



Bharat Heavy Electricals Limited

Boiler Auxiliaries Plant

RANIPET – 632 406, Tamil Nadu, India

MM – WATER SYSTEM & FGD

OPEN TENDER CHECKLIST

POWER CABLES FOR NTPC DADRI II GAUTAM BUDHA NAGAR, UP

Enquiry No. 3880557 Dated 19-JULY -2018 Due on: 09-AUGUST-2018 (NIT_39876)

Sl. No.	Document Name	Vendor Confirmation (Signed copy to be submitted along with Techno Commercial Offer)
01	ANNEXURE A COVERING LETTER	Submitted ☐ Not Submitted ☐
02	ANNEXURE B GENERAL TERMS & CONDITIONS (FOR GUIDANCE TO THE SUPPLIERS)	Submitted ☐ Not Submitted ☐
03	ANNEXURE C1-INDIGENOUS ANNEXURE – C2 IMPORT COMMERCIAL TERMS AND CONDITIONS	Submitted ☐ Not Submitted ☐
04	ANNEXURE D1 - INDIGENOUS ANNEXURE D2 - IMPORT UN PRICED /PRICE OFFER FORMAT	Submitted ☐ Not Submitted ☐
05	ANNEXURE E SPECIFICATION DEVIATION DISPOSITION REPORT	Submitted ☐ Not Submitted ☐
06	ANNEXURE F CEBG	Submitted ☐ Not Submitted ☐
07	ANNEXURE G ONLINE SRF	Submitted ☐ Not Submitted ☐
08	ANNEXURE H TERMS AND CONDITIONS FOR OFFER	Submitted ☐ Not Submitted ☐
09	ANNEXURE I PAYMENT MECHANISM	Submitted ☐ Not Submitted ☐
10	TECHNICAL SPECIFICATION TECI:NTPC:PCCAB:REV01 DT 16.09.2016	Submitted ☐ Not Submitted ☐
11	CONTRACT QUALITY REQUIREMENTS (CQR) BAP/QR/G501&G502/P&C:009 REV 00 DT 17.05.2018	Submitted ☐ Not Submitted ☐
12	NTPC SQP LT POWER CABLE 0000-999-QOE-S-041 REV 00	Submitted ☐ Not Submitted ☐
13	PRE-QUALIFICATION REQUIREMENT FOR POWER CABLES VIDE Ref: RFW195:POWER CABLES REV 00, Dt:13.07.2018	Submitted ☐ Not Submitted ☐



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Open Tender for "POWER CABLES"FOR NTPC,DADRI II,GAUTAM BUDHANAGAR,U.P.

Enquiry No.: 3880557E Dated 19-JULY -18 (NIT_39876) Due on: 09-AUGUST-18

To All the Manufacturers..

Dear Sir,

Please submit your lowest quotation on FIRM PRICE, in duplicate subject to our terms & conditions in the various annexures attached and herein for the below listed materials so as to reach us on or before the due date by 2.00 p.m.

Requirement with Delivery date-FOR SUPPLY:

Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
001	RFW801950001 POWER CABLE 1C - 630 SQ MM, AL COND, XLPE INSUATION UNARMERED CABLE AS PER TECHNICAL SPECIFICATIONS: TECI: NTPC: PCCAB: REV 01 DT 16.09.2016 (PAGES 01 TO 07).	MTR	2800	24.10.2018
002	RFW801950002 POWER CABLE 3C - 240 SQ MM, AL COND, XLPE INSUATION UNARMERED CABLE AS PER TECHNICAL SPECIFICATIONS: TECI: NTPC: PCCAB: REV 01 DT 16.09.2016 (PAGES 01 TO 07).	MTR	9500	24.10.2018
003	RFW801950003 POWER CABLE 3C - 150 SQ MM, AL COND, XLPE INSUATION UNARMERED CABLE AS PER TECHNICAL SPECIFICATIONS: TECI: NTPC: PCCAB: REV 01 DT 16.09.2016 (PAGES 01 TO 07).	MTR	17000	24.10.2018
004	RFW801950004 POWER CABLE 3C - 2.5 SQ MM, CU COND, PVC INSULATION UNARMERED CABLE AS PER TECHNICAL SPECIFICATIONS: TECI: NTPC: PCCAB: REV 01 DT 16.09.2016 (PAGES 01 TO 07).	MTR	1600	24.10.2018
005	RFW801950005 POWER CABLE 3C - 10 SQ MM, AL COND, PVC INSULATION UNARMERED CABLE AS PER TECHNICAL SPECIFICATIONS: TECI: NTPC: PCCAB: REV 01 DT 16.09.2016 (PAGES 01 TO 07).	MTR	3800	24.10.2018



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006	RFW801950006 POWER CABLE 3C - 25 SQ MM, AL COND, PVC INSULATION UNARMERED CABLE AS PER TECHNICAL SPECIFICATIONS: TECI: NTPC: PCCAB: REV 01 DT 16.09.2016 (PAGES 01 TO 07).	MTR	82500	24.10.2018
007	RFW801950007 POWER CABLE 3C - 50 SQ MM, AL COND, PVC INSULATION UNARMERED CABLE AS PER TECHNICAL SPECIFICATIONS: TECI: NTPC: PCCAB: REV 01 DT 16.09.2016 (PAGES 01 TO 07).	MTR	42000	24.10.2018
008	RFW801950008 POWER CABLE 3C - 95 SQ MM, AL COND, PVC INSULATION UNARMERED CABLE AS PER TECHNICAL SPECIFICATIONS: TECI: NTPC: PCCAB: REV 01 DT 16.09.2016 (PAGES 01 TO 07).	MTR	20500	24.10.2018
009	RFW801950009 POWER CABLE 2C - 95 SQ MM, AL COND, PVC INSULATION UNARMERED CABLE AS PER TECHNICAL SPECIFICATIONS: TECI: NTPC: PCCAB: REV 01 DT 16.09.2016 (PAGES 01 TO 07).	MTR	1500	24.10.2018
010	RFW801950010 POWER CABLE 2C - 2.5 SQ MM, CU COND, PVC INSULATION UNARMERED CABLE AS PER TECHNICAL SPECIFICATIONS: TECI: NTPC: PCCAB: REV 01 DT 16.09.2016 (PAGES 01 TO 07).	MTR	22800	24.10.2018

BIDDERS SHALL CAREFULLY READ THE FOLLOWING ANNEXURES / NOTES AND SHALL QUOTE THEIR BEST COMPETITIVE PRICE.

PLEASE REFER TO,

- 1. ANNEXURE-B FOR GENERAL TERMS & CONDITIONS (FOR GUIDANCE TO THE SUPPLIERS)**
- 2. ANNEXURE-C1 FOR COMMERCIAL TERMS AND CONDITIONS - INDIGENOUS**
- 3. ANNEXURE-C2 FOR COMMERCIAL TERMS AND CONDITIONS - IMPORT**
- 4. ANNEXURE-D1 PRICE BID FORMAT FOR THE INDIGENOUS SUPPLY**
- 5. ANNEXURE-D2 PRICE BID FORMAT FOR THE IMPORT SUPPLY**
- 6. ANNEXURE-E SDDR FORMAT**
- 7. ANNEXURE-F CEBG FORMAT**
- 8. ANNEXURE-G ONLINE SUPPLIER REGISTRATION FORM**
- 9. ANNEXURE-H DISPATCH INSTRUCTIONS**
- 10. ANNEXURE-I PAYMENT MECHANISM**
- 11. ANNEXURE-J PERFORMANCE BANK GUARANTEE**



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TECHNICAL ENCLOSURES AS PER FOLLOWINGS:

01. TECHNICAL SPECIFICATION FOR POWER CABLES: **TECI:NTPC:PCCAB:REV01 DT 16.09.2016**
02. CONTRACT QUALITY REQUIREMENTS (CQR) **BAP/QR/G501&G502/P&C: 009 Rev NO. : 00**
DATE:17 05 2018.
03. NTPC SQP LT POWER CABLE **0000-999-QOE-S-041 REV 00**
04. PRE-QUALIFICATION REQUIREMENT FOR POWER CABLES vide Ref: **RFW80195 :POWER CABLES REV 00 DT 13.07.2018**
05. SAMPLE MQP FORMAT
06. REFERENCE STANDARD FIELD QUALITY PLAN
07. VENDOR APPROVAL BY OUR CUSTOMER - **SUB VENDOR QUESTIONNAIRE FORMAT**
08. ALL CABLES SHALL BE SUPPLIED IN 1000 MTR DRUMS.

Important Instruction to Bidders:

1. All items will be compared on individual line item basis & order will be placed on whom who is L1 on individual line item.
 2. Vendors shall go through the “Pre-Qualification Requirement” & furnish Qualification Data sheet duly filled in along with Techno-Commercial offer. Offers received without this requirement will be summarily rejected & such offers will not be processed further.
 3. Price bid opening will be considered subject to Pre-qualification requirements and techno commercial confirmation and acceptance by BHEL, Ranipet & also approval from our customer: NTPC,DADRI-II,GAUTAM BUDHA NAGAR,U.P.
- TENDER SHALL BE SUBMITTED IN TWO PARTS AS REFERRED IN ANNEXURE-B.
- ANY REVISED OFFER(S) SENT BY VENDORS ON THEIR OWN, AFTER THE TENDER OPENING, WILL BE TREATED AS "UNSOLICITED OFFER". SUCH OFFERS WILL NOT BE CONSIDERED AND NECESSARY ACTION AS DEEMED FIT WILL BE TAKEN BY BHEL ON THOSE VENDORS. HENCE COMPETITIVE OFFER TO BE GIVEN IN THE ORIGINAL QUOTE ITSELF.

IMPORTANT NOTE:

TENDERS ARE INVITED THROUGH ELECTRONIC MODE FROM ELIGIBLE SUPPLIERS IN CASE OF OPEN TENDERS AND FROM SUPPLIERS TO WHOM THE ENQUIRY IS ADDRESSED IN CASE OF LIMITED / SINGLE TENDER.

THE OFFERS SHALL BE POSTED INTO THE SYSTEM BEFORE THE DATE AND TIME SPECIFIED IN THE TENDER.

THE OFFER SHALL BE SENT ON ~~SINGLE PART~~ / TWO PART / ~~THREE PART~~ BASIS AS SPECIFIED IN THE MAIN TENDER DOCUMENT.

BIDS SHALL BE SUBMITTED THROUGH E-PROCUREMENT PORTAL, <https://bhel.abcpurchase.com> OF M/s e-Procurement Technologies Limited WHO ARE OUR SOLUTION PROVIDER.

- 01) OFFERERS ARE REQUESTED TO CAREFULLY READ THE FOLLOWING CONDITIONS AND GIVE THEIR SPECIFIC CONFIRMATION OF ACCEPTANCE IN TOTO.
- 2A) TIME IS THE ESSENCE OF CONTRACT.
- 2B) IN THE EVENT OF DELAY ON THE CONTRACT DELIVERY, LIQUIDATED DAMAGES (LD) WILL BE LEVIED.
- 2C) LD WILL BE LEVIED AT THE RATE OF 0.5 % PER WEEK OR PART THEREOF ON THE CONTRACT VALUE.
- 2D) THE LD CEILING WILL BE 10 %.
- 2E) LD WILL BE A MANDATORY CONDITION IN THE PURCHASE ORDER.
- 3) IF NO CONFIRMATION OR COMMENTS ARE INCLUDED IN THE INITIAL OFFER BY THE TENDERER, IN THE EVENT OF PLACEMENT OF ORDER, THE ORDER WILL BE RELEASED WITH THE STANDARD LD CONDITION GIVEN ABOVE.



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4) THE CONDITION WILL BE INCLUDED IN THE ORDER WITHOUT ANY FURTHER REFERENCE TO THE OFFERER AND NO CHANGES WILL BE PERMISSIBLE, POST ORDER RELEASE.

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**ANNEXURE –B**  
**GENERAL TERMS & CONDITIONS**  
**(FOR GUIDANCE TO THE SUPPLIERS)**

**A] Submission of Offer**

**a) Invitation for bid**

Tenders are invited through electronic mode from eligible suppliers in case of open tenders and from suppliers to whom the enquiry is addressed in case of Limited / Single Tender.

The offers shall be posted into the system before the date and time specified in the tender.

The offer shall be sent on single part / two part / three part basis as specified in the main tender document.

Bids shall be submitted through e-Procurement portal, <https://bhel.abcprocure.com> of M/s e-Procurement Technologies, Ahmedabad who is our solution provider.

**b) Hardware and Software requirements for participating in e-tender**

Requirement for participating in e-Procurement is as under:

- i) A Computer with internet connectivity (Internet Explorer 9.0 (32-bit Browser only) & above)
- ii) Digital Signature Certificate (Class 3- SHA2-2048 BIT- with both Signing and Encryption component separately).
- iii) JAVA (Version 1.8 Update 45).
- iv) Steps for Hardware and software configuration is detailed at <https://bhel.abcprocure.com/EPROC/> under title “Minimum system requirements and Settings Document for BHEL User and Bidders”.

**c) Instructions for Registered Suppliers**

For all types of tenders (Single / Limited / Open) an automated email alert regarding issue of the Tender will be sent by the e-procurement portal to all Suppliers registered with BHEL, Ranipet for the item/s for which the tender is issued.

In case of open tenders, Registered suppliers with registered DSC will have to login with their user id/password & DSC and search for the Open Tender. To participate in event and to submit bid, a bidder needs to agree the terms and conditions.

Registered suppliers without DSC will have get their profiles approved by mapping DSC after login.

To know the procedure for obtaining Digital Signature Certificate (DSC), suppliers who are not having the DSC are advised to visit our website [www.bhel.com](http://www.bhel.com) → Tender Notifications → Sample Checklist.

**d) Instructions for new suppliers wishing to bid against open tenders**

New, unregistered suppliers wanting to bid against open tender/s will have to first register themselves in <https://bhel.abcprocure.com> as new supplier by clicking the “Register” button.

After entering the Income Tax Permanent Account Number (PAN) details and pressing “Enter”, they have to select the respective BHEL Unit for which they want to participate in the Open Tender and also fill up other relevant Company information as a one-time activity. On successful registration, your profile will be approved by the authorized officer and you can login to portal and can participate in the procurement event.

To participate in a tender, you need to login to the portal. You must be an approved registered user. If you are not a registered user, you can register yourself by clicking upon the “Register” link. You need to have a valid vendor code and password to login to the portal. Enter your Vendor code, password and click on Login button after Login, you need to select your digital signing and encryption certificates certificate. The DSC will be approved by M/s e-Procurement Technologies/ Authorised officer of BHEL.

As required by the tender, the necessary documents have to be filled-in online, in the provided template. Additional documents required are to be scanned and uploaded as .pdf file. Suppliers are advised to take note that the maximum space that is provided for uploading the documents that are to be attached is 300 MB. However the size of an individual document cannot exceed 10 MB. For any clarification on submission of offer on line, attention of the Supplier/s is invited to our document “Bidder Manual for BHEL Bidders” hosted in the home-page of the e-procurement portal. During normal business hours, helpline maintained by the service provider M/s e-Procurement Technologies is available for clarifying any doubts of supplier/s. The helpline numbers are +91-79-40270599/508/560/590/513 and email id is: [Bhel.Support@abcProcure.com](mailto:Bhel.Support@abcProcure.com) . Bidder can also refer to “Bidder Manual for BHEL Bidders” hosted in the home-page of the e-procurement portal <https://bhel.abcprocure.com>.

Typical documents that would be required as part of tender submission would be

- a) **Complete technical Offer** with details, catalogues, as applicable.
- b) **Un-priced bid** (i.e. Bid without the Price) as per given format, if any.
- c) **Filled-in BHEL’s Standard Terms & Conditions** as per Annexure enclosed with the Tender Document,
- d) **Deviation summary** submitted in two parts – giving the summary of technical deviations separately and the commercial deviations separately, if any and
- e) **Supporting documents** to substantiate equivalent material specifications / sections, where quoted for.
- f) Where asked for, **Client list** with their full address including detail of contact person with phone no., fax no. & e-mail ID (if any) to whom the same / similar items are supplied in the past two years. The date of supply may also be indicated, against each client.
- g) Suppliers can also upload their credentials by way of submission of Performance certificate/s issued by their customer/s detailing the quantity supplied and specification along with the un-priced PO copies and proof of supply along with the offer.

**Technical acceptance of offer by BHEL shall be based on the evaluation of offer and the submitted documents.**

- h) **Bidders who are not already registered with BHEL Ranipet** are requested to submit the Supplier Registration Form (SRF) online (<http://supplier.bhel.in/>) for evaluating and registering as an approved vendor. The Supplier Development Cell (SDC) of BHEL, Ranipet would process the SRF for evaluation / registering the Supplier. Don’t send hardcopies of SRF to BHEL-Ranipet, **only** online submission is accepted. This registration process is a separate / parallel activity and do not mix-up with submission offers.

#### **Note**

- (i) The materials offered, shall conform to the specification and scope attached in the tender.
- (ii) In case the offered materials are not conforming to the Enquiry material Specification, such offers would not be considered for evaluation and would be rejected.

Where equivalent specifications are offered, considering such offers will be at the sole discretion of BHEL. Wherever alternative standards / specifications are offered by Bidder, the Bidder shall provide sufficient documentary evidence to ensure equivalence to the designated standards / specifications, failing which the offer would be considered as not technically acceptable and hence shall stand rejected.

(iii) All taxes and duties payable as extra to the quoted price should be specifically stated in offers (as appearing in the online template).

Offer/s from within India shall be submitted along with the applicable HS Number and the applicable Goods & services Tax (GST) for each quoted item, failing which the purchaser will not be liable for payment of such taxes and duties. Our GST No: **33AAACB4146P2ZL**.

(iv) The un-priced bid shall be used to indicate relevant commercial terms such as scope of freight and insurance, applicability of duties and taxes etc. All Commercial terms are to be indicated clearly in the offer.

(vi) No changes shall be entertained once the bid is opened unless otherwise specifically agreed to in writing by BHEL.

(vii) Money values other than for those items appearing in the un-priced bid template shall not be indicated anywhere in the un-priced bid.

(viii) Time required for inspection (at Supplier's works), should be clearly given in terms of numbers of working days.

(x) **Offers sent by FAX / E-mail:** would not be entertained.

(xi) Bid should be free from correction, overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid else bid shall be liable for rejection.

**Price Bid** in conformance with the specification and terms as given in the Un-Priced bid document.

**Caution on submission of pricebids thru EPS:**

***The suppliers are severely cautioned to note that the price bid document accepts the price in figures only. It does not allow the supplier to write the value by words. Therefore all care shall be exercised by the supplier while filling in the figures. Once the price bid is opened no option is available for the supplier to retract the offer under any grounds. If a supplier, for any reason whatsoever approaches BHEL with a request for change in the price, it would be treated as going back on the offer submitted. In such cases, action would be initiated by BHEL for suspending further business dealings with such suppliers as per policy of BHEL which prevails at that point of time.***

**Foreign / Overseas suppliers are hereby informed that offers with differential currencies are not permitted for a given tender document.**

**Note**

(i) The price break-up should be in line with technical specification / scope of the tender. (Cost of material, packing charges, forwarding charges, freight and insurance charges shall be shown appropriately, as applicable).

