



Ref. Enquiry No.: PE/PG/PKI/E-6553/2020, Dated 09.11.2020

DUE DATE
19 Nov 2020
BY 02:00 PM

Dear Sir/ Ma'am

Subject: Open tender Enquiry for “EPR INSULATED FIRE SURVIVAL CABLE” for 1 x 660 MW UPRVUNL PANKI TPS Project as per Technical Specification No. PE-TS-426-507-E006 R01.

BHEL invites your offers for Design, Manufacture, Inspection and testing at Manufacturer's works, proper packing and delivery to site for **1 x 660 MW UPRVUNL PANKI TPS.** as specified/ defined as per tender technical specification PE-TS-426-507-E006 Rev01, amendment & agreements till placement of order for **EPR INSULATED FIRE SURVIVAL CABLE for 1 x 660 MW UPRVUNL PANKI TPS.**

Your offer shall be submitted in two parts strictly as per Clause-2.0 of the **“Instructions to Bidders”** of GCC Rev. 07, in sealed cover for the below mentioned equipment/system.

Item Description – EPR INSULATED FIRE SURVIVAL CABLE			
Sl. No.	Project	TECHNICAL SPECIFICATION NO.	Delivery completion schedule
1	1 x 660 MW UPRVUNL PANKI TPS	PE-TS-426-507-E006 REV.01	As per annexure – II to NIT

Your best quotation/offer for the above requirement, in line with tender terms and conditions, should be submitted **online via e-procurement system (NIC portal)**. It shall be the responsibility of the bidder to ensure that the tender is submitted **on or before the due date by 02:00 PM**. Part-I bids shall be opened at **04:00 PM**, on the due date.

Note: 1. Detailed tender documents have been uploaded on following websites: -

<https://eprocurebhel.co.in>, www.bhel.com, www.bhelpem.com and www.eprocure.gov.in

Bidders are requested to upload their best offer on <https://eprocurebhel.co.in> only.

2. In case bidders are not interested to quote, please send us the regret by e-mail or letter.

ENQUIRY TERMS AND CONDITIONS:

1. Offers should be submitted/uploaded separately in two parts **online through e-procurement system** as follows:

Part-I: TECHNO-COMMERCIAL BID

Part-II: PRICE BID

For detailed instructions, please refer GCC Rev 07- Instructions to Bidders.

2. Bidders shall submit their offers meeting the requirements of the following tender documents indicated in BHEL PEM GCC Rev- 07 and other Terms and Conditions included in this Enquiry Letter. Weblink of GCC Rev 07 shall be as below, **bidders may download the GCC Rev 07 from the given weblink and go through the same before quoting: -**
<https://www.bhelpem.com/Documents/GCC/GCCRev07.pdf>
3. Bidders to note that following form the part of tender documents:
 - a. General Conditions of Contract (GCC) Rev 07 comprising of: Instructions to Bidders and General Commercial Terms & Conditions
 - b. Technical Specifications
 - c. Technical PQR
 - d. Special Conditions of Contract (SCC Rev 01) of Bhusawal Project.
 - e. Enquiry terms & conditions (NIT)
 - f. Annexures I –III
 - g. PVC factor & formula
4. Any hidden conditions/deviations mentioned elsewhere in offer and standard pre-printed terms & conditions of the tenderers shall not be considered valid.

R.P.Yadav/Dy. MGR/PGIII
PS-Project Engineering Management,
Power Project Engineering Institute,
Plot no. 25, Sector – 16A, Noida (UP) 201301, INDIA
(OFF) +91-120-4368652 (MOB.) +91 9560148866#

Regd. Office
BHEL House Siri Fort
New Delhi-110049

**RAJENDR
A PRASAD
YADAV**

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5. Tenders shall be submitted strictly in accordance with the requirements of the above-mentioned tender documents. Deviations (Technical as well as Commercial), if any, shall be listed out separately in Annexure-II of GCC Rev-07 along with reasons for taking such deviations in the bidding format in E-Procurement portal. Any deviations (Technical as well as Commercial) not mentioned in the Annexure-II shall not be considered. Bidders to note all the points mentioned in "Notes" of Annexure-II of GCC Rev.07.
6. If any bidder has mentioned the term "Not Applicable" / "not required" / "not quoted" in BHEL price format, the same to be substantiated by the bidder. If such item is required to be supplied for system completion in future, same will be supplied free of cost by the successful bidder.
7. 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.
8. Tenderers must enclose the Quality Plan in the prescribed format, for approval. Equipment will be dispatched only after Purchaser's/Owner's inspection of the hold points specified in the approved Quality Plan and issue of Material Dispatch Clearance Certificate (MDCC).

