

BHARAT HEAVY ELECTRICALS LIMITED भारत हैवी इलेक्ट्रिकल्स लिमिटेड (A GOVT. OF INDIA UNDERTAKING) (भारत सरकार का उपक्रम) PROJECT ENGINEERING MANAGEMENT परियोजना अभियांत्रिकी प्रबंधन

निविदा आमंत्रण सूचना NOTICE INVITING TENDER (NIT)

Enquiry No- 77/24/6116/MAZ

Date -25-Apr-25

BHEL invites offers from reputed Suppliers as per following terms and conditions -

1. 7	ender Type	Open Tender (Domestic-Indian)		
2 . F	Package	LT PVC CONTROL CABLE		
3. F	Project	Framework Agreement (Rate Cont	tract) of LT PVC CO	NTROL CABLE
4. E	Executing Agency	BHEL-PEM		
5. N	Mode of Enquiry	E - PROCUREMENT		
	Nature of Package Divisible/Non-Divisible)	Divisible		
7. 1	Numbers of Part bid	2-Part bid (Techno-commercial an	d Price bid)	
0 [Que Doto 9 Time	For offer submission	05.05.2025	12:00 IST
0. L	Oue Date & Time	For P-1 bid opening	05.05.2025	16:00 IST
	Earnest Money Deposit EMD)	Not Applicable	EMD Amount	NA
10.	Tender Cost	NIL		
11.	Eligibility of Local Supplier as per MII	Only Class I Supplier (with local co	ontent 60% and abo	ove)
12.	Technical Scope	As per Technical specification No:	PE-TS-999-507-E0	03A
13.	Pre-bid Clarification	Suppliers to contact BHEL-PEM (clarification (Technical or Commerc Tender opening & get it clarified we Suppliers may be submitted within the	ial) at least 05 days	before the due date of
14.	Prequalification Requirements	Financial PQR- YES	-	Technical PQR- YES
15.	Delivery terms for Supply	FOR Despatch Station		
16.	Delivery Schedule:			
А	. Main Supply	150 days from the date of PO		
В	. Mandatory Spares	NA		

Notes:

- a. Supplier to start manufacturing/supply only after getting the applicable Primary engineering Drgs. /docs approved from BHEL/End Customer.
- b. Drawings /documents submission/re-submission schedule shall be as per Technical specification (PE-TS-999-507-E003A) which shall be used for progress monitoring purpose and required course correction, if any.
- c. The delivery date specified is for completion of the deliveries. Deliveries to start progressively so as to meet the completion schedule.
- d. The delivery conditions specified are for contractual purposes. However, to meet project requirement, BHEL may ask for early deliveries without any compensation thereof.



Page 1 | 10



BHARAT HEAVY ELECTRICALS LIMITED भारत हैवी इलेक्ट्रिकल्स लिमिटेड (A GOVT. OF INDIA UNDERTAKING) (भारत सरकार का उपक्रम)

PROJECT ENGINEERING MANAGEMENT परियोजना अभियांत्रिकी प्रबंधन

2.0 Validity of contract placed on basis of Framework Agreement (Rate Contract) for individual projects (PO rates, terms and conditions):

Vendor has to make supply of goods/services as per the delivery time mentioned above. However, due to unavoidable circumstances if delay happens in providing inputs/ clearances (inputs, Engineering approvals, deputing inspector for inspection, issuance of MDCC and any hold imposed owing to site issues etc.) for which delivery time extension is admissible as per point no.3, in such situation it shall be obligatory at vendor part to execute the contract at PO rates, terms and conditions where inputs/ clearances has been accorded within validity of contract. Validity period for various activities shall be as defined below or as mentioned in the NIT.

2.1 Contract for main supply shall be valid for 210 ('C') days from the PO date. In case of more than 2 units, validity period will be increased by supply time considered for subsequent units. However, delay at vendor's end (if any) shall be added to the validity period and contract validity shall get extended by the delay period at vendor's end.

For example: Original Delivery period for main supply: A (in days)

Delay at vendor's end: B (in days beyond "A" days)

Contract validity: C+B (in days)

Notes:

- a. B is the Vendor delay days beyond original contractual delivery period for main supply /extended delivery period owing to time taken by BHEL.
- b. Main supply, applicable in the contract released/ cleared for manufacturing within contractual validity period, to be supplied by vendor/supplier at PO rates, terms and conditions.
- c. Execution of the contract quantities released beyond contract validity period shall be decided on mutual consent basis at PO rates, terms and conditions.
- 3.0 Delivery Extension: Extension of contractual delivery time:

Delivery time mentioned in the NIT includes Engineering completion time (time for drawing/document submission/resubmission by the vendor and review/approval of the same by the BHEL/End customer), manufacturing, inspection, Packing and dispatch time. Due diligence is to be observed by the vendor to ensure timely completion of engineering and supply.

During the execution of the contract, time loss occurred owing to the reason attributable to BHEL besides force majeure shall be considered for delivery time extension to the vendor as given below: -

- i. Any Delay in providing comments/ approval on Primary drawing/documents beyond the stipulated time as specified in NIT.
- ii. Time Loss in approval of the drawing/document as a result of increase in the iteration not attributable to the vendor (i.e. resubmission owing to end customer comments) as certified by BHEL. Time extension equivalent to the resubmission time noted in the tech. spec and consequential increase in the approval time in lieu of increase in iteration shall be applicable. However, for incomplete re- submission time loss shall be in vendor account.
- iii. Delay in providing engineering input/material by BHEL.
- iv. Delay in deputing inspector for inspection and delay in release of MDCC in line with GCC
- v. Any hold put by BHEL for whatever reasons during execution of contract (within contract validity period), time extension equivalent to hold period shall be admissible. However, in the event hold period continues for more than 30 days then, an additional fifteen days for the purposes of mobilization and demobilization of resources shall also be admissible.

Note: Extension in delivery period if any with or without imposition of LD shall be considered after detailed delay analysis based on provisions given above. However, no delay analysis will be applicable if supply is completed within delivery schedule as specified in Purchase order.



Page 2 | 10



BHARAT HEAVY ELECTRICALS LIMITED भारत हैवी इलेक्ट्रिकल्स लिमिटेड (A GOVT. OF INDIA UNDERTAKING) (भारत सरकार का उपक्रम)

PROJECT ENGINEERING MANAGEMENT परियोजना अभियांत्रिकी प्रबंधन

17. Liquidated Damages (LD):

a) **Liquidated Damages (For Main Supply):** Buyer reserves the right to recover from the Supplier, as agreed liquidated damages and not by way of penalty, a sum equivalent to half (½) percent of the undelivered portion of main contract price excluding GST per week or part thereof, subject to a maximum of ten (10) percent of total of contract price excluding GST, if the Supplier fails to deliver any part of the ordered goods/stores within the period stipulated in the Order/ Contract.

All other terms and conditions of LD shall be as per GCC Rev 07, Corrigendum 01 and to Corrigendum 02 GCC Rev-07.

- **18. Guarantee Terms:** As per Clause No-12.0 except Clause no 12.2 (b) of General Commercial Terms & Condition of GCC Rev 07.
- 19. Validity of offer shall be as per Clause no. 7 (Instruction to Suppliers) of GCC Rev 07.
- **20.** PVC (Price Variation Clause) shall be applicable as per enclosed PVC in NIT. All suppliers shall quote as per the price variation formulae in NIT.
 - For reference dates (base date and end date for PVC), please refer the price variation formulae in NIT.
 - The price variation shall be limited to + 20% of total ex-works actually supplied (cable size wise) and negative price variation shall be unlimited.

21.	CIF Content	Not Available
22.	Integrity Pact Applicability	Yes, Following Independent External Monitors (IEMs) have been appointed by BHEL - Shri Otem Dai, IAS (Retd.) (iem1@bhel.in) Shri Bishwamitra Pandey, IRAS (Retd.) (iem2@bhel.in) Shri Mukesh Mittal, IRS (Retd.) (iem3@bhel.in)

23. Tender Evaluation - Price will be finalized through RA. The evaluation currency for this tender shall be INR. Evaluation will be done on overall L1 (Total Package Price including Freight excluding taxes) basis with necessary loading as applicable.

In the course of evaluation, if more than one Supplier happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 Suppliers.

In case more than one Supplier happens to occupy the L-1 status even after soliciting discounts, the L-1 Supplier shall be decided by a toss/ draw of lots, in the presence of the respective L-1 Supplier (s) or their representative(s). Ranking will be done accordingly. BHEL's decision in such situations shall be final & binding.

24. Payment terms:

As per clause No. 9.1 of General Commercial Terms and Conditions of GCC, Rev 07 i.e.

Payment of basic price of supplied materials (as per PO/ approved billing schedule) along with freight and taxes and duties (as applicable), shall be paid against receipt of material (receipted LR) at site on pro-rata basis. 10% of basic price of materials supplied will be retained as security deposit which will be released on pro – rata basis as below:

On receipt of Material Receipt Certificate (MRC) from project site engineer of owner/purchaser and on submission of certificate of submission of all the final documents for the package (as per Annexure IX(A) of GCC Rev 07), duly certified by Engineering Department of Purchaser.

Note:

Payment will be released within days as mentioned below after submission of complete documents:

a. 90 days for non MSME as per MSMED Act



Page 3 | 10



BHARAT HEAVY ELECTRICALS LIMITED भारत हैवी इलेक्ट्रिकल्स लिमिटेड (A GOVT. OF INDIA UNDERTAKING) (भारत सरकार का उपक्रम) PROJECT ENGINEERING MANAGEMENT परियोजना अभियांत्रिकी प्रबंधन

- b. 45 days for vendors qualified and registered as Micro and Small Enterprises MSEs as per MSMED Act
- c. 60 days for vendors qualified as Medium Enterprises as per MSMED Act.
- 25. Clause no 9.6 (excluding Notes) of GCTC of GCC Rev. 07 shall be read as-

"Suppliers shall submit billing documents for payment directly to BHEL. Payment will be released within days as mentioned below after submission of complete documents as per clause no 9.7.2 - 9.7.5:

- a) 90 days for non-MSME as per MSMED Act.
- b) 45 days for Suppliers qualified and registered as Micro and Small Enterprises MSEs as per MSMED Act.
- c) 60 days for Suppliers qualified as Medium Enterprises as per MSMED Act.
- 26. GST shall be payable extra at actual as per the HSN code finalized for the items during detailed BBU.