(ii) Unless otherwise specified as a part of the tender condition, No Price Variation Clause will be entertained and No advance payment will be made by BHEL.

- (iii) In case, there is a discrepancy in the term quoted in techno-commercial bid and price bid, the term as per the techno-commercial bid (Part I) shall hold good and the commercial term quoted in the Price Bid (Part II) shall not be considered.
- (iv) In their own interest, all Tenderers are advised to double check their prices, applicable duties and taxes.
- (v) The quotation should be valid at least for a period of 90 days from the tender opening date.
- (vi) Indian bidders should submit the prices in Indian Rupees only.
- (vii) Foreign bidders may submit their bid in foreign currency. The currency for quoting shall be selected from the drop-down menu provided.
- (x) Indian Suppliers shall quote on FOR Destination basis only. Destination is BHEL, Ranipet Stores or BHEL Project Site as specified in the tender requirement. Foreign Suppliers shall quote on CFR Chennai Seaport Delivery and Insurance will be in BHEL's scope. No other delivery terms shall be acceptable. Shipment shall be arranged by the Seller on *Liner in / Liner out basis*. As per Government of India guidelines, BHEL Ranipet being a Government of India Undertaking the Bill of Lading shall be made with the Shipper as "Government of India". This shall be specifically confirmed by the Bidder.
- (xi) Where the cargo is containerized, Container washing charges, stuffing charges and / or any other such charges would be to the account of the supplier, where the containers are to be stuffed at the works of the supplier.

#### **B] Opening of Offers**

**a) Tenders can be submitted up to 1400 Hours on tender opening due date. Part I will be opened on the same day at 1430 Hours. Results of the tender opening will be available for viewing for upto 7 days from the date of opening.**

**b) Requests by Bidders for extension of due date will not be entertained by BHEL.**

c) Price Bid opening will be done through e-mode / Reverse Auction method ( English method) which will be decided after techno-commercial bid evaluation is completed. All tenderers would have to specifically give their acceptance for this in their bid/s.

#### **Note**

- (i) Bids including all enclosures and supporting documents like catalogues, pamphlets, etc., shall be provided in ENGLISH language only.
- (ii) In exceptional circumstances, at its option, BHEL may consider extending the due date/s for the tender openings for reasons such as (but not limited to) paucity of offers etc. However, sufficient notice would be given by BHEL for such extension.
- (iii) Deviations shall be summarized and provided in a "Deviation Statement", listing the points and the deviation against each point.
- (iv) BHEL reserves the right to increase or decrease the tendered quantity and to order on more than one vendor at the lowest acceptable price to BHEL. In ordering on more than one source, the ratio of quantity split will be as specified in the tender terms.

If not explicitly specified, BHEL reserves the right to split the quantity of the enquiry as follows: 70% quantity being ordered on the original lowest bidder (L1) and balance 30% on the next higher bidder/s excluding H1, who accepts the L1 price. However, the final decision to split the order rests with BHEL only.

In the event that the other than L1 suppliers do not accept the L1 price, then the balance will be reverted to the original L1 and the original L1 shall be bound to accept the balance of the enquiry quantity kept reserved for order splitting. This decision would be given by BHEL within 60 days of the price bid opening.

Notwithstanding the quantum of split that may be indicated in the main body of the enquiry, bidders are advised to note that the splitting of the orders will be decided by BHEL after the evaluation of the techno-commercial and price bids.

(v) Offers for part quantities on item level basis are not acceptable to BHEL. While tenderers can quote for some or all the tendered items, no supplier shall quote for partial quantity of any given enquiry item. Such partial offer would not be considered in the enquiry for that item. Suppliers are to note that the evaluation unless otherwise specified will be on item level and not for the tendered items as a whole.

### **C] Evaluation of Offers**

a) The price bids including the impact price (if any) of the technically acceptable offers alone shall be opened.

b) Offers with pre-conditions (like conditional discounts) for price are liable to be not considered / rejected. For evaluation such conditions would be removed and only the base offer would be considered for evaluation and comparison.

d) In the event of any change in scope / quantity arising out of the discussions, offerers would be given a chance to submit their revised offer / Impact bids. The option for the revised offer / impact offer will be triggered by BHEL. The Supplier then will have the facility to feed-in the revised price / impact price as per the provision given by BHEL. The impact price can be positive or negative (or nil). The impact price option shall contain only the price addition / deletion for such change in the scope / quantities, over and above the original scope and price quoted. The original price quoted would remain unchanged. The total price would then be computed by the arithmetic addition of the original price and the impact price. Where BHEL gives the option of submitting the revised offer, the impact would be computed as the arithmetic difference of the revised price and the original price.

e) For evaluating the overseas offers, CFR Chennai Sea Port price quoted will be taken into account. The cost to BHEL will be arrived at by loading the applicable customs duty project wise, insurance charges, inland transportation charges to BHEL stores and LC charges etc.,

f) Deleted.

g) BHEL reserves the right to reject without assigning any reasons / load any offer with factors other than already specified for such offers having deviations to BHEL Specifications, Standard Terms & Conditions at its discretion. The decision of BHEL in this regard shall be final.

h) BHEL reserves the right to reject an offer due to unsatisfactory performance during tender finalisation / execution of a contract at any of BHEL projects / units in the past or if unsatisfactory performance report is received from the party/s referenced by the supplier at any time during tender finalisation.

i) BHEL reserves the right to operate Purchase / Price preference to Government of India Undertakings, which shall be given as per the guidelines of Government of India given from time to time and / or relax the Terms and Conditions of the tender.

j) For the purpose of comparing prices, tender prices shall be converted to Indian rupees and the conversion shall be made by using the TT Selling rate of State Bank of India (SBI) prevailing on the date of opening of

Techno-Commercial / Unpriced bids. If the relevant day happens to be a bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken. This exchange rate will be followed till placement of order. Tenderers may please note that even if an impact price is taken as in (d) for purpose of price evaluation and arriving at the rank; the exchange rate will be taken as explained above.

k) Unless otherwise specified, evaluation will be on individual line item basis only and ordering will be on respective L1 vendors.

l) BHEL reserves the right to conduct negotiations on the “Price” and “Other Commercial Terms and Conditions” with the lowest ranked offerer at any time after the bid opening but before the release of the Purchase Order and If so required by BHEL, Supplier may have to share their costing sheet with BHEL.

m) Bidders are required to confirm in writing in their techno-commercial document that other than themselves (the bidder) none of its group companies, concerns or affiliates etc., are participating in the tender either directly or indirectly or through any other agency under the same proprietor / common partner(s)/ common Directors. If during the evaluation of the bids it is found that the bidder has submitted the offer in violation of this condition then all the offers received from the group companies would stand rejected. If such relationship is found at a later date where the Purchase Order has been issued, then BHEL would cancel the Purchase Order and initiate suitable action/s under the contract/s including but not limited to invoking the Risk Purchase clause of the order and other applicable legal provisions / guidelines of BHEL including guidelines on suspension of business dealings. (Please see clause L sub-clause c).

#### **D] Execution of the Order**

a) BHEL will have the option to pre-inspect the materials at Supplier's works by BHEL's own inspector or by third party agency appointed by BHEL or BHEL's end customer/s. The mere act of the pre-dispatch inspection (PDI) does not absolve the Supplier from giving the specifications as agreed upon in the Purchase Order. In the case of inspection being carried out by a third party inspector (TPI) as per the extant practice, the TPI would forward the Inspection Report (IR) along with Test Certificates and other related documents to the Quality Assurance (QA) Department of BHEL. The QA department after scrutinising the report/s submitted by the TPI would issue the Material Dispatch Clearance Certificate (MDCC). Suppliers are hereby informed that materials should be dispatched only after getting the MDCC, failing which the materials may be rejected on receipt at BHEL Stores.

b) In the case of overseas suppliers Inspection call for carrying out the inspection shall be given 30 days before the scheduled contract delivery date. The Inspection date/s given by the Supplier shall be on firm basis. For local Suppliers the Notice period of Inspection shall be 10 working days.

c) Deviations, if any pointed out by the visiting Inspection team of BHEL shall be corrected and the items as per specification shall be dispatched on or before the contract delivery date after getting the MDCC.

d) The final inspection for acceptance will, however be carried out at BHEL's works at Ranipet.

**e) The contract delivery date is the date of receipt at BHEL Stores for suppliers in India, applicable in the case of FOR Destination Contracts.**

**For ex-works contracts or FOR dispatching station indigenous contracts, the date of the Lorry way bill issued by the authorised transport carriers of BHEL / Railway Receipt / Courier Way bill / Airway bill or any such dispatch documents of carriage approved by BHEL would be considered as the Contract Delivery Date. In the case of CFR contracts with overseas suppliers, the B/L date shall be taken as the Contract Delivery Date**

f) Travel & other local stay cost for the Inspectors sent by BHEL will be to BHEL account, but other Inspection Charges, if any shall be to the account of the Seller only.

g) The supplier shall arrange for packing suitably in all respects for normal transport by sea / rail / road and Materials shall be suitably protected against effect of tropical salt laden atmosphere in the event of shipment being delayed at ports / store yards and as per BHEL TDC.

h) Foreign suppliers shall dispatch on CFR agreed Sea-Port basis, according to the contract conditions. Indian suppliers shall dispatch on free delivery (door-delivery) at BHEL stores basis only. Unloading the materials at BHEL Stores would be to the account of BHEL only.

i) In the event of any short supply, it shall be the responsibility of the supplier to deliver such short supplied/ missing items on Free-of-Cost basis at BHEL stores, including customs clearances at Indian Ports in the case of foreign suppliers.

k) Terms of payment:

k.1) For Indigenous Suppliers: Unless otherwise agreed to by BHEL, the standard payment terms of BHEL shall be: For non-MSE suppliers 100% payment made directly through EFT within 90 days from the date of receipt and acceptance of materials at BHEL Stores, Ranipet or 90 days from the date of acknowledgement of receipt of materials at destination specified. If any supplier asks for payment terms other than the above specified, then suitable loading on cost will be considered. **Loading of any deviation in the payment terms w.r.t tender terms will be "Base rate of State Bank of India (SBI) (as applicable on the date of bid opening: Techno-commercial bid opening in case of two part bids) + 6%, will be considered for loading for the periods of relaxation sought by bidders.**

k.2) For MSE vendors (under Micro & Small category alone) 100% payment will be made within 45 days from the date of receipt and acceptance of materials at BHEL Stores, Ranipet or 45 days from the date of acknowledgement of receipt of materials at destination specified.

l) NOTE:

Where the destination specified is other than BHEL Stores Ranipet, for claiming payment, Supplier has to submit proof of receipt of the materials at the destination by furnishing a copy of the acknowledged despatch document (LR/RR/Courier receipt etc.) .

If the Bidder is bidding for the first time and wants to be considered as an MSE then, the Bidder shall submit document evidencing that they are an MSE along with a certificate from a Chartered Accountant certifying the status of their Unit / Works clearly specifying the address of the works which is to be considered as MSE and send the same to BHEL, Ranipet either before the tender opening date or upload it as a part of the tender document in the e-procurement portal. Where the document is submitted electronically a hard copy shall invariably be sent within a reasonable period (not exceeding 30 days) from the bid opening date for the purpose of BHEL's records. If the hard copy is not received within this specified time, then the supplier would be treated as a non-MSE. BHEL will not be responsible for any postal / courier / delivery delays.

For approved vendors the status as on the date of the bid opening as available with BHEL Ranipet's records shall be used for reckoning the status of the Bidder as an MSE or otherwise.

Offer/s received without these documents will be treated as non-MSE and order finalization will be done based on this premise. Documents submitted after Bid-opening will not be considered in this tender. This provision for MSE will apply subject to the condition that the participating MSE meets the tender requirements.

For approved suppliers, in case of any change in the MSE status, it shall be the responsibility of the Bidder to notify the change as a part of the Bid document. If at a later date it comes to the knowledge of BHEL, Ranipet that the change in the status has not been intimated by the Bidder and the order is obtained under the premise of an MSE then BHEL would cancel the pending order against this tender and take necessary steps for suspension of the business dealing with the Bidder as per the procurement policy of BHEL. Similarly if a supplier claims MSE status after the Part I bid opening, then the same would not be considered in the tender.

In case after the bid opening it is seen that no MSE has become L1, then depending on the nature of the item, if it is not possible to split the tendered items / quantities on account of reasons like customer contract requirements of supplying one make for a given project or technical reasons like the tendered item being a system etc. then BHEL would not counter offer the L1 prices even though there may be MSE bidders within the +15% band of L1.

#### Other concessions for MSEs / Reserved sectors

In addition to the concessions specified above, MSE suppliers will be eligible for such other concessions as per the MSME Act 2006 and any other benefits / concessions that may be announced by the Government of India from time to time.. However, such concessions as applicable at the time of tender opening alone will be applicable. Any concessions advised after tender opening will not be considered for the current tender.

Items that are reserved for MSE and for any other items for which reservations for Indian manufacturers are notified by the Govt. Of India, such concessions as prevailing on the date of tender opening shall apply as a part of this tender conditions.

ii) Foreign Suppliers “100% thru’ irrevocable & unconfirmed LC at sight within 3 weeks from the PO date through any one of our Bankers listed elsewhere in the tender conditions for 100% value (less Agency Commission, if any ) valid up to the PO delivery period and 15 days thereafter for negotiation. All bank charges in India to BHEL's account and all other charges outside India to Supplier's account. **BHEL would load the price of foreign suppliers in order to bring them on common platform as per Indigenous Suppliers on the account of differential payment terms to Indigenous Suppliers. Loading of payment terms will be “Base rate of State Bank of India (SBI) (as applicable on the date of bid opening: Techno-commercial bid opening in case of two part bids) + 6%, will be considered for loading for the periods of relaxation compared to indigenous suppliers i.e. 90 days.**

m) Any incidence of tax like Income tax, Goods & Services Tax (GST) and Withholding any other similar tax / duties /levies imposed by the Government of India, or the State Government, where the BHEL Unit is located, deductible at Source, during the tenure of the Order shall be deducted by BHEL and necessary certification of the deduction (Tax deduction at Source) would be given. This is subject to the supplier fulfilling the necessary documentation as specified by the Government of India. (e.g. Tax Residency Certificate, PAN Number etc.)

n) The Guarantee period shall start from the “Date of receipt and acceptance of the materials at BHEL Stores.”

***o) Where any bidder gives extended credit period over and above that offered by BHEL, then all other Non-MSE bidders and foreign bidders would have to match the extended period of payment terms. This information would be given to such bidders after opening of the techno-commercial bids; but before opening the price bids. However bidders would not be allowed to change their price bid for purpose of confirming the extended credit period. In the event such bidder/s do not accept the extended credit period***

*for payment, then their offer would be loaded to the extent of the differential between their offered payment terms and the revised payment terms offered by BHEL as explained above.*

#### **E] Liquidated Damages Clause:**

BHEL will levy penalty as Liquidated Damages (LD), for delay in delivery. The damages shall be at the rate of ½% per week or part thereof subject to a maximum of 10% PLUS applicable Goods & Services Tax (GST). The contract delivery date for purpose of L.D is the date of receipt at BHEL Stores for suppliers in India for F.O.R. Destination Contract and the date of dispatch clearance given by BHEL for overseas suppliers. For ex-works or F.O.R dispatching station contracts, the date of the dispatch document will be reckoned as the date of delivery for computing the LD. Supplier shall deduct the applicable LD from the first payment when raising the claim for the same. The applicable LD if any would be communicated by BHEL along with the dispatch clearance. It is taken by BHEL that Foreign Suppliers have confirmed their acceptance to BHEL for opening the LC for value which is the value of the order reduced by the applicable LD. The LD would apply on the undelivered portion only. In case of reasons attributable to BHEL for the delay in delivery (for e.g. delay in arranging the pre-inspection) then the delivery time would be reset to the extent of the time delay attributable to BHEL, with waiver of the LD. Delivery being the essence of BHEL's contract requirements, Unless otherwise specified the LD would apply on the undelivered portion of the contracted items. **In the event that a Supplier does not accept the LD condition above, the offer would be loaded to the extent of the shortfall with respect to upper limit specified above.**

#### **F) Miscellaneous**

##### **i) Role of Principals and Agents:**

BHEL will deal directly with indigenous manufacturers only.

BHEL strongly discourages the engagement of Agents in India by foreign principals, to deal with BHEL, in BHEL's tenders.

BHEL will not enter into any correspondence with an Indian Agent.

The Indian Agent will not be extended the privilege given to the principals, such as that of attending the tender openings, attending technical discussions, commercial discussions or price negotiations and such like.

In case, in spite of the above, a foreign principal insists on engaging an Indian Agent, It is made clear by BHEL that:

It is the sole responsibility of the foreign principal to ensure the Agent does not represent any other foreign principal in a given tender.

An undertaking to this effect shall be given by the foreign principal that his / her Agent does not represent any other foreign principal in the tender. This document shall form a part of the techno-commercial offer.

A Principal shall authorise only one Agent to quote against each BHEL's tender. In the event a Principal authorises more than one agent to quote against a BHEL's tender, then all such offers will be rejected by BHEL in that tender. Principals are also advised to include BHEL's tender Number / Reference in their authorisation issued to the Agent.

If at any stage of the tender, BHEL finds that an Indian Agent has represented more than one foreign principal, all such offers of and all the foreign principals would be disqualified summarily in the tender inquiry.

BHEL will only give an intimation of notice of the disqualification. No correspondence would be entertained by BHEL, on their decision. Such decision of BHEL shall be irrevocable, firm and final and shall be binding on the tenderer.

BHEL, due to business reasons would ban, would have banned Indian agents from dealing with BHEL.

Any foreign principal who engages such a banned agent, or an employee of the banned agency, or any other person connected with the banned agency, at any time during the tender proceedings, would be disqualified from the tender proceedings. The decision of BHEL in this regard shall be final and be binding on the OEM.

Hence in their own interests, prospective tenderers may check with BHEL, the status of their proposed agent vis-à-vis BHEL.

In view of the requirement of BHEL, it is strongly suggested that in their own interest, foreign principals may desist from engaging any Indian agent and deal with BHEL directly and it is stressed that any Main producer proposing to deal with BHEL by engaging and through an Indian Agent does so at their own risk.

BHEL shall in no way be responsible for any consequences that may arise to the foreign principal on account of the antecedents / actions of their Indian Agent.

#### **In the event of the foreign principal engaging an Indian Agent:**

**a) The Supplier shall furnish an authenticated copy of the Agency Agreement with his agent detailing the precise relationship between them and their mutual interest in the business along with techno-commercial bid.**

b) The Supplier shall furnish original authorization letter for the Indian Agent. The letter shall contain name, contact person, complete postal address including phone, fax and e-mail ID. It shall also spell out the type of services to be rendered by Indian Agent.

c) Indian Agent & Agency commission: An Indian Agent can represent only one Foreign Manufacturer against a particular Tender. The CFR price quoted by the foreign bidder shall include the agency commission. However, the agency commission component payable to their Indian Agents shall be shown separately in the Offer, either as a lump-sum or as a percentage of the quoted price. This will be paid by BHEL in Indian Rupees, on satisfactory receipt & acceptance of the materials. For calculation of Rupee equivalent of Agency Commission, exchange rate as prevailing on the date of Purchase Order will be taken and

d) For all discussions, technical clarification and negotiations etc. only the principal would be authorized for interaction with BHEL. The Agent shall not be a party to the discussions / negotiations and would not be normally allowed to participate.