9. Offers should be submitted separately in two parts **online through e-procurement system (NIC Portal) only**, however, all correspondence thereof, shall be addressed to the undersigned by name & designation and sent at the following address:

Mr. Mohit Kumar Dy. Engineer, PG-III E-mail: mohitgupta@bhel.in Ph. +91-120-4368832; Mob: 7503530406	Mr. Rajendra Prasad Yadav Dy. MGR, PG-III E-Mail: rajendra.prasad.yadav@bhel.in Ph. No. +91-120-4368652; Mob: 9560148866	
M/s. Bharat Heavy Electricals Ltd., Project Engineering Management, PPEI Building, Plot No 25, Sector-16A, Noida-201301, U.P., INDIA		

10. Tender Evaluation-Evaluation will be done on overall L1 (Total cost to BHEL excluding GST) basis for complete scope of the tender with necessary loading (if) applicable.
For the case of RA, the loading (technical/commercial), if any, shall be added by bidder while submitting the bid in reverse auction portal.
Ordering shall be done after de-loading the commercial /technical loading from bidder's final price.
In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by Soliciting discounts from the respective L-1 bidders. In case more than one bidders happens to occupy the L-1 status even after soliciting discounts, L-1 bidder shall be decided by toss/draw of lots, in the presence of respective L-1 bidders or their representative(s). Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.
11. **MODE OF EVALUATION FOR FINALISATION OF PRICES (REVERSE AUCTION): -**
"BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) for this tender. RA shall be conducted among all the techno-commercially qualified bidders. Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking." **Note: - Vendors to note that above RA clause will supersede clause no 13 "instruction to bidders" of GCC-Rev-07.**
12. **MAKE IN INDIA Clause: -** "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 20 17 dated 04.06.2020 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 issue of this NIT, but before opening of Part-II bids against this NIT".
- The local supplier at the time of tender, bidding, solicitation, shall be required to provide self-certification that as per the offered item, they meet the requirements of Class I local supplier/ Class II local Supplier/ Non Local

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Digitally signed by RAJENDRA PRASAD YADAV
DN: cn=RAJENDRA PRASAD YADAV, o=BHEL, ou=PG-III, email=rajendra.prasad.yadav@bhel.in, c=IN



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supplier as per the provisions of PPP-MII Order of Govt of India and relevant circulars issued by nodal ministry w.r.t. above mentioned orders and shall give details of location(s) at which the local value addition is made as per enclosed (**annexure –III to NIT**)/ revised formats which may be asked later.

- Subject package is **divisible** in nature.
13. Bidder to note that this is a conditional Open Tender enquiry and the price bid (Part-II) opening/RA participation shall be subject to following condition: -
- A) Meeting of Technical PQR
- B) Techno-commercial qualification/recommendation of bidder by the BHEL-PEM.
- C) Customer (UPRVUNL) approval. Same shall be taken up by BHEL-PEM with customer based on the credentials/reference list/experience list. Bidders to submit the credentials as per UPRVUNL sub vendor questionnaire format for approval.
14. **Delivery Completion schedule:**
Refer Annexure-II for delivery schedule.
- Following shall be made part of NIT.
- a. The end period specified is for completion of the deliveries. Deliveries to start progressively so as to meet the completion schedule.
- b. The delivery conditions specified are for contractual LD purposes, however BHEL may ask for early deliveries without any compensation thereof.
- c. Non-applicable drawings shall be decided during bid evaluation of the package.
- d. Wherever schedule of drawings/documents submission / re-submission is stipulated in the Technical Specifications, same shall be superseded by delivery specified in NIT.
15. **Payment terms** shall be as per clause no. 9.1 of General Commercial Terms and conditions of GCC Rev 07.
16. **Liquidated Damages:** - As per clause no. 16 of General Commercial Terms and conditions of GCC Rev 07.
17. Prices shall be variable as per price variation formulae, which is available at <https://www.bhelpem.com/Documents/GCC/Price%20Variation%20Formulae%20for%20Cables.pdf> The price shall be limited to +20% of total Ex-works price actually supplied (cable size wise) & -ve price variation shall be unlimited. (Refer Annexure-C of Enquiry)
18. Bidders to ensure that Third party/Customer issued certificates being submitted as proof of PQR qualification should have verifiable details of document/certificate issuing authority such as name & designation of Issuing Authority and its organization contact number and E-mail Id etc. In case the same is found not available, BHEL has the right to reject such document from evaluation.
19. **Freight:** - Bidders are required to quote freight charges in percentage (%) of their quoted total Ex-works prices. Average of percentage of freight quoted by techno commercial accepted bidders in subject tender shall be used to calculate freight factor at the time of reverse auction /price bid opening for evaluation purpose.
20. For bidders (who are not registered with BHEL-PEM) -Online Registration Portal is operational in BHEL. Non-registered Vendors, who wish to apply for registration with BHEL-PEM, can 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 may be uploaded on the website and submit the application for registration. However, registration of suppliers with BHEL-PEM is not mandatory in case of open tender.
21. All corrigenda, addenda, amendments, time extensions, clarifications etc. to the tender will be hosted on BHEL websites only (www.bhelpem.com., www.bhel.com & <https://eprocurebhel.co.in>) under subject tender reference. Bidders are requested to visit our websites from time to time to keep themselves updated. Bidders may go through the Sellers' manual & Help documents provided on E-Procurement Portal website & obtain required Digital Signature Certificate for participating in the subject Tender. For Bidders' convenience, the Helpdesk Nos. of E-Procurement (NIC) Portal is available at website i.e. <https://eprocurebhel.co.in>:

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22. If any bidder uploads price bid in the unpriced section (techno-commercial attachment page) of the tender in e-procurement, 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 uploading the Unpriced and Price Bid for Part-I and Part-II respectively to avoid mismatch.
23. Bidders to note that "This item /package/system falls under the list of items defined in para 3 of ministry of finance guideline date 20.09.16 (procurement of items related to public safety, health, critical security operations and Equipment's etc.) & hence criteria of prior experience /turnover shall be same for all bidders including start-up /MSME".
24. "Compliance of model clauses as provided in Annexure-III of Ministry of Finance Order (Public Procurement No. 1), F.no.6/18/2019-PPD issued on 23.07.2020 (Restrictions under Rule 144 (xi) of the GFR,2017) shall be applicable for subject tender. Model Certificates provided in same Annexure-III shall also be complied. Further, relevant clause of order no. 25-11/6/2018-PG dated 02.07.20 issued by MoF shall also be complied.
25. "Due to COVID-19 pandemic condition prevailing in the country, BHEL/PEM may go for Remote Inspection of Offered items, if required. Vendors are requested to be equipped with the facilities/gadgets as indicated in the guidelines to take up the inspection REMOTELY. Guideline for Remote inspection attached.
26. All other terms and conditions of SCC (Rev 01) of project, NIT & GCC (Rev 07) shall be applicable for the subject package.
27. Detailed offers are to be uploaded including the following along with the Price schedule as per BHEL format enclosed with NIT: -
- Acceptance of BHEL-PEM GCC Rev-07
 - Acceptance of Special Conditions of Contract (SCC Rev 01) for the project.
 - Technical & Commercial Deviations, if any along with Cost of withdrawal in bidding form
 - Along with your offer, please submit a copy of this letter duly signed & stamped on each page as token of acceptance of terms & instructions conveyed.
 - Un-Priced price format duly filled in 'Quoted' or 'Q' in each column/row in bidding form
 - Filled Format of Certification reg. Local content (annexure –III)

All the above Tender Documents shall automatically become a part of the Order/Contract after its finalisation.

Thanking You

Yours faithfully,

For and on behalf of BHEL-PEM

Rajendra Prasad Yadav
(Dy. Manager/PG-III/BHEL-PEM)

**RAJENDRA
PRASAD
YADAV**

Digitally signed by RAJENDRA PRASAD YADAV
DN: c=IN, o=BHARAT HEAVY ELECTRICALS
LIMITED, ou=BHEL / PS-PEM, Noida,
postalCode=201301, st=Uttar Pradesh,
2.5.4.20=b223e87cd98641765d5dc4e6e827bc
170ff40310d8cc9b227587bfeb9aa8ff,
serialNumber=50c96556257e000b0080d76eb
8182251f5842dcfa23a7966b3cde992910ada
1, cn=RAJENDRA PRASAD YADAV
Date: 2020.11.09 14:00:16 +05'30'

Enclosures:

1. Technical Specification No. PE-TS-426-507-E006, Rev01
2. Technical PQR
3. SCC Rev 01
4. BOQ - Annexure –I
5. Delivery completion cum Drawings/documents submission Schedule (Annexure –II)
6. Format of Certification reg. Local content (annexure –III)
7. PVC factors & formula (Annexure-C)
8. Sub-Vendor Questionnaire for End customer approval
9. Guideline for Remote Inspection

ANNEXURE-A

BILL OF QUANTITIES (1.1kV EPR INSULATED FIRE SURVIVAL CABLES)

TENDER ENQUIRY NO.-PE/PG/PKI/E-6553/2020 Dtd. 09.11.2020

PROJECT:- 1 x 660 MW UPRVUNL PANKI TPP

(A) MAIN SUPPLY

1.1 kV Fire Survival cable with stranded, non-compacted/compacted, plain/tinned annealed copper conductor (as per technical specification), EPR insulation, HOFR Inner Sheath, Al Round Wire (applicable for single core cable) / GS Round Wire Armour (applicable for multi core cable) and HOFR Outer Sheath Generally conforming to IS :9968 (Part-1) and BHEL specification.

S.No.	Item code	Item name	UOM	Ordered Quantity	LOT-I QUANTITY	Drum Length	HSN CODE	UNIT PRICE (EX-WORKS) (Rs.)	TOTAL PRICE (EX-WORKS) (Rs.)	Freight @....% of Total Ex-works (Rs.)	GST@18% on Total Ex-works + Freight (Rs.)	Total FOR Site Price. (Rs.)
A1	507-42023-A	1C-120 ARMOURED	MTR	1500	1000	500	8544					
A2	507-42004-A	1C - 400- ARMOURED	MTR	9500	5000	500	8544					
A3	507-42017-A	2C-2.5 ARMOURED	MTR	1000	1000	1000	8544					
A4	507-42021-A	2C-6 ARMOURED	MTR	10500	5500	500	8544					
A5	507-42022-A	2C-10 ARMOURED	MTR	5000	2500	500	8544					
A6	507-42013-A	2C - 95- ARMOURED	MTR	5500	3000	500	8544					
A7	507-42001-A	3C - 2.5- ARMOURED	MTR	2000	1000	1000	8544					
A8	507-42024-A	3C-35 ARMOURED	MTR	1000	500	500	8544					
A9	507-42002-A	5C - 2.5- ARMOURED	MTR	3000	2000	1000	8544					

NOTES : (Applicable for Main Supply only)

- Quantities indicated above for S. No. (A) shall be known as Order Quantities. Overall variation in contract value due to changes in the scope shall be +/-30% as per CMM advisory dated 06.10.20 which will prevail over the quantity variation clause no. 6.0 indicated in the GCC rev. 07
- The bidder shall indicate the unit price of each type and size of cables listed as per the BOQ-Cum-Price Schedule. The unit prices shall apply for adjustment of variation in quantity as stipulated above.
- Lot-I quantities indicated above shall be cleared for manufacturing along with PO. However, manufacturing of the cables shall be taken up by the successful bidder only after approval of technical and quality documentation. Subsequent lots shall be cleared for manufacture based on progress of engineering & site requirements.
- The standard drum length shall be 500 meters as indicated above except for item listed at S.No.A3, A7 and A9 where the standard drum length shall be 1000 meters. Tolerance on individual drum length shall be ±5%.
- Overall tolerance on total dispatched quantity of each size shall be (-) 2% and (+) 0% except where the total ordered quantity is one single drum length of 500m or 1000m, in which case it shall be -5%/0%. Cables consumed for testing and inspection shall be to bidder's account.
- For each individual cable size, one short length of not less than 250m ,500m (for drum length of 500m,1000m respectively) may be accepted only in the final drum length to complete the supply (except where the total ordered quantity is one single drum length of 500m , 1000m). The overall tolerance limits stipulated above shall continue to apply (in case short lengths are accepted).
- In case of the quantities of any one lot cleared by BHEL for manufacturing are manufactured and offered for inspection by successful bidder in more than one batch, BHEL reserves the right to witness type testing on all batches without any price implications.
- Bidder shall indicate unit price of cables inclusive of type test charges. No separate charges shall be payable for type tests.

ANNEXURE-B

BILL OF QUANTITIES (1.1kV EPR INSULATED FIRE SURVIVAL CABLES)

TENDER ENQUIRY NO.-PE/PG/PKI/E-6553/2020 Dtd. 09.11.2020

PROJECT:- 1 x 660 MW UPRVUNL PANKI TPP

(B) MANDATORY SPARES

1.1 kV Fire Survival cable with stranded, non-compacted/compacted, plain/tinned annealed copper conductor (as per technical specification), EPR insulation, HOFR Inner Sheath, Al Round Wire (applicable for single core cable) / GS Round Wire Armour (applicable for multi core cable) and HOFR Outer Sheath Generally conforming to IS :9968 (Part-1) and BHEL specification.

S.No.	ITEM CODE	ITEM NAME	UOM	Ordered Quantity	HSN CODE	UNIT PRICE (EX- WORKS) (Rs.)	TOTAL PRICE (EX- WORKS) (Rs.)	Freight @....% of Total Ex-works (Rs.)	GST@18% on Total Ex-works + Freight (Rs.)	Total FOR Site Price. (Rs.)
B1	507-42000-B	1C-120 ARMOURED	MTR	500	8544					
B2		1C - 400- ARMOURED	MTR	1000	8544					
B3		2C-2.5 ARMOURED	MTR	500	8544					
B4		2C-6 ARMOURED	MTR	1500	8544					
B5		2C-10 ARMOURED	MTR	500	8544					
B6		2C - 95- ARMOURED	MTR	1000	8544					
B7		3C - 2.5- ARMOURED	MTR	500	8544					
B8		3C-35 ARMOURED	MTR	500	8544					
B9		5C - 2.5- ARMOURED	MTR	500	8544					

Notes: (Applicable for Mandatory Spares only)

- Quantities indicated above for SI. NO. (B) shall be known as Order Quantities. Overall variation in contract value due to changes in the scope shall be +/-30% as per CMM advisory dated 06.10.20 which will prevail over the quantity variation clause no. 6.0 indicated in the GCC rev. 07
- The bidder shall indicate the unit price of each type and size of cables listed as per the BOQ-Cum-Price Schedule. The unit prices shall apply for adjustment of variation in quantity as stipulated above.
- Tolerance on individual drum length shall be $\pm 5\%$. Overall tolerance on total dispatched quantity of each size shall be (-) 2% and (+) 0%.
- Quantity of mandatory spares indicated above shall be manufactured by the successful bidder only after approval from BHEL. The drums supplied against item B shall be clearly identified as "MANDATORY SPARE".
- Bidder shall indicate unit price of cables inclusive of type test charges. No separate charges shall be payable for type tests.

Annexure-II for Delivery Schedule for EPR INSULATED FIRE SURVIVAL CABLE - 1 X 660 MW PANKI TPP						
Sl. No.	Package name	BHEL Drawing No	Drawing Title	Primary/Secondary	Drg Sch for Vendors	Standard Delivery Terms for Supply Portion
1	EPR INSULATED FIRE SURVIVAL CABLE	PE-V0-XXX-507-E183	TECHNICAL DATA SHEET - EPR INSULATED FIRE SURVIVAL CABLE	Primary	R-0 within 14 days from PO & subsequent revisions within 10 days of comments received from BHEL. BHEL shall furnish comments / approval on each submission within 18 days from receipt.	For Lot-1: Within Four (04) months from date of CAT-1 approval of Primary drawing/documents, subjected to drawing/document submission/re-submission schedule as stipulated, in case of any delay in submission/re-submission of Primary drawing/documents, then same shall be reduced from the given delivery period. Delay in BHEL's comments/approval beyond 18 days shall also be considered for delay analysis.
		PE-V0-XXX-507-E181	CROSSECTIONAL Drawings for EPR INSULATED FIRE SURVIVAL CABLE	Primary		
		PE-V0-XXX-507-E920	QUALITY PLAN for EPR INSULATED FIRE SURVIVAL CABLE	Primary		
		PE-V0-XXX-507-E184	TYPE TEST CERTIFICATES - EPR INSULATED FIRE SURVIVAL CABLE	Secondary	Within 1 week after conduction of Type Test	For Subsequent Lots: Within 3 months from Lot clearance by BHEL.

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

Ref.....

Date.....

To,

Bharat Heavy Electricals Limited

PEM, PPEI Building, Plot No 25,

Sector -16A, Noida (U.P)-201301

Subject: - Certification regarding local content

Reference: Tender Enquiry No-.....

Name of Package:

Dear Sir,

We hereby certify that items offered by us of(package name).....for.....(Project Name/Rate contract)..... meets the requirement of minimum local content in line with Cl. No..**12** of NIT No..... dated..... and the Public Procurement (Preference to Make in India), Order 2017 dated-15.06.2017, 28.05.2018 & 29.05.2019.

We further confirms that details of location at which the local value addition is made will be our registered works at(address of the works)

Yours very truly

..... (authorized signatory of company)

..... (firm name)

authorized signatory
of company



PVC ANNEXURE

ANNEXURE-C

Price Variation Formulae
1 X 660 MW UPRVUNL PANKI TPS
EPR INSULATED FIRE SURVIVAL CABLE

1. Prices shall be variable as per following PVC formulae as per IEEMA. The price shall be limited to +20% of total Ex-works price actually supplied (cable size wise) & -ve price variation shall be unlimited. PVC shall be limited for the metals for which rates published by IEEMA.

CABLE TYPE	CONDUCTOR	FORMULA	TABLE REF
LT EPR INSULATED SIRE SURVIVAL Cables	(Cu conductor,)	$P = P_0 + CuF(Cu - Cu_0) + CCFCu(PVCC - PVCC_0) + FeW(Fe - Fe_0) + AIF(Al - Al_0)$	as applicable as per IEEMA

Note:

- Quantity Variation:** The variation in quantities of all sizes for Main item (A) put together shall be limited to (-) 30% to (+) 30% of the total contract value derived on the basis of the Ordered quantities of main item (A).
- PVC shall be applicable for Order Qty. and subsequent lots.
- Base date for prices (as per IEEMA):

Initial Price:

Base date shall be Oct-2020

Final Price:

The first working day of month, one month prior to the **date of delivery**.

Note: 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.

- PVC shall be payable within agreed contractual delivery period. In case of delay is attributable to vendor, for the payment purpose, the PVC shall be calculated based on rates applicable as on the date of expiry of contractual delivery date or actual delivery date, whichever is beneficial to BHEL.

Applicable Factors-

Factors/Cable Size	5C-2.5	2C-95	3C-2.5	3C-35	2C-2.5	2C-6	2C-10	1C-120 (AL armoured)	1C-400 (Al armoured)
CuF	0.117	1.802	0.07	0.993	0.047	0.112	0.174	1.138	3.703
CCFCu	0.206	0.389	0.157	0.27	0.139	0.234	0.280	0.176	0.372
FeW	0.342	1.085	0.289	0.685	0.273	0.348	0.392	-----	-----
ALF	-----	----	-----		-----	-----	-----	0.198	0.424



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

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	मैं बिक्री सेवा की स्थापना के बाद, विदेशी उप-विक्रेता के मामले में (स्थल, संपर्क व्यक्ति, संपर्क विवरण आदि)	<i>Details attached at Annexure – F2.4</i> विवरण अनुलग्नक -2.4 पर संलग्न है।
9.	<i>Manufacturing process execution plan with flow chart indicating various stages of manufacturing from raw material to finished product including outsourced process, if any</i> फ्लोचार्ट सहित विनिर्माण प्रक्रिया निष्पादन योजना, जिसमें आउटसोर्स प्रक्रिया, यदि कोई हो, सहित कच्चे माल से तैयार उत्पाद तक विनिर्माण के विभिन्न चरणों को दर्शाया गया हो,	<i>Details attached at Annexure – F2.5</i> विवरण अनुलग्नक - F2.5में संलग्न है।
10.	<i>Sources of Raw Material/Major Bought Out Item</i> कच्चे माल के स्रोत / खरीदे हुए मुख्य मद	<i>Details attached at Annexure – F2.6</i> विवरण अनुलग्नक - F2.6में संलग्न है।
11.	<i>Quality Control exercised during receipt of raw material/BOI, in-process, Final Testing, packing</i> कच्चे माल / खरीदे हुए मद, प्रक्रियाबद्ध, अंतिम परीक्षण, पैकिंग करते समय गुणवत्ता नियंत्रण	<i>Details attached at Annexure – F2.7</i> विवरण अनुलग्नक - F2.7 पर संलग्न है
12.	<i>Manufacturing facilities (List of machines, special process facilities, material handling etc.)</i> विनिर्माण सुविधा (मशीनों की सूची, विशेष प्रक्रिया सुविधाएं, सामग्री रख-रखाव आदि)	<i>Details attached at Annexure – F2.8</i> विवरण अनुलग्नक - F2.8में संलग्न है।
13.	<i>Testing facilities (List of testing equipment)</i> परीक्षण सुविधाएं (परीक्षण उपकरण की सूची)	<i>Details attached at Annexure – F2.9</i> विवरण अनुलग्नक – F2. 9 में संलग्न है।
14.	<i>If manufacturing process involves fabrication then-</i> यदि निर्माण प्रक्रिया में फेब्रिकेशन की गई है तो- <i>List of qualified Welders</i> पात्र वेल्डर की सूची <i>List of qualified NDT personnel with area of specialization</i> विशेषज्ञता के क्षेत्र सहित पात्र एनडीटी कार्मिकों की सूची	<i>Applicable / Not applicable</i> लागू / लागू नहीं <i>Details attached at Annexure – F2.10</i> विवरण अनुलग्नक - F2.10में संलग्न है। <i>(if applicable)</i> लागू / लागू नहीं
15.	<i>List of out-sourced manufacturing processes with Sub-Vendors' names & addresses</i> सब-वेंडर द्वारा बाह्य स्रोतों (उनके नाम और पते सहित) से करवाए गए निर्माण प्रक्रियाओं की सूची	<i>Applicable / Not applicable</i> लागू / लागू नहीं <i>Details attached at Annexure. –F2.11</i> विवरण अनुलग्नक - F2.10में संलग्न है। <i>(if applicable)</i> (यदि लागू हो)
16.	<i>Supply reference list including recent supplies</i> नवीनतम आपूर्ति सहित आपूर्ति संदर्भ सूची	<i>Details attached at Annexure – F2.12</i> विवरण अनुलग्नक - F2.12 में संलग्न है। <i>(as per format given below)</i> (नीचे दिए गए प्रारूप के अनुसार)
<i>Project/ package</i> परियोजना / पैकेज	<i>Customer Name</i> ग्राहक का नाम	<i>Supplied Item (Type/Rating/Model /Capacity/Size etc)</i> आपूर्ति की गई वस्तु (प्रकार / रेटिंग / मॉडल / क्षमता / आकार आदि)
17.	<i>Product satisfactory performance feedback letter/certificates/End User Feedback</i> उत्पाद के संतोषजनक प्रदर्शन संबंधी फीडबैक पत्र / प्रमाण पत्र / अंतिम उपयोगकर्ता फीडबैक	<i>Attached at annexure - F2.13</i> अनुलग्नक F2. 3पर संलग्न है
18.	<i>Summary of Type Test Report (Type Test Details, Report No, Agency, Date of testing) for the proposed product</i>	<i>Applicable / Not applicable</i> लागू / लागू नहीं

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	<i>(similar or higher rating)</i> प्रस्तावित उत्पाद (एक समान या उच्च रेटिंग वाले) के लिए टाइप टेस्ट रिपोर्ट (टाइप टेस्ट विवरण, रिपोर्ट संख्या, एजेंसी, जांच की तारीख) का सारांश नोट: - रिपोर्ट प्रस्तुत करने की आवश्यकता नहीं है <i>Note:- Reports need not to be submitted</i>	<i>Details attached at Annexure – F2.14</i> विवरण अनुलग्नक - F2.1 4में संलग्न है <i>(if applicable)</i> (यदि लागू हो)
19.	Statutory / mandatory certification for the proposed product प्रस्तावित उत्पाद के लिए वैधानिक / अनिवार्य प्रमाणीकरण	<i>Applicable / Not applicable</i> लागू / लागू नहीं <i>Details attached at Annexure – F2.15</i> <i>(if applicable)</i> (यदि लागू हो)
20.	Copy of ISO 9001 certificate आईएसओ 9001 प्रमाण पत्र की प्रति <i>(if available)</i> (यदि उपलब्ध हो)	<i>Attached at Annexure – F2.16</i> अनुलग्नक में संलग्न - F2.1 6 है
21.	Product technical catalogues for proposed item <i>(if available)</i> प्रस्तावित मद के लिए उत्पाद तकनीकी कैटलॉग (यदि उपलब्ध हो)	<i>Details attached at Annexure – F2.17</i> विवरण अनुलग्नक - F2.1 7 में संलग्न है

Name: नाम:		Desig: पद:		Sign: हस्ताक्षर:		Date: तिथि:	
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Company's Seal/Stamp:- कंपनी की मुहर/ मोहर:-

Guidelines for Remote Inspection of PEM BOIs

1) OBJECTIVE:

To lay down the procedure for carrying out Remote Inspection of Bought-out Items (BOIs) for PEM suppliers wherever applicable.

2) SCOPE:

It will cover suppliers for packages of PEM BOIs for various project requirements.

Invitation is sent to the suppliers for remote inspection on applications like MS Teams, Webex, etc. by BHEL.

3) MINIMUM REQUIREMENTS AT SUPPLIER'S WORKS:

- i. Uninterrupted internet services
- ii. Good internet bandwidth (Min 100 Mbps)
- iii. Good resolution camera (2 nos) – one preferably CCTV (static at one place) and one hand hold (moving)
- iv. Smart phone with minimum 8MPi camera front and back both with optical zoom facility suitable for using web applications like Webex, MicroSoft (MS) Teams, etc.
- v. Computer and Scanner with good resolution
- vi. Digital signatures of supplier's Quality Engineer
- vii. Availability of web applications like Webex, MicroSoft (MS) Teams, as required.
- viii. All Test certificates, internal test reports, calibration reports, etc. for the items offered for inspection.
- ix. Availability of the above to be submitted to BHEL two days in advance before inspection.
- x. Dedicated team from supplier side for facilitating inspection requirements.
- xi. For ensuring proper visibility, the suggested Portable lighting sources (torch/ electric LED bulb of minimum 15 W) with no glare is to be ensured at offered job, location for remote inspection/testing. This is to be verified before start of the inspection.
- xii. The GPS location co-ordinates or any method to locate inspection location shall be captured indicating the location of the Vendor-Premises of remote inspection/testing.

4) MINIMUM REQUIREMENTS AT BHEL and CUSTOMER LOCATION :

- i. Uninterrupted internet services
- ii. Suitable internet bandwidth
- iii. Digital signatures wherever required.
- iv. Availability of web applications like Webex, MS Teams, etc. as required.
- v. Clearance from customer for conducting remote inspection

5) PROCEDURE:

- i. Supplier will raise the inspection call in BHEL - CQIR portal.
- ii. Supplier shall ensure availability of minimum requirements at supplier's works as mentioned above at point 3.

- iii. Before starting the inspection, the supplier shall submit the documents (TCs, internal test reports and calibration certificates as per approved QAP) two days before the date of inspection for review by BHEL and supplier shall coordinate with BHEL and if found satisfactory, inspection shall be considered for remote.
 - iv. Prior to commencement of remote inspection a pre inspection meeting shall be organised by BHEL inspector with supplier to ascertain the readiness for remote inspection.
- 6) During inspection, supplier shall share the location on Google maps for verifying the address of the manufacturer. Location may be captured by BHEL as screenshot.
- i. Inspection shall be on the basis of approved Quality Plans and associated reference documents mentioned.
 - ii. For witnessing inspection, supplier shall bring the mobile video camera near to the surface of the equipment or as per requirement of the inspector for clarity in viewing the test/ equipment which shall be the responsibility of supplier. Supplier shall ensure that proper lighting is available during live video streaming.
 - iii. Before start of the inspection, inspector shall ensure that all instruments shall have valid calibration report. Supplier shall ensure use of digital instruments preferably for inspection to the extent possible.
 - iv. Details of suppliers's dedicated team handling the remote inspection shall also be incorporated in the CQIR.
 - v. All details of inspection/ testing referred documents shall be mentioned in the CQIR. Recording of remote inspection shall be maintained by the BHEL inspector and this recording (unedited) shall be maintained at BHEL system for a minimum period of 3 years or till the warranty period whichever is later.
 - vi. PEM (Engineering) shall accord final technical clearance, in case of any deviation in inspected item noticed during inspection.
 - vii. Inspection shall be conducted by PEM-Q&BE assigned inspector along with PEM-Engg (if required). CQIR shall be prepared and maintained by PEM-Q&BE.
 - viii. PG will issue MDCC on the basis of acceptance of inspected items along with accepted packing photographs as per contract provisions.
- 7) **UNDERTAKING BY VENDOR:** Material inspected through remote inspections is meeting all technical requirements of BHEL. In case of any discrepancy from the above procedure/ material inspected, if found later, vendor will replace the materials without any cost implication to BHEL.
- 8) Vendor shall provide the signed and stamped of the above guidelines to BHEL as a token of acceptance.