27. Reverse Auction:

BHEL shall be resorting to Reverse Auction (RA) (Guidelines for Reverse Auction – 2024, as available on www.bhel.com on "Supplier registration page") for this tender. RA shall be conducted among all the Techno-Commercially qualified Suppliers.

Price Bids of all the Techno-Commercially qualified Suppliers shall be opened and same shall be considered as initial bids of Suppliers in RA. In case any Supplier(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.

"The Suppliers has to quote the Single Price (i.e. Total Cost to BHEL) in Reverse Auction. Prices are to be inclusive of Packing & Forwarding charges, all 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."

- 28. Supplier to note that this is an Open Tender enquiry & Reverse Auction participation shall be subject to following condition:
 - a) Qualifying Technical and Financial Pre-Qualification Requirement.
 - b) Techno-Commercial acceptance of offer by BHEL-PEM.
 - c) Registration in BHEL-PEM for the Tender package
 - d) Customer Approval before Reverse Auction.

The Suppliers who are not registered with BHEL-PEM may apply for registration in BHEL-PEM through Registration Portal available at https://supplier.bhel.in/. All credentials and/ or documents duly signed & stamped related to registration has to be uploaded on the website & submit the application for registration. One set of hard copy filled-up SRF downloaded from Online Registration Portal duly signed & stamped has to be submitted.

29. Performance Security (PS)	PS Applicability	No Performance Security (PS) against the current enquiry for Framework Agreement (Rate Contract) for Tender package. However, Suppliers to note that Performance Security shall be submitted for orders placed by the concerned Purchase Department on the Framework Agreement (Rate Contract). Successful Supplier/s will have to submit Performance Security for each POs (irrespective of value) which will be placed under the Framework Agreement (Rate Contract) finalized through this tender considering FA (RC) as original contract as per the format given in GCC Rev 07. Relevant details of the PS to be submitted on the basis of Framework Agreement (Rate Contract) are as following:
	1	Initially 10% of the contract value (total Ex-works price). However, 5% of the contract value (as above)



Page 4 | 10



BHARAT HEAVY ELECTRICALS LIMITED भारत हैवी इलेक्ट्रिकल्स लिमिटेड (A Govt. Of India Undertaking) (भारत सरकार का उपक्रम)

PROJECT ENGINEERING MANAGEMENT परियोजना अभियांत्रिकी प्रबंधन

	will be released after completion of Main Supply based on certification by Purchasing Department. Balance 5% of the contract value (excluding PVC) will be released on completion of all contractual obligations, including guarantee/warranty obligations
	based on certification by Purchasing Department. OR
П	5% of the contract value (total Ex-works price). Additional 5% of the contract value will be retained from first bill & subsequent bill(s) of the same contract. The retention amount will be released after completion of main supply based on certification by Purchasing Department.
(14)	Balance 5% of the contract value (excluding PVC) will be released on completion of all contractual obligations, including guarantee/warranty obligations based on certification by Purchasing Department.
Validity of PS	As per clause no. 11.0 (except 11.4) of General Commercial Terms and Conditions of GCC Rev 07.
PS Submission	PS should be in favour of BHEL-PEM. Supplier may opt any of the following for submission of Performance Security: -
Modes of Deposit	Performance security may be furnished in the following forms: a) Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL. b) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL. c) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL). d) Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of
	BHEL). e) Insurance Surety Bond.
	(Note: BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith)
	Performance Security is to be furnished within 14 days from the date of PO and it should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the Supplier, including warranty obligations.



Page 5 | 10



BHARAT HEAVY ELECTRICALS LIMITED भारत हैवी इलेक्ट्रिकल्स लिमिटेड

(A GOVT. OF INDIA UNDERTAKING) (भारत सरकार का उपक्रम)

PROJECT ENGINEERING MANAGEMENT परियोजना अभियांत्रिकी प्रबंधन

		a) The performance security will be forfeited and credited to BHEL's account in the event of a breach of contract by the supplier.
	Remarks for PS:	b) Performance security should be refunded to the contractor without interest, after he duly performs and completes the contract in all respects but not later than 60 (sixty) days of completion of all such obligations including the warranty under the contract.
		c) However, Performance Security validity is to be extended based on the actual delivery of package.
		The Performance Security shall not carry any interest.
30. Breach of contract, Remedies and Termination	In case of Breach of Contrac Supplier using following inst	ct, BHEL shall recover 10% of the contract value from the cruments:
(Tenderer to note that this clause will supersede any clause regarding recovery		ity instruments like EMD, Performance Security with M) against the said contract.
amount from Tenderer due to Breach on contract mentioned anywhere in GCC	contract value) from ot	alue of security instruments is less than 10% of the her Financial remedies i.e. available bills of the Supplier, with executing agency (PEM).
Rev07 and its Corrigendum)		security instruments like EMD, Performance Security emedies i.e. available bills of the Supplier, retention units of BHEL.
	(iv) If recovery is not possi	ble then legal remedies shall be pursued.
	However, Supplier shall cocircumstances, to the extent	ontinue performance of the Order/ Contract, under all t not cancelled.

- **31.** Suppliers are requested to refer clause no 26.0 (Make in India) of instructions to Supplier of GCC Rev 07. Further, following shall be taken into consideration for submitting bids by Suppliers:
 - For this procurement, the local content to categorize a supplier as a 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 in India), Order 2017 dated 19.07.2024 issued by DPIIT. In case of subsequent orders issued by the Nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after the issue of the NIT, the same shall be applicable even if issued after the issue of tis NIT, but before opening of Part-II bids against the NIT.
 - Minimum Local Content prescribed for LT PVC CONTROL CABLE package by Nodal Ministry is 60% and hence for this procurement, as per Public Procurement (preference to make in India), order 2017 dtd. 15.06.17, 28.05.18, 29.05.19, 16.09.20 & 19.07.24 and subsequent orders issued by the nodal ministry, this package is reserved for only Class-I supplier having Minimum local Content 80%. Class-II and Non-Local suppliers are not eligible to quote for this enquiry.
 - Suppliers are requested to go through the above-mentioned orders and submit their adherence to Public Procurement (preference to make in India), order 2017 dtd. 15.06.17, 28.05.18, 29.05.19, 16.09.20 & 19.07.24 and subsequent orders.
 - Local Content Certificate (Make in India Certificate) shall be essentially submitted by supplier along with their offer as per clause no. 09 of Public Procurement (Preference to Make in India) order 2017 dated 19.07.2024
- 32. Purchase preference to MSE Supplier: Yes.

33. Framework Agreement (Rate Contract) Order Splitting

a. Framework Agreement (Rate contract) is proposed for Two (02) years from placement of Framework Agreement (Rate contract) Purchase Order with a provision for further extension after review on mutual consent.



Page 6 | 10



BHARAT HEAVY ELECTRICALS LIMITED भारत हैवी इलेक्ट्रिकल्स लिमिटेड

(A GOVT. OF INDIA UNDERTAKING) (भारत सरकार का उपक्रम)

PROJECT ENGINEERING MANAGEMENT परियोजना अभियांत्रिकी प्रबंधन

- b. Framework Agreement (Rate contract) is to be done with 3 suppliers in ratio of 45:30:25 value wise at L1 FOR site price (Ex-works + freight) for this package. However, Purchase orders placed for a project on the basis of Rate Contract shall not be split. Details of Framework Agreement (Rate contract) order splitting shall be as per following:
 - GOI circular dated 18.05.2023 for Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order,2017 shall be applicable for order splitting (in the ratio of 45:30:25) and order finalization.
 - L1 Rates (Ex works + Freight) shall be counteroffered to all techno-commercially qualified Suppliers and order splitting in ratio of 45:30:25 shall be done in line with GOI circular dated 18.05.2023 for Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order,2017.
 - In case acceptance of counteroffer is received from more than two Suppliers then acceptance shall be considered as per FINAL Reverse Auction Ranking (as applicable).
 - In case acceptance of counteroffer is received from only one Supplier then splitting shall be done in the ratio of 70:30 between L1 vendor and the supplier who accepts L1 vendor rates.
 - If none of the Supplier accepts counter-offered L1 rates, then contract shall be awarded to L1 vendor for 100% value.
- c. 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 Suppliers to minimize operational difficulty.
- **34.** GOI circular dated 18.05.2023 for Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017 shall be applicable for order splitting and order finalization.
- 35. The quantities indicated in the tender are tentative quantities. No minimum quantity is guaranteed by BHEL.
- **36.** Overall (%) quantity variation: The variation on overall package value shall be limited to +/-30% of the contract value.
- **37.** Tentative quantity for the package required for prospective projects is made part of tender enquiry. However, Suppliers to consider delivery anywhere in India while quoting for this enquiry. List of prospective projects is indicative only, BHEL may ask for delivery anywhere in India for any of the project added in the prospective projects/ existing projects during validity of Framework Agreement (Rate Contract) period.
- 38. Suppliers shall Quote for the entire Scope. Partial scope is not acceptable.
- **39.** Suppliers 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 e mail Id etc. Offer of only those Suppliers shall be considered further, who meets the PQR criteria. Suppliers to furnish latest verification details for checking veracity of document(s) by BHEL. In case the same found not available, Purchaser has right to reject such document from evaluation. Format for the same is below: -

SI. No.	Project Name	Customer Name, Contact Address, Phone No. & Email ID	Contract/ Order No.	Value of Contract/ Order	Brief Work	of	Completion Date

40. Suppliers who fulfil Technical Pre-Qualification Requirement Criteria are eligible to participate in this tender. Bids of only those Suppliers shall be evaluated who meet the Technical Pre-Qualifying requirements.

Note: This item/Package falls under the list of items defined in Para 3 of Ministry guideline ref no.F.20/2/214-PPD(Pt.) dated 20-09-2016 (in respect of procurement of items related to public safety, health, critical security operations and equipment's, etc.) & hence no relaxation of PQR for start-up/MSME vendors is envisaged for the NIT items/Package.