#### **ii) Terms & Conditions of Letter of Credit (L/C) for overseas suppliers (indicated for acceptance).**

a) Unconfirmed irrevocable Letter of Credit at Sight only will be opened by BHEL. Confirmation of L/C is not preferred by BHEL. Also L.C will be opened in Lots in line with the staggered delivery.

b) All Bank charges out side India are to the Supplier's account and within India to BHEL's account.

c) In case of L/C extension caused by delays attributable to the Supplier, the L/C extension / commitment charges are to be borne by the Supplier.

#### **iii) Other terms & conditions for letter of credit: - Documents for negotiation**

- a) Signed Commercial invoice in quadruplicate, for a value not exceeding the draft amount, quoting the import Licence No and certifying goods evidencing shipment of the merchandise are as per Applicant's Purchase Order. The amount of invoice after deducting Indian Agent's commission, if any, should not exceed the Credit amount. (The Indian agent's commission, if any, is payable in India in Indian rupees only.)
- b) Certificate of Country of Origin, from the country of manufacture, issued by the Chamber of Commerce.
- c) One set of Original and two sets of Non-negotiable copies of 'signed', 'unmarked', 'clean on board' Ocean Bill of Lading, showing Shipper as "Government of India" Account M/s. Bharat Heavy Electrical Ltd, Unit: BHEL, Ranipet as consignee (The opening bank should not be notified as consignee), marked freight payable / prepaid at destination.
- d) Packing list in 4 copies in English, indicating Size wise Number of bundles / pieces shipped and weight.
- e) Certified copy of the fax / e-mail sent by the beneficiary to the applicant giving the following particulars of shipment, as the insurance is to be arranged by the Applicant in India: (a) Purchase Order Number & date; (b) Bill of Lading Number & date (c) Name of vessel; (d) Port of Loading; (e) Number of bundles / pieces and weight; (f) Invoice Number, date and value (g) Purchase Order item number's despatched. The cable / fax is to be sent within 2 working days of shipment.
- f) Beneficiary's certificate showing the relevant airmail / courier reference no. and date that the following clauses have been complied with:
- 1] Beneficiary to forward by Registered Airmail / Courier one complete set of original documents and one set of non-negotiable documents within 3 working days of obtaining shipping documents to Regional Manager (ROD), Bharat Heavy Electricals Ltd, 6th Floor, EVR Periyar Bldg. No 690 (Old 474), Anna Salai, Nandanam, Chennai-600035. India. (Phone: +91-24330931, 24330253; e-mail: pbpwar@bhel.in)
  - 2] Beneficiary to courier at his cost 3 copies of complete set of non-negotiable documents to the Officer who released the Purchase Order.
  - 3] Declaration by the Supplier certifying that the contents in each case are not less than those entered in the invoices / packing list and that the invoicing for the supplies effected is strictly in accordance with agreed rates as stipulated in the Purchase Order.
  - 4] Declaration to the effect that all other documents as per purchase order has been couriered to the Purchase order releasing authority
  - 5) The carrying steamer should be seaworthy, less than 25 years of age and approved by Lloyds / Classification Societies / General Insurance Corporation of India from time to time and
  - 6) Copy of Dispatch Clearance / Instruction issued by BHEL.

**iv) Documents to be sent directly to the Purchaser prior to shipment**

- a) Manufacturer's Original Internal Inspection / Test certificate in triplicate.
- b) Manufacturer's Original Guarantee certificate as per Purchase Order. The material shall be guaranteed for a period of 12 months from the date of acceptance of the materials at BHEL stores or 18 months from the date of dispatch whichever is earlier. The acceptance would be evidenced by the Stores Receipt Voucher (SRV) which will be raised by BHEL.
- c) Inspection / Test Certificate issued by BHEL / Inspection agency specified in the Purchase Order. In the event that Inspection prior to dispatch is not carried out by the Engineers of BHEL, the Inspection certificate of the third party so authorized by BHEL and

d) Any other documentation as specified in the Purchase Order.

**v) Conditions for transportation:**

- a) All shipping documents shall show the Purchase Order Number & Date, Import Licence Number & Date, and Letter of Credit Number & Date.
- b) Transshipment is to be avoided.
- c) Loading on deck is not permitted. The transport document must not contain a provision that goods may be carried on deck.
- d) A transport document which is produced or appearing to have been produced by reprographic, automated or computerized systems or as carbon copy will be accepted as an original document provided that it is marked as original and is ink-signed.
- e) The transport document must contain all the conditions of carriage on the original document.
- f) The transport document must not indicate the place of destination as being different from the port of discharge.
- g) The transport document must not contain the indication 'intended' or similar qualification in relation to the vessel or other means of transport or port of loading or port of discharge.
- h) The transport document must be issued by the carrier or his agent and not by any freight forwarder.
- i) Transport documents bearing reference by stamp or otherwise, to costs additional to the freight charges are not acceptable.
- j) The Bills of Exchange must be dated and presentation of documents for negotiation must not be later than 15 days after the date of shipment and in any case not later than the expiry date of the Credit.
- l) Indian suppliers shall dispatch the materials on freight prepaid and on door-delivery basis (FOR Destination – Destination: BHEL Stores) and
- m) In the event there is a delay by the Supplier in negotiating / submitting the document, any demurrage / wharfage arising out of the same shall be to the account of the Supplier and shall be deducted from the final payment. Also, in such cases, the Supplier shall authorize the Steamer / Shipping agent / transporter to freely release the consignment to BHEL by providing a “Surrender Bill of Lading”. Over-seas Suppliers have to give a No-Objection Certificate to BHEL, authorizing BHEL to get the Delivery Order from the Steamer Agent without producing the Original Bill of Lading. This is required to ensure avoidance of incidence of demurrage at Chennai Sea-port that may arise in case of delayed presentation of documents by the Seller.

**G) Reverse auction (RA) / on-line bidding on internet:**

1. “BHEL reserves the right to go for Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com)) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders shall give their acceptance with their offer for participation in RA. Non-acceptance to participate in RA may result in non-consideration of the bids, in case BHEL decides to go for RA.”

2. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit ‘Process compliance form’ (to the designated service provider) as well as ‘Online sealed bid’ in the Reverse Auction. Non-submission of ‘Process compliance form’ or ‘Online sealed bid’ by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant

*guidelines for “Suspension of Business Dealings with Suppliers/ Contractors (as available on [www.bhel.com](http://www.bhel.com)).”*

3. The philosophy followed for reverse auction shall be English Reverse (No ties).
4. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
5. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
6. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
7. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
8. Bidders have to fax the Compliance form (annexure IV) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
9. Reverse auction will be conducted on scheduled date & time.

**Note: Decision to go for RA or not will be on case to case basis.**

10. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
11. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, to the Service provider within two working days of Auction without fail.
12. Bidders are required to read the “Terms and Conditions” section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the „Business Rules of Reverse Auction“, which will be communicated before the Reverse Auction.
13. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
14. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
15. The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with their offer. The envelope sealed price bid of successful L1 bidder in RA, if conducted, would also be opened after the RA and the order will be placed on lower of the two bids (RA closing price & envelope sealed price) thus obtained. It is considered that the bidder having submitted their offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rate/s.
16. If it is found that L1 bidder has quoted higher in the online sealed bid in comparison to the envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on [www.bhel.com](http://www.bhel.com)).”

17. The calculation sheet e.g. excel sheet (which will help to arrive at 'Total Cost to BHEL') will be communicated to respective bidders of RA by BHEL. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Goods & Services Tax (GST) and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.]

18. This calculation sheet will be finalized based on the evaluation criteria specified in the NIT.

19. Suppliers are required to submit their best price bid in a separate sealed cover along with techno-commercial bid. After evaluation of Techno-Commercial Bids:

a) In case BHEL decides not to conduct RA, the envelope sealed price bids of all techno-commercially qualified bidders, along with price impact, if any, would be opened and processed as per extant the internal Purchase/ Works Policy as applicable to BHEL.

b) In case BHEL decides to conduct RA, business rules of RA will be sent to service provider.(See Annexure for Model General Business Rules of RA.)

20. Generally the start price for the RA would be the lowest of

a) Lowest online sealed bid and

b) Internal Estimate of BHEL

*Note: Wherever more than one lowest online sealed bids are identical and lower than the estimate, the start price, would be that price arrived by reducing the lowest online sealed bid by maximum of one decrement.*

21. Reverse auction process would deemed to have started upon receipt of 'Online Sealed Bids' from the bidders within the prescribed time frame as per Business Rules.

22. After receipt of 'online sealed bids', the start price & bid decrement will be decided by BHEL and the same would be communicated to the service provider, to start the bidding process.

23. Only those bidders who have submitted the 'online sealed bid' within the scheduled time would be eligible to participate further in RA process. However, the H1 bidder (whose quote is highest in online sealed bid) will not be allowed to participate in further RA process provided minimum three bidders are left after removal of H1 bidder. In case of tie for H1 bid (identical online sealed bids), 15 minutes additional time would be provided and all the participating bidders would be informed by mail/ message on bidding screen to enable bidders submit revised online sealed bids so as to break the tie.

24. If the lowest online sealed bid is the starting price, then the lowest bidder in online sealed bid shall be shown as current L1 automatically by the system. System would have the provision to indicate this bid as current L1 for further bidding.

25. If the start price is lower than the lowest online sealed bid, on acceptance of such start price by any bidder, this bid would be indicated as current L1 for further bidding.

26. In case of no further bidding, RA will be deemed to have been successful with current L1 bidder.

27. All bidders who had given online sealed bid would be able to see their rank and L1 price and their ranking L1, L2 etc. would be based on their last quoted price irrespective of quote received in RA or online sealed bid.

28. RA shall be treated as failed in the following scenarios:

- a) In cases where the start price is (a) estimate or (b) one decrement (maximum) lower than the lowest of the online sealed bids and no bidder accepts the start price.
- b) In cases where the number of online sealed bids are less than four before removal of highest bidder.
- c) In cases of tie among H1 bidders, even after extension of submission of online sealed bids once by 15 minutes.
- d) Wherever, the evaluation is done for individual line items, RA shall be treated as failed only for those line item(s) for which any of the above a), b) or c) satisfies.

29. In cases of failure of RA, sealed envelope price bids (of item(s) for which RA has failed) of all the techno-commercially qualified bidders would be opened and the tender would be processed accordingly. However, the envelope sealed bid(s) of techno-commercially acceptable bidder(s) who had agreed to participate in the RA and had failed to submit the online sealed bid would not be opened.

30. After declaring L1 upon completion of RA, the envelope sealed price bid of L1 bidder would also be opened for placement of order on lower of the two bids (RA closing price & envelope sealed price) and the offers would be processed as per extant their internal Purchase/ Works policy provisions of BHEL. Action as per NIT terms would be taken if online sealed bid is higher than the envelope sealed bid.

31. Relative position of bidders (for usage in cases of predefined splitting the quantities) would also include bidders who have given 'online sealed bids' but have not given further bids in auction. In case of splitting requirement, H1 bidder may be considered for counter offer if the pre-stated (NIT) numbers of suppliers do not accept the counter offer. However, principle of splitting to N-1 bidder would be maintained.

32. In case H1 bidder happen to be MSE and was removed from further bidding but is within L1 + 15% band, then this bid would be considered and to be processed in line with 'Public Procurement Policy for Micro & Small Enterprises (MSEs) order, 2012'.

33. For providing preference to domestically manufactured Electronic Products, in accordance with Department of Electronics and Information Technology (DeitY) Gazette Notification No. 33(3)/2013-IPHW dated 23.12.2013 and its related notifications issued from time to time, H1 bidder removed from further bidding would be considered for counter-offer to meet domestic bidder requirement for the item(s) under procurement.

34. In case BHEL decides not to go for Reverse Auction for the tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL would be opened as per BHEL's standard practice.

35. In case of enquiry through e-Procurement, the sealed electronic price bid (e-bid) would be treated as sealed envelope price bid.

**Note: In order to bring more transparency and to address any queries of Bidders on Reverse Auction, an abridged version of BHEL's "Common Guidelines for conducting Reverse Auction (RA)" has been hosted in BHEL's web site [www.bhel.com](http://www.bhel.com) under the links "Supplier Registration Page" and "Tender Notification". All Bidders are requested to visit the link and familiarize themselves with BHEL's RA procedures and guidelines before submission of their bid/s. Submission of Bid shall mean that the Bidder has read and understood BHEL's RA procedures and the bid is in agreement with the same.**

## **H] Force Majeure**

If at any time during the currency of this contract, the performance in whole or in part, by either party of any obligations under this contract shall be prevented or delayed by reason, of any war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, explosions, epidemics, quarantine, restrictions or acts of GOD (hereinafter referred to as events), then provided notice of happening of any such events is given by either party to other within ten days from the date of occurrence thereof, neither party shall reason of such events be entitled to terminate this contract nor shall either party have any such non performance and delay is resumed as soon as practicable after such events has come to an end or ceased to exist. If the performance in whole or part of any obligation under this contract is prevented or delayed by reason or any such event claims for extension of time shall be granted for period considered reasonable by the purchaser subject to prompt notification by the seller to the purchaser of the particulars of the events and supply to the purchaser if required of any supporting evidence. Any waiver of time in respect of partial installment shall not be deemed to be a waiver of time in respect of remaining deliveries.

## **I] Cancellation of Order:**

In the event of non-performance of the contract by the Supplier, BHEL reserves the right to cancel the order with issue of a written notice. BHEL would provide a curing period of 30 days, for the Supplier to rectify the situation. If the Supplier fails to rectify the reason/s that led to the issue of cancellation notice by BHEL, then the cancellation order would be issued automatically by BHEL, without further recourse to the Seller. BHEL will not pay any cancellation charges or any other charges / damages to the Supplier, arising out such cancellation. In the event of the non-performance of the supply contract, by the Supplier, the rights of BHEL include, in addition to cancelling the order, to take alternate purchase action at the cost and risk of the supplier. The additional expenditure to be incurred by BHEL in such alternate purchase would be to the account of the supplier. (Risk Purchase). This remedy would be in addition to the invoking of the CEBG on grounds of failure of the Supplier in executing the Contract and any other legal remedies." BHEL reserves the right to initiate the alternate purchase action at the cost and risk of the erring supplier by issue of a simple notice of intention for the alternate purchase action duly sent by any electronic means and / or by a letter. The cancellation of the order would not be a pre-condition for initiation of the alternate purchase action.

## **J] Contract Execution Bank Guarantee:**

To demonstrate the fidelity of the successful bidder, in executing the Contract, on receipt of the Letter of Intent / Purchase Order, the Supplier shall arrange to provide a contract execution bank guarantee (CEBG). The format of the CEBG is a part of this enquiry. The format may be downloaded and necessary stamping may be obtained from the Banker towards submission of the CEBG. The indigenous suppliers have to provide the CEBG from any one of the Nationalized Banks, listed in the annexure to these terms. Overseas suppliers can submit the CEBG from any of the reputed International / National Bankers. However the CEBG is to be confirmed by any of the Bankers listed by us. In the event of failure by the Supplier to execute the contract either fully or partially, BHEL would encash the entire CEBG. The CEBG shall be valid for the period covering the agreed delivery date of the order with a further claim period of 3 months on the last specified delivery date. In the event of the failure of delivery BHEL would proceed with encashing the CEBG without reference to the Supplier. In the event of BHEL granting extension of the delivery dates, then the CEBG validity shall also be got extended by the Supplier to the extent of the extended delivery times together with the claim period as specified elsewhere. **The CEBG shall be for a value of 2% of the Purchase order.**

**Suppliers who are all already registered with BHEL and having a vendor performance rating of A or A+ grade would be exempted from submission of CEBG.**

#### **Performance Bank Guarantee**

Where ever so required, the Supplier shall arrange to provide a Performance bank guarantee (PBG). The indigenous suppliers have to provide the PBG from any one of the Nationalized Banks, listed in the tender terms. Overseas suppliers can submit the PBG from any of the reputed International / National Bankers. However the PBG shall be confirmed by any of the Bankers listed by us. The PBG shall guarantee the performance of the equipment / materials / items supplied and shall cover the guarantee period. The PBG shall have a claim period of 3 months in addition to the guarantee period. In the event of failure of the supplies made within the guarantee period, BHEL would encash the entire PBG. **The PBG shall be for a value of 10% of the Purchase order.**

**The supplier/s have to get the PBG format (pre-printed) from BHEL and get the same stamped by the Banker. Change of PBG terms either by the supplier's Banker or by the supplier, after servicing of the order is not acceptable. Similarly PBG prepared by the supplier (typed by them) will also not be acceptable to BHEL. The pre-printed form issued by BHEL shall be used for making the PBG.**

#### **K] Post-order submission of documents for approval**

In the event of the release of Letter of Intent (LoI) / Purchase order/s (PO) against this tender, Bidders have to submit the applicable documents as called for in the tender / LoI / PO/s, such as drawings, data sheets, design calculations etc. These documents for approval have to be submitted within the agreed timelines between BHEL and Bidder. Normally the time period for submission for approval is 15 days from the date of receipt of the LoI / PO by the supplier. The actual time period within which the documents have to be submitted for approval would be specified in the LoI / PO.

Such documents would be subjected to evaluation and approval by BHEL and / or by BHEL's customer / Consultant / Customer's Consultant. Bidders have to give their specific acceptance for this.

After approval of such documents and after getting clearance from BHEL, only the items ordered can be taken up for manufacture.

Any changes required by BHEL / Customer etc. in the documents submitted for approval shall be incorporated by the Bidder and no extra cost would be payable by BHEL for such changes.

In the event that the Bidder does not carry out the required corrections, then the LoI / PO would be liable for cancellation by BHEL and BHEL would resort to alternate purchase action at the risk and cost of the Bidder under the Risk Purchase Condition of the Purchase Order.

*Note: After receiving the LoI / PO, supplier shall also forward the acknowledgement / acceptance of the LoI / PO by signing and returning the second copy of the LoI / PO as the token of acceptance.*

#### **L] Others**

a) In case of any contradiction in the terms and conditions given here and elsewhere in the other documents of the tender, it shall be the responsibility of the tenderer to get it clarified from BHEL. The officer authorized to provide such clarifications is the tender issuing officer.

b) Alterations to the conditions of the Tender can be done only by the authorized officer, at any time before the date and time of tender opening and would be duly communicated through a corrigendum.

c) **Suspension of Business dealings with Suppliers:**



(i) Before submitting offer, prospective bidders are advised to visit our web-site [www.bhel.com](http://www.bhel.com) / supplier registration to familiarize themselves with BHEL's policy and procedures of Suspension of Business Dealings with Suppliers.

Submission of offer shall be deemed to be evidence of the Bidder to have read and understood the above said policy.

**ii) Treatment of Banned / Under-performing Vendors:**

Any supplier who has been put on "Hold" or "Banned" from having business dealings with BHEL, Ranipet or any other unit of BHEL shall not submit their offer against this tender. If any such offers are received they would be summarily rejected and sent back. During the processing of tender, if any unit of BHEL puts a supplier on "Ban" then further processing of the offer will not be taken up and in case an order is placed, BHEL, Ranipet may resort at their discretion to cancel the PO either fully or partially.

If any of the supplier who is supplying similar material to BHEL, Ranipet has a Vendor Performance Rating (VPR) score of 'C' or below, then offer given by such parties will not be considered for ordering in this tender.

If any of the Bidders have unexecuted order/s with BHEL and if in such orders, the deliveries have been delayed beyond a reasonable period (say 30 days of agreed delivery period), the offer of such Bidders will also be liable for rejection.

Offers of such of those bidders against whom action for suspension of business dealings has been initiated by BHEL, Ranipet or any other Units/Division of BHEL will also not be considered in this tender.

**d) Fraud Prevention Policy:**

The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.

**e) Applicability of Integrity Pact:-**

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. A panel of Independent External Monitors (IEMs) have been appointed to oversee implementation of IP in BHEL.

The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory who signs in the offer) along with techno-commercial 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.

Details of IEM for this tender is furnished below:

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Email \_\_\_\_\_

Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the IEM mentioned in the tender.

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*

*For all clarifications/ issues related to the tender, please contact:*

Name: (1) ..... (2) .....  
Dep't: .....  
Address: .....  
.....  
Phone:(Landline/Mobile) (1) ..... (2) .....  
Email:  
Fax:

Integrity Pact are applicable for all the BHEL enquiries whose estimated value is equal to or more than Rupees 05 Crores.

Copy of Integrity Pact with applicable nominated IEM is attached along with the tender documents for ready reference of Suppliers.

f) If any Supplier attempts to bribe, or pay commission, gift or any advantage or bring in undue influence either by himself or on his behalf any one including a stranger to the tender, in addition to instituting legal proceedings as per the extant laws prevailing, will disqualify the supplier from this tender and all future tenders of BHEL. Decision of the Purchaser would be final in this matter.

g) The laws governing this transaction shall be the laws in India.

h) Wherever not specified, Inco terms 2010 shall be used to interpret the Commercial terms and conditions and

i) In the event of an order, Supplier shall agree to settlement of disputes or differences, if any, by way of arbitration, in accordance with the “Rule of Arbitration” of the Indian Council of Arbitration.

*The language in the tender documents downloaded by the Bidders shall at no point of time be changed, altered or modified in any manner by the Tenderer. If such changes are made by any tenderer, it shall be considered as tampering with BHEL's terms and the offer shall be summarily rejected, whenever it is noticed by BHEL. Such Bidders would be disqualified from the Bidding Process and their offers would be forfeited / Bank Guarantees invoked. They would also not be allowed to participate in future tenders of BHEL.*

**M. Conditions for rejection of offers:**

**Following is the list of situations which would lead to rejection of offer/s.**

**This list is not exhaustive but only indicative.**

BHEL reserve the right to reject one or all offers without assigning any reason. The decision of BHEL will be final in this regard.

- 1. If the offer fails to meet the technical requirements/specifications of the tendered item/s.*
- 2. If the offer does not meet the commercial terms & conditions, such as but not limited to delivery period specified in the tender, Delivery terms, payment terms, Liquidated damages, Risk Purchase, cancellation clause etc., including the load factors specified in the tender.*
- 3. If the bidder fails to respond to clarification sought, within a reasonable period. In case of doubts / lack of clarity on the technical and commercial offer of the bidder, BHEL will seek clarifications. Bidders are required to respond completely to such BHEL's queries within 3 working days unless otherwise agreed to in writing by BHEL for period beyond 3 days. If supplier fails to respond within*

*3 working days or maximum 2 working days on a reminder thereon, the offer of such bidders will be automatically dis-qualified in the tender without further recourse to informing the bidder.*

*4. If any of the conditions listed below are applicable to the bidder, the offer is liable to be rejected:*

If any

- Debt recovery / Winding up Proceedings are initiated against the Company in Courts / Debt Recovery Tribunals (DRTs),
- Proceedings are there against the Company in National Company Law Tribunal (NCLT) with respect to Insolvency and Bankruptcy Code (IBC) or otherwise,
- Any proceedings are there against the Company under the “Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act,
- Any restructuring proceedings are underway for the Company under Corporate Debt Restructuring (CDR), Strategic Debt Restructuring (SDR) or otherwise,
- Divestment / demerger proceedings are underway for the Company under the Companies Act.
- If action under guidelines of suspension of business dealings (Ref AA/MM/SB/01 Rev 02 dt 22.07.2016) and its latest revisions has been initiated against the company/bidder.

*5. Failure to sign & accept the Integrity Pact (where applicable). Bidders are hereby informed that the contents of the Integrity Pact are firm and fixed and cannot be changed.*

The above list is not exhaustive but is indicative only.

**N. Special Note:**

BHEL is a Government of India Undertaking. Its procurement practices are governed by the (Internal) Purchase Policy issued by the management of the company and as per Annexure B applicable at the time of finalising the order against this tender.

**-O-**

**Record of Revisions:**

| Revision No. | Revision Date | Modification                                                                                                                                                                                                                                             |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01           | 17.08.2016    | Payment terms for Foreign suppliers modified wrt loading- Clause k.ii                                                                                                                                                                                    |
| 02           | 29.08.2016    | Treatment of banned vendors – Para 3 added - Clause L.ii                                                                                                                                                                                                 |
| 03           | 14.09.2016    | Opening of offers – clause B – sub clause ‘b’ included and existing clause ‘b’ renamed as ‘c’.                                                                                                                                                           |
| 04           | 14.09.2016    | Opening of offers – Note – sub clause (ii) modified                                                                                                                                                                                                      |
| 05           | 12.10.2016    | Clause N. Special Note added                                                                                                                                                                                                                             |
| 06           | 22.10.2016    | Clause G Reverse Auction modified.<br>Annexure on General Business Rules for Reverse Auction appended<br>Role of Principals added under ‘Miscellaneous’                                                                                                  |
| 07           | 20.01.2017    | Clause L (e) is modified.<br>Clause L (f ,g ,h) renumbered.                                                                                                                                                                                              |
| 08           | 24.02.2017    | Clause F(c) modified.                                                                                                                                                                                                                                    |
| 09           | 08.07.2017    | Clause M, Point 4 is added – regarding the financial health of the Bidder - as a criterion for disqualification.                                                                                                                                         |
| 10           | 20.07.2017    | Duties and Taxes replaced with GST; Applicability of GST for LD inserted in Clause E; Treatment of poor performing current vendors inserted in clause L.c.(ii)                                                                                           |
| 11           | 25.07.2017    | Clause A.Note (iii) CST etc., replaced with GST;<br>Clause C.f Deleted;                                                                                                                                                                                  |
| 12           | 15.09.2017    | Clause M, Point 5 inserted regarding Integrity Pact                                                                                                                                                                                                      |
| 13           | 21.03.2018    | Clause A, Point xi inserted regarding Overwriting in Price Bids                                                                                                                                                                                          |
| 14           | 28.05.2018    | Clause A, a),b),c),d) amended for M/s E-Procurement technologies, <a href="https://bhel.abcprocure.com">https://bhel.abcprocure.com</a> .<br>Clause A, (f, g, h) – modified.<br>Clause M, Point 4, - regarding suspension of business dealings inserted. |

## ANNEXURE

### Model General Business Rules for Reverse Auction

This has reference to tender no {tender number....date...}. BHEL shall finalise the Rates for the supply of {item name} through Reverse Auction mode. BHEL has made arrangement with M/s. {Service provider}, who shall be BHEL's authorized service provider for the same. Bidders should go through the instructions given below and submit acceptance of the same. The technical & commercial terms are as per (a) BHEL Tender Enq. No. {...} dated {...}, (b) Bidders' technical & commercial bid (in case of two part bid) and (c) subsequent correspondences between BHEL and the bidders, if any.

#### 1. Procedure of Reverse Auctioning

- i. Online Sealed Bid: This duration of online sealed bid will be {...} minutes. All bidders to submit their online sealed bids during this period.
- ii. Online Reverse Auction: The 'opening price' i.e. start price for RA and 'bid decrement' will be decided by BHEL.
- iii. If BHEL decides the lowest online sealed bid as the starting price, then the lowest bidder in online sealed bid shall be shown as current L1 automatically by the system and no acceptance of that price is required. System shall have the provision to indicate this bid as current L1.
- iv. Bidders by offering a minimum bid decrement or the multiples thereof can displace a standing lowest bid and become "L1" and this continues as an iterative process.
- v. After the completion of the online reverse auction, the Closing Price (CP) shall be available for further processing.

#### 2. Schedule for Reverse Auction: The Reverse Auction is tentatively scheduled on {date}:

and the duration of online sealed bid will be {...} minutes. All bidders to submit their online sealed bids during this period.

##### - Online Sealed Bid:-

- {Start Time:
- Close Time: }

##### - Online Reverse Auction:-

- {Start Time:
- Close Time: }

#### 3. Auction extension time:

If a bidder places a bid in the last {...} minutes of closing of the Reverse Auction and if that bid gets accepted, then the auction's duration shall get extended automatically for another {...} minutes, for the entire auction (i.e. for all the items in the auction), from the time that bid comes in. Please note that the auto-extension will take place only if a bid comes in those last {...} minutes and if that bid gets accepted as the lowest bid. If the bid does not get accepted as the lowest bid, the auto-extension will not take place even if that bid might have come in the last {...} minutes. In case, there is no bid in the last {...} minutes of closing of Reverse Auction, the auction shall get closed automatically without any extension. However, bidders are advised not to wait till the last

minute or last few seconds to enter their bid during the auto-extension period to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.

The above process will continue till completion of Reverse Auction.

Complaints/ Grievances, if any, regarding denial of service or any related issue should be given in writing thru e-mail/ fax to M/s. {Service provider} with a copy to BHEL within 15 minutes prior to initial closing time of Online Reverse Auction.

#### 4. Bid price: The Bidder has to quote the {...} Price inclusive of Packing & Forwarding charges, all the routine & type tests as per tender scope, GST, Freight (bidder to provide original Freight paid

receipt), insurance charges, etc. including loading (if indicated by BHEL due to deviations in technical/commercial terms) for the Items specified. Details are as shown in Excel Sheet for calculation of total cost to BHEL(To be specified by Unit as per NIT conditions).

**5. Bidding currency and unit of measurement:**

Bidding will be conducted in *Indian Rupees per Unit* of the material as per the specifications {...}

In case of foreign currency bids, exchange rate (TT selling rate of State Bank of India) as on scheduled date of tender opening (Part-I bid) shall be considered for conversion in Indian Rupees. If the relevant day happens to be a Bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken.

**6. Validity of bids:** Price shall be valid for {... days} from the date of reverse auction. These shall not be subjected to any change whatsoever.

**7. Lowest bid of a bidder:** In case the bidder submits more than one bid, the lowest bid at the end of Online Reverse Auction will be considered as the bidder's final offer to execute the work.

**8.** Bidders shall be assigned a **Unique User Name & Password** by M/s. {Service provider}. Bidders are advised to change the Password and edit the information in the Registration Page after the receipt of initial Password from M/s. {Service provider} to ensure confidentiality. All bids made from the Login ID given to the bidders will be deemed to have been made by the bidders/ bidders' company.

**9.** Post auction procedure: BHEL will proceed with the Lowest Bid in the Reverse Auction for further processing.

**10.** Any commercial/ technical loading shall be intimated to bidders prior to RA. The excel sheet provided in this regard shall cover all these aspects. Commercial/ technical loading if any, shall be added by the respective bidder in its price during online sealed bid & Online Reverse Auction. Modalities of loading & de-loading shall be separately intimated to the bidders. The responsibility for correctness of total cost to BHEL shall lie with the bidders.

**11.** Computerized reverse auction shall be conducted by BHEL (through M/s. {Service Provider}), on pre-specified date, while the bidders shall be quoting from their own offices/ place of their choice. Internet connectivity shall have to be ensured by bidders themselves.

During the RA process if a bidder is not able to bid and requests for extension of time by FAX/ email/ phone then time extension of additional 15 minutes will be given by the service provider provided such requests come before 5 minutes of auction closing time. However, only one such request per bidder can be entertained. Despite this extension if bidder fails to upload his prices due to extreme case of failure of Internet connectivity, (due to any reason whatsoever may be) it is the bidders'

responsibility/ decision to send fax communication immediately to M/s. {Service provider}, furnishing the price the bidder wants to bid online with a request to the service provider to upload the faxed price online so that the service provider will upload that price online on behalf of the Bidder. It shall be noted clearly that the concerned bidder communicating this price to service provider has to solely ensure that the fax message is received by the service provider in a readable/ legible form and also the Bidder should simultaneously check up with service provider about the clear receipt of the price faxed. It shall also be clearly understood that the bidder shall be at liberty to send such fax communications of prices to be uploaded by the service provider only within the closure of Bid time and under no circumstance it shall be allowed beyond the closure of Bid time /reverse auction. It shall also be noted that the service provider should be given a reasonable required time by the bidders, to upload such prices online and if such required time is not available at the disposal of the Service provider at the time of receipt of the fax message from the bidders, the service provider will not be uploading the prices and either BHEL or the service provider are not responsible for this unforeseen circumstances. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements/ alternatives whatever required so that they are able to circumvent such situation and still be able to participate in the reverse auction successfully. Failure of power or loss of connectivity at the premises of bidders during the Reverse auction cannot be the cause for not participating in the reverse auction. On account of this, the time for the auction cannot be extended and neither BHEL nor M/s. {Service provider} is responsible for such eventualities.

**12. Proxy bids:** Proxy bidding feature is a pro-bidder feature to safeguard the bidder's interest of any internet failure or to avoid last minute rush. The proxy feature allows bidders to place an automated bid in the system directly in an auction and bid without having to enter a new amount each time a competing bidder submits a new offer. The bid amount that a bidder enters is the minimum that the bidder is willing to offer. Here the software bids on behalf of the bidder. This obviates the need for the bidder participating in the bidding process until the proxy bid amount is decrementally reached by other bidders. When proxy bid amount is reached, the bidder (who has submitted the proxy bid) has an option to start participating in the bidding process.

The proxy amount is the minimum amount that the bidder is willing to offer. During the course of bidding, the bidder cannot delete or change the amount of a proxy bid. Bids are submitted in decrements (decreasing bid amounts). The application automates proxy bidding by processing proxy bids automatically, according to the decrement that the auction originator originally established when creating the auction, submitting offers to the next bid decrement each time a competing bidder bids, regardless of the fact whether the competing bids are submitted as proxy or standard bids. However, it may please be noted that if a manual bid and proxy bid are submitted at the same instant manual bid will be recognized as the L1 at that instant. In case of more than one proxy bid, the system shall bid till it crosses the threshold value of 'each lowest proxy bid' and thereafter allow the competition to decide the final L1 price. Proxy bids are fed into the system directly by the respective bidders. As such this information is privy only to the respective bidder(s).

**13.** Bidders are advised to get fully trained and clear all their doubts such as refreshing of screen, quantity being auctioned, tender value being auctioned etc. from M/s. {Service provider}.

**14.** M/s. {Service provider}, shall arrange to demonstrate/ train the bidder or bidder's nominated person(s), without any cost to bidders. M/s. {Service provider}, shall also explain the bidders, all the business rules related to the Reverse Auction. Bidders are required to submit their acceptance to the terms/ conditions/modalities before participating in the Reverse Auction in the process compliance form as enclosed. Without this, the bidder will not be eligible to participate in the event.

**15.** Successful bidder shall be required to submit the final prices (L1) in prescribed format (Annexure-VI) for price breakup including that of line items, if required, quoted during the Online Reverse Auction, duly signed and stamped as token of acceptance without any new condition (other than those already agreed to before start of auction), after the completion of auction to M/s. {Service provider} besides BHEL within two working days of Auction without fail.

**16.** Any variation between the final bid value and that in the confirmatory signed price breakup Document will be considered as tampering the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings (as available on [www.bhel.com](http://www.bhel.com)).

**17.** Bidders' bid will be taken as an offer to execute the work/ supplies of the item as per enquiry No. {...} dt. {...}. Bids once made by the bidder, cannot be cancelled/ withdrawn and bidder shall be bound to execute the work as mentioned above at bidder's final bid price. Should bidder back out and not execute the contract as per the rates quoted, BHEL shall take action as per extant guidelines for suspension of business dealings (as available on [www.bhel.com](http://www.bhel.com)).

**18.** Bidders shall be able to view the following on their screen along with the necessary fields during Online Reverse Auction:

- a. Leading (Running Lowest) Bid in the Auction (only total price of package).
- b. Bid Placed by the bidder.
- c. Start Price.
- d. Decrement value.
- e. Rank of their own bid during bidding as well as at the close of auction

**19.** BHEL's decision on award of contract shall be final and binding on all the Bidders.

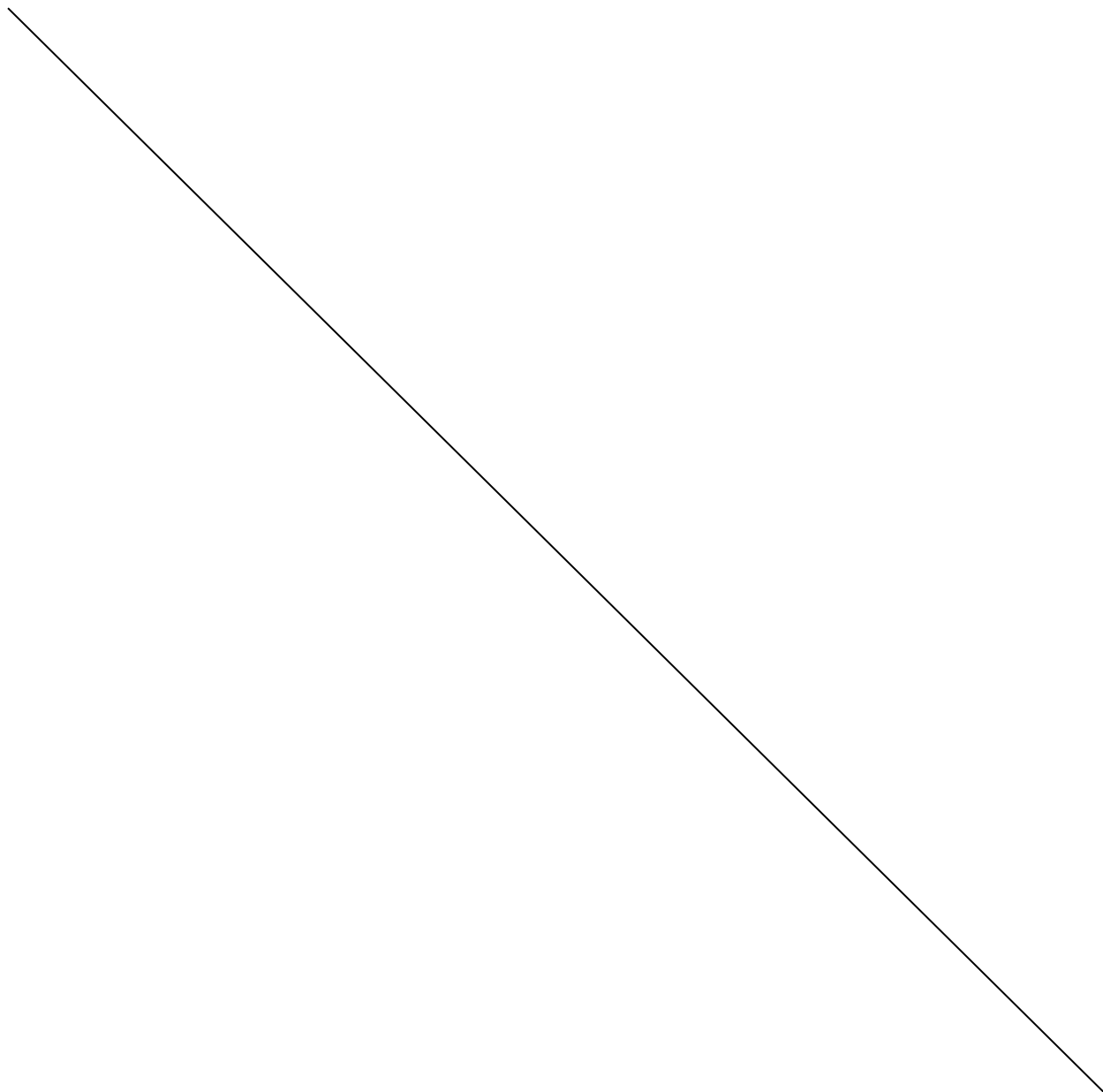
**20.** BHEL reserves the right to extend, reschedule or cancel the Reverse Auction process at any time, before ordering, without assigning any reason, with intimation to bidders.

21. BHEL shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause. In such cases, the decision of BHEL shall be binding on the bidders.

22. Other terms and conditions shall be as per bidder's techno-commercial offers and other correspondences, if any, till date.

23. If there is any clash between this business document and the FAQ available, if any, in the website of M/s. {Service provider}, the terms & conditions given in this business document will supersede the information contained in the FAQs. Any changes made by BHEL/ service provider (due to unforeseen contingencies) after the first posting shall be deemed to have been accepted if the bidder continues to access the portal after that time..

24. Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines for suspension of business dealings (as available on [www.bhel.com](http://www.bhel.com)), shall be initiated by BHEL.





**RA price confirmation and breakup**  
(To be submitted by L1 bidder after completion of RA)

To  
- M/s. Service provider  
- Postal address

CC: M/s BHEL

BOILER AUXILIARIES PLANT  
INDIRA GANDHI INDUSTRIAL COMPLEX  
RANIPET – 632406  
TAMILNADU  
INDIA.

Sub: Final price quoted during Reverse Auction and price breakup

Dear Sir,

We confirm that we have quoted.

**Rs.{ \_\_\_\_\_ in value & in words \_\_\_\_\_ } for item(s) covered under tender enquiry**  
**No. {...} dt.{...}**

Total price of the items covered under above cited enquiries is inclusive of {Packing & forwarding, GST, freight and insurance charges up to {.....}  
District, {.....} State and Type Test Charges etc., [exclusive of Goods & Services tax (GST)],  
other as  
per NIT}

as our final landed prices as quoted during the Reverse Auction conducted today {date} which will  
be valid for a period of { \_\_\_\_ in nos. & in words \_\_\_\_ } days.

The price break-up including that of line items is as given below.

|       |                          |
|-------|--------------------------|
| Total | =====                    |
|       | - Rs.in value & in words |
|       | =====                    |

Thanking you and looking forward to the valuable order from BHEL.

Yours sincerely,  
For \_\_\_\_\_  
Name:  
Company:  
Date:  
Seal:

**ANNEXURE - C1**  
**BHEL : BAP : RANIPET**  
**MM – WATER SYSTEM & FGD**  
**COMMERCIAL TERMS AND CONDITIONS - (FOR INDEGENOUS OFFER)**  
**"POWER CABLES" FOR NTPC, DADRI-II,PO-Vidyut nagar, Uttar Pradesh**  
**Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)**

| Sl. No. | DESCRIPTION                                       | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | VENDOR (SELLER) CONFIRMATION                |
|---------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
|         |                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | VENDOR NAME:<br>OFFER REF:                  |
| I       | Technical                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             |
| 01      | SCOPE OF SUPPLY                                   | <p>Please confirm the Scope of Supply of "POWER CABLES" as per Specification No.</p> <p>01. TECHNICAL SPECIFICATION FOR POWER CABLES:<br/>TECI:NTPC:PCCAB:REV01 DT 16.09.2016<br/>02. CONTRACT QUALITY REQUIREMENTS (CQR)<br/>BAP/QR/G501&amp;G502/P&amp;C: 009 Rev NO. : 00<br/>DATE:17 05 2018.<br/>03. NTPC SQP LT POWER CABLE 0000-999-QOE-S-041 REV 00<br/>04. PRE-QUALIFICATION REQUIREMENT FOR POWER CABLES vide Ref: RFW80195 :POWER CABLES REV 00 DT 13.07.2018<br/>05. SAMPLE MQP FORMAT<br/>06. REFERENCE STANDARD FIELD QUALITY PLAN<br/>07.ALL CABLES SHALL BE SUPPLIED IN 1000 MTR DRUMS.</p> <p>submit the same after necessary Filling,signing &amp; returning a copy of the same.</p> |                                             |
| 02      | SPECIFICATION                                     | Please confirm Clause wise / Point wise "IN TOTO" for all specifications (NTPC:PCCAB:REV 01 DT 16.09.2016 for POWER CABLES (Pg:01 to 07)) and submit along with offer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |
| 03      | DATA SHEETS / DRAWINGS                            | Filled Data Sheets and Drawings are to be submitted along with offer. (if applicable )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |
| 04      | QUALITY ASSURANCE PLAN (QAP)                      | To confirm applicable QAP will be followed. (OR) Supplier's Quality Plan to be submitted for our review and approval within 30 days from the date of Letter of Award (LOA) / PO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |
| 05      | SPECIFICATION DEVIATION DISPOSITION REPORT (SDDR) | Attached SDDR to be filled & submit along with offer. (Even, If NO deviation is taken, NIL report to be submitted).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |
| 06      | DOCUMENTS TO BE SUBMITTED                         | <p>Confirm to submit the documents</p> <p>01.Technical specifications</p> <p>02.Data sheets &amp;</p> <p>03.Quality plan for the approval by NTPC/BHEL.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>01.</p> <p>02.</p> <p>03.</p>            |
| 07      | INSPECTION REPORTS, TEST CERTIFICATES (TC), etc., | Please confirm the required Inspection reports ,TC's etc., will be provided at 'No Extra Cost' after carrying the Inspection & Testing as per : Technical Specifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |
| 08      | TYPE TEST CERTIFICATES                            | Specify & Confirm to submit applicable certificates.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |
| 09      | ROUTINE TEST CERTIFICATE                          | Specify & Confirm to submit applicable certificates.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |
| 10      | CONFIRM: QUALITY ASSURANCE CONDITIONS             | <p>01.Confirm to follow the Standard Quality Plan : Qp.no.000-999-QOE-S-041 rev 00 dt 03.02.2012.</p> <p>02.Confirm to Contract Quality requirements for power cables as per Doc no. BAP/QR/G501&amp;G502/P&amp;C:009 REv 00 dt 17.05.2018 ( 2 pages ).</p> <p>03.BHEL/NTPC inspection is applicable at vendor works.Confirm for the same.</p> <p>04.Submission of relevant test certificate to BHEL for review during inspection.Please Confirm.</p>                                                                                                                                                                                                                                                  | <p>01.</p> <p>02.</p> <p>03.</p> <p>04.</p> |
| 11      | PRE-QUALIFICATION REQUIREMENT                     | Vendor should confirm the Pre-qualification requirements and Necessary Documentary evidences shall be submitted alongwith the offer for proof of meeting the QR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |
| 12      | CUSTOMER APPROVAL                                 | Vendor should submit the filled SUB-VENDOR QUESTIONNAIRE alongwith their credentials for our customer approval.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             |

**ANNEXURE - C1**  
**BHEL : BAP : RANIPET**  
**MM – WATER SYSTEM & FGD**  
**COMMERCIAL TERMS AND CONDITIONS - (FOR INDEGENOUS OFFER)**  
**"POWER CABLES" FOR NTPC, DADRI-II,PO-Vidyut nagar, Uttar Pradesh**  
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| Sl. No.   | DESCRIPTION                                                                | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | VENDOR (SELLER) CONFIRMATION |
|-----------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|           |                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | VENDOR NAME:<br>OFFER REF:   |
| 13        | DELIVERY PERIOD FOR THE SUPPLY                                             | <p>Please confirm the supply completion on or before <b>24.10.2018</b> or <b>3 Months</b> from the date of Manufacturing clearance, which ever is Later.</p> <p>Vendor to submit all drawings/documents (like Technical Specification, Data Sheet &amp; MQP) within 2 weeks from the date of purchase order and resubmit the drawings/documents within 1 week incorporating all the comments.</p> <p>In case there are delays of submission of drawings/documents beyond 2 weeks of order or 1 week of comments, that much days of delay would be reduced from delivery period.</p> <p>Vendor can also quote improved delivery date if any or otherwise, please clearly indicate the delivery period in weeks / months from the date of Manufacturing clearance.</p> <p>NOTE: Delivery period shall be reckoned till receipt of materials at site. For LD Purpose, Date of site receipt of material will only be considered.</p> | 01.<br>02.<br>03             |
| 14        | INSPECTION                                                                 | <p>Please confirm for 'Inspection' of all the Items by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the dispatch of the item at vendor works as per Technical Specification:</p> <p>NTPC:PCCAB:REV 01 DT 16.09.2016 for POWER CABLES (Pg:01 to 07) &amp; your submitted -Technical specifications, Data sheets, Quality plan - subject to customer/BHEL's approval &amp; Standard Quality Plan :QP.NO.0000-999-QCE-S-041 REV 00 DT 03.02.2012, others if any.</p> <p>Please note that no payment will be made by BHEL towards inspection.</p>                                                                                                                                                                                                                                                                                                              |                              |
| 15        | IF ANY TECHNICAL / QUALITY QUERIES : CONFIRM BEFORE SUBMITTING YOUR OFFER. | <p>01.Please note: After techno commercial bid opening, re-submission of price bid or any other impact is not allowed.</p> <p>02.Hence,before submitting your offers please contact Shri.G.Ravinder Sr.Engineer/E C&amp;I , Ph: 04172-284029 &amp; <b>clarify your Technical /Quality queries if any thro' e mail with :<a href="mailto:gravinder@bhel.in">gravinder@bhel.in</a></b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 01.<br>02.                   |
| 16        | CONTACT PERSON'S ON TECHNICAL DETAILS FOR CORRESPONDENCE                   | <p>Name:</p> <p>Designation:</p> <p>Phone No.:</p> <p>Mobile No.:</p> <p>Fax No.:</p> <p>E-mail ID:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |
| <b>II</b> | <b><u>Commercial Terms &amp; Conditions</u></b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |
| 01        | PRICE                                                                      | Please confirm 'Firm Price' till completion of order                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |
| 02        | UNPRICED BID (PART-1)                                                      | <p>Please confirm submission of 'Unpriced bid' in the price bid format attached duly signed.</p> <p>SCANNED COPY of FILLED &amp; SIGNED COPY OF 'Price Bid' format attached by filling all informations by writing 'Quoted' as the case may be in the 'Rate' and 'Value' columns to be submitted through E-Procurement System- <a href="https://bhel.abcpocure.com">https://bhel.abcpocure.com</a>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |
| 03        | PRICED BID (PART-2)                                                        | <p>Please confirm submission of 'Priced bid' in the price bid format attached duly signed.</p> <p>SCANNED COPY of FILLED &amp; SIGNED COPY OF 'Price Bid' format attached by filling all informations by writing the value as the case may be in the 'Rate' and 'Value' columns in a separate attachment to be submitted through E-Procurement System - <a href="https://bhel.abcpocure.com">https://bhel.abcpocure.com</a>.</p> <p><b>Price bid opening will be considered after the evaluation of pre-qualification requirements,Techno-Commercial evaluation &amp; further final approval from the customer: M/s: NTPC, DADRIPO-Vidyut nagar-Uttar Pradesh</b></p>                                                                                                                                                                                                                                                            |                              |

| <p align="center"> <b>ANNEXURE - C1</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM – WATER SYSTEM &amp; FGD</b><br/> <b>COMMERCIAL TERMS AND CONDITIONS - (FOR INDEGENOUS OFFER)</b><br/> <b>"POWER CABLES" FOR NTPC, DADRI-II,PO-Vidyut nagar, Uttar Pradesh</b><br/> <b>Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)</b> </p> |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| SL No.                                                                                                                                                                                                                                                                                                                                                            | DESCRIPTION                                              | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | VENDOR (SELLER) CONFIRMATION                 |
|                                                                                                                                                                                                                                                                                                                                                                   |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>VENDOR NAME:</b><br><br><b>OFFER REF:</b> |
| 04                                                                                                                                                                                                                                                                                                                                                                | DELIVERY TERMS & PRICE BASIS                             | Please confirm for FOR - Destination (NTPC, DADRI.PO-Vidyut nagar-<br><b>Uttar Pradesh</b> basis.)<br><br>Unloading the Material at site is under BHEL Scope.                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                              |
| 05                                                                                                                                                                                                                                                                                                                                                                | CONSIGNEE ADDRESS                                        | Please confirm supply to the following consignee address in the event of Order.<br><br>AGM ME(FGD) 4X490MW<br>NATIONAL CAPITAL THERMAL POWER PROJECT<br>STAGE II, NTPC, DADRI.PO-Vidyut nagar<br>DIST: GAUTAM BUDHA NAGAR<br>UTTER PRADESH.<br>Pin – 201008<br><br><b>GSTIN 09AAACN0255D9ZO</b><br><br>(On account of M/s BHEL, BAP, Ranipet - 632 406)                                                                                                                                                                                                                                                                    |                                              |
| 06                                                                                                                                                                                                                                                                                                                                                                | ORIGIN OF DESPATCH OF CONSIGNMENT                        | Please indicate clearly the origin of despatch of various consignments duly indicating whether interstate or intrastate based on the consignee address above. Origin of despatch should not be subjected to change during execution of contract.                                                                                                                                                                                                                                                                                                                                                                           | Place:<br><br>State:<br><br>Pincode:         |
| 07                                                                                                                                                                                                                                                                                                                                                                | PACKING & FORWARDING                                     | Please confirm inclusion of Packing & Forwarding Charges in the Basic quoted price.<br><br>If it is extra payable by BHEL, Please clearly indicate the applicable Packing & Forwarding charges in % value.                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |
| 08                                                                                                                                                                                                                                                                                                                                                                | FREIGHT & INSURANCE                                      | Please confirm inclusion of Freight & Insurance Charges towards this in the Basic quoted price.<br><br>A) If Freight & GST is extra payable by BHEL, Please clearly indicate the applicable portions of :<br>01.Freight charges in % on Basic Quoted price.<br><br>02.If GST applicable for the freight kindly indicate the same.<br><br>B) If Insurance is extra payable by BHEL, Please clearly indicate the applicable portions of : Insurance charges in % on Basic Quoted price & GST if applicable.                                                                                                                  |                                              |
| 09                                                                                                                                                                                                                                                                                                                                                                | GOODS AND SERVICES TAX FOR SUPPLY (CGST/SGST/UTGST/IGST) | Please indicate the exact percentage of CGST/SGST/UTGST/IGST (whichever is applicable) is quoted as per the existing tariff on the date of the offer and all benefits as per existing laws have been considered.<br><br>It is the responsibility of the seller to issue the Tax Invoice strictly as per the format prescribed under the relevant applicable GST law (CGST Act/SGST Act/UTGST Act/IGST Act).<br><br>Vendor to indicate the proper GSTN Registration/ HSN code in their tax invoice.                                                                                                                         |                                              |
| 10                                                                                                                                                                                                                                                                                                                                                                | PAYMENT TERM FOR SUPPLY                                  | <b><u>In case of Non-MSE vendors.</u></b><br>100% payment will be against site receipt & submission of Bank Guarantee towards Performance (As called for in SL No. 15) <b>within 90 days</b> & receipt of complete documents as per PO.                                                                                                                                                                                                                                                                                                                                                                                    |                                              |
|                                                                                                                                                                                                                                                                                                                                                                   |                                                          | <b><u>In case of Registered MSE vendors.</u></b><br>100% payment will be against site receipt & submission of Bank Guarantee towards Performance (As called for in SL No. 15) <b>within 45 days</b> & receipt of complete documents as per PO.<br><br><b>Please confirm your status in case of MSE with relevant proof.</b><br><br><b>For MSE Registration, you have to submit the Notarized copy of MSE certificate with Original CA certificate</b><br><br><b>Offers with payment Terms such as Cash against Delivery / advance payment / payment through Bank against dispatch documents will be summarily rejected</b> |                                              |

**ANNEXURE - C1**  
**BHEL : BAP : RANIPET**  
**MM – WATER SYSTEM & FGD**  
**COMMERCIAL TERMS AND CONDITIONS - (FOR INDEGENOUS OFFER)**  
**"POWER CABLES" FOR NTPC, DADRI-II,PO-Vidyut nagar, Uttar Pradesh**  
**Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)**

| Sl. No. | DESCRIPTION                                                                                                                                                                            | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | VENDOR (SELLER) CONFIRMATION<br>VENDOR NAME:<br>OFFER REF: |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 11      | LIQUIDATED DAMAGES (LD)                                                                                                                                                                | Purchaser reserves the right to recover from the Seller/ Contractor, as agreed liquidated damages and not by way of penalty, a sum equivalent to half (½) percent of the Undelivered Portion price per week or part thereof, subject to a maximum of ten (10) percent of the total contract price including GST & freight, if the Seller/ Contractor fails to deliver any part of the ordered stores within the period stipulated in the Order/ Contract.                                     |                                                            |
| 12      | OFFER VALIDITY                                                                                                                                                                         | Please confirm Offer Validity for a minimum period of 60 days from the date of price bid opening.                                                                                                                                                                                                                                                                                                                                                                                             |                                                            |
| 13      | GUARANTEE CERTIFICATE (GC) - Supply Portion.                                                                                                                                           | Please confirm furnishing of Guarantee certificate in BHEL format for 12 months from the date of commissioning or 18 months from the date of last despatch whichever is earlier.                                                                                                                                                                                                                                                                                                              |                                                            |
| 14      | <b>Contract Execution Bank Guarantee (CEBG).</b><br>Ple Ref: ANNEXURE –A GENERAL TERMS & CONDITIONS (FOR GUIDANCE TO THE SUPPLIERS)Under Clause -JJ Contract Execution Bank Guarantee: | To demonstrate the fidelity of the successful bidder, in executing the Contract, on receipt of the Letter of Intent / Purchase Order, the Supplier shall arrange to provide a contract execution bank guarantee (CEBG).                                                                                                                                                                                                                                                                       |                                                            |
| 15      | BANK GUARANTEE (BG) TOWARDS Supply Portion (10% OF ORDER VALUE)                                                                                                                        | Please confirm BG submission in BHEL format for 10% of the Total PO Value valid for 12 months from the date of commissioning of the system or 18 months from the last despatch date with a claim period of 3 months.                                                                                                                                                                                                                                                                          |                                                            |
| 16      | ERECTION MANUAL (INSTALLATION INSTRUCTIONS)                                                                                                                                            | <b>NOT APPLICABLE.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                            |
| 17      | O & M MANUAL                                                                                                                                                                           | <b>NOT APPLICABLE.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                            |
| 18      | REVERSE AUCTION                                                                                                                                                                        | Please see the Clause in the main enquiry regarding Reverse Auction (RA). RA will be conducted through our Service Provider. Vendor to confirm acceptance.<br><br>Please note that in case BHEL decides not to conduct RA, the sealed price bids along with the impact price bids arising out of techno-commercial discussions already available with BHEL only will be opened. Please note that no impact price due to non-conductance of RA will be accepted. Vendor to confirm acceptance. |                                                            |
| 19      | RISK PURCHASE CLAUSE (CLAUSE No. 6 of General Terms and Conditions for Indigenous offer)                                                                                               | BHEL's Standard Risk Purchase clause will be applicable. Please confirm.                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                            |
| 20      | ZERO DATE (CONTRACT EFFECTIVE DATE)                                                                                                                                                    | Contract Effective date starts from Manufacturing Clearance subject to Documents submission clause.<br>Please confirm for 'Date of Manufacturing Clearance'.                                                                                                                                                                                                                                                                                                                                  |                                                            |
| 21      | Loading Criteria                                                                                                                                                                       | Please note that no Commercial deviation is acceptable to BHEL. In case any deviation is taken in any of the commercial terms such as PAYMENT TERMS, LD, PBG, etc., where in we have specified the days, percentages etc., then loading will be done to the extent of the short fall with respect to the upper Limit specified for evaluation.<br><br>In respect of LD offers which do not accept for LD Clause would be summarily rejected - Please Confirm.                                 |                                                            |
| 22      | NEGOTIATION                                                                                                                                                                            | In the event of negotiation if any, please confirm participation only by supplier's representative and not by their Agent which include indian Agent in the case of Foreign Offer.                                                                                                                                                                                                                                                                                                            |                                                            |

**ANNEXURE - C1**  
**BHEL : BAP : RANIPET**  
**MM – WATER SYSTEM & FGD**  
**COMMERCIAL TERMS AND CONDITIONS - (FOR INDEGENOUS OFFER)**  
**"POWER CABLES" FOR NTPC, DADRI-II, PO-Vidyut nagar, Uttar Pradesh**  
**Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)**

| Sl. No. | DESCRIPTION                                                                                                                                                                                          | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                       | VENDOR (SELLER) CONFIRMATION |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|         |                                                                                                                                                                                                      |                                                                                                                                                                                    | VENDOR NAME:<br>OFFER REF:   |
| 23      | OTHER DOCUMENTS FOR APPROVAL (BBU)                                                                                                                                                                   | In the event of order vendor should confirm the submission of BBU for the complete system supply with break up for each line item as well as quantities with value (If Applicable) |                              |
| 24      | PLEASE PROVIDE THE STATUTORY DETAILS<br>(Submit a copy of PAN, if not submitted already)                                                                                                             | GST Regn. Number                                                                                                                                                                   |                              |
|         |                                                                                                                                                                                                      | HSN NO.: HARMONIZED SYSTEM OF NOMENCLATURE UNDER GST FOR THE OFFERED ITEM                                                                                                          |                              |
|         |                                                                                                                                                                                                      | PAN No. :                                                                                                                                                                          |                              |
| 25      | CONTACT PERSON'S ON COMMERCIAL DETAILS FOR CORRESPONDENCE                                                                                                                                            | Name:                                                                                                                                                                              |                              |
|         |                                                                                                                                                                                                      | Designation:                                                                                                                                                                       |                              |
|         |                                                                                                                                                                                                      | Phone No.:                                                                                                                                                                         |                              |
|         |                                                                                                                                                                                                      | Mobile No.:                                                                                                                                                                        |                              |
|         |                                                                                                                                                                                                      | Fax No.:                                                                                                                                                                           |                              |
|         |                                                                                                                                                                                                      | E-mail ID:                                                                                                                                                                         |                              |
| 26      | BHEL will not take cognizance of commercial terms mentioned by the bidder any where else.<br><br>Commercial terms and conditions indicated in this Annexure - A will only be applicable and binding. | Acceptance Required                                                                                                                                                                |                              |

Signature, Seal & Date of offerer on all the pages.

| <p style="text-align: center;"> <b>ANNEXURE - C2</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM – WATER SYSTEM &amp; FGD</b><br/> <b>COMMERCIAL TERMS AND CONDITIONS - (FOR IMPORT OFFER)</b><br/> <b>"POWER CABLES" FOR NTPC, DADRI-II,PO-Vidyut nagar, Uttar Pradesh</b><br/> <b>Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)</b> </p> |                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Sl. No.                                                                                                                                                                                                                                                                                                                                                                    | DESCRIPTION                                       | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | VENDOR (SELLER) CONFIRMATION                |
|                                                                                                                                                                                                                                                                                                                                                                            |                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | VENDOR NAME:<br>OFFER REF:                  |
| I                                                                                                                                                                                                                                                                                                                                                                          | Technical                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |
| 01                                                                                                                                                                                                                                                                                                                                                                         | SCOPE OF SUPPLY                                   | <p>Please confirm the Scope of Supply of "POWER CABLES" as per Specification No.</p> <p>01. TECHNICAL SPECIFICATION FOR POWER CABLES:<br/>TECI:NTPC:PCCAB:REV01 DT 16.09.2016</p> <p>02. CONTRACT QUALITY REQUIREMENTS (CQR)<br/>BAP/QR/G501&amp;G502/P&amp;C: 009 Rev NO. : 00<br/>DATE:17 05 2018.</p> <p>03. NTPC SQP LT POWER CABLE 0000-999-QOE-S-041 REV 00</p> <p>04. PRE-QUALIFICATION REQUIREMENT FOR POWER CABLES vide Ref: RFW80195 :POWER CABLES REV 00 DT 13.07.2018</p> <p>05. SAMPLE MQP FORMAT</p> <p>06. REFERENCE STANDARD FIELD QUALITY PLAN</p> <p>07.ALL CABLES SHALL BE SUPPLIED IN 1000 MTR DRUMS.</p> <p>submit the same after necessary Filling,signing &amp; returning a copy of the same.</p> |                                             |
| 02                                                                                                                                                                                                                                                                                                                                                                         | SPECIFICATION                                     | Please confirm Clause wise / Point wise "IN TOTO" for all specifications (NTPC:PCCAB:REV 01 DT 16.09.2016 for POWER CABLES (Pg:01 to 07)) and submit along with offer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |
| 03                                                                                                                                                                                                                                                                                                                                                                         | DATA SHEETS / DRAWINGS                            | Filled Data Sheets and Drawings are to be submitted along with offer. (if applicable )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |
| 04                                                                                                                                                                                                                                                                                                                                                                         | QUALITY ASSURANCE PLAN (QAP)                      | To confirm applicable QAP will be followed. (OR) Supplier's Quality Plan to be submitted for our review and approval within 30 days from the date of Letter of Award (LOA) / PO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                             |
| 05                                                                                                                                                                                                                                                                                                                                                                         | SPECIFICATION DEVIATION DISPOSITION REPORT (SDDR) | Attached SDDR to be filled & submit along with offer. (Even, If NO deviation is taken, NIL report to be submitted).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |
| 06                                                                                                                                                                                                                                                                                                                                                                         | DOCUMENTS TO BE SUBMITTED                         | <p>Confirm to submit the documents</p> <p>01.Technical specifications</p> <p>02.Data sheets &amp;</p> <p>03.Quality plan for the approval by NTPC/BHEL.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <p>01.</p> <p>02.</p> <p>03.</p>            |
| 07                                                                                                                                                                                                                                                                                                                                                                         | INSPECTION REPORTS, TEST CERTIFICATES (TC), etc., | Please confirm the required Inspection reports ,TC's etc., will be provided at 'No Extra Cost' after carrying the Inspection & Testing as per : Technical Specifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |
| 08                                                                                                                                                                                                                                                                                                                                                                         | TYPE TEST CERTIFICATES                            | Specify & Confirm to submit applicable certificates.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |
| 09                                                                                                                                                                                                                                                                                                                                                                         | ROUTINE TEST CERTIFICATE                          | Specify & Confirm to submit applicable certificates.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |
| 10                                                                                                                                                                                                                                                                                                                                                                         | CONFIRM: QUALITY ASSURANCE CONDITIONS             | <p>01.Confirm to follow the Standard Quality Plan : Qp.no.000-999-QOE-S-041 rev 00 dt 03.02.2012.</p> <p>02.Confirm to Contract Quality requirements for power cables as per Doc no. BAP/QR/G501&amp;G502/P&amp;C:009 Rev 00 dt 17.05.2018 ( 2 pages ).</p> <p>03.BHEL/NTPC inspection is applicable at vendor works.Confirm for the same.</p> <p>04.Submission of relevant test certificate to BHEL for review during inspection.Please Confirm.</p>                                                                                                                                                                                                                                                                    | <p>01.</p> <p>02.</p> <p>03.</p> <p>04.</p> |
| 11                                                                                                                                                                                                                                                                                                                                                                         | PRE-QUALIFICATION REQUIREMENT                     | Vendor should confirm the Pre-qualification requirements and Necessary Documentary evidences shall be submitted alongwith the offer for proof of meeting the QR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                             |
| 12                                                                                                                                                                                                                                                                                                                                                                         | CUSTOMER APPROVAL                                 | Vendor should submit the filled SUB-VENDOR QUESTIONNAIRE alongwith their credentials for our customer approval.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |

| <p align="center"> <b>ANNEXURE - C2</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM – WATER SYSTEM &amp; FGD</b><br/> <b>COMMERCIAL TERMS AND CONDITIONS - (FOR IMPORT OFFER)</b><br/> <b>"POWER CABLES" FOR NTPC, DADRI-IL,PO-Vidyut nagar, Uttar Pradesh</b><br/> <b>Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)</b> </p> |                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Sl. No.                                                                                                                                                                                                                                                                                                                                                       | DESCRIPTION                                                                | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | VENDOR (SELLER) CONFIRMATION                 |
|                                                                                                                                                                                                                                                                                                                                                               |                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>VENDOR NAME:</b><br><br><b>OFFER REF:</b> |
| 13                                                                                                                                                                                                                                                                                                                                                            | DELIVERY PERIOD FOR THE SUPPLY                                             | <p>Please confirm the supply completion on or before <b>24.10.2018 or 3 Months</b> from the date of Manufacturing clearance, which ever is Later.</p> <p>Vendor to submit all drawings/documents (like Technical Specification, Data Sheet &amp; MQP) within 2 weeks from the date of purchase order and resubmit the drawings/documents within 1 week incorporating all the comments.</p> <p>In case there are delays of submission of drawings/documents beyond 2 weeks of order or 1 week of comments, that much days of delay would be reduced from delivery period.</p> <p>Vendor can also quote improved delivery date if any or otherwise, please clearly indicate the delivery period in weeks / months from the date of Manufacturing clearance.</p> <p>NOTE: Delivery period shall be reckoned till receipt of materials at site. For LD Purpose, Date of site receipt of material will only be considered.</p> | 01.<br><br>02.<br><br>03.                    |
| 14                                                                                                                                                                                                                                                                                                                                                            | INSPECTION                                                                 | <p>Please confirm for 'Inspection' of all the Items by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the dispatch of the item at vendor works as per Technical Specification:</p> <p><b>NTPC:PCCAB:REV 01 DT 16.09.2016 for POWER CABLES (Pg:01 to 07) &amp; your submitted -Technical specifications, Data sheets, Quality plan - subject to customer/BHEL's approval &amp; Standard Quality Plan :QP.NO.0000-999-QCE-S-041 REV 00 DT 03.02.2012, others if any.</b></p> <p>Please note that no payment will be made by BHEL towards inspection.</p>                                                                                                                                                                                                                                                                                                |                                              |
| 15                                                                                                                                                                                                                                                                                                                                                            | IF ANY TECHNICAL / QUALITY QUERIES : CONFIRM BEFORE SUBMITTING YOUR OFFER. | <p>01.Please note: After techno commercial bid opening, re-submission of price bid or any other impact is not allowed.</p> <p>02.Hence,before submitting your offers please contact <b>Shri.G.Ravinder Sr.Engineer/E C&amp;I</b> , Ph: 04172-284029 &amp; <b>clarify your Technical /Quality queries if any thro' e mail with :gravinder@bhel.in</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 01.<br><br>02.                               |
| 16                                                                                                                                                                                                                                                                                                                                                            | CONTACT PERSON'S ON TECHNICAL DETAILS FOR CORRESPONDENCE                   | Name:<br>Designation:<br>Phone No.:<br>Mobile No.:<br>Fax No.:<br>E-mail ID:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                              |
| <b>II</b>                                                                                                                                                                                                                                                                                                                                                     | <b><u>Commercial Terms &amp; Conditions</u></b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                              |
| 01                                                                                                                                                                                                                                                                                                                                                            | PRICE                                                                      | Please confirm 'Firm Price' till completion of order                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                              |
| 02                                                                                                                                                                                                                                                                                                                                                            | UNPRICED BID (PART-1)                                                      | <p>Please confirm submission of '<b>Unpriced bid</b>' in the price bid format attached duly signed.</p> <p>SCANNED COPY of FILLED &amp; SIGNED COPY OF 'Price Bid' format attached by filling all informations by writing '<b>Quoted</b>' as the case may be in the '<b>Rate</b>' and '<b>Value</b>' columns to be submitted through E-Procurement System.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                              |
| 03                                                                                                                                                                                                                                                                                                                                                            | PRICED BID (PART-2)                                                        | <p>Please confirm submission of '<b>Priced bid</b>' in the price bid format attached duly signed.</p> <p>SCANNED COPY of FILLED &amp; SIGNED COPY OF '<b>Price Bid</b>' format attached by filling all informations by writing the value as the case may be in the '<b>Rate</b>' and '<b>Value</b>' columns in a separate attachment to be submitted through E-Procurement System.</p> <p><b>Price bid opening will be considered after the evaluation of pre-qualification requirements,Techno-Commercial evaluation &amp; further final approval from the customer: M/s: NTPC, DADRI,PO-Vidyut nagar-Uttar Pradesh</b></p>                                                                                                                                                                                                                                                                                              |                                              |

| <p align="center"> <b>ANNEXURE - C2</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM – WATER SYSTEM &amp; FGD</b><br/> <b>COMMERCIAL TERMS AND CONDITIONS - (FOR IMPORT OFFER)</b><br/> <b>"POWER CABLES" FOR NTPC, DADRI-II,PO-Vidyut nagar, Uttar Pradesh</b><br/> <b>Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)</b> </p> |                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Sl. No.                                                                                                                                                                                                                                                                                                                                                       | DESCRIPTION                                                          | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>VENDOR (SELLER) CONFIRMATION</b><br><br><b>VENDOR NAME:</b><br><br><b>OFFER REF:</b> |
| 04                                                                                                                                                                                                                                                                                                                                                            | CONSIGNEE DETAILS                                                    | AGM ME(FGD) 4X490MW<br>NATIONAL CAPITAL THERMAL POWER PROJECT<br>STAGE II, NTPC, DADRI.PO-Vidyut nagar<br>DIST: GAUTAM BUDHA NAGAR<br>UTTER PRADESH.<br>Pin – 201008<br>GSTIN 09AAACN0255D9ZO<br><br>(On account of M/s BHEL, BAP, Ranipet - 632 406)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                         |
| 05                                                                                                                                                                                                                                                                                                                                                            | NOTIFYING ADDRESS                                                    | <b>Manager</b><br><b>Material Services, Regional Operation Division</b><br><b>Bharat Electricals Limited</b><br><b>690, 6th Floor EVR Periyar Building</b><br><b>Annasalai, Nandanam</b><br><b>Chennai-600 035</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                         |
| 06                                                                                                                                                                                                                                                                                                                                                            | SELLERS NAME                                                         | Please furnish Full Address, Contact Person, Phone, Fax & Email etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                         |
| 07                                                                                                                                                                                                                                                                                                                                                            | MANUFACTURER'S NAME                                                  | Please furnish Full Address, Contact Person, Phone, Fax & Email etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                         |
| 08                                                                                                                                                                                                                                                                                                                                                            | COUNTRY OF ORIGIN                                                    | Please indicate the Country of Origin of the Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                         |
| 09                                                                                                                                                                                                                                                                                                                                                            | PACKING & FORWARDING                                                 | Please confirm inclusion of Packing & Forwarding Charges (FOB Charges) to the nearest Public Sea / Air Port if any in the quoted price. Stuffing Charges shall be in Vendor's account only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                         |
| 10                                                                                                                                                                                                                                                                                                                                                            | DELIVERY TERM & PRICE BASIS                                          | Please confirm submission of offer on C&F / Chennai Sea / Air Port basis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                         |
| 11                                                                                                                                                                                                                                                                                                                                                            | FREIGHT CHARGES FROM FOREIGN SEA / AIR PORT TO INDIAN SEA / AIR PORT | Please confirm provision of freight charges separately in the offer from Foreign Sea / Air Port to Indian Sea / Air Port.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                         |
| 12                                                                                                                                                                                                                                                                                                                                                            | ALTERNATE DELIVERY TERM & PRICE BASIS                                | Please confirm submission of alternate offer on FOB Sea / Air Port basis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                         |
| 13                                                                                                                                                                                                                                                                                                                                                            | PORT OF SHIPMENT / AIRLIFTING                                        | Please confirm and specify the nearest public Sea / Air Port in the Supplier's country.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                         |
| 14                                                                                                                                                                                                                                                                                                                                                            | TRANSHIPMENT (IF ANY) NOT PREFERRED                                  | Please note that Transhipment is not preferred by BHEL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                         |
| 15                                                                                                                                                                                                                                                                                                                                                            | APPROX. WEIGHT & DIMENSION OF THE CONSIGNMENT                        | Please indicate the consignment details clearly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                         |
| 16                                                                                                                                                                                                                                                                                                                                                            | ADDRESS OF THE INDIAN AGENT / REPRESENTATIVE                         | Please clearly indicate the Indian Agent's details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                         |
| 17                                                                                                                                                                                                                                                                                                                                                            | AGENCY COMMISSION, IF ANY IN%                                        | Should be included in the Price & will be paid in Indian Rupees only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                         |
| 18                                                                                                                                                                                                                                                                                                                                                            | BANKER'S NAME & ADDRESS FOR PAYMENT PURPOSE                          | LC will be opened through any one of the Indian Bank listed in Sl. No. 10 and advised by their Correspondent Bank in Seller Country                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                         |
| 19                                                                                                                                                                                                                                                                                                                                                            | SHIPPING                                                             | Consignment to be shipped through Containers, Stuffing Charges if any is to Supplier's Account only. Please indicate the Size & Number of Containers involved.<br><br>Also confirm referee container / ordinary container.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                         |
| 20                                                                                                                                                                                                                                                                                                                                                            | TERMS OF PAYMENT                                                     | <b>Terms of Payment for Foreign Suppliers:</b><br>"100% thru' irrevocable & unconfirmed LC at sight within 3 weeks and LC will be established 3 months prior to PO delivery date through any one of our Bankers listed elsewhere in the tender conditions for 100% value (less Agency Commission, if any) valid upto the PO delivery period and 15 days thereafter for negotiation. All bank charges in India to BHEL's account and all other charges outside India to Supplier's account. BHEL reserves the right to load the price of foreign suppliers in order to bring them on common platform as per Indigenous Suppliers on the account of differential payment terms to Indigenous Suppliers. Loading of payment terms will be "Base rate of State Bank of India (SBI) (as applicable on the date of bid opening: Techno-commercial bid opening in case of two part bids) + 6%, will be considered for loading for the periods of relaxation compared to indigenous suppliers i.e. 90 days.<br><br>LC will be opened thro' SBI / SBT / DEUTSCHE BANK / IDBI / ICICI and advised by their Correspondent Bank in Seller Country. LC will be opened only with 2½ months validity for shipment. |                                                                                         |

| <p style="text-align: center;">ANNEXURE - C2<br/> BHEL : BAP : RANIPET<br/> MM – WATER SYSTEM &amp; FGD<br/> COMMERCIAL TERMS AND CONDITIONS - (FOR IMPORT OFFER)<br/> "POWER CABLES" FOR NTPC, DADRI-II, PO-Vidyut nagar, Uttar Pradesh<br/> Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)</p> |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Sl. No.                                                                                                                                                                                                                                                                                                                         | DESCRIPTION                                                                                                                                                                                                   | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <p>VENDOR (SELLER) CONFIRMATION</p> <p>VENDOR NAME:</p> <p>OFFER REF:</p> |
| 21                                                                                                                                                                                                                                                                                                                              | TERMS OF PAYMENT                                                                                                                                                                                              | <p>Whenever there is an Indian Agent to represent a Supplier, it is mandatory to give the details of services to be rendered by Indian Agent and / or the details of agreement between Supplier and Agent. Supplier to indicate the Agency Commission payable. Indian Agency Commission will be paid only in Indian Rupees, calculated at the rate of exchange prevailing on the date of price bid opening. This is payable on satisfactory completion of the contract. Agency agreement copy shall be submitted along with Annexure-C without fail.</p> <p><b>Note: In order to maintain sanctity of the tender system, it is mandatory that one Agent cannot represent two Suppliers or quote on their behalf in a particular tender enquiry. If any Agent represents more than one Suppliers all such offers will be rejected.</b></p> |                                                                           |
| 22                                                                                                                                                                                                                                                                                                                              | LIQUIDATED DAMAGES (LD) - Supply Portion                                                                                                                                                                      | Purchaser reserves the right to recover from the Seller/ Contractor, as agreed liquidated damages and not by way of penalty, a sum equivalent to half (½) percent of the Undelivered Portion price per week or part thereof, subject to a maximum of ten (10) percent of the total contract price including GST & freight, if the Seller/ Contractor fails to deliver any part of the ordered stores within the period stipulated in the Order/ Contract.                                                                                                                                                                                                                                                                                                                                                                                 |                                                                           |
| 23                                                                                                                                                                                                                                                                                                                              | OFFER VALIDITY                                                                                                                                                                                                | Please confirm Offer Validity for a minimum period of 60 days from the date of price bid opening.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                           |
| 24                                                                                                                                                                                                                                                                                                                              | GUARANTEE CERTIFICATE (GC) - Supply Portion.                                                                                                                                                                  | Please confirm furnishing of Guarantee certificate in BHEL format for 12 (Twelve) months from the date of arrival of the materials at purchaser's site or 18 (Eighteen) months from the date of shipment from the port of dispatch whichever is more.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                           |
| 25                                                                                                                                                                                                                                                                                                                              | <p><b>Contract Execution Bank Guarantee (CEBG).</b></p> <p>Ple Ref: ANNEXURE –A GENERAL TERMS &amp; CONDITIONS (FOR GUIDANCE TO THE SUPPLIERS) Under Clause -J]</p> <p>Contract Execution Bank Guarantee:</p> | To demonstrate the fidelity of the successful bidder, in executing the Contract, on receipt of the Letter of Intent / Purchase Order, the Supplier shall arrange to provide a contract execution bank guarantee (CEBG).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                           |
| 26                                                                                                                                                                                                                                                                                                                              | BANK GUARANTEE (BG) TOWARDS Supply Portion (10% OF ORDER VALUE)                                                                                                                                               | Please confirm BG submission in BHEL format for 10% of the Total PO Value valid for 12 (Twelve) months from the date of arrival of the materials at purchaser's site or 18 (Eighteen) months from the date of shipment from the port of dispatch whichever is more with a claim period of 3 months..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                           |
| 27                                                                                                                                                                                                                                                                                                                              | ERECTION MANUAL (INSTALLATION INSTRUCTIONS)                                                                                                                                                                   | <b>NOT APPLICABLE.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                           |
| 28                                                                                                                                                                                                                                                                                                                              | O & M MANUAL                                                                                                                                                                                                  | <b>NOT APPLICABLE.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                           |
| 29                                                                                                                                                                                                                                                                                                                              | REVERSE AUCTION                                                                                                                                                                                               | Please see the Clause in the main enquiry regarding Reverse Auction (RA). RA will be conducted through our Service Provider. Vendor to confirm acceptance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                           |
|                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                               | Please note that in case BHEL decides not to conduct RA, the sealed price bids along with the impact price bids arising out of techno-commercial discussions already available with BHEL only will be opened. Please note that no impact price due to non-conductance of RA will be accepted. Vendor to confirm acceptance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                           |
| 30                                                                                                                                                                                                                                                                                                                              | RISK PURCHASE CLAUSE (CLAUSE No. 6 of General Terms and Conditions for Indigenous offer)                                                                                                                      | BHEL's Standard Risk Purchase clause will be applicable. Please confirm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                           |

| <p align="center"> <b>ANNEXURE - C2</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM – WATER SYSTEM &amp; FGD</b><br/> <b>COMMERCIAL TERMS AND CONDITIONS - (FOR IMPORT OFFER)</b><br/> <b>"POWER CABLES" FOR NTPC, DADRI-II,PO-Vidyut nagar, Uttar Pradesh</b><br/> <b>Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)</b> </p> |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                         |
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| Sl. No.                                                                                                                                                                                                                                                                                                                                                       | DESCRIPTION                                                                                                                                                                                                                                                      | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>VENDOR (SELLER) CONFIRMATION</b><br><br><b>VENDOR NAME:</b><br><br><b>OFFER REF:</b> |
| 31                                                                                                                                                                                                                                                                                                                                                            | ZERO DATE<br>(CONTRACT EFFECTIVE DATE)                                                                                                                                                                                                                           | Contract Effective date starts from Manufacturing Clearance subject to Documents submission clause.<br>Please confirm for 'Date of Manufacturing Clearance'.                                                                                                                                                                                                                                                                                                         |                                                                                         |
| 32                                                                                                                                                                                                                                                                                                                                                            | Loading Criteria                                                                                                                                                                                                                                                 | <p>Please note that no Commercial deviation is acceptable to BHEL. In case any deviation is taken in any of the commercial terms such as PAYMENT TERMS, LD, PBG, etc., where in we have specified the days, percentages etc., then loading will be done to the extent of the short fall with respect to the upper Limit specified for evaluation.</p> <p>In respect of LD offers which do not accept for LD Clause would be summarily rejected - Please Confirm.</p> |                                                                                         |
| 33                                                                                                                                                                                                                                                                                                                                                            | NEGOTIATION                                                                                                                                                                                                                                                      | In the event of negotiation if any, please confirm participation only by supplier's representative and not by their Agent which include indian Agent in the case of Foreign Offer.                                                                                                                                                                                                                                                                                   |                                                                                         |
| 34                                                                                                                                                                                                                                                                                                                                                            | OTHER DOCUMENTS FOR APPROVAL (BBU)                                                                                                                                                                                                                               | In the event of order vendor should confirm the submission of BBU for the complete system supply with break up for each line item as well as quantities with value.                                                                                                                                                                                                                                                                                                  |                                                                                         |
| 35                                                                                                                                                                                                                                                                                                                                                            | CONTACT PERSON'S ON COMMERCIAL DETAILS FOR CORRESPONDENCE                                                                                                                                                                                                        | Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                  | Designation:                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                  | Phone No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                  | Mobile No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                  | Fax No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                  | E-mail ID:                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                         |
| 36                                                                                                                                                                                                                                                                                                                                                            | <p>1. All the imported Items are to be supplied in container/s only and sufficient number of days (Minimum 20-25 Days) to be considered for return of the container after unloading at site.</p> <p>2. BHEL expects Import Supply in Foreign Currency quote.</p> | <b>Acceptance Required</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                         |
| 37                                                                                                                                                                                                                                                                                                                                                            | <p><b>BHEL will not take cognizance of commercial terms mentioned by the bidder any where else.</b></p> <p><b>Commercial terms and conditions indicated in this Annexure - A will only be applicable and binding.</b></p>                                        | <b>Acceptance Required</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                         |
| <p align="right">Signature, Seal &amp; Date of offerer on all the pages.</p>                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                         |

| <p style="text-align: center;"><b>ANNEXURE-D</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM - FGD &amp; WATER SYSTEMS</b><br/> <b>UNPRICED OFFER / PRICE OFFER (Tick the relevant)</b><br/> <b>" POWER CABLES "</b><br/> <b>FOR NTPC, DADRI II. PO-Vidyut nagar, Uttar Pradesh "</b><br/> <b>Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)</b></p> |                                                                                                                                                                                             |      |       |          |                       |                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------|-----------------------|-----------------------|
| PRICE OFFER FORMAT                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                             |      |       |          |                       |                       |
| Enquiry<br>Sl.<br>No.                                                                                                                                                                                                                                                                                                                                                               | Description                                                                                                                                                                                 | Unit | Qty.  | HSN CODE | Rate / Unit<br>in Rs. | Total Value in<br>Rs. |
| 001                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950001<br>POWER CABLE 1C - 630 SQ MM, AL COND, XLPE<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07). | MTR  | 2800  |          |                       |                       |
| 002                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950002<br>POWER CABLE 3C - 240 SQ MM, AL COND, XLPE<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07). | MTR  | 9500  |          |                       |                       |
| 003                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950003<br>POWER CABLE 3C - 150 SQ MM, AL COND, XLPE<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07). | MTR  | 17000 |          |                       |                       |
| 004                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950004<br>POWER CABLE 3C - 2.5 SQ MM, CU COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).  | MTR  | 1600  |          |                       |                       |
| 005                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950005<br>POWER CABLE 3C - 10 SQ MM, AL COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).   | MTR  | 3800  |          |                       |                       |
| 006                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950006<br>POWER CABLE 3C - 25 SQ MM, AL COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).   | MTR  | 82500 |          |                       |                       |
| 007                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950007<br>POWER CABLE 3C - 50 SQ MM, AL COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).   | MTR  | 42000 |          |                       |                       |
| 008                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950008<br>POWER CABLE 3C - 95 SQ MM, AL COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).   | MTR  | 20500 |          |                       |                       |
| 009                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950009<br>POWER CABLE 2C - 95 SQ MM, AL COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).   | MTR  | 1500  |          |                       |                       |

| <p align="center"><b>ANNEXURE-D</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM - FGD &amp; WATER SYSTEMS</b><br/> <b>UNPRICED OFFER / PRICE OFFER (Tick the relevant)</b><br/> <b>" POWER CABLES "</b><br/> <b>FOR NTPC, DADRI II. PO-Vidyut nagar, Uttar Pradesh "</b><br/> <b>Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)</b></p> |                                                                                                                                                                                                                          |                                        |       |          |                    |                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------|----------|--------------------|--------------------|
| PRICE OFFER FORMAT                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                          |                                        |       |          |                    |                    |
| Enquiry Sl. No.                                                                                                                                                                                                                                                                                                                                                        | Description                                                                                                                                                                                                              | Unit                                   | Qty.  | HSN CODE | Rate / Unit in Rs. | Total Value in Rs. |
| 010                                                                                                                                                                                                                                                                                                                                                                    | RFW801950010<br>POWER CABLE 2C - 2.5 SQ MM, CU COND, PVC INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).                                  | MTR                                    | 22800 |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | <b>Total Price (Total of Sl. No. 001 TO 010)</b>                                                                                                                                                                         |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | <b>In the Unpriced Offer - Indicate as "Quoted" against Rate &amp; Total Value Columns.</b>                                                                                                                              |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | <b>In the Price Offer - Please specify the total price in Words: Rupees:</b>                                                                                                                                             |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | <b>A) Total Base Price (Total of Sl. No. 001 -010)</b>                                                                                                                                                                   |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | <b>B) Packing &amp; Forwarding Charges (If Payable Extra by BHEL)_____%</b>                                                                                                                                              |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | <b>C) Freight Charges (If Payable Extra by BHEL)_____%</b>                                                                                                                                                               |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | <b>D) Insurance Charges by BHEL / (If Payable Extra by BHEL)_____%</b>                                                                                                                                                   |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | <b>E) Applicable percentage of CGST/SGST/UTGST/IGST - _____%<br/>(whichever is applicable) for A+B+C+D<br/>HSN CODE : _____</b>                                                                                          |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | <b>F) Total Landed Cost( Sum of A+B+C+D+E)</b>                                                                                                                                                                           |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | <b>In the Price Offer - Please specify the total price in Words: Rupees:</b>                                                                                                                                             |                                        |       |          |                    |                    |
| <b>IMPORTANT NOTES</b>                                                                                                                                                                                                                                                                                                                                                 | 1) All the Items are to be inspected by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the despatch of the item at vendor works as per approved QAP. |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | 2) All items will be compared on individual line item basis & order will be placed on whom who is L1 on individual line item.                                                                                            |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | 3) Please confirm the supply completion with in <b>24.10.2018 or 3 Months</b> from the date of Manufacturing clearance if any, which ever is Later.                                                                      |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        | 4) Vendor can also quote improved delivery date if any from the date of Manufacturing Clearance,                                                                                                                         |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                          | <b>Signature &amp; Seal of Offerer</b> |       |          |                    |                    |

| <p align="center"> <b>ANNEXURE-D1 - INDIGENOUS OFFER FORMAT</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM - FGD &amp; WATER SYSTEMS</b><br/> <b>UNPRICED OFFER / PRICE OFFER (Tick the relevant)</b><br/> <b>" POWER CABLES "</b><br/> <b>FOR NTPC, DADRI II. PO-Vidyut nagar, Uttar Pradesh "</b><br/> <b>Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)</b> </p> |                                                                                                                                                                                             |      |       |          |                       |                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------|-----------------------|-----------------------|
| PRICE OFFER FORMAT                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                             |      |       |          |                       |                       |
| Enquiry<br>Sl.<br>No.                                                                                                                                                                                                                                                                                                                                                                               | Description                                                                                                                                                                                 | Unit | Qty.  | HSN CODE | Rate / Unit<br>in Rs. | Total Value in<br>Rs. |
| 001                                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950001<br>POWER CABLE 1C - 630 SQ MM, AL COND, XLPE<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07). | MTR  | 2800  |          |                       |                       |
| 002                                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950002<br>POWER CABLE 3C - 240 SQ MM, AL COND, XLPE<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07). | MTR  | 9500  |          |                       |                       |
| 003                                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950003<br>POWER CABLE 3C - 150 SQ MM, AL COND, XLPE<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07). | MTR  | 17000 |          |                       |                       |
| 004                                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950004<br>POWER CABLE 3C - 2.5 SQ MM, CU COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).  | MTR  | 1600  |          |                       |                       |
| 005                                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950005<br>POWER CABLE 3C - 10 SQ MM, AL COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).   | MTR  | 3800  |          |                       |                       |
| 006                                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950006<br>POWER CABLE 3C - 25 SQ MM, AL COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).   | MTR  | 82500 |          |                       |                       |
| 007                                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950007<br>POWER CABLE 3C - 50 SQ MM, AL COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).   | MTR  | 42000 |          |                       |                       |
| 008                                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950008<br>POWER CABLE 3C - 95 SQ MM, AL COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).   | MTR  | 20500 |          |                       |                       |
| 009                                                                                                                                                                                                                                                                                                                                                                                                 | RFW801950009<br>POWER CABLE 2C - 95 SQ MM, AL COND, PVC<br>INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).   | MTR  | 1500  |          |                       |                       |

| <p align="center"><b>ANNEXURE-D1 - INDIGENOUS OFFER FORMAT</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM - FGD &amp; WATER SYSTEMS</b><br/> <b>UNPRICED OFFER / PRICE OFFER (Tick the relevant)</b><br/> <b>" POWER CABLES "</b><br/> <b>FOR NTPC, DADRI II. PO-Vidyut nagar, Uttar Pradesh "</b><br/> <b>Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)</b></p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        |       |          |                    |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------|----------|--------------------|--------------------|
| PRICE OFFER FORMAT                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        |       |          |                    |                    |
| Enquiry Sl. No.                                                                                                                                                                                                                                                                                                                                                                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit                                   | Qty.  | HSN CODE | Rate / Unit in Rs. | Total Value in Rs. |
| 010                                                                                                                                                                                                                                                                                                                                                                                               | RFW801950010<br>POWER CABLE 2C - 2.5 SQ MM, CU COND, PVC INSULATION UNARMERED CABLE<br>AS PER TECHNICAL SPECIFICATIONS:<br>TECI: NTPC: PCCAB: REV 01 DT 16.09.2016<br>(PAGES 01 TO 07).                                                                                                                                                                                                                                                                                                                                                                                                                                                     | MTR                                    | 22800 |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Total Price (Total of Sl. No. 001 TO 010)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                   | <b>In the Unpriced Offer - Indicate as "Quoted" against Rate &amp; Total Value Columns.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                   | <b>In the Price Offer - Please specify the total price in Words: Rupees:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                   | <b>A) Total Base Price (Total of Sl. No. 001 -010)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                   | <b>B) Packing &amp; Forwarding Charges (If Payable Extra by BHEL)_____%</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                   | <b>C) Freight Charges (If Payable Extra by BHEL)_____%</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                   | <b>D) Insurance Charges by BHEL / (If Payable Extra by BHEL)_____%</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                   | <b>E) Applicable percentage of CGST/SGST/UTGST/IGST - _____%<br/>(whichever is applicable) for A+B+C+D<br/>HSN CODE : _____</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                   | <b>F) Total Landed Cost( Sum of A+B+C+D+E)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                   | <b>In the Price Offer - Please specify the total price in Words: Rupees:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                        |       |          |                    |                    |
| IMPORTANT NOTES                                                                                                                                                                                                                                                                                                                                                                                   | <p>1) All the Items are to be inspected by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the despatch of the item at vendor works as per approved QAP.</p> <p>2) All items will be compared on individual line item basis &amp; order will be placed on whom who is L1 on individual line item.</p> <p>3) Please confirm the supply completion with in <b>24.10.2018 or 3 Months</b> from the date of Manufacturing clearance if any, which ever is Later.</p> <p>4) Vendor can also quote improved delivery date if any from the date of Manufacturing Clearance,</p> |                                        |       |          |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Signature &amp; Seal of Offerer</b> |       |          |                    |                    |

| <p align="center"><b>ANNEXURE-D2 - IMPORT OFFER FORMAT</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM - FGD &amp; WATER SYSTEMS</b><br/> <b>UNPRICED OFFER / PRICE OFFER (Tick the relevant)</b><br/> <b>" POWER CABLES "</b><br/> <b>FOR NTPC, DADRI II.PO-Vidyut nagar, Uttar Pradesh "</b><br/> <b>Enquiry No. 3880557E DATED: 19.07.2018 Due Date : 09.08.2018 (Within 1400Hrs)</b></p>                                                                                                                                                                                                                                                |               |                                                                                                                                          |       |      |                    |                                     |                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------|-------|------|--------------------|-------------------------------------|---------------------------------------|
| PRICE OFFER FORMAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |                                                                                                                                          |       |      |                    |                                     |                                       |
| Enq<br>sno                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Material code | Item Description                                                                                                                         | Qty   | Unit | Quoted<br>Currency | Unit Rate in<br>Foreign<br>Currency | Total Value in<br>Foreign<br>Currency |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RFW801950001  | 1C-630 SQ.MM., AL COND, XLPE INSU. UNARM FRLS LT<br>POWER CABLE AS PER TECHNICAL SPECIFICATION<br>TECI:NTPC:PCCAB:REV 01 DATED 16092016. | 2800  | MR   |                    |                                     |                                       |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RFW801950002  | 3C-240 SQ.MM., AL COND, XLPE INSU. UNARM FRLS LT<br>POWER CABLE AS PER TECHNICAL SPECIFICATION<br>TECI:NTPC:PCCAB:REV 01 DATED 16092016. | 9500  | MR   |                    |                                     |                                       |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RFW801950003  | 3C-150 SQ.MM., AL COND, XLPE INSU. UNARM FRLS LT<br>POWER CABLE AS PER TECHNICAL SPECIFICATION<br>TECI:NTPC:PCCAB:REV 01 DATED 16092016. | 17000 | MR   |                    |                                     |                                       |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RFW801950004  | 3C-2.5 SQ.MM., CU COND, PVC INSU. UNARM FRLS LT<br>POWER CABLE AS PER TECHNICAL SPECIFICATION<br>TECI:NTPC:PCCAB:REV 01 DATED 16092016.  | 1600  | MR   |                    |                                     |                                       |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RFW801950005  | 3C-10 SQ.MM., AL COND, PVC INSU. UNARM FRLS LT<br>POWER CABLE AS PER TECHNICAL SPECIFICATION<br>TECI:NTPC:PCCAB:REV 01 DATED 16092016.   | 3800  | MR   |                    |                                     |                                       |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RFW801950006  | 3C-25 SQ.MM., AL COND, PVC INSU. UNARM FRLS LT<br>POWER CABLE AS PER TECHNICAL SPECIFICATION<br>TECI:NTPC:PCCAB:REV 01 DATED 16092016.   | 82500 | MR   |                    |                                     |                                       |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RFW801950007  | 3C-50 SQ.MM., AL COND, PVC INSU. UNARM FRLS LT<br>POWER CABLE AS PER TECHNICAL SPECIFICATION<br>TECI:NTPC:PCCAB:REV 01 DATED 16092016.   | 42000 | MR   |                    |                                     |                                       |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RFW801950008  | 3C-95 SQ.MM., AL COND, PVC INSU. UNARM FRLS LT<br>POWER CABLE AS PER TECHNICAL SPECIFICATION<br>TECI:NTPC:PCCAB:REV 01 DATED 16092016.   | 20500 | MR   |                    |                                     |                                       |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RFW801950009  | 2C-95 SQ.MM., AL COND, PVC INSU. UNARM FRLS LT<br>POWER CABLE AS PER TECHNICAL SPECIFICATION<br>TECI:NTPC:PCCAB:REV 01 DATED 16092016.   | 1500  | MR   |                    |                                     |                                       |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | RFW801950010  | 2C-2.5 SQ.MM., CU COND, PVC INSU. UNARM FRLS LT<br>POWER CABLE AS PER TECHNICAL SPECIFICATION<br>TECI:NTPC:PCCAB:REV 01 DATED 16092016.  | 22800 | MR   |                    |                                     |                                       |
| Total Price (Total of Sl. No. 001 TO 010)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                                                                                                                                          |       |      |                    |                                     |                                       |
| In the Unpriced Offer - Indicate as "Quoted" against Rate & Total Value Columns.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                                                                                                                                          |       |      |                    |                                     |                                       |
| In the Price Offer - Please specify the total price in Words: FOREIGN CURRENCY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                                                                                                                                          |       |      |                    |                                     |                                       |
| A) Total Base Price (Total of Sl. No. 001 -010)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                                                                                                                                          |       |      |                    |                                     |                                       |
| B) Packing & Forwarding Charges (If Payable Extra by BHEL)_____ %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |                                                                                                                                          |       |      |                    |                                     |                                       |
| C) Freight Charges (If Payable Extra by BHEL)_____ %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |                                                                                                                                          |       |      |                    |                                     |                                       |
| D) Insurance Charges by BHEL / (If Payable Extra by BHEL)_____ %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                                                                                                                                          |       |      |                    |                                     |                                       |
| F) Total Landed Cost( Sum of A+B+C+D)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                                                                                                                                          |       |      |                    |                                     |                                       |
| In the Price Offer - Please specify the total price in Words: FOREIGN CURRENCY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                                                                                                                                          |       |      |                    |                                     |                                       |
| <p>1) All the Items are to be inspected by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the despatch of the item at vendor works as per approved QAP.</p> <p>2) All items will be compared on individual line item basis &amp; order will be placed on whom who is L1 on individual line item.</p> <p>3) Please confirm the supply completion with in <b>24.10.2018 or 3 Months</b> from the date of Manufacturing clearance if any, which ever is Later.</p> <p>4) Vendor can also quote improved delivery date if any from the date of Manufacturing Clearance,</p> |               |                                                                                                                                          |       |      |                    |                                     |                                       |
| Signature & Seal of Offerer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                                                                                                                                          |       |      |                    |                                     |                                       |

| ANNEXURE - E<br>SPECIFICATION DEVIATION DISPOSITION REPORT (SDDR)                                                                                                                                                                                                                                                                                                                                                                                                                        |        |                                                                                    |                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------|---------------------|
| Enquiry No. 3880557E<br>DATED: 19.07.2018<br>Due Date : 09.08.2018 (Within 1400Hrs)                                                                                                                                                                                                                                                                                                                                                                                                      |        | " POWER CABLES "<br>FOR NTPC, DADRI -II,.PO-Vidyut nagar, Uttar Pradesh - 4X490MW" | Vendor Name         |
| 01. TECHNICAL SPECIFICATION FOR POWER CABLES: TECI:NTPC:PCCAB:REV01 DT 16.09.2016<br>02. CONTRACT QUALITY REQUIREMENTS (CQR) BAP/QR/G501&G502/P&C: 009 Rev NO. : 00<br>DATE:17 05 2018.<br>03. NTPC SQP LT POWER CABLE 0000-999-QOE-S-041 REV 00<br>04. PRE-QUALIFICATION REQUIREMENT FOR POWER CABLES vide Ref: RFW80195 :POWER CABLES REV 00 DT 13.07.2018<br>05. SAMPLE MQP FORMAT<br>06. REFERENCE STANDARD FIELD QUALITY PLAN<br>07.ALL CABLES SHALL BE SUPPLIED IN 1000 MTR DRUMS. |        |                                                                                    |                     |
| Page                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Clause | Details Of Deviation With Reason                                                   | Disposition By BHEL |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |                                                                                    |                     |
| Signature Of Vendor                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |                                                                                    | Reviewed By         |
| " AGREED DEVIATION "                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        | APPROVED BY                                                                        |                     |
| if any to be incorporated in the PO in the event of order.                                                                                                                                                                                                                                                                                                                                                                                                                               |        |                                                                                    |                     |

Date :

VENDOR's SIGNATURE WITH SEAL

*(TO BE STAMPED IN ACCORDANCE WITH STAMP ACT AND THE EXPIRY DATE OF BG MUST BE AFTER 3 MONTHS FROM THE DATE OF COMPLETION OF SUPPLIES)*

### **CONTRACT EXECUTION BANK GUARANTEE**

In accordance of M/s. Bharat Heavy Electricals Limited (A Government of India undertaking, a company incorporated under the Companies Act 1956 having its Registered Office at "BHEL House", SIRI Fort, New Delhi 110 049) through its Boiler Auxiliaries Plant located at Ranipet – 632 406, (hereinafter called 'the Company') having entered into a contract with M/s.....  
..... hereinafter called 'the said contractor' which term includes 'suppliers' for the purpose of this Bond and under the terms and conditions of the Contract No.....Dt.....between BHEL, Ranipet and as per the Contract, the Contractor / Supplier is to furnish a Contract Execution Bank Guarantee for Rs.....in words.....  
.....for the due performance of the contract and for the fulfillment of all the terms and conditions of the contract.

Sign and seal of issuing bank  
Please affix Non Judicial Stamp  
here, as per Stamp Act

Bank Guarantee No.....Date.....Banker Name.....  
Bank Guarantee Value Rs.....

1. We.....  
.....  
.....(Bank's name, Branch, Place – address to be mentioned [herein after referred to as the Bank) at the request of.....  
.....(Contractor(s)] do hereby undertake to pay the company an amount not exceeding Rs.....in words  
.....  
.....  
.....against any loss or damage caused to or suffered or would be caused to or suffered by the company by reason of any breach by the said Contractor(s) of any of the terms and conditions contained in the said agreement.

2. We.....  
.....  
.....(name of the bank with full address), do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of breach by the said Contractor(s) of any of the terms and conditions contained in the said Agreement or by the reason of the Contractor(s) 'failure to perform' the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....in words.....  
.....

Sign and seal of issuing bank

Bank Guarantee No.....Date.....Banker Name.....  
Bank Guarantee Value Rs.....

3. We undertake to pay conditionally to the Company any money so demanded notwithstanding any dispute(s) raised by the Contractor in any suit, or proceedings pending before any Court or Tribunal or Arbitration or before any other authority relating thereto our liability under this present being absolute and unequivocal. The payment under this guarantee would not wait till the disputes have been decided by any Court or Tribunal or in the arbitration proceedings or by any other authority. The payment so made by us under this Bond shall be a valid discharge of liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We.....(name of Bank), further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till Purchase Department of the Company certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. (i) Unless a demand or claim under this guarantee is made on us in writing on or before .....(date) (After 3 months from the date of completion of supplies) we shall be discharged from all the liability under this guarantee thereafter. But where such claim or demand has been preferred by the Company with the Bank before the expiry of the said date, the claim shall be enforceable notwithstanding the fact that the said enforcement is effected after the said date. (ii) For the purpose of this clause, any letter making demand on the Bank by M/s. BHEL dispatched by Registered Post with Ack. Due or by Telegram or by any Electronic media addressed to the above mentioned address of the Bank shall be deemed to be the claim / demand in writing referred to above irrespective of the fact as to whether and when the said letter reaches the Bank, as also any letter containing the said demand or claim is lodged with the Bank personally.

Sign and seal of issuing bank

Bank Guarantee No.....Date.....Banker Name.....  
Bank Guarantee Value Rs.....

6. We.....(name of the Bank), further agree with the company that the Company 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 agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by any reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the company or any indulgence by the company to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating would, but for this provision, have effect of not so relieving us.

7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

8. The guarantee herein contained shall not be determined or affected by the liquidation or winding up or insolvency of or change in the constitution of the Contractor, but shall in all respects and for all purpose be binding and operative until all payments of all moneys due or that may hereafter become due to the said company or settled irrespective of any liability or obligation of the Contractor under the said Contract.

9. It shall not be necessary for the company to proceed against the Contractor before proceeding against the guarantor-bank and the guarantee herein contained shall be enforceable against them notwithstanding any security, which the company may have obtained from the Contractor shall, at the time when proceedings are taken against the Guarantor hereunder be outstanding or unrealized.

10. Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts at Ranipet, Tamilnadu Jurisdiction.

11. The Bank declares that it has powers to issue this Guarantee under the Bank's Memorandum and Articles of Association and the undersigned has full powers to do so on its behalf under the power granted to him by the proper authorities of the Bank.

12. We .....(name of Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing.

In witness whereof we.....  
(name of Bank) have hereunto setout Bank Seal the.....  
day of.....month 20\_\_.

Sign and seal of issuing bank.

## **Online SRF Submission Procedure**

Following are the formalities to be completed by your company for registration purpose.

**NOTE: BEFORE PROCEEDING FOR ONLINE REGISTRATION " PLS READ STEPS FOR FILLING UP ONLINE REGISTRATION FORM - HELP MENU" - DETAILS ATTACHED WITH THIS MAIL**

With effect from 01.04.2015 onwards, we have migrated to online Supplier Registration Form (SRF) as per our Corporate guidelines. **Supplier Registration Form (SRF)** is to be fed in our BHEL website portal – **ie., PDF documents of SRF and its annexure as called for shall be signed by authorized signatory & uploaded in portal.**

We request to visit our Web Site : [www.bhel.com](http://www.bhel.com) and click under heading "Supplier Registration" and fill up the **"Supplier Registration Form"** which is available in the Online Supplier Registration Portal.

Or else, copy the following URL Link and paste in the web link address: [http://www.bhel.com/vender\\_registration/vender.php](http://www.bhel.com/vender_registration/vender.php) and proceed with.

Or else, type directly as <http://203.129.195.108>

**Click the button "search material"** on the home page of supplier registration portal and search thoroughly your required material / product

*After completing the material search then proceed for User Id & Password for filling up the details of registration requirements. **Note: If you are an already registered supplier with any of our BHEL Unit - pls select "existing permanent supplier" or else select "New Registration" and then proceed accordingly.***

**Please note that for a foreign suppliers' there is a separate format to be filled in, which may be taken care suitably.**

After successful submission of SRF along with all annexures as called for thro' online i.e., authorized signatory signed pdf documents of SRF and its annexures are to be uploaded thro' online portal and confirm the same in **"form dispatch"** area ie., registration part-4 – wherein supplier has to confirm that all the documents were submitted "online" and click the button **"confirm"**. After clicking confirmation button, the same will be appearing against BHEL Ranipet for registration.

Looking for a long successful & sustaining business association with BHEL.

## TERMS AND CONDITIONS FOR INDIGENOUS OFFERS

- a) **Quotations :** Each Tender should be sent in duplicate in a sealed cover. Inner cover should be sealed with tender's distinctive seal and superimposed with correct Tender No., item of supply and due date of opening. Tender should not be addressed to any individual's names but only by designation and shall be addressed to Dy. Manager/Purchase, BHARAT HEAVY ELECTRICALS LIMITED, BOILER AUXILIARIES PLANT, INDIRA GANDHI INDUSTRIAL COMPLEX, RANIPET, VELLORE DISTRICT - 632406, INDIA.
1. Detailed Technical Literature / Write up
2. Latest Catalogue covering the items in quote.
3. Detailed Dimensional Drawing.
- b) Tenders should be neatly typewritten and should be free from CORRECTION AND ERASURES. Corrections, if any, must be attested. All amount shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.
- c) Price should be net F.O.R. destination inclusive of risk in transit and remain valid for 90 days from the due date.
- d) If any Sales Tax is payable as extra to the quoted price it should be specifically stated in quotation failing which the purchaser will not be liable for payment of Sales Tax. Our TIN No. 33024364741 & CST Number 1141696.
- e) Products with I.S.I certification mark will be preferred.
- f) The applicable rate of excise duty shall be clearly indicated in the quote itself.
- g) The tenderer shall fill up the specification Deviation Disposition Report either NIL or the deviation taken by the tenderer against the Tender specification.
2. **Samples :** Wherever possible samples should be submitted separately whether specifically requested or not, so as to reach the purchase on or before the due date of the enquiry. They should be clearly marked with the Enquiry No. and the date on the outside cover to facilitate identification.
3. **Packing and Marking :** The supplier shall arrange for securely protecting and packing the stores to avoid loss or damages during transit.
4. **Terms of Payment :** Payment will be made within 45 days for MSME (Small / Micro) Vendors and 90 days for others after receipt and acceptance of materials at BHEL Stores or receipt of site acknowledgment in case of direct to site items of satisfactory receipt of materials at site. Where required by the purchase, the successful tenderer must send the operation and maintenance manuals, test certificates, drawings, etc., as called for, for the materials ordered. These should be sent immediately after despatch of the materials and a statement to that effect should be made in the invoice. Failure to comply with this provision will result in delay in payment of the bills. Goods despatched either by V.P.P. or by the documents presented through bank will not be accepted unless agreed to by the Purchaser.
- The transporter's copy of Excise Invoice should accompany the material. The Original Invoice alongwith other documents shall be (a) routed through bank or (b) directly sent to us as called for in the contract. One set of the Advance copies of the above documents shall be sent to Manager / Finance (Stores Bill section), BHEL, BAP, RANIPET - 6 and one set to Dy. Manager / Purchase BHEL, BAP, RANIPET - 6.
5. **Liquidated Damages :** It is clearly understood among the parties to the contract that "Time is the essence of the contract". Therefore, the delivery of the goods specified in the purchase order should be made within the time limit prescribed. Where the seller supplies or despatches the goods, beyond the delivery period specified, the Purchaser will have no obligation to accept the goods. If accepted, liquidated damages at the rate of 1/2% of the value of goods delayed for each week of delay or part thereof will be levied without prejudice to any other relief or compensation due to the purchaser under any other condition of this contract.
6. **Risk Purchase :** Alternatively, the purchaser at his option will be entitled the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or despatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute therefor. The supplier shall be liable for any loss which the purchaser may sustain by reason of such risk purchases in addition to penalty at the rate mentioned in Clause 6 above.
7. **Preferential Delivery :** It should be noted that if a contract is placed on higher tenderer as a result of this invitation to tender in preference to the lowest acceptable offer in consideration to the earlier delivery, the seller will be liable to pay to the purchaser the difference between the contract rate and that of the lowest acceptable tender on the basis of final price F.O.R. destination including all elements of freights, sales tax, duties and other incidentals in case of failure to complete supplies in terms of such contract within the date of delivery specified in the tender and incorporated in the contract.
8. **MODVAT CREDIT :** If any Excise duty is payable, the chapter 17 - head reference and the rate of duty

should be quoted. If the tenderer is availing MODVAT credit for the input material, the effect of proforma credit it should be passed on the purchaser. Tender under "MODVAT" shall be proforma.

9. **General :** a) The Purchaser reserves the right to split up the tender and place for individual items with different tenderers and also increase the quantity.

## TERMS AND CONDITIONS FOR FOREIGN OFFERS

**Offer :** Offer in ENGLISH LANGUAGE AND IN TRIPLICATE IN A SEALED COVER superscribing the enquiry number and due date shall be submitted addressed to : THE DY. MANAGER / PURCHASE, BHARAT HEAVY ELECTRICALS LIMITED, BOILER AUXILIARIES PLANT, INDIRA GANDHI INDUSTRIAL COMPLEX, RANIPET - 632 406, TAMIL NADU, INDIA.

Offers should be firm for net FOB / FCA nearest Sea / air port price and C & F Chennai Port Price indicating the shipping specifications and the earliest delivery in the respect of others from overseas suppliers.

### Documents :

- (i) Offers should be accompanied by detailed technical literature, catalogue and detailed dimensional drawing in ENGLISH and in TRIPLICATE, or otherwise the offers will not be considered.
- (ii) In case overseas suppliers route their accredited selling agents, a letter of authority should be furnished mentioning the name and address of their selling agents, who are authorised to bid, negotiate and conclude a contract on their behalf.

**Agency Commission :** In respect of offers from overseas suppliers, agency commission, if any, payable to their agents in India shall invariably be shown separately in the proforma invoice and this will be paid by us in India, in Indian Rupees, on satisfactory completion of the contract.

**Spare parts :** The tenderer should quote separately for spares