rate Contracts shall exist- One for each Group.
4. Incomplete offer or offer for part of NIT BOM/BOQ within a particular Group shall be summarily rejected.
5. Documents and Credential as per Technical PQR, Techno Commercial Bids and Price Bids should be submitted with the offer.

Please refer GCC Rev-06 which is available on www.bhelpem.com. You are requested to kindly download the same.

MR KUNAL GANDHI
SR ENGR/CMM
BHEL/PS-PEM
POWER PROJECT ENGINEERING INSTITUTE,
PLOT NO. 25, SECTOR - 16A, NOIDA (UP)
(OFF) 0120-4368574

Regd. Office:
BHEL House
Siri Fort
New Delhi-110049



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1. **Rate contract for 2 year from placement of Rate Contract PO will be placed with a provision for further extension after review on mutual consent.**

Evaluation will be done on overall L1 (Total cost to BHEL) basis with necessary loading as applicable for each Group separately. Incomplete offer or offer for part of NIT BOM/BOQ within a particular group shall be summarily rejected."

2. PVC shall be applicable as per formulae mentioned in Annexure A.
3. Bidders to note the following: -
 - a. Rate contract shall be decided on the basis of grand Total FOR site price of Total BOQ for Group-I and Group-II separately as listed in price format [Annexure-I and Annexure-II respectively].
 - b. Though evaluation is proposed on Grand Total FOR site, 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 Row 40 Column No. 10 for Indian supplier [Annexure I for Group-I and Annexure-II for Group-II].
 - c. Bidders also requires to mention % of taxes/ duties (against respective column of GST) applicable for each item of the BOQ.
 - d. Bidder to include freight charges in the Ex-works price for delivering the package considering delivery to any of the project related to that group.
 - e. Rest of the prices shall be derived by BHEL in line with % allocation fixed for each item.
 - f. **For better clarity to the bidders where value is to be filled is noted as "to be quoted" and for other columns it will be noted as "derived" which denotes shall be derived by BHEL as per % allocation fixed against each item.**

TERMS AND CONDITIONS

1. Offers should be submitted in hard as follows:
 - a) Part-I Bid: - Documents and Credential as per Technical PQR and Techno-Commercial offer (along with un-priced copy of un-priced bid for each Group mentioned separately, Annexure I & II)
 - b) Part II Bid:- Price Bid for each Group separately- Annexure-I for Group-I and Annexure-II for Group-II.
2. 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.**
3. **Bidders shall submit their offers meeting the requirements of the following tender documents and other Terms and Conditions included in this Enquiry Letter:**
 - **ANNEXURE-I of GCC Rev. 06:** Letter to be furnished by the Bidders.
 - **DEFINITION OF TERMS.**
 - **Volume-I:** Comprising i) **Part-A:** Instructions to Bidders, ii) **Part-B:** General Commercial Terms & Conditions and iii) Special Conditions of Contract, if applicable.
 - **Volume-II:** Comprising i) **Part-A:** General Technical Conditions and, ii) **Part-B:** Technical Specification.
 - **Volume-III:** Schedules and Data Sheets.

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SR ENGR/CMM
BHEL/PS-PEM
POWER PROJECT ENGINEERING INSTITUTE,
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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 as per **Annexure-II to GCC Rev 06 of "DEVIATION SHEET (COST OF WITHDRAWAL)"** along with reasons for taking such deviations
Bidder to note all the points mentioned in "Notes" of Annexure-II to GCC Rev 06
5. **Please note the following:**
 - a. **Price format is enclosed for compliance. (Annexure-I for Group-I and Annexure-II for Group-II)**
 - b. **SCC enclosed for compliance. (Annexure-III)**
 - c. **GCC enclosed for compliance. GCC Rev-06 is available on www.bhelpem.com. You are requested to kindly download the same.**
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 **Clause No. 7.0, "Instructions to Bidders" of GCC Rev 06.**
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. Tenders and all correspondence thereof, shall be addressed to the undersigned by name & designation and sent at the following address:

Mr. KUNAL GANDHI, SR ENGR, 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: KUNAL GANDHI/CMM
E-MAIL: kunalgandhi@bhelpem.co.in
Ph. No. 0120-4368574/ 9650183377

Mr. I P SINGH, SR MANAGER, 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: I P SINGH/ CMM
E-MAIL: indra@bhelpem.co.in
Ph. No. 0120- 4218749, 09818989654

13. Definition of Terms is also enclosed. These definitions will apply to all the tender documents including this Enquiry Letter.
14. **Delivery:**
Three (03) months from BHEL manufacturing clearance. BHEL will issue MDCC within 15 days after acceptance of inspection reports by BHEL/Customer.
15. **PRE-QUALIFICATION REQUIREMENT: -**
Bidders is requested to fill up the details in "TECHNICAL PRE-QUALIFYING REQUIREMENT" as per the conditions mentioned in the PQR and also to submit the credentials.
Bids of only those bidders shall be evaluated who meet the Technical pre-qualifying requirements (if applicable). The technical PQR is attached as Annexure-V.
16. Bidders to note that their bid shall be conditional subject to qualify PQR by registered vendors & non-registered vendors have to qualify PQR & get registered with PEM for the package.
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 will not be considered for evaluation"

MR KUNAL GANDHI
SR ENGR/CMM
BHEL/PS-PEM
POWER PROJECT ENGINEERING INSTITUTE,
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17. **Bidders have to quote freight charges in percentage of their quoted ex-works prices for Indigenous items.**
18. Limit on quantity variation shall be plus 30% of Contract Value (Ex Works) till validity of RC. The Purchaser shall have the right to increase or decrease quantities and scope upto the above extent of value and Seller/ Contractor shall be bound to accept the same at the contracted prices without any escalation.
19. Project list which have been divided into two groups is indicative only, BHEL may ask for delivery around the location of the projects identified in the group added in the prospective project list/ requirement of existing projects during RC period.
20. Bidder has to submit "NO DEVIATION CERTIFICATE FOR COMMERCIAL TERMS AND CONDITIONS AS PER GCC (06), SCC AND NIT" in the format attached as Annexure-VIA. In case of deviations, bidder to clearly mention the same with their techno-commercial offer as per Point No-5 of NIT.
21. All the above Tender Documents shall automatically become a part of the Order/Contract after its finalization.
22. **The offers of the bidders who are on the banned list as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL website www.bhel.com.**
23. **"The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice."**
BHEL Fraud prevention policy is also uploaded in vendor's section on www.bhelpem.com.
24. **Bidders are requested to visit constantly our website to update them self for any technical or commercial change in the NIT.**
25. All corrigenda, addenda, amendments, time extensions, clarifications etc. to the tender will be hosted on BHEL websites only (www.bhelpem.com, www.bhel.com) under subject tender reference. Bidders are requested to visit our websites from time to time to keep themselves updated.
26. **CIF allocation is not applicable for this tender. Bidder to quote accordingly.**
27. Bidders to submit their offers strictly in line with the enclosed price format.
28. Inspection shall be done by BHEL/ END CUSTOMER/Third party Agency (finalized by BHEL).
29. Any other taxes & duties applicable on the date of bid but not quoted by the bidders shall be to bidder account.
30. Delivery terms for dispatches shall be FOR Dispatch Station.
31. This enquiry is subject to Conditions/ limits if any imposed in PMD / Vendor registration.
32. 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."
33. 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.
34. BHEL reserves the right to go for Reverse Auction (RA) (Guidelines as available on www.bhel.com) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders to give their acceptance with the offer for participation in RA. Non-

MR KUNAL GANDHI
SR ENGR/CMM
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acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.

Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'Process compliance form' (to the designated service provider) as well as 'sealed bid' in the Reverse Auction. Non-submission of 'Process compliance form' or 'sealed bid' by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).

The bidders have to necessarily submit sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with the offer. The envelope sealed price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be placed on lower of the two bids (RA closing price & envelope sealed price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rates.

If it is found that L1 bidder has quoted higher in sealed bid in comparison to envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).

As a reminder to the bidders, system will flash following message (in RED Color) during the course of 'sealed bid':

"Bidders to submit sealed bid less than or equal to their envelope sealed bid already submitted to BHEL"

Detailed guidelines of reverse auction 2016 are available in "information section" of www.bhelpem.com, same are applicable for subject tender.

The Bidders has to quote the Single Price (i.e. Total Cost to BHEL) in Reverse Auction. Price are to be inclusive of Packing & Forwarding charges, all the routine & type tests as per tender scope, ED + cess, CST against C-form/VAT, Freight as applicable, insurance charges, etc. including loading (if any). De-loading (if any) shall be done in line with SCC.

IMPORTANT INSTRUCTION TO BIDDERS IN CASE OF REVERSE AUCTION

The Bidders has to quote the Single Price (i.e. Total Cost to BHEL) in Reverse Auction i with loading/de loading (if any). Price are to be inclusive of Packing & Forwarding charges, all the routine & type tests as per tender scope, ED + cess, CST against C-form/VAT, Freight as applicable, including loading (if any). De-loading (if any) shall be done in line with NIT terms.

Following Condition in Reverse Auction shall be treated as follows:

Case-I (Taxes & duties and freight are identical in Reverse Auction & Conventional Price Bid)

Resolution: - Ordering shall be done on lower of the two bids (RA closing price & Conventional Price Bid). After successful completion of reverse auction L1 bidder shall be asked to submit break up in line with taxes & duties, freight quoted in their Conventional Price Bid.

Case-II (In case Bidder has quoted 'CST' in Conventional Price Bid and applicable Tax is 'VAT')

Resolution: - "Total Cost to BHEL shall be maintained by reducing proportion amount in Ex-works quoted by Bidder".

Case-III (In case Bidder has quoted 'VAT' in Conventional Price Bid and applicable Tax is 'CST')



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Resolution: - Conventional Bid/RA quoted Prices shall be reduced and CST will be allowed.

Statutory variation shall be applicable.

Any new tax structure (like Goods & Services Tax) as and when implemented by the Government shall become applicable in addition to or in lieu of existing tax structure.

Note: - Applicable taxes & duties shall be determined as per location of works of bidder.

Kindly consider the same while quoting the tender.

35. If any bidder has mentioned the term Not Applicable / Not required / Not Quoted in BHEL price format. 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.
36. Foreign Suppliers & Indian agents of foreign suppliers: Please refer our website <http://www.bhelpem.com/Tenders.aspx> for details.
37. L1 bidder will have to submit Bank Guarantee for each POs (irrespective of value) which will be placed under the Rate Contract finalised through this tender considering RA as original contract as per format mentioned in Annexure VIB to NIT instead of format mentioned in GCC Rev 06. The BG format is attached as Annexure VIB.
38. Bidder to note that all other terms and condition shall be strictly as per NIT, GCC Rev. 06 & SCC. In the event of any contradiction in the terms and conditions mentioned, the order of preference shall be NIT (this letter) / SCC / GCC Rev. 06.
39. "If any bidder furnishes price bid in the unpriced section (techno-commercial attachment page) of the tender, in that case bidder(s) shall only be responsible for such mistake and any consequences thereof. Hence all bidders are requested to be more careful at the time of submitting the Unpriced and Price Bid for Part-I and Part-II respectively to avoid mismatch".
40. Vendors shall have to enter into Integrity Pact (IP) with BHEL. The Integrity pact shall be returned by the bidder along with their Techno-commercial Bid, duly filled & signed by the authorized signatory and will form part of the order. Only those vendors/bidders who enter into Integrity Pact with BHEL, would be qualified to participate in the bidding Process. (Refer Annexure-IX, as per GCC Rev-06). To oversee implementation of IP, Shri V V R Sastry, Ex CMD/BEL has been appointed as IEM (Independent External Monitor) by BHEL.
41. Foreign bidders will have to quote C & F (cost & freight) basis instead of FOB.

For importing materials on C&F basis, bidders to note following:

- a) As per Incoterms (CFR), risk transfers to buyer when the goods have been loaded on board the ship in the country of Export. Hence, shipped on board date mentioned on the clean Bill of Lading or Air way Bill, shall be treated as the date of Shipment/ Dispatch for all contractual purposes including calculation of LD.
- b) Usance period (90 days) of the L/C shall start from the date of Bill of lading/Air Way Bill.
- c) Bill of Lading shall be considered as equivalent document (refer clause 9.7.1 b OF GCC rev-06) for recognition of dispatch.
- d) For claiming payment under clause 9.1.1 and 9.2.1 Bill of lading shall be considered instead of receipted LR (refer clause 9.7.2 b of GCC rev-06)
- e) Freight is to be quoted as inclusive in basic price by vendor and is not to be quoted separately.
- f) Insurance for evaluation purposes shall be @ 0.1 % of quoted C&F price.
- g) There will be no change in MRC payment.

MR KUNAL GANDHI
SR ENGR/CMM
BHEL/PS-PEM
POWER PROJECT ENGINEERING INSTITUTE,
PLOT NO. 25, SECTOR - 16A, NOIDA (UP)
(OFF) 0120-4368574

Regd. Office:
BHEL House
Siri Fort
New Delhi-110049

**Project
Engineering
Management**

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



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Note: Tenderer must submit UN-PRICED Price format duly filled mentioning the word "QUOTED" in place of actual price given in sealed price bid.

Thanking you,
Yours faithfully,

For and on behalf of BHEL
बी.एच.ई. लि. के प्रतिनिधि
14/6/17

(Signature of official with Name & Designation)

Enclosure:

1. Enquiry Terms & Conditions (this letter itself)
2. Annexure-I Price Format (Prices should be quoted in this format only) for Group-I.
3. Annexure-II Price format (Prices should be quoted in this format only) for Group-II.
4. Annexure-III SCC
5. Annexure-IV List of prospective projects covered in each Group.
6. Annexure-V Technical PQR.
7. Annexure-VI Technical Specifications
8. Annexure-VIIA Techno Commercial Deviation Sheet
9. Annexure-VIIB BG Format
10. Annexure A PVC APPLICABILITY

MR KUNAL GANDHI
SR ENGR/CMM
BHEL/PS-PEM
POWER PROJECT ENGINEERING INSTITUTE,
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ANNEXURE- I TO TENDER ENQUIRY REF NO-PE/PG/RTC/E-5649/2017, DTD-14/06/2017													
RATE CONTRACT													
PRICE SCHEDULE FOR THERMAL INSULATION - ROCKWOOL MATTRESSES-GROUP I													
NAME OF VENDOR-													
SL NO	ITEM DESCRIPTION	DENSITY/SIZE/ THICKNESS	TYPE	UOM	ORDERED QUANTITY	UNIT EX-WORKS PRICE (DULY PACKED) IN PERCENTAGE OF TOTAL EX WORKS PRICE OF R MATTRESSES	UNIT EX-WORKS PRICE (DULY PACKED) (INR)	TOTAL EX-WORKS PRICE (DULY PACKED) IN PERCENTAGE OF TOTAL EX WORKS PRICE OF R MATTRESSES	TOTAL EX-WORKS PRICE (DULY PACKED) (INR)	FREIGHT CHARGES (EXCLUSIVE OF TAXES) @ % OF TOTAL EX WORKS (INR)	GST	TOTAL F.O.R SITE PRICE (INR) (=9+10+11+12)	HSN Code
1	2	3	4	5	6	7	8	9	10	11	12	13	
THERMAL INSULATION - ROCKWOOL MATTRESSES													
A.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	25mm	SQ M	100.00	0.01740000%	Derived	0.0174	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	
A.2	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	40mm	SQ M	12,050.00	0.02526971%	Derived	3.045	Derived			Derived	
A.3	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	50mm	SQ M	13,450.00	0.02880669%	Derived	3.8745	Derived			Derived	
A.4	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	60mm	SQ M	8,700.00	0.03348851%	Derived	2.9135	Derived			Derived	
A.5	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	75mm	SQ M	56,550.00	0.03966189%	Derived	22.4288	Derived			Derived	
B.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE SS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM SS WIRE.	150 Kg/cub.m	75mm	SQ M	13,550.00	0.04905166%	Derived	6.6465	Derived			Derived	
C.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	25mm	SQ M	7,950.00	0.01319748%	Derived	1.0492	Derived			Derived	
C.2	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	40mm	SQ M	35,900.00	0.01787967%	Derived	6.4188	Derived			Derived	
C.3	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	50mm	SQ M	36,250.00	0.02100110%	Derived	7.6129	Derived			Derived	
C.4	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	60mm	SQ M	15,200.00	0.02412237%	Derived	3.6666	Derived			Derived	
C.5	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	75mm	SQ M	47,450.00	0.02880653%	Derived	13.6687	Derived			Derived	
D.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & BOTH SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	40mm	SQ M	50.00	0.02980000%	Derived	0.0149	Derived			Derived	
D.2	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & BOTH SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	50mm	SQ M	50.00	0.03340000%	Derived	0.0167	Derived			Derived	
D.3	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & BOTH SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	60mm	SQ M	50.00	0.03800000%	Derived	0.019	Derived			Derived	
D.4	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & BOTH SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	75mm	SQ M	600.00	0.04420000%	Derived	0.2652	Derived			Derived	
E.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & BOTH SIDE SS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM SS WIRE.	150 Kg/cub.m	75mm	SQ M	3,700.00	0.06297297%	Derived	2.33	Derived			Derived	
F.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & BOTH SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	25mm	SQ M	1,350.00	0.01772593%	Derived	0.2393	Derived			Derived	
F.2	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & BOTH SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	40mm	SQ M	2,600.00	0.02241154%	Derived	0.5827	Derived			Derived	
F.3	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & BOTH SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	50mm	SQ M	1,350.00	0.02553333%	Derived	0.3447	Derived			Derived	
F.4	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & BOTH SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	60mm	SQ M	3,200.00	0.02865313%	Derived	0.9169	Derived			Derived	
F.5	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & BOTH SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	75mm	SQ M	4,750.00	0.03333684%	Derived	1.5835	Derived			Derived	
G.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	40mm	SQ M	200.00	0.02750000%	Derived	0.055	Derived			Derived	
G.2	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	50mm	SQ M	2,700.00	0.03236667%	Derived	0.8739	Derived			Derived	
G.3	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	60mm	SQ M	7,400.00	0.03884054%	Derived	2.8742	Derived			Derived	
G.4	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	75mm	SQ M	17,450.00	0.04240057%	Derived	7.3989	Derived			Derived	
H.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE SS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM SS WIRE.	150 Kg/cub.m	75mm	SQ M	5,200.00	0.05749231%	Derived	2.9896	Derived			Derived	
I.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	25mm	SQ M	1,150.00	0.01618261%	Derived	0.1861	Derived			Derived	
I.2	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	40mm	SQ M	4,500.00	0.02103778%	Derived	0.9467	Derived			Derived	
I.3	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	50mm	SQ M	6,900.00	0.02330435%	Derived	1.608	Derived			Derived	
I.4	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	60mm	SQ M	7,550.00	0.02637881%	Derived	1.9916	Derived			Derived	
I.5	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	75mm	SQ M	11,000.00	0.03110091%	Derived	3.4211	Derived			Derived	
J	GRAND TOTAL						Derived	100.00	TO BE QUOTED = Rs X	Derived		Derived = Y	
Note:-													
1. Bidder to note that evaluation shall be on Grand Total FOR site price to BHEL, however, Bidder to quote grand total Ex works value of the complete package (Rs X) only as per the BOQ above. The item wise break up of Ex works prices (unit as well as total) shall be derived as per the formulae indicated above by BHEL. Bidder also need to indicate taxes percentage in the respective column and freight percentage of Ex works value considering delivery anywhere in India in the freight column.													
2. Rate contract shall be decided on the basis of grand Total FOR site price of Total BOQ													
3. 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													
4. Bidder to note that total price indicated above at J shall be considered for evaluation and hence should be complete in all respect for the full scope defined and considering all terms and conditions agreed.													
5. The unit price quoted by bidder shall be binding for quantity variation which is at discretion of purchaser.													
6. For any clarification please refer Technical Specification No-PE-TS-20-169-M032													
7. Vendor to mention HSN Code in Column No. 14 for each item of BOQ.													



ANNEXURE- II TO TENDER ENQUIRY REF NO-PE/PG/RTC/E-5649/2017, DTD-14.06.2017													
RATE CONTRACT													
PRICE SCHEDULE FOR THERMAL INSULATION - ROCKWOOL MATTRESSES- GROUP II													
NDOR-													
SL NO	ITEM DESCRIPTION	DENSITY/SIZE/ THICKNESS	TYPE	UOM	ORDERED QUANTITY	UNIT EX-WORKS PRICE (DULY PACKED) IN PERCENTAGE OF TOTAL EX WORKS PRICE OF R MATTRESSES	UNIT EX-WORKS PRICE (DULY PACKED) (INR)	TOTAL EX-WORKS PRICE (DULY PACKED) IN PERCENTAGE OF TOTAL EX WORKS PRICE OF R MATTRESSES	TOTAL EX-WORKS PRICE (DULY PACKED) (INR)	FREIGHT CHARGES (EXCLUSIVE OF TAXES) @ % OF TOTAL EX WORKS (INR)	GST	TOTAL F.O.R SITE PRICE (INR) (=9+10+11+12)	HSN Code
1	2	3	4	5	6	7	8	9	10	11	12	13	
	THERMAL INSULATION - ROCKWOOL MATTRESSES												
A.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	25mm	SQ M	1200	0.02020000%	Derived	0.2424	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	
A.2	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	40mm	SQ M	4000	0.02934750%	Derived	1.1739	Derived			Derived	
A.3	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	50mm	SQ M	9800	0.03345510%	Derived	3.2786	Derived			Derived	
A.4	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	60mm	SQ M	6400	0.03889219%	Derived	2.4891	Derived			Derived	
A.5	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	75mm	SQ M	13000	0.04606231%	Derived	5.9881	Derived			Derived	
C.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	25mm	SQ M	8400	0.01532738%	Derived	1.2875	Derived			Derived	
C.2	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	40mm	SQ M	15200	0.02076447%	Derived	3.1562	Derived			Derived	
C.3	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	50mm	SQ M	10200	0.02439020%	Derived	2.4878	Derived			Derived	
C.4	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	60mm	SQ M	5000	0.02801600%	Derived	1.4008	Derived			Derived	
C.5	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.56 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	75mm	SQ M	1600	0.03345625%	Derived	0.5353	Derived			Derived	
G.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	40mm	SQ M	600	0.00000000%	Derived	0.1917	Derived			Derived	
G.2	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	50mm	SQ M	8100	0.03195000%	Derived	3.0448	Derived			Derived	
G.3	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	60mm	SQ M	22200	0.03759012%	Derived	10.0139	Derived			Derived	
G.4	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	150 Kg/cub.m	75mm	SQ M	52350	0.04510766%	Derived	25.7786	Derived			Derived	
H.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 150KG/M³ DENSITY & ONE SIDE SS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM SS WIRE.	150 Kg/cub.m	75mm	SQ M	15600	0.04924279%	Derived	10.4162	Derived			Derived	
I.1	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	25mm	SQ M	3450	0.06677051%	Derived	0.6484	Derived			Derived	
I.2	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	40mm	SQ M	13500	0.01879420%	Derived	3.2985	Derived			Derived	
I.3	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	50mm	SQ M	20700	0.02443333%	Derived	5.6024	Derived			Derived	
I.4	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	60mm	SQ M	23000	0.02706473%	Derived	7.0462	Derived			Derived	
I.5	BONDED MINERAL (ROCK) WOOL MATTRESSES WITH 100KG/M³ DENSITY & ONE SIDE GS WIRE NETTING OF 13 MM X0.71 MM SIZE STITCHED WITH 0.4 MM GS WIRE.	100 Kg/cub.m	75mm	SQ M	33000	0.03063565%	Derived	11.9196	Derived			Derived	
J	GRAND TOTAL						Derived	100	TO BE QUOTED = Rs X	Derived		Derived = Y	
Note:-													
1. Bidder to note that evaluation shall be on Grand Total FOR site price to BHEL, however, Bidder to quote grand total Ex works value of the complete package (Rs X) only as per the BOQ above. The item wise break up of Ex works prices (unit as well as total) shall be derived as per the formulae indicated above by BHEL. Bidder also need to indicate taxes percentage in the respective column and freight percentage of Ex works value considering delivery anywhere in India in the freight column.													
2. Rate contract shall be decided on the basis of grand Total FOR site price of Total BOQ													
3. 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													
4. Bidder to note that total price indicated above at J shall be considered for evaluation and hence should be complete in all respect for the full scope defined and considering all terms and conditions agreed.													
5. The unit price quoted by bidder shall be binding for quantity variation which is at discretion of purchaser.													
6. For any clarification please refer Technical Specification No-PE-TS-20-169-M032													
7. Vendor to mention HSN Code in Column No. 14 for each item of BOQ.													

ANNEXURE- III TO NIT REF NO-PE/PG/RTC/E-5649/2017, DTD-14.06.2017

Special Condition of Rate Contract for Thermal Insulation – Rockwool Mattresses

1. BHEL/PEM intends to enter into Rate Contract for the tendered various type/sizes initially for a period of two year. The Rate Contract shall come into force from the date of issue of Purchase order for Rate Contract. Validity for ordering shall be two year from the purchase order for Rate Contract.
2. Transit Insurance is in BHEL scope
3. 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 Rate Contract.
4. The freight charges shall be payable, as calculated at percentage of ex-works prices quoted by the bidder or actual freight charges paid to transporter whichever is lower against production of documentary evidence. Vendor to quote freight charges as percentage (%) of ex-works price for destination anywhere in India.
5. Vendor to note that Excise Duty is payable on self manufacturing item only as per clause no 4.1.2 of GCC Rev 06 & hence for their BOI may quote Excise Duty is inclusive or Nil.
6. **In case of Indigenous bidders:** 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-PEM 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-PEM.

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.
7. Mode dispatch shall be by road through Schedule Bank/BHEL (PEM) approved transporters.
8. Other terms and conditions shall be as per Standard Technical specification no. PE-TS-20-169-M038 & GCC Rev 06, Enquiry letter.
9. This enquiry is subject to Conditions/ limits if any imposed in PMD/ Vendor registration.
10. Tentative quantity is given in enquiry.
11. Bidders to submit offer for RC of said items ONLINE via e-Procurement System only. Complete tender 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.
12. 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.


14/6/17

ANNEX-IV TO NIT REF NO-PE/PG/RTC/E-5649/2017, DTD-14.06.2017

Sl no.	Prospective Project List	
1	1X800 MW VIJAYWADA APGENCO	GROUP-I
2	4X270 MW MANUGURU TPP	
3	5X800 MW YADADRI TPP	
4	1X800MW KOTHAGUDEM STPP	
1	1X800 MW KRISHNAPSTNAM APPDCL	GROUP-II
2	1X800 MW TANGEDCO NORTH CHENNAI TPP	
3	2X660 MW ENNORE SEZ STPP	
4	2X500MW NEYVELI NEW TPP	



PRE - QUALIFYING REQUIREMENTS

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

REVISION NO: 00 DATE: 29.05.2017

SHEET: 1 of 2

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

Enquiry No (To be filled by PG):

Project: Framework Agreement

Package: Thermal Insulation- Bonded Mineral (Rock) Wool Mattresses/ Pipe Section

CRITERIA FOR EVALUATION (TECHNICAL / FINANCIAL):

1. Technical Pre-Qualifying Requirements:

1.1 The bidder 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 legally binding documents 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. 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: Lakhan Pal
DESIGNATION: Sr. Engr.
DEPT.: PS-PEM/ MPL

REVIEWED BY:

NAME: BK Agarwal
DESIGNATION: DGM
DEPT.: PS-PEM/ MPL

APPROVED BY:

NAME: JACOB JAMES
DESIGNATION: DH(MPL & IPDS)



PRE - QUALIFYING REQUIREMENTS

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

REVISION NO: 00 DATE: 29.05.2017

SHEET: 2 of 2

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).

Note: In case vendor has executed contract (s) for BHEL-PEM, internal assessment by BHEL-PEM shall be considered for evaluation for satisfactory performance. For this, vendor to submit a request along-with relevant documents.

1.4 In addition to above, bidder should have the following facilities:

- a) In-house capability of manufacturing thermal insulation - Bonded mineral (rock) wool mattresses of minimum 500 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. Supplier to also comply with general PQR available at internet site of BHEL-PEM.

PREPARED BY:

NAME: Lakhan Pal
DESIGNATION: Sr. Engr.
DEPT.: PS-PEM/ MPL

REVIEWED BY:

NAME: BK Agarwal
DESIGNATION: DGM
DEPT.: PS-PEM/ MPL

APPROVED BY:

NAME: JACOB JAMES
DESIGNATION: DH(MPL & IPDS)

FRAMEWORK AGREEMENT

TECHNICAL SPECIFICATION FOR BONDED MINERAL (ROCK) WOOL MATTRESSES

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



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

	TITLE: TECHNICAL SPECIFICATION BONDED MINERAL (ROCK) WOOL MATTRESSES FRAMEWORK AGREEMENT	SPECIFICATION NO. PE-TS-020-169-M032
		REV. NO.: 0
		DATE: 24.03.2017
		SHEET 1 OF 1

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SECTION – I

- SPECIFIC TECHNICAL REQUIREMENT

SECTION – II

- DATA SHET- A
- QUALITY PLAN
- COMPLIANCE SHEET

	SPECIFIC TECHNICAL REQUIREMENT FOR BONDED MINERAL (ROCK) WOOL MATTRESSES FRAMEWORK AGREEMENT	SPECIFICATION NO:PE-TS-020-169-MO32
		SECTION : I
		REV. NO. 00
		DATE: 24.03.2017
		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 side, suitable for service temperatures upto 750 deg C. In case of contradiction between Section-I and Data Sheet-A of Section-II, Data Sheet-A of Section-II will prevail.

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 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 INTERNATIONAL STANDARD

2.02.01 For procurement as per ASTM: C 592-13 (Standard specification for Mineral fiber blanket insulation and blanket type pipe insulation, metal mesh covered-industrial type), requirement of ASTM shall be applicable in place of mentioned IS codes.

2.03.00 In case of any conflict between the above standards and this specification, the latter shall prevail and in case of any further conflict in the matter, the interpretation of the specification by the Purchaser's Engineer shall be final and binding.

3.00.00 MANUFACTURE

3.00.01 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 except for export orders where the length and width of the mattresses shall be 1520 mm x 1150 mm in order to make optimum use of the container. Nominal thickness shall be 25, 40, 50, 60 or 75 mm.



	SPECIFIC TECHNICAL REQUIREMENT FOR BONDED MINERAL (ROCK) WOOL MATTRESSES FRAMEWORK AGREEMENT	SPECIFICATION NO:PE-TS-020-169-MO32
		SECTION : I
		REV. NO. 00
		DATE: 24.03.2017
		SHEET 2 OF 5

4.02.00 The method of measuring the dimensions i.e. length, width and thickness shall be as prescribed in IS:3144. The following dimensional tolerances are applicable for the bonded mineral wool mattresses:

Length	+ 3% and - 2% of nominal length
Width	+ 3% and - 2% of nominal width
Thickness	+ 6 mm and - 2 mm for thickness not exceeding 40 mm
Thickness	+ 10 mm and - 2 mm for thickness over 40 mm

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.

5.02.00 The bulk density shall be calculated by dividing the actual weight of the mattress in kilograms by the volume in cubic meters arrived at as the product of the average actual length, average actual width and nominal / specified thickness (subject to the condition that the thickness is maintained within the specified tolerance limits).

6.00.00 MATERIAL PROPERTIES

6.01.00 SHOT CONTENT:

The shot content, when sieved through the 500 and 250 micron IS Sieves (Refer IS:460 for IS Sieve) shall not be more than 5% and 15% (by weight) respectively.

The method for determination of shot content shall be as prescribed in IS:3144. 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 when determined in accordance with the method prescribed in IS:3346.

The thermal conductivity (k-value) test will be carried out for minimum three mean temperatures i.e. 100 °C, 200 °C & 300 °C on samples identified and sealed by customer / BHEL Inspector once in twelve (12) months. The tests will be carried out at govt. approved labs (at CBRI-Roorkee, IIT-Chennai or PIBCO R & D Centre, N. Delhi).

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 any fusion of fibers and visible deterioration of the fibrous structure. Any color change shall not be considered as deterioration of fibrous structure.

6.04.00 MOISTURE CONTENT

The bonded mineral (rock) wool mattress shall not contain more than 2% moisture when determined by the method prescribed in IS:3144.



	SPECIFIC TECHNICAL REQUIREMENT FOR BONDED MINERAL (ROCK) WOOL MATTRESSES FRAMEWORK AGREEMENT	SPECIFICATION NO:PE-TS-020-169-MO32
		SECTION : I
		REV. NO. 00
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		SHEET 3 OF 5

6.05.00 MOISTURE ABSORPTION

The mattress shall not gain in weight by more than 2% when tested by the method prescribed in IS:3144.

6.06.00 INCOMBUSTIBILITY

The material shall be rated as incombustible when tested by the method as prescribed in IS:3144. The loss in total weight when determined by this test shall not exceed 5%.

6.07.00 SULPHUR CONTENT

The material, after removal of the facing (wire netting), shall not contain more than 0.6% of Sulphur when determined by the method as prescribed in IS:3144.

6.08.00 COMPRESSIBILITY AND RESILIENCE:

6.08.01 The objects of this test are firstly to ensure that the mattress applied at greater than nominal thickness shall be sufficiently compressible to be fitted as its nominal thickness and secondly that the mattress shall be sufficiently resilient to recover its nominal thickness after being subjected to compression.

6.08.02 The material shall be tested as stated in Annex A of IS:8183

When tested in accordance with the method, the recovery, after compression of 75% of the original thickness, shall not be less than 90% of the original thickness.

6.09.00 ALKALINITY

When tested as described in Annex B of IS:8183, the pH value of the solution of the material shall be between 7.0 and 10.0.

6.10.00 CHLORIDE CONTENT

The material shall not contain leachable chloride in excess of 0.01% when determined by the method prescribed in IS:3144.

6.11.00 FIBRE DIAMETER

The average fibre diameter of mineral (rock) wool shall not be more than 7 microns when determined by the method prescribed in IS:3144.

6.12.00 RESISTANCE TO VIBRATION

The mattress shall show not more than 1% height of settlement when tested by the method prescribed in IS 3144.

6.13.00 RESISTANCE TO JOLTING

The mattress shall show not more than 3% height of settlement when tested by the method prescribed in IS:3144.



	SPECIFIC TECHNICAL REQUIREMENT FOR BONDED MINERAL (ROCK) WOOL MATTRESSES FRAMEWORK AGREEMENT	SPECIFICATION NO:PE-TS-020-169-MO32
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		SHEET 4 OF 5

7.00.00 PACKING AND MARKING

7.01.00 Stack of mattresses shall be packed in Polythene lined HDPE bags and sealed / properly stitched to prevent moisture absorption during transit and storage.

In case of export orders stack of mattresses shall be packed in 0.2 mm thick Polythene all around and further shall be packed in HDPE Bags and sealed / properly stitched to prevent moisture absorption during transit and storage. For moisture absorption minimum four (4) packets of silica gel (25 grams each) shall be placed inside Polythene at different positions in each package. Silica gel shall be of indicating type conforming to IS:3401-1992 packed in cotton bags and shall not come into direct contact with the material inside the package.

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 color 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 (Single side/Double side)
- b) White bags with marking as shown in Fig 1 (Page 5 of 5) for 100 kg/m³ with Galvanized steel wire netting (Single side/Double side)
- c) Yellow bags with marking as shown in Fig 1 (Page 5 of 5) for 150 kg/m³ with SS wire netting (Single side/Double side)

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

- a) Project Name
- b) Purchase Order No.
- c) Sl. No. of package
- d) Size of mattresses (Thickness x Length x Width)
- e) 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"

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 materials conform 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 All reports, test certificates etc. to be submitted during contract shall be subject to BHEL / Customer review / approval.





**SPECIFIC TECHNICAL REQUIREMENT
FOR BONDED MINERAL (ROCK)
WOOL MATTRESSES
FRAMEWORK AGREEMENT**

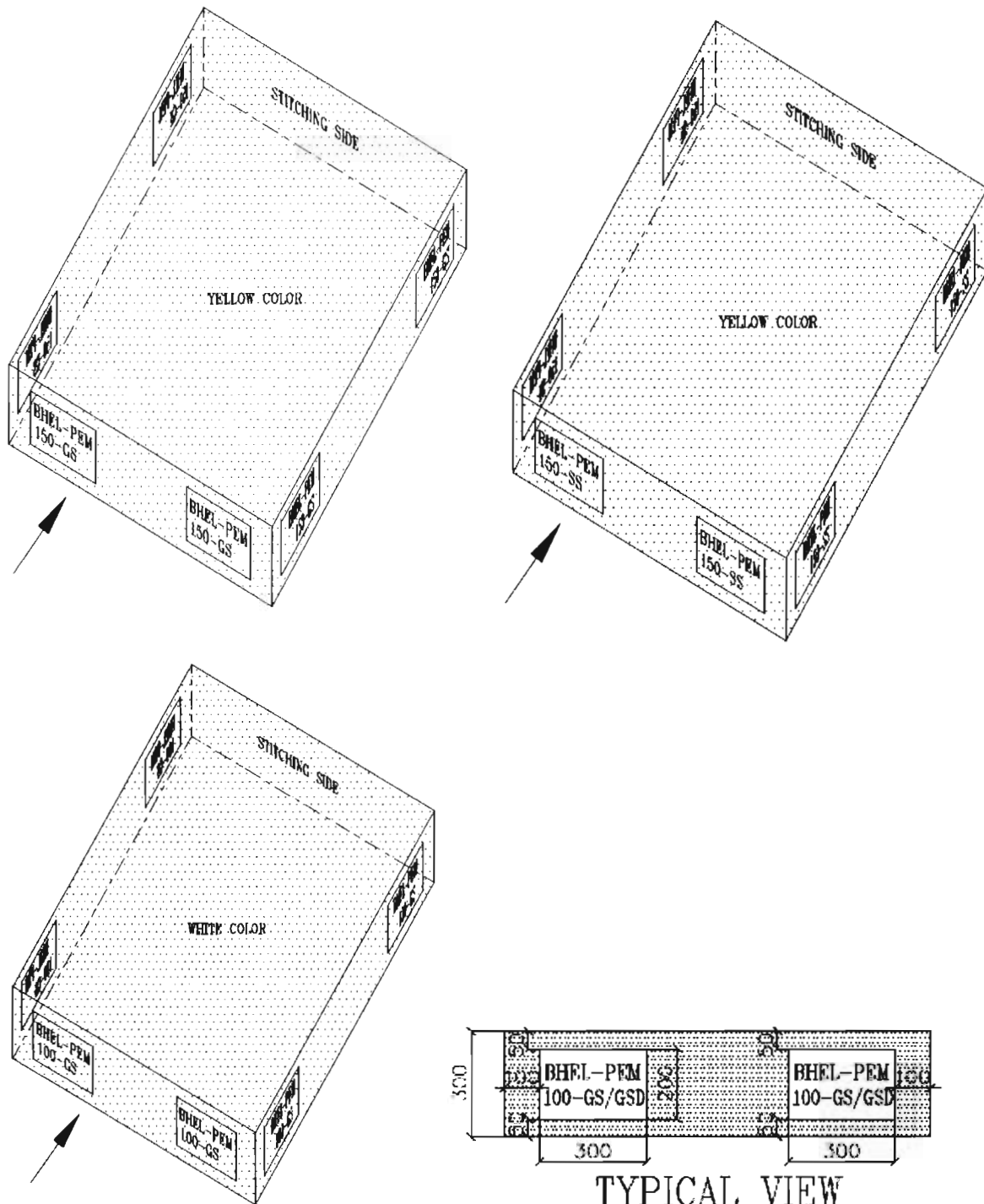
SPECIFICATION NO:PE-TS-020-169-MO32

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SHEET 5 OF 5



Note:

- Yellow bags with marking for 150 kg/m³ with GS wire netting (GS-Single side/GSD-Double side)
- White bags with marking for 100 kg/m³ with GS wire netting (GS-Single side/GSD-Double side)
- Yellow bags with marking for 150 kg/m³ with SS wire netting (SS-Single side/SSD-Double side)

	TITLE:		SPEC. NO. PE-TS-020-169-M032	
	TECHNICAL SPECIFICATION		SECTION: II	
	BONDED MINERAL (ROCK) WOOL MATTRESS		REV. NO.: 00	
	FRAMEWORK AGREEMENT		DATE: 24.03.2017	
			SHEET 1 OF 1	
	DATA SHEET-A			
BILL OF MATERIAL (BOM)				
S.NO.				
1	Bonded mineral (Rock) wool mattresses with 150Kg/M ³ density & one side GS wire netting of 13 mm x0.56 mm size stitched with 0.4 mm GS wire.	25MM	2850	
		40MM	19750	
		50MM	36750	
		60MM	24350	
		75MM	126800	
2	Bonded mineral (Rock) wool mattresses with 150Kg/M ³ density & one side SS wire netting of 13 mm x0.56 mm size stitched with 0.4 mm SS wire.	75MM	22850	
3	Bonded mineral (Rock) wool mattresses with 100Kg/M ³ density & one side GS wire netting of 13 mm x0.56 mm size stitched with 0.4 mm GS wire.	25MM	26750	
		40MM	70950	
		50MM	63150	
		60MM	40350	
		75MM	77000	
4	Bonded mineral (Rock) wool mattresses with 150Kg/M ³ density & both side GS wire netting of 13 mm x0.56 mm size stitched with 0.4 mm GS wire.	25MM	0	
		40MM	50	
		50MM	50	
		60MM	50	
		75MM	600	
5	Bonded mineral (Rock) wool mattresses with 150Kg/M ³ density & both side SS wire netting of 13 mm x0.56 mm size stitched with 0.4 mm SS wire.	75MM	3700	
6	Bonded mineral (Rock) wool mattresses with 100Kg/M ³ density & both side GS wire netting of 13 mm x0.56 mm size stitched with 0.4 mm GS wire.	25MM	1350	
		40MM	2600	
		50MM	1350	
		60MM	3200	
		75MM	4750	
7	Bonded mineral (Rock) wool mattresses with 150Kg/M ³ density & one side GS wire netting of 13 mm x0.71 mm size stitched with 0.4 mm GS wire.	25MM	600	
		40MM	3050	
		50MM	27450	
		60MM	69200	
		75MM	170000	
8	Bonded mineral (Rock) wool mattresses with 150Kg/M ³ density & one side SS wire netting of 13 mm x0.71 mm size stitched with 0.4 mm SS wire.	75MM	46800	
9	Bonded mineral (Rock) wool mattresses with 100Kg/M ³ density & one side GS wire netting of 13 mm x0.71 mm size stitched with 0.4 mm GS wire.	25MM	14950	
		40MM	42550	
		50MM	68350	
		60MM	66800	
		75MM	109000	



		QUALITY PLAN		CUSTOMER:		PROJECT: FRAMEWORK AGREEMENT				SPEC. NO : PE-SS-020-169-M032			
				VENDOR :		QP NO. PE-QP-020-169-M031 REV. 00 DT: 24.03.2017				SPEC. TITLE : THERMAL INSULATION			
SHEET 2 OF 2		SYSTEM						ITEM: THERMAL INSULATION – RESIN BONDED MINERAL (ROCK) WOOL MATTRESSES				CONTRACTOR : BHEL, PEM, NOIDA	
S.NO.	COMPONENT/ OPERATION	CHARACTERISTICS CHECKED	CATE GORY	TYPE OF CHECK	EXTENT OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	P	AGENCY W	V	REMARKS	

2.	Hexagonal wire netting & stitching wire											
i)	GS Wire	Dimensional, Gauge dia, Coating test, Tensile test, Wrapping test, Bend test	MA	Physical	1 sample per lot	IS:4826, IS:3150, IS:280 & Tech. spec.	IS:4826, IS:3150, IS:280 & Tech. spec.	Test report	3	-	2	Ref. note "D"
		Appearance	MA	Visual	Random	Tech. Spec.	Shall be bright & free from defects	Inspection Report	3	-	2	
ii)	SS Wire	Dimensional, Gauge dia, Chemical analysis, Tensile test, Wrapping test, Reverse Bend test	MA	Physical	1 sample per lot	IS:6528 & Tech. spec.	IS:6528 & Tech. spec.	Test report	3	-	2	Ref. note "D"
		Appearance	MA	Visual	Random	Tech. Spec.	Shall be bright & free from defects	Inspection Report	3	-	2	
3.	Packing and marking	Packing type and identification marking	MA	Visual	Random	Tech. Spec.	Tech. Spec.	(Soft copy of photographs)	3	2	-	Photographs of packed material to be verified by BHEL before issuing MDOC.

NOTES:

- A) 'K' Value test will be carried out on samples identified and sealed by customer / 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).
- B) These type tests to be carried out once in 3 months.
- C) These type tests to be carried out once in 3 months.
- D) Manufacturer's / supplier's compliance certificate will be furnished.

LEGEND MA MAJOR CHARACTERISTIC 1 CUSTOMER
P PERFORM 2 BHEL
W WITNESS 3 VENDOR OR SUBVENDOR
V VERIFICATION

BHEL		PARTICULARS		BIDDER/VENDOR	
LAKHAN PAL		NAME			
		SIGNATURE			
24/03/2017		DATE			
				BIDDERS/VENDORS COMPANY SEAL	

		QUALITY PLAN		CUSTOMER:		PROJECT: FRAMEWORK AGREEMENT				SPEC. NO : PE-SS-020-169-M032		
				VENDOR :		QP NO. PE-QP-020-169-M031 REV. 00 DT: 24.03.2017				SPEC. TITLE : THERMAL INSULATION		
		SHEET 1 OF 2		SYSTEM		ITEM: THERMAL INSULATION – RESIN BONDED MINERAL (ROCK) WOOL MATTRESSES				CONTRACTOR : BHEL, PEM, NOIDA		
S.NO.	COMPONENT/ OPERATION	CHARACTERISTICS CHECKED	CATE GORY	TYPE OF CHECK	EXTENT OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	P	AGENCY W	V	REMARKS

1.	Bonded Mineral (Rock) wool mattresses	Chemical composition	MA	Chemical	1 / Lot	Vendor std.	Vendor std.	Test Certificate	3	-	-	
	Bulk density		MA	Lab. Test	Sampling as per IS: 8183	IS: 3144 & spec	IS: 8183 & spec	-do-	3	2	-	
	Dimensions		MA	Physical	-do-	-do-	-do-	-do-	3	2	-	
	Shot content		MA	Lab. Test	-do-	-do-	-do-	-do-	3	2	-	
	Chloride content		MA	Chemical	-do-	-do-	-do-	-do-	3	2	-	
	Thermal Conductivity		MA	Lab. Test	-do-	IS: 3346 & spec	-do-	-do-	3	-	2	Ref. Note "A"
	Heat Resistance		MA	Physical	-do-	IS: 3144 & spec	-do-	-do-	3	2	-	Ref. Note "C"
	Moisture Content		MA	-do-	-do-	-do-	-do-	-do-	3	2	-	Ref. Note "C"
	Moisture Absorption		MA	-do-	-do-	-do-	-do-	-do-	3	2	-	Ref. Note "B"
	Recovery after compression		MA	-do-	-do-	IS: 8183 & spec	-do-	-do-	3	2	-	Ref. Note "C"
	Resistance to vibration		MA	-do-	-do-	IS: 3144 & spec	-do-	-do-	3	2	-	Ref. Note "B"
	Resistance to jolting		MA	-do-	-do-	-do-	-do-	-do-	3	2	-	Ref. Note "B"
	Fibre diameter		MA	-do-	Sampling as per IS: 3144	-do-	Tech. spec	-do-	3	2	-	Ref. Note "B"
	Incombustibility		MA	-do-	Sampling as per IS: 8183	-do-	IS: 8183 & Tech. spec	-do-	3	2	-	Ref. Note "B"
	Sulphur Content		MA	Chemical	-do-	-do-	-do-	-do-	3	2	-	Ref. Note "C"
	Alkalinity		MA	Chemical	-do-	IS: 8183 & spec	-do-	-do-	3	2	-	Ref. Note "C"
	Appearance		MA	Visual	-do-	---	To be free from Voids, Cracks	Inspection Report	3	2	-	

BHEL		PARTICULARS	BIDDER/VENDOR
LAKHAN PAL		NAME	
		SIGNATURE	
24/03/2017		DATE	BIDDERS/VENDORS COMPANY SEAL

	COMPLIANCE SHEET BONDED MINERAL (ROCK) WOOL MATTRESSES FRAMEWORK AGREEMENT	SPECIFICATION NO: PE-TS-020-100-M032
		SECTION: II
		REV. NO.: 00
		DATE: 24.3.2017
		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	



ANNEXURE-II: DEVIATION SHEET (COST OF WITHDRAWAL)**PROJECT:-****PACKAGE:-****TENDER ENQUIRY REFERENCE:-****NAME OF VENDOR:-**

SL NO	VOULME/ 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)	REASON FOR QUOTING DEVIATION
-------	-----------------	----------	------------	--	-----------------------------------	---------------------------------	--	--	------------------------------

TECHNICAL DEVIATIONS

COMMERCIAL DEVIATIONS

PARTICULARS OF BIDDERS/ AUTHORISED REPRESENTATIVE

NAME	DESIGNATIONS	SIGN & DATE	
------	--------------	-------------	--

NOTES:

- For self manufactured items of bidder, cost of withdrawal of deviation will be applicable on the basic price (i.e. excluding taxes, duties & freight) only.
- For directly dispatchable items, cost of withdrawal of deviation will be applicable on the basic price including taxes, duties & freight.
- All the bidders have to list out all their Technical & Commercial Deviations (if any) in detail in the above format.
- Any deviation not mentioned above and shown separately or found hidden in offer, will not be taken cognizance of.
- 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.
- Bidder shall furnish price copy of above format along with price bid.
- The final decision of acceptance/ rejection of the deviations quoted by the bidder shall be at discretion of the Purchaser.
- Bidders to note that any deviation (technical/commercial) not listed in above and asked after Part-I opening shall not be considered.
- For deviations w.r.t. Payment terms, Liquidated damages, Firm prices and submission of E1/ E2 forms before claiming 10% payment, if a bidder chooses not to give any cost of withdrawal of deviation loading as per Annexure-VIII of GCC, Rev-06 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.
- Any deviation mentioned in priced copy of this format, but not mentioned in the un-priced copy, shall not be accepted.
- 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.
- 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.
- In case nature of cost of withdrawal (positive/negative) is not specified it shall be assumed as positive.
- In case of discrepancy in the nature of impact (positive/ negative), positive will be considered for evaluation and negative for ordering.

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 at _____ through its Unit at.....(name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) having its registered office at _____ ² hereinafter referred to as the '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.....) for⁵ (hereinafter called the 'Contract') and the Contractor 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 ----- (Rupees -----) without any demur, immediately on a demand from the Employer, .

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 Contractor/ Supplier in any suit or proceeding pending before any Court or Tribunal relating thereto 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 contractors/supplier shall have no claim against us for making such payment.

We thebank 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 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 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 Contractor/Supplier and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor/Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said 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 Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

This Guarantee shall remain in force upto and including.....⁶ 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 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 the⁷we 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 exceed.....⁸
- b) This Guarantee shall be valid up to⁹
- c) Unless the Bank is served a written claim or demand on or before¹⁰ 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.

For and on behalf of
(Name of the Bank)

Dated.....

Place of Issue.....

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 PROJECT/SUPPLY DETAILS

⁵ BG AMOUNT IN FIGURES AND WORDS

⁶ VALIDITY DATE

⁷ DATE OF EXPIRY OF CLAIM PERIOD

⁸ BG AMOUNT IN FIGURES AND WORDS.

⁹ VALIDITY DATE

¹⁰ DATE OF EXPIRY OF CLAIM PERIOD

Note:

1. Units are advised that expiry of claim period may be kept 2/3 months after validity date.
2. In Case of Bank Guarantees submitted by Foreign Vendors-
 - a. **From Nationalized/Public Sector / 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 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 (BHEL's Consortium Bank). 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). In case, of Foreign Vendors, the BG Format provided to them should clearly specify the same.
 - b.4 The BG should clearly specify that the demand or other document can be presented in electronic form.



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

ANNEXURE-A TO NIT REF NO-PE/PG/RTC/E-5649/2017, DTD-14.06.2017

THERMAL INSULATION – ROCKWOOL MATTRESSES

PVC 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.: 1.3.9 (NON-METALLIC MINERAL PRODUCTS) FOR MONTH OF ORDERING.

M1 = INDICES AS PER RBI BULLETIN TABLE 21 SL NO.: 1.3.9 (NON-METALLIC MINERAL 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.: 1.3.10.1.2 – (STEEL: LONG) FOR MONTH OF ORDERING.

S1 = INDICES AS PER RBI BULLETIN TABLE 21 SL NO.: 1.3.10.1.2 – (STEEL: LONG) FOR 1 MONTH PRIOR TO DESPATCH

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

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

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

All other terms shall be as per BHEL GCC Rev-06 / NIT / SCC.