Page 7 | 10



BHARAT HEAVY ELECTRICALS LIMITED भारत हैवी इलेक्ट्रिकल्स लिमिटेड (A GOVT. OF INDIA UNDERTAKING) (भारत सरकार का उपक्रम) PROJECT ENGINEERING MANAGEMENT परियोजना अभियांत्रिकी प्रबंधन

- **40.** All corrigenda, addenda, amendments, time extensions, clarifications, etc. to the tender will be hosted on BHEL website (www.bhel.com) & BHEL-PEM website (www.pem.bhel.com) and GePNIC portal. Suppliers should regularly visit websites to keep themselves updated.
- **41.** If Supplier mentions Not Applicable / Not required / Not Quoted in BHEL price format, the same to be substantiated by the Supplier. If such item is required to be supplied for system completion in future, same will be supplied free of cost.
- 42. GeM Seller ID shall be mandatory before placement of order/award of contract to the successful Supplier.
- **43.** Supplier to quote single non-zero freight charges in percentage (%) of their quoted Total Ex-Works prices of supply.
- **44.** All Suppliers to comply Govt. of India, Ministry of Power, order no-25-111612018-PG dtd 02/07/2020 regarding mandatory testing of all the imported items/equipment's/components.
- **45.** Self-declarations/ Auditor's/ Accountant's Certificates submitted by the manufacturer/ supplier may be verified randomly by the committee constituted as per MoP Order 28-07-2020. In case of false documents/misrepresentation of the facts requisite action against such manufacturer/ supplier will be taken based on the recommendation of the Committee.
- **46.** All Suppliers to declare that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Supplier(s). 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.

In case, the Supplier is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines.

- **47.** The offers of the Suppliers who are under suspension as also the offers of the Suppliers, who engage the services of the firms debarred across BHEL, shall be rejected. The list of firms debarred across BHEL is available on BHEL web site www.bhel.com.
- 1.0 Integrity commitment, performance of the contract and punitive action thereof:
- 1.1 Commitment by BHEL: BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Supplier(s) in a transparent and fair manner, and with equity.
- 1.2 Commitment by Supplier/ Supplier/ Contractor:
- 1.2.1 The Supplier/ supplier/ contractor commits to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.
- 1.2.2 The Supplier/ supplier/ contractor 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 and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.
- 1.2.3 The Supplier/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.
- If any Supplier/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in malpractices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such Supplier/ supplier/ contractor as per extant guidelines of the company available on www. bhel.com and/or under applicable legal provisions".



Page 8 | 10



BHARAT HEAVY ELECTRICALS LIMITED भारत हैवी इलेक्ट्रिकल्स लिमिटेड (A GOVT. OF INDIA UNDERTAKING) (भारत सरकार का उपक्रम) PROJECT ENGINEERING MANAGEMENT परियोजना अभियांत्रिकी प्रबंधन

- **48.** A Supplier shall not have conflict of interest with other Suppliers. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The Supplier found to have a conflict of interest shall be disqualified. A Supplier may be considered to have a conflict of interest with one or more parties in this bidding process, if:
- a) they have controlling partner (s) in common; or
- b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or
- c) they have the same legal representative/agent for purposes of this bid; or
- d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Supplier; or
- e) Supplier participates in more than one bid in this bidding process. Participation by a Supplier in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid, or
- f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/dealer. There can be only one bid from the following:
 - 1. The principal manufacturer directly or through one Indian agent on his behalf; and
 - 2. Indian/foreign agent on behalf of only one principal,'

or

- g) A Supplier or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid, or
- h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Suppliers must proactively declare such sister/ common business/ management units in same/ similar line of business."
- **49.** All the above terms and conditions, post-bid agreements/MoMs (during Techno- Commercial evaluation) shall automatically become a part of the Order/Contract after its finalisation.
- 50. Suppliers to note that offers shall be submitted strictly in accordance with the requirements of tender documents. Suppliers shall upload their complete offer meeting the requirements of the tender documents on e-procurement portal https://eprocurebhel.co.in/nicgep/app.

Following documents need to be uploaded:

- Offer forwarding/ covering letter with Un-price bid, Deviation Sheet (Cost of Withdrawal)
- Documents required for meeting Technical PQRs (Part of Tech. Spec.)
- Documents required for meeting Financial PQR
- Bank Guarantee Format
- Local Content Certificate in line with Make in India circular
- Land Border Certificate
- Integrity Pact
- Price Bid on e-procurement portal https://eprocurebhel.co.in/nicgep/app
- **51.** It shall be the responsibility of the Supplier to ensure that the tender complete in all respects is uploaded on or before the due date and time. Incomplete/late offers shall not be considered.

All other correspondence thereof shall be addressed to the undersigned by name & designation and sent at the following address:

Md. Mazhar Wahab / Dy Mgr- CMM
M/s Bharat Heavy Electricals Ltd.,
Project Engineering Management,

Manish Kumar Sinha / Sr. Manager – CMM M/s Bharat Heavy Electricals Ltd., Project Engineering Management,





BHARAT HEAVY ELECTRICALS LIMITED भारत हैवी इलेक्ट्रिकल्स लिमिटेड (A GOVT. OF INDIA UNDERTAKING) (भारत सरकार का उपक्रम)

PROJECT ENGINEERING MANAGEMENT परियोजना अभियांत्रिकी प्रबंधन

Power Project Engineering Institute,

HRD & ESI Complex,

Plot No 25, Sector-16 A, Noida-201301

E-mail: mazharwahab@bhel.in

Contact No.: 8527823700

Power Project Engineering Institute,

HRD & ESI Complex,

Plot No 25, Sector-16 A, Noida-201301

E-mail: manish.sinha@bhel.in Contact No.: 0120-6748120

- 52. Terms & Conditions: The Terms & Conditions shall be as per enclosed Special Conditions of the Contract (copy enclosed), GCC Rev 07 & Corrigendum 01 and Corrigendum 02 to GCC Rev-07 which is available on www.pem.bhel.com and other Terms and Conditions included in this Enquiry Letter.
- 53. All other terms and conditions shall be as per Special Conditions of Framework Agreement (Rate Contract), and GCC Rev 07 & Corrigenda-01 and Corrigenda-02 to GCC Rev 07.

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.

Note - In case you are not making an offer against this enquiry, you are requested to send a regret letter so as to reach us on or before the due date

Thanking You.

For and on behalf of BHEL

Mazhar Wahab

Dy. Manager/ CMM/ PEM Noida



Page 10 | 10

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BHEL / PEM / CMM

SPECIAL CONDITIONS OF CONTRACT OF FRAMEWORK AGREEMENT (RATE CONTRACT) FOR LT PVC CONTROL CABLE

- 1. This tender is issued by BHEL PEM for Framework Agreement (Rate Contract) of LT PVC CONTROL CABLE required at various BHEL project sites. Framework Agreement (Rate Contract) validity for ordering shall be two years from the purchase order for Rate Contract.
- 2. Framework Agreement (Rate Contract) shall be finalized only with suppliers who are registered with BHEL-PEM. Suppliers who are not registered with BHEL-PEM needs to apply & get registered for subject package with PEM before Reverse Auction & hence they need to apply online for registration on PEM web portal & have to enclose acknowledgement with the bid documents else their bid may not be considered for evaluation.

The Suppliers who are not registered with BHEL-PEM may apply for registration in BHEL-PEM through Registration Portal available at https://bhel.com/supplier-registration.

All credentials and/ or documents duly signed & stamped related to registration has to be uploaded on the website & submit the application for registration. One set of hard copy filled-up SRF downloaded from Online Registration Portal duly signed & stamped has to be submitted.

- 3. Framework Agreement (Rate contract) is proposed to be done with 3 suppliers in ratio of 45:30:25 value wise at L1 F.O.R. Site Price (Ex-works + freight) for this package. However, order for a project shall not be split.
- 4. Quantity variation shall be applicable as +/- 30 % of the contract value. Suppliers shall be informed that the quantities indicated in the tender are tentative quantities. No minimum quantity is guaranteed by BHEL.
- 5. This tender is issued by BHEL PEM for Framework Agreement (Rate Contract) of LT PVC CONTROL CABLE required at various BHEL project sites on behalf of various BHEL units. All Suppliers shall note the following:
 - a) As and when requirement arises, the concerned Purchase Department will place order directly on the Supplier against the Framework Agreement (Rate Contract).
 - b) The drawings/ documents submission & approval, submission of Performance Security/ Performance Bank Guarantee, submission of invoices, processing and release of payment after supply of material, contractual dispute & commercial matters shall be dealt as per Framework Agreement (Rate Contract) contract terms & conditions directly by Purchase Department of respective BHEL unit, who has placed the Purchase Order against the Rate Contract.
- 6. 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 RC.
- 7. The items will be required against respective projects. Exact quantities and Project information shall be intimated while placing Purchase Order for a specific project based on the Rate Contract.

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BHEL / PEM / CMM

SPECIAL CONDITIONS OF CONTRACT OF FRAMEWORK AGREEMENT (RATE CONTRACT) FOR LT PVC CONTROL CABLE

- 8. Price Variation shall be applicable for the subject package. Base date for initial prices for this tender shall be one month prior to date of NIT. All Suppliers shall quote as per the Price Variation Formulae provided in the NIT.
- 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 Supplier to obtain Material Dispatch Clearance Certificate (MDCC) from BHEL or Customer as required before dispatch of material.
- 10. Supplier 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.
- 11. Items have to be manufactured as per the 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.
- 12. Other terms and conditions shall be as per Standard Technical Specification no. PE-TS-999-507-E003A, GCC Rev. 07, Corrigenda 01 & Corrigenda 02 to GCC Rev 07 and Enquiry Letter.
- 13. This Enquiry is subject to Conditions/ limits if any imposed in BHEL-PEM PMD/ Supplier registration.
- 14. Tentative quantity is given in the Enquiry.
- 15. Suppliers to submit offer for RC of said items ONLINE via BHEL-GePNIC Portal only. Suppliers to upload tender documents complete in all respects duly signed & stamped on each and every page by the authorized signatory of the Supplier as a token of acceptance of all the terms and conditions of tender.
- 16. The Supplier along with its associate/ collaborators/ sub-contractors/ sub-Supplier/ 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.

Provide below details for recording your bid participation:

1.	PAN number:	
2.	Company Name:	
3.	Registered address:	
4.	Contact person name:	
5.	Contact person number:	
6.	Contact person email:	
7.	GeM ID:	
8.	Whether MSE supplier:	(Y/N).
	If yes, Attach valid Udyam Certificate	

TENTATIVE LIST OF PROJECTS OF LT PVC CONTROL CABLE FOR FRAMEWORK AGREEMENT

With reference to the proposed execution of FRAMEWORK AGREEMENT of LT PVC CONTROL CABLE, the tentative list of projects (Adani) considered as on date is mentioned below:

S. No.	Project Description
1	2 X 800 MW APL RAIPUR (PH-II)
2	2X800 MW MTEUPPL MIRZAPUR (PH-I)
3	2 X 800 MW APL RAIGARH (PH-II)



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Cir. No. 35/DIV/ CAB/05/

24th April 2018

To Members of the Cable Division, Utilities, Railways & Listed purchasing organizations

Sub: Correction in PV formulae of LT XLPE Power Cable and addition of factors for HT XLPE Power Cables

We have recently published revised Price Variation Clause for LT&HT XLPE Power Cables and made it effective from $\mathbf{1}^{\text{st}}$ November 2017 vide Cir. No.111/DIV/CAB/05 dated $\mathbf{5}^{\text{th}}$ December 2017

While replying to a query of a buyer it is observed that the polymer factor for LT XLPE Power Cables (both aluminium and copper) was incorrectly represented by Table P2.

We have now corrected the anomaly by correcting the PV formulae of LT XLPE Aluminium and Copper Insulated Cables (SI. No. D & E) by representing Polymer factor by Table L2.

We have also worked out factors for XLPE, Copper and Steel for 3 core HT XLPE Power Cables for 500 and 630 sq.mm.

We now enclose complete PV clause of Cable by including all the PV formulae of different types of power cable (SI. No. A to I), polymer factor Table L2 and updated XL4, H2 and H5 Table of factors for your perusal & record.

We request to replace PV clause of Cable already circulated vide Cir. 111/DIV/CAB/05 dated 5^{th} December 2017 with the enclosed PV clause in your records for future use.

Senior Director

Encl: as above





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NDIA

Effective from: 1st November 217

The Price quoted/confirmed is based on the input cost of raw materials/components as on the date of quotation, and the same is deemed to be related to the prices of raw materials as specified in the price variation clause given below. In case of any variation in these prices, the price payable shall be subject to adjustment up or down in accordance with the formulae provided in this document.

Material Price Variation Clause For PVC And XLPE Insulated Cables

Terms used in price variation formulae:

IEEMA (PVC)/CABLE(R-1)/2017

- P Price payable as adjusted in accordance with above appropriate formula (in Rs/Km)
- Po Price quoted/confirmed (in Rs/Km)

ALUMINIUM

- AIF Variation factor for aluminium
- Al Price of Aluminiujm. This price is as applicable of first working day of the month, one month prior to the date of delivery.
- Alo Price of aluminium. This price is as applicable on first working day of the month, one month prior to the date of tendering.

COPPER

- CuF Variation factor for copper
- Cu Price of CC copper rods. This price is as applicable on first working day of the month, one month prior to the date of delivery.
- Cuo Price of CC copper rods. This price is as applicable on first working day of the month, one month prior to the date of tendering.

PVC COMPOUND

- PVCc price of PVC compound. This price is as applicable on first working day of the month, one month prior to the date of delivery.
- PVCco Price of PVC compound. This price is as applicable on first working day of the month, one month prior to the date of tendering.
- CCFAI Variation factor for PVC compound/Polymer for aluminum conductor cable.
- CCFCu Variation factor for PVC compound/Polymer for copper conductor cable.





IEEMA (PVC)/CABLE(R-1)/2017 XLPE COMPOUND

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Cc price of XLPE compound. This price is as applicable on first working day of the month, one month prior to the date of delivery.

Cco Price of XLPE compound. This price is as applicable on first working day of the month, one month prior to the date of tendering.

XLFAL Variation factor for XLPE compound for aluminum conductor cable. XLFCU Variation factor for XLPE compound for Copper conductor cable.

STEEL

FeF Variation factor for steel

FeW Variation factor for round wire steel armouring

Fe Price of Steel Strips/steel wire. This price is as applicable on the first working

day of the month, one month prior to the date of delivery.

Feo Price of steel strips/steel wire. This price is as applicable on first working day of

the month, one month prior to the date of tendering.

The above prices and indices are as published by IEEMA vide Circular reference IEEMA (PVC)/CABLE R(1)/--/-- prevailing as on 1^{st} working day of the month i.e. one month prior to the date of tendering.

The date of delivery is the date on which the cable is notified as being ready for inspection/dispatch (in the absence of such notification, the date of manufacturer's dispatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

Notes

- (a) All prices of raw materials are exclusive of GST amount.
- (b) All prices excluding Aluminium & Copper are as on first working day of the month.
- (c) The details of prices are as under:
- Price of Aluminium is LME average Cash SELLER Settlement price of Primary Aluminium in US\$ per MT as published by London Metal Bulletin (LME) including Premium for Aluminium Ingot in US\$ per MT is converted in Indian Rs./MT.
- 2. Price of PVC Compound (in Rs/MT) is the ex-works price, as quoted by the manufacturer.
- 3. Price of XLPE Compound (in Rs/MT) is the ex-works price, as quoted by the manufacturer
- 4. Price of CC copper rods (in Rs/MT) is ex-works price as quoted by the primary producer.
- Price of galvanized steel strip / steel wire (in Rs/MT) is ex-works price as quoted by the manufacturer for Round steel Wire and Flat steel strip (the relevant price of steel strip or steel wire is to be selected depending upon the type of armouring of the cable).





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IN

IEEMA (PVC)/CABLE(R-1)/2017

1)/2017 Effective from: 1st November 217
Price variation formulae for 'Power Cables'

A. Aluminum conductor PVC insulated 1.1 kV power cables

P = Po + AIF (AL - Alo) + CCFAI (PVCc - PVCco) + FeF (Fe - Feo)

For unarmourd multicore cables (without steel armour); FeF = 0

Table References:

ALP

Aluminium conductor in single core unarmoured & multicore cables

P1

Aluminium conductor aluminium armour in single core armoured cables

P2

PVC compound

P3

Steel armour

B. Copper conductor PVC insulated 1.1 kV power cables

For steel armoured cables; AIF = 0 For aluminium armoured cables; FeF = 0 For unarmoured cables; FeF, AIF = 0

Tables References:

CUP

Copper conductor

P2

PVC compound

P3

Steel armour

P4

Aluminium armour

C. Copper conductor PVC insulated 1.1 kV control cables

P = Po + CuF (Cu - Cuo) + CCFCu (PVCc-PVCco) + FeF (Fe-Feo)

For unarmoured cables; FeF = 0

Tables References:

CUC

Copper conductor

P5

PVC compound

P₆

Steel armour

D. Aluminum conductor XLPE insulated 1.1 kV power cables

P = Po + AIF (AL - Alo) +XLFAL(CC-Cco)+ CCFAI (PVCc - PVCco) + FeF (Fe - Feo)

For unarmourd multicore cables (without steel armour); FeF = 0

Table References:

ALP

Aluminium conductor in single core unarmoured & multicore cables

P1

Aluminium conductor aluminium armour in single core armoured cables

L2

Polymer (CCFAI)

P3

Steel armour

XL1

XLPE Compound (XLFAL)

E. Copper conductor XLPE insulated 1.1 kV power cables

P = Po + CuF (Cu - Cuo) + XLFCU (CC-Cco)+ CCFCu (PVCc - PVCco) + Fef (Fe - Feo) + AIF (AI - Alo)

proud partners in implementation

For steel armoured cables; AIF = 0 For aluminium armoured cables; FeF = 0

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3 page of 22

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IEEMA (PVC)/CABLE(R-1)/2017

Effective from: 1st November 217

For unarmoured cables; FeF, AIF = 0

Tables References:

CUP Copper conductor
L2 Polymer (CCFCu)
P3 Steel armour
P4 Aluminium armour
XL1 XLPE Compound (XLFCu)

F. Copper conductor XLPE insulated 1.1 kV control cables

P = Po + CuF (Cu - Cuo) + XLFCU (CC-Cco)+ CCFCu (PVCc-PVCco) + FeF (Fe-Feo)

For unarmoured cables; FeF = 0

Tables References:

CUC Copper conductor
P5 PVC compound
P6 Steel armour
XL2 XLPE Compound

G. For Aluminium conductor XLPE insulated 3.3 to 33 kV power cables

P = Po + AIF(AI - Alo) + XLFAL(CC-Cco) + CCFAI(PVCc - PVCco) + FeF(Fe - Feo)

For unarmoured multicore cables (without steel armour); FeF = 0

Table Refernces:

ALP Aluminium conductor in single core unarmoured & multicore cables

H1 Aluminium conductor + aluminium armour in single core armoured cables

H2 Polymer

H3/H5 Steel armour (Flat/Round)

XL3/XL4 XLPE Compound (Single core /Multicore)

H. Copper conductor XLPE Insulated 3.3 to 33 kV power cables

P = Po + CuF (Cu - Cuo) + XLFCU (CC-Cco)+ CCFCu (PVCc - PVCco) + FeF (Fe - Feo) + AIF (AI - Alo)

For steel armoured cables; AIF = 0 For aluminium armoured cables; FeF = 0 For unarmoured cables; FeF, AIF = 0

Table References:

CUP Copper conductor

H2 Polymer

H3/H5 Steel armour (Flat/Round)

H4 Aluminium armour

XL3/XL4 XLPE Compound (Single core / Multicore)

I. Copper conductor XLPE insulated 1.0 and 1.5 kV Solar PV DC cables

P = Po + CuF (Cu - Cuo)

Table CUsdc Copper Conductor



Authorized Signatory

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4 page of 22



Effective from: 1st November 217

TABLE ALP

VARIATION FACTOR FOR ALUMINIUM (AIF) POWER CABLES WITH ALUMINIUM CONDUCTOR (EXCLUDING SINGLE CORE ARMOURED CABLES)

Nominal Cross Sectional Area (in Sq. mm.)	1 core	2 core	3 core	3.5 core	4 core
2.5	0.007	0.014	0.021	-	0.028
4	0.011	0.023	0.034	-	0.046
6	0.017	0.034	0.052	-	0.069
10	0.029	0.053	0.087	•	0.116
16	0.046	0.091	0.137	-	0.183
25/16	0.073	0.146	0.219	0.262	0.292
35/16	0.101	0.202	0.302	0.345	0.404
50/25	0.137	0.273	0.410	0.478	0.547
70/35	0.197	0.395	0.593	0.687	0.791
95/50	0.274	0.548	0.821	0.949	1.095
120/70	0.346	0.691	1.035	1.221	1.382
150/70	0.425	0.853	1.279	1.464	1.706
185/95	0.533	1.070	1.605	1.861	2.140
225/120	0.655	1.310	1.965	2.287	2.620
240/120	0.703	1.400	2.099	2.421	2.799
300/150	0.879	1.757	2.635	3.033	3.514
400/185	1.126	2.249	3.374	3.873	4.498
500	1.418	2.838	4.256	-	5.675
630	1.828	3.663	5.494	-	7.326
800	2.340	4.679	7.018	-	9.357
1000	2.951	5.890	8.934	-	11.779



Effective from: 1st November 217

TABLE CUP

VARIATION FACTOR FOR COPPER CONDUCTOR (CUF) POWER CABLES WITH COPPER CONDUCTOR

Nominal Cross Sectional Area (in Sq. mm.)	1 core	2 core	3 core	3.5 core	4 core
2.5	0.023	0.046	0.069	-	0.092
4	0.036	0.076	0.112	-	0.151
6	0.056	0.112	0.171		0.227
10	0.095	0.174	0.286	-	0.382
16	0.151	0.299	0.451	-	0.602
25/16	0.240	0.480	0.720	0.862	0.960
35/16	0.332	0.664	0.993	1.135	1.329
50/25	0.451	0.898	1.348	1.572	1.799
70/35	0.648	1.299	1.950	2.260	2.602
95/50	0.901	1.802	2.700	3.121	3.601
120/70	1.138	2.273	3.407	4.016	4.545
150/70	1.398	2.806	4.207	4.815	5.611
185/95	1.753	3.519	5.279	6.121	7.038
225/1.20	2.154	4.309	6.463	7.522	8.617
240/120	2.312	4.605	6.904	7.963	9.206
300/150	2.891	5.779	8.667	9.976	11.558
400/185	3.703	7.397	11.097	12.738	14.794
500	4.664	9.334	13.998	-	18.665
630	6.012	12.048	18.070	-	24.095
800	7.696	15.389	23.082	-	30.775
1000	9.706	19.372	29.055	-	38.741

TABLE CUsdc

VARIATION FACTOR FOR COPPER CONDUCTOR (CUF)

1.0 & 1.5KV Solar PV DC Cables with Copper Conductor

Cable Size in sq.mm.	Copper content in MT/km
2.5	0.023
4	0.038
6	0.058
10	0.090



Effective from: 1st November 217

TABLE CUC

VARIATION FACTOR FOR COPPER CONDUCTOR (CUF)

CONTROL CABLES WITH COPPER CONDUCTOR

No of Cores	Core size 1.5 sq mm	Core size 2.5 sq mm
2	0.026	0.047
3	0.039	0.070
4	0.052	0.094
5	0.065	0.117
6	0.078	0.141
7	0.091	0.164
8	0.110	0.182
9	0.117	0.205
10	0.130	0.235
12	0.157	0.282
14	0.183	0.329
16	0.209	0.376
18	0.246	0.410
19	0.248	0.446
20	0.260	0.456
24	0.313	0.563
27	0.352	0.634
30	0.391	0.704
37	0.483	0.869
44	0.573	1.033
52	0.678	1.221
61	0.796	1.432



Effective from: 1st November 217

TABLE P1

VARIATION FACTOR FOR ALUMINIUM (AIF) ALUMINIUM ARMOURED SINGLE CORE PVC INSULATED 1.1 KV CABLES

Nominal cross sectional area (in Sq.mm)	Aluminium factor for Aluminium armoured cable with aluminium conductor
4	0.0685
6	0.0795
10	0.1017
16	0.1303
25	0.1693
35	0.2090
50	0.2597
70	0.3360
95	0.4567
120	0.5443
150	0.6427
185	0.7743
240	0.9737
300	1.2582
400	1.5502
500	1.8958
630	2.3650
800	2.9306
1000	3.7666



IEEMA (PVC)/CABLE(R-1)/2017 TABLE P2

Effective from: 1st November 217

VARIATION FACTOR FOR PVC COMPOUND (CCFAI/CCFCu)
PVC INSULATED 1.1 KV POWER CABLES WITH COPPER/ALUMINIUM CONDUCTOR

Nominal cross Sectional Area (in Sq. mm)	1 core	2 cc	2 core		3 core		ore	4 co	re
	Unarm	Unarm	arm	Unarm	arm	Unarm	arm	Unarm	arm
2.5	0.079	0.125	0.139	0.141	0.157	-	-	0.161	0.179
4	0.094	0.140	0.156	0.164	0.182	-	-	0.188	0.209
6	0.101	0.154	0.171	0.179	0.199	-	-	0.198	0.220
10	0.114	0.194	0.216	0.214	0.238	- "	-	0.249	0.277
16	0.142	0.234	0.246	0.279	0.290	-	-	0.328	0.345
25	0.171	0.288	0.303	0.364	0.383	0.422	0.444	0.443	0.466
35	0.189	0.321	0.338	0.403	0.429	0.489	0.515	0.498	0.524
50	0.211	0.411	0.433	0.508	0.535	0.613	0.645	0.647	0.681
70	0.241	-	-	0.613	0.645	0.707	0.744	-	-
95	0.284	-	-	0.795	0.811	0.908	0.927	=	-
120	0.339	-	-	0.866	0.884	1.024	1.045	-	-
150	0.388	-	-	1.070	1.092	1.289	1.315		-
185	0.450	-:	-	1.310	1.337	1.499	1.530	-	-
225	0.521	-	-	1.586	1.618	1.840	1.878	-	-
240	0.534	-	-	1.649	1.683	1.990	2.031	-	-
300	0.653	-	-	2.007	2.048	2.361	2.409	-	-
400	0.770	-	-	2.437	2.487	2.616	2.669	-	-
500	0.936		-	3.117	3.181	3.687	3.762	-	-
630	1.175	-	-	-	-	-	-	-	
800	1.433	-	-	-	-	.=	-	-	-
1000	1.642	-	-	-	-	-	-	-	-



IEEMA (PVC)/CABLE(R-1)/2017 TABLE P3

Effective from: 1st November 217

VARIATION FACTOR FOR STEEL (FeF)

PVC INSULATED 1.1 KV POWER CABLES WITH COPPER/ALUMINIUM CONDUCTOR

Nominal Cross sectional Area (in Sq. mm)	2 core	Shape	3 core	Shape	3 ½ core	Shape	4 core	Shape
4	0.305	W	0.335	W	-	-	0.363	W
6	0.348	W	0.363	W	-		0.407	W
10	0.392	W	0.407	W	-	-	0.293	F
16	0.235	F	0.293	F	-	-	0.323	F
25	0.293	F	0.352	F	0.382	F	0.382	F
35	0.323	F	0.382	F	0.411	F	0.440	F
50	0.382	F	0.440	F	0.469	F	0.499	F
70	0.411	F	0.499	F	_	F	0.587	F
95	0.499	F	0.587	F	0.616	F	0.645	F
120	0.528	F	0.616	F	0.675	F	0.731	F
150	0.587	F	0.675	F	0.731	F	0.790	F
185	0.645	F	0.761	F	0.820	F	0.879	F
240	0.731	F	0.879	F	0.937	F	0.996	F
300	0.820	F	0.966	F	1.055	F	1.113	F
400	0.937	F	1.083	F	1.172	F	1.231	F
500	1.055	F	1.231	F	1.348	F	1.406	F
630	1.172	F	-	-	-	-	-	-



TABLE P3 (Additional)

Effective from: 1st November 217

VARIATION FACTOR FOR ROUND WIRE 'W' STEEL (FeF) PVC INSULATED 1.1 KV POWER CABLES WITH COPPER/ALUMINIUM CONDUCTOR

Nominal Cross Sectional Area (in sq. mm)	2 Core	3 Core	3 .5 Core	4 Core
1.5	0.247	0.259		0.288
2.5	0.273	0.289		0.329
4	0.305	0.335		0.363
6	0.348	0.363		0.407
10	0.392	0.407		0.533
16	0.439	0.523	0.014	0.573
25	0.526	0.625	0.664	0.685
35	0.591	0.685	0.729	0.761
50	0.661	0.790	0.864	1.108
. 70	0.745	1.122	1.200	1.256
95	1.085	1.286	1.376	1.443
120	1.147	1.386	1.479	1.562
150	1.267	1.526	1.684	2.173
185	1.403	2.090	2.315	2.421
240	1.994	2.397	2.641	2.722
300	2.180	2.642	3.670	3.842
400	2.987	3.728	4.126	4.292
500	3.517	4.226	5.958	6.301
630	4.774	6.013	6.737	7.141



Effective from: 1st November 217

TABLE P4

VARIATION FACTOR FOR ALUMINIUM (AIF) PVC INSULATED 1.1 KV POWER CABLES WITH COPPER CONDUCTOR

Nominal Cross Sectional Area (in Sq. mm)	Aluminium Factor for Aluminium armoured cable with copper conductor
4	0.058
6	0.063
10	0.073
16	0.084
25	0.096
35	0.108
50	0.123
70	0.139
95	0.183
120	0.198
150	0.218
185	0.241
240	0.271
300	0.379
400	0.424
500	0.478
630	0.537
800	0.591
1000	0.816



Effective from: 1st November 217

TABLE P5

VARIATION FACTOR FOR PVC COMPOUND (CCFCu) PVC INSULAYTED CONTROL CABLES WITH COPPER CONDUCTOR

No of cores	Core size 1	L.5 sq mm	Core size 2	2.5 sq mm
	Unarm	Arm	Unarm	Arm
2	0.118	0.121	0.125	0.139
3	0.121	0.131	0.141	0.157
4	0.137	0.152	0.161	0.179
5	0.157	0.174	0.187	0.206
6	0.179	0.199	0.234	0.260
7	0.179	0.199	0.234	0.260
8	0.193	0.215	0.292	0.325
9	0.216	0.241	0.300	0.335
10	0.236	0.262	0.303	0.337
12	0.249	0.277	0.334	0.371
14	0.311	0.327	0.389	0.409
16	0.344	0.362	0.435	0.458
18	0.352	0.371	0.474	0.500
19	0.375	0.395	0.476	0.501
20	0.391	0.412	0.519	0.546
24	0.457	0.481	0.584	0.615
27	0.491	0.517	0.631	0.664
30	0.529	0.557	0.706	0.743
37	0.615	0.647	0.835	0.879
44	0.739	0.778	1.019	1.026
52	0.845	0.889	1.100	1.158
61	0.952	1.002	1.246	1.312



Effective from: 1st November 217

TABLE P6

VARIATION FACTOR FOR STEEL (FeF) PVC INSULATED CONTROL CABLES WITH COPPER CONDUCTOR

No of cores	Core size 1.5 sq mm	Shape of armour	Core size 2.5 sq mm	Shape of armour		
2	0.243	W	0.277	W		
3	0.257	W	0.289	W		
4	0.277	W	0.314	W		
5	0.303	W	0.342	W		
6	0.329	W	0.379	W		
7	0.329	W	0.379	W		
8	0.341	W	0.456	W		
9	0.383	W	0.275	F		
10	0.408	W	0.325	F		
12	0.289	F	0.342	F		
14	0.306	F .	0.360	F		
16	0.317	F	0.372	F		
18	0.332	F	0.350	F		
19	0.343	F	0.397	F		
20	0.368	F	0.400	F		
24	0.398	F	0.475	F		
27	27 0.414		0.478	E		
30	0 0.425		0.425 F		0.503	F
37	0.461	F	0.548	F		
44	0.507	F	0.601	F		
52	0.556	F	0.641	F		
61	0.585	F	0.685	F		



IEEMA (PVC)/CABLE(R-1)/2017 TABLE P6 (Additional)

Effective from: 1st November 217

VARIATION FACTOR FOR ROUND WIRE 'W' STEEL (FeF) PVC INSULATED CONTROL CABLES WITH COPPER CONDUCTOR

No. of Cores	Core size 1.5 sq mm	Core size 2.5 sq mm
2	0.243	0.273
3	0.257	0.289
4	0.277	0.314
5	0.303	0.342
6	0.329	0.379
7	0.329	0.379
8	0.341	0.456
9	0.383	0.508
10	0.408	0.535
12	0.510	0.572
14	0.546	0.625
16	0.581	0.660
19	0.608	0.696
24	0.714	0.819
25	0.679	0.798
27	0.732	0.837
28	0.696	0.815
30	0.758	0.881
33	0.747	0.883
37	0.820	1,217
44	0.926	1.355
48	1.122	1.308
50	1.122	1.308
52	1.149	1.361
56	1.202	1.388
61	1.299	1.520



Effective from: 1st November 217

TABLE L2

VARIATION FACTOR FOR POLYMER (CCFAI / CCFCu)

XLPE INSULATED 1.1 KV POWER CABLES WITH COPPER / ALUMINIUM CONDUCTOR

Nominal Cross Sectional	1 core	2 cc	2 core		3 core 3.5 core 4		3.5 core		ore
Area (in Sq. mm)	Unarm	Unarm	Arm	Unarm	Arm	Unarm	Arm	Unarm	Arm
2.5	0.055	0.163	0.175	0.166	0.177	-	-	0.177	0.188
4	0.075	0.201	0.204	0.205	0.213	-	-	0.218	0.213
6	0.085	0.213	0.234	0.205	0.230	-	-	0.242	0.232
10	0.082	0.252	0.280	0.217	0.251	-	-	0.285	0.298
16	0.089	0.278	0.341	0.289	0.246	-	-	0.300	0.279
25	0.101	0.307	0.278	0.276	0.247	0.295	0.264	0.331	0.290
35	0.109	0.330	0.319	0.305	0.270	0.328	0.292	0.368	0.319
50	0.124	0.482	0.685	0.348	0.311	0.372	0.335	0.422	0.394
70	0.146	0.354	0.335	0.469	0.397	0.489	0.420	0.528	0.464
95	0.163	0.436	0.389	0.504	0.441	0.544	0.471	0.591	0.523
120	0.176	0.475	0.421	0.556	0.498	0.599	0.538	0.722	0.656
150	0.217	0.510	0.490	0.690	0.611	0.717	0.633	0.840	0.762
185	0.236	0.631	0.608	0.836	0.738	0.854	0.756	1.007	0.899
240	0.273	0.750	0.726	1.002	0.842	1.079	0.952	1.238	1.119
300	0.303	0.919	0.887	1.161	1.012	1.170	1.031	1.457	1.414
400	0.372	1.093	1.040	1.376	1.283	1.545	1.379	1.778	1.626
500	0.413	1.342	-	1.568	1.400	1.806	1.456	14	-
630	0.469	1.546	-	-	-	-	-	-	-
800	0.569	-	-	-	-	-	-	-	~
1000	0.667	-	-	-	-	-	-		-



Effective from: 1st November 217

TABLE XL1

VARIATION FACTOR FOR XLPE COMPOUND (XLFAL/XLFCU)

XLPE INSULATED 1.1 KV POWER CABLES WITH COPPER/ALUMINIUM CONDUCTOR

Nominal cross Sectional Area (in Sq. mm)	1 c	ore	2 cc	2 core 3 core 3.5 core 4 core		3 core 3.5 core		ore		
	Unarm	Arm	Unarm	Arm	Unarm	arm	Unarm	Arm	Unarm	arm
2.5	0.007	0.010	0.014	0.014	0.021	0.021			0.028	0.028
4	0.009	0.012	0.018	0.018	0.027	0.027			0.036	0.036
6	0.010	0.015	0.022	0.022	0.033	0.033			0.043	0.043
10	0.013	0.018	0.025	0.025	0.039	0.039			0.053	0.053
16	0.016	0.023	0.034	0.034	0.049	0.049			0.065	0.065
25	0.021	0.030	0.048	0.048	0.070	0.070	0.084	0.084	0.093	0.093
35	0.025	0.035	0.059	0.059	0.084	0.084	0.099	0.099	0.112	0.112
50	0.033	0.044	0.075	0.075	0.108	0.108	0.130	0.130	0.144	0.144
70	0.042	0.054	0.095	0.095	0.137	0.137	0.160	0.160	0.179	0.179
95	0.048	0.062	0.110	0.110	0.160	0.160	0.190	0.190	0.211	0.211
120	0.060	0.076	0.138	0.138	0.200	0.200	0.239	0.239	0.266	0.266
150	0.078	0.095	0.180	0.180	0.259	0.259	0.296	0.296	0.344	0.344
185	0.097	0.116	0.224	0.224	0.324	0.324	0.369	0.369	0.430	0.430
240	0.116	0.137	0.266	0.266	0.388	0.388	0.446	0.446	0.518	0.518
300	0.138	0.164	0.325	0.325	0.467	0.467	0.540	0.540	0.620	0.620
400	0.175	0.214	0.357	0.357	0.536	0.536	0.619	0.619	0.714	0.714
500	0.217	0.260	0.440	0.440	0.660	0.660	0.769	0.769	0.880	0.880
630	0.265	0.318	0.542	0.542	0.814	0.814	0.941	0.941	1.085	1.085
800	0.323	0.389								
1000	0.375	0.444								



Effective from: 1st November 217

TABLE XL2 VARIATION FACTOR FOR XLPE COMPOUND (XLFCU) XLPE INSULAYTED CONTROL CABLES WITH COPPER CONDUCTOR

No of cores	Core size 1	1.5 sq mm	Core size 2	2.5 sq mm
	Unarm	Arm	Unarm	Arm
2	0.010	0.010	0.012	0.012
3	0.016	0.016	0.018	0.018
4	0.021	0.021	0.025	0.025
5	0.026	0.026	0.031	0.031
6	0.031	0.031	0.037	0.037
7	0.036	0.036	0.043	0.043
.8	0.036	0.036	0.043	0.043
9	0.042	0.042	0.049	0.049
10	0.052	0.052	0.061	0.061
12	0.062	0.062	0.074	0.074
14	0.073	0.073	0.086	0.086
16	0.083	0.083	0.098	0.098
18	0.094	0.094	0.110	0.110
19	0.099	0.099	0.116	0.116
20	0.104	0.104	0.123	0.123
24	0.125	0.125	0.147	0.147
27	0.140	0.140	0.165	0.165
30	0.156	0.156	0.184	0.184
37	0.192	0.192	0.227	0.227
44	0.229	0.229	0.270	0.270
52	0.270	0.270	0.319	0.319
61	0.317	0.317	0.374	0.374



Effective from: 1st November 217

TABLE XL3

VARIATION FACTOR FOR XLPE(XLFAL/XLFCU)

SINGLE CORE ARMOURED /UNARMOURED XLPE INSULATED 3.3 to 33 KV POWER CABLES WITH CU / AL CONDUCTOR

Nominal Cross Sectional Area	XLPE	Factor for Ar	moured/ Unarr	noured Cable	with AL/CU (Conductor
(in Sq. mm.)	3.3 KV	6.6 KV (E)	11 KV (E)/ 6.6 KV (UE)	11 KV (UE)	22 KV (E)	33 KV (E)
25	0.110	0.131	0.170	0.279		
35	0.122	0.137	0.175	0.284	0.317	0.522
50	0.135	0.151	0.191	0.307	0.341	0.563
70	0.155	0.172	0.215	0.342	0.379	0.615
95	0.174	0.193	0.241	0.377	0.417	0.670
120	0.192	0.212	0.262	0.407	0.449	0.713
150	0.209	0.229	0.283	0.437	0.481	0.757
185	0.228	0.250	0.308	0.471	0.518	0.809
240	0.255	0.279	0.343	0.519	0.569	0.883
300	0.280	0.322	0.372	0.560	0.613	0.943
400	0.326	0.392	0.420	0.625	0.683	1.041
500	0.388	0.461	0.469	0.694	0.757	1.142
630	0.467	0.520	0.529	0.777	0.845	1.265
800	0.567	0.593	0.602	0.874	0.949	1.407
1000	0.656	0.665	0.660	0.955	1.036	1.525

Note: XLPE factors include Semicons for Conductor & Insulation screen

TABLE – XL4 VARIATION FACTOR FOR XLPE (CCF1A! / CCF1Cu)

3 CORE XLPE INSULATED 3.3 to 33 KV POWER CABLES WITH COPPER / ALUMINIUM CONDUCTOR

Nominal Cross Sectional Area (in Sq. mm)	3.3 KV ARM	6.6 KV (E) ARM	6.6 KV (UE) / 11 KV (E) ARM	11 KV (UE) ARM	22 KV (E) ARM	33 KV (E) ARM
25	0.315	0.394	0.511	0.838		
35	0.339	0.427	0.545	0.880	0.982	1.638
50	0.378	0.474	0.600	0.957	1.065	1.751
70	0.435	0.541	0.679	1.067	1.183	1.916
95	0.489	0.604	0.755	1.171	1.295	2.071
120	0.537	0.661	0.822	1.265	1.396	2.210
150	0.585	0.719	0.890	1.359	1.497	2.350
185	0.642	0.784	0.968	1.468	1.614	2.513
240	0.717	0.873	1.074	1.615	1.773	2.732
300	0.781	1.006	1.167	1.744	1.928	2.919
400	0.886	1.227	1.314	1.948	2.130	3.229
500	0.956	1.421	1.445	2.148	- 2.381	3.538
- 630	1.129	1.582	1.609	2.382	2.630	3.940

Note: XLPE factors include Semicons for Conductor & Insulation screen



Effective from: 1st November 217

TABLE H1 VARIATION FACTOR FOR ALUMINIUM (AIF)

ALUMINIUM ARMOURED SINGLE CORE XLPE INSULATED 3.3 TO 33 KV CABLES

Nominal Cross	Aluminium Factor for Aluminium Armoured Cable with Aluminium Conductor							
Sectional Area (in Sq. mm.)	3.3 KV	6.6 KV (E)	11 KV (E)/ 6.6 KV (UE)	11 KV (UE)	22 KV (E)	33 KV (E)		
35	0.251	0.284	0.301	0.344	0.358	0.473		
50	0.312	0.336	0.352	0.397	0.408	0.672		
70	0.385	0.409	0.423	0.469	0.501	0.723		
95	0.476	0.500	0.518	0.637	0.656	0.856		
120	0.561	0.586	0.601	0.726	0.744	0.949		
150	0.653	0.678	0.696	0.823	0.842	1.050		
185	0.773	0.797	0.893	0.949	0.965	1.183		
240	0.997	1.063	1.083	1.139	1.154	1.387		
300	1.209	1.271	1.283	1.333	1.307	1.753		
400	1.438	1.556	1.565	1.620	1.636	2.046		
500	1.873	1.901	1.910	2.110	2.128	2.484		
630	2.337	2.361	2.369	2.580	2.595	2.978		
800	3.007	3.071	3.080	3.145	3.163	3.588		
1000	3.737	3.741	3.749	3.804	3.822	4.565		

TABLE H2 VARIATION FACTOR FOR POLYMER (CCFAI / CCFCu)

3 CORE XLPE INSULATED 3.3 to 33 KV POWER CABLES WITH COPPER / ALUMINIUM CONDUCTOR

Nominal Cross Sectional Area (in Sq. mm)	3.3 KV ARM	6.6 KV (E) ARM	6.6 KV (UE) / 11 KV (E) ARM	11 KV (UE) ARM	22 KV (E) ARM	33 KV (E) ARM
35	0.374	0.990	1.142	1.604	1.782	
50	0.445	1.119	1.260	1.834	2.046	2.864
70	0.547	1.290	1.396	2.011	2.284	3.219
95	0.594	1.440	1.647	2.269	2.428	3.367
120	0.732	1.692	1.877	2.498	2.715	3.646
150	0.812	1.906	2.061	2.767	2.931	3.927
185	0.960	2.086	2.406	3.028 -	3.180	4.166
240	1.130	2.484	2.744	3.398	3.580	4.589
300	1.219	2.912	3.161	3.840	4.016	5.029
400	1.313	3.530	3.664	4.353	4.666	5.736
500	1.652	3.925	3.971	4.621	4.878	5.913
630	1.949	4.487	4.982	5.225	5.477	6.696

Fillers added in PVC consumption



Effective from: 1st November 217

TABLE H3

VARIATION FACTOR FOR STEEL (FeF)
XLPE INSULATED 3.3 TO 33 KV POWER CABLES WITH COPPER / ALUMINIUM CONDUCTOR

Nominal Cross Sectional Area Sq. mm.	3.3 KV	6.6 KV (E)	11 KV (E) / 6.6 KV (UE)	11 KV (UE)	22 KV (E)	33 KV (E)
25	0.551	0.604	0.656	0.814		
35	0.645	0.645	0.731	0.879	0.937	~
50	0.675	0.703	0.761	0.937	0.966	1.181
70	0.761	0.761	0.849	0.996	1.055	1.289
95	0.820	0.849	0.907	1.083	1.113	1.348
120	0.879	0.907	0.966	1.142	1.172	1.406
150	0.966	0.966	1.055	1.201	1.259	1.494
185	1.025	1.055	1.113	1.259	1.318	1.553
240	1.142	1.142	1.231	1.377	1.406	1.641
300	1.231	1.259	1.318	1.465	1.524	1.758
400	1.348	1.406	1.435	1.582	1.641	1.876



IEEMA (PVC)/CABLE(R-1)/2017

Effective from: 1st November 217

TABLE H4
VARIATION FACTOR FOR ALUMINIUM (AIF)

XLPE INSULATED SINGLE CORE 3.3 TO 33 KV POWER CABLES WITH COPPER CONDUCTOR

Nominal Cross Sectional Area	Aluminium Factor for Aluminium Armoured Cable with Copper Conductor					
(in Sq. mm.)	3.3 KV	6.6 KV (E)	11 KV (E)/ 6.6 KV (UE)	11 KV (UE)	22 KV (E)	33 KV (E)
35	0.153	0.187	0.204	0.247	0.258	0.372
50	0.179	0.203	0.220	0.262	0.275	0.425
70	0.196	0.219	0.233	0.278	0.311	0.444
95	0.213	0.237	0.254	0.373	0.392	0.470
120	0.228	0.253	0.268	0.393	0.410	0.488
150	0.243	0.269	0.287	0.414	0.432	0.504
185	0.261	0.285	0.381	0.437	0.455	0.526
240	0.324	0.389	0.410	0.465	0.480	0.556
300	0.365	0.428	0.440	0.490	0.510	0.737
400	0.432	0.471	0.480	0.536	0.552	0.783
500	0.489	0.517	0.526	0.726	0.744	0.844
630	0.544	0.568	0.572	0.787	0.801	0.902
800	0.706	0.787	0.797	0.862	0.880	0.982
1000	0.824	0.865	0.867	0.923	0.940	1.324

TABLE - H5
VARIATION FACTOR FOR STEEL (FeW)

XLPE INSULATED 3.3KV TO 33 KV POWER CABLES WITH COPPER / ALUMINIUM CONDUCTOR

Nominal Cross Sectional Area in Sq. mm	3.3/3.3 KV	3.3/6.6 KV	11 KV (E) / 6.6 KV (UE)	11 KV (UE)	22 KV (E)	33 KV (E)
25	1.258	1.457	1.612	2.509	1.503	
35	1.361	1.569	1.853	2.644	2.797	2.517
50	1.682	1.687	2.321	2.800	2.921	4.569
70	2.033	1.979	2.503	3.219	3.347	4.809
95	2.202	2.507	2.718	4.019	4.200	5.437
120	2.371	2.675	2.882	4.241	4.416	6.713
150	2.870	2.847	3.265	4.447	4.621	6.976
185	3.121	3.309	4.148	4.726	5.289	7.356
240	3.758	4.227	4.442	5.442	6.651	7.718
300	4.099	5.024	5.182	6.894	7.084	8.187
400	5.750	6.572	6.658	7.433	7.657	8.760
500	6.716	6.777	6.861	7.588	7.797	8.830
630	7.492	7.465	7.477	8.209	8.386	9.413

To be given on Letter head of Bidder

Ref:	Date:
To,	
Bharat Heavy Electricals Limited	
PEM, PPEI Building,	
Plot No 25, Sector -16A	
Noida (U.P)-201301	
Reference:	
Order no-F6/18/2019-PPD dated 23.07.2020 issued by Ministry of Fil	nance.
Tender Enquiry No	
Offer No	
Name of Package:	
Dear Sir,	
I have read the clause regarding restriction on procurement from a land border with India. I hereby certify that Company name, is not for to be considered.	•
Thanking You,	
Yours faithfully,	
(Company director seal and signature)	

Format for Local Content Certificate as per MII order

Ref:		Date:
To,		
Bharat Heavy Electricals Limited		
PEM, PPEI Building,		
Plot No 25, Sector -16A		
Noida (U.P)-201301		
Reference: Tender Enquiry No		
Name of Package:		
Dear Sir,		
We hereby certify that items of	(Pa	ckage name)
for(Project Name) offere	ed by M/s	(bidder's name)
having its works/office at	has local content of	%. Further,
it is also certified that the local content percentage given in point no 2 of Public Procurement (Prefere 45021/2/2017-PP(BE-II)-Part(4) Vol.II dated 04.06.	ence to Make in India), Order 2	
M/s qualifies as 0	Class-I local supplier.	
Further, cost of locally imported items (inclusive o	f taxes) sourced locally from r	esellers/ distributors
is Rs and cost of licence/royalty paid/technic	cal expertise cost etc. source f	rom outside of India
is Rs		
Details of the location(s) at which the local value a	addition-	
Yours very truly		
(Signing Authority Name & Sign)	
(Firm Name)		

BANK GUARANTEE FOR PERFORMANCE SECURITY

Bank Guarantee No:
Date:
ō
NAME
& ADDRESSES OF THE BENEFICIARY
Dear Sirs,
n consideration of <u>Bharat Heavy Electricals Limited</u> (hereinafter referred to as the 'Employer' which expression
hall unless repugnant to the context or meaning thereof, include its successors and permitted assigns
ncorporated under the Companies Act, 1956 and having its registered office at through
ts Unit at(name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) with
ts registered office at hereinafter referred to as the 'Vendor / Contractor / Supplier ', which expression
hall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a
contract Ref Nodatedvalued at Rs (Rupees)/FC(ir
vords) for (hereinafter called the 'Contract') and the <u>Vendor / Contractor / Supplie</u>
naving agreed to provide a Contract Performance Bank Guarantee, equivalent to% (Percent) of the said
value of the Contract to the Employer for the faithful performance of the Contract,
and of the contract to the Employer for the falland performance of the contract,
ve, (hereinafter referred to as the Bank), having registered/Head office at and inter alia
oranch at being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake
o forthwith and immediately pay to the Employer any sum or sums upto a maximum amount of Rs
(Rupees) without any demur, immediately on first demand from the Employer and without
iny reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for
ts such demand.
Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank
ınder 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 <u>Vendor / Contractor / Supplier</u> 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 / Contractor / 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/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.

WeBANK 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 <u>Vendor / Contractor / Supplier</u> and notwithstanding any security or other guarantee that the Employer may have in relation to the <u>Vendor / Contractor / Supplier</u> 's liabilities.

This Guarantee shall remain in force upto and including...... 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 <u>Vendor / Contractor / Supplier</u> 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 thewe shall be discharged from all liabilities under this guarantee thereafter.

This Ba	ank Guarantee shall be governed, construed and interpreted in accordance with	the laws of India.
	atshall alone have exclusive jurisdiction over any matter arising out nk Guarantee	of or in connection with
We,		except with the previous
consen	t of the Employer in writing.	
Notwit	hstanding anything to the contrary contained hereinabove:	
a)	The liability of the Bank under this Guarantee shall not exceed	
b)	This Guarantee shall be valid up to	
c)	Unless the Bank is served a written claim or demand on or before	all rights under this
	guarantee shall be forfeited and the Bank shall be relieved and discharged from	m all liabilities under this
	guarantee irrespective of whether or not the original bank guarantee is return	ed to the Bank.
We,	Bank, have power to issue this Guarantee under law and the	undersigned as a duly
authori	ized person has full powers to sign this Guarantee on behalf of the Bank.	
		For and on behalf of
		(Name of the Bank)
Dated		
Place o	of Issue	
¹ NAM	E AND ADDRESS OF EMPLOYER I.e Bharat Heavy Electricals Limited	
² NAM	E AND ADDRESS OF THE VENDOR /CONTRACTOR / SUPPLIER.	
³ DETA	NILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE	
⁴ CONT	TRACT VALUE	
	ECT/SUPPLY DETAILS MOUNT IN FIGURES AND WORDS	
⁷ VALIE	DITY DATE	

⁸ DATE OF EXPIRY OF CLAIM PERIOD

Note:

- 1. Bank Guarantee should be refunded to the contractor without interest, after he duly performs and completes the contract in all respects but not later than 60 (sixty) days of completion of all such obligations including the warranty under the contract.
- 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. From Nationalized/Public Sector / Private Sector/ Foreign Banks 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.

Annexure-1

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
<u>Preamble</u>
The Principal intends to award, under laid-down organizational procedures, contract/s for
(hereinafter referred to as "Contract"). 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 panel of Independent External Monitor(s) (IEMs), 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. The Bidder(s)/ Contractor(s) commits himself to observe the following principles during 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 Indian Penal Code (IPC) and Prevention of Corruption 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 shall await their decision in the matter.

Section 3 - Disqualification from tender process and 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, terminate the contract, if already awarded, exclude from future business dealings and/ 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 (s) from the tender process before award / order acceptance according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal is entitled to terminate the Contract according to Section 3, or terminates the Contract in application of Section 3 above , the Bidder(s)/ Cotractor (s) transgression through a violation of Section 2 above shall be construed breach of contract and the Principal shall be-entitled to demand and recover from the Contractor an amount equal to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee , whichever is higher, as damages, in addition to and without prejudice to its right to demand and recover compensation for any other loss or damages specified elsewhere in the contract.

Section 5 - Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 (three) 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 or action can be taken as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 6 - Equal treatment of all Bidder (s)/ Contractor (s) / Sub-contractor (s)

- 6.1 The Principal will enter into Integrity Pacts with identical conditions as this Integrity Pact with all Bidders and Contractors.
- 6.2 In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor(s) and ensure that all Sub-contractors also sign the Integrity Pact.
- 6.3 The Principal will disqualify from the tender process all Bidders who do not sign this Integrity Pact or violate its provisions.

Section 7 - Criminal Charges against violating Bidders/ Contractors /Subcontractors

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 panel of Independent External Monitor (s) (IEMs) for this Integrity Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact.
- 8.2 The IEMs are 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 IEMs shall be provided access to all documents/ records pertaining to the Contract, for which a complaint or issue is raised before them as and when warranted. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
- 8.4 The Principal will provide to the IEMs 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 IEMs the option to participate in such meetings.

- 8.5 The advisory role of IEMs is envisaged as that of a friend, philosopher and guide. The advice of IEMs would not be legally binding and it is restricted to resolving issues raised by a 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 or during execution of Contract, the matter should be examined by the full panel of IEMs jointly, 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 the CMD, BHEL at the earliest. They may also send their report directly to the CVO, in case of suspicion of serious irregularities requiring legal/ administrative action. Only in case of very serious issue having a specific, verifiable Vigilance angle, the matter should be reported directly to the Commission. IEMs will tender their advice on the complaints within 30 days.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the IEMs and its terms and conditions.
- 8.9 IEMs 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 Principal should be looked into by the CVO of the Principal.
- 8.10 If the IEMs have 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 IEMs may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 After award of work, the IEMs shall look into any issue relating to execution of Contract, if specifically raised before them. As an illustrative example, if a Contractor who has been awarded the Contract, during the execution of Contract, raises issue of delayed payment etc. before the IEMs, the same shall be examined by the panel of IEMs. Issues like warranty/ guarantee etc. shall be outside the purview of IEMs.
- 8.12 However, the IEMs may suggest systemic improvements to the management of the Principal, if considered necessary, to bring about transparency, equity and fairness in the system of procurement.
- 8.13 The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

- 9.1 This Integrity Pact shall be operative from the date this Integrity Pact 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. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.
- 9.2 If any claim is made/ lodged during currency of this Integrity Pact, the same shall be binding and continue to be valid despite the lapse of this Pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 - Other Provisions

- 10.1 This Integrity Pact is subject to Indian Laws and exclusive jurisdiction shall be of the competent Courts as indicated in the Tender or Contract, as the case may be.
- 10.2 Changes and supplements as well as termination notices need to be made in writing.
- 10.3 If the Bidder(s)/ Contractor(s) is a partnership or a consortium or a joint venture, this Integrity Pact shall be signed by all partners of the partnership or joint venture or all consortium members.
- 10.4 Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- Only those bidders / contractors who have entered into this Integrity Pact with the Principal would be competent to participate in the bidding. In other words, entering into this Integrity Pact would be a preliminary qualification.
- In the event of any dispute between the Principal and Bidder(s)/ Contractor(s) relating to the Contract, in case, both the parties are agreeable, they may try to settle dispute through Mediation before the panel of IEMs in a time bound manner. In case, the dispute remains unresolved even after mediation by the panel of IEMs, either party may take further action as the terms & conditions of the Contract. The fees/expenses on dispute resolution through mediation shall be shared by both the parties. Further, the mediation proceedings shall be confidential in nature and the parties shall keep confidential all matters relating to the mediation proceedings including any settlement agreement arrived at between the parties as outcome of mediation. Any views expressed, suggestions, admissions or proposals etc. made by either party in the course of mediation shall not be relied upon or introduced as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of mediation proceedings. Neither of the parties shall present IEMs as witness in any Alternative Dispute Resolution or judicial proceedings in respect of the dispute that was subject of mediation.

Digitally signed by Mazhar Wahab DN: cn=Mazhar Wahab, For & On behalf o' t'e=BHhcipu=PEM, Wahab Constitution of the Behalf o' t'e=Bhcipu=PEM, Mazhar Wahab DN: cn=Mazhar Wahab, Final = mazharwahab@ bhel.in, c=IN Date: 2025.03.04 Place	For & On behalf of the Bidder/ Contracton (Office Seal)	
Witness:(Name & Address)	Witness: (Name & Address)	
		

Clause on IP in the tender

Integrity Pact (IP)

(a) 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) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

SI	IEM	Email
1.	Shri Otem Dai, IAS (Retd.)	iem1@bhel.in
2.	Shri Bishwamitra Pandey, IRAS (Retd.)	iem2@bhel.in
3.	Shri Mukesh Mittal, IRS (Retd.)	iem3@bhel.in

- (b) 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.
- (c) 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 any of the above IEM(s). All correspondence with the IEMs shall be done through email only.

Note:

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's officials whose contact details are provided below:

Details of contact person(s):

(1)	(2)
Name:	Name:
Deptt:	Deptt:
Address:	Address:
Phone: (Landline/ Mobile)	Phone: (Landline/ Mobile)
Email:	Email:
Fax:	Fax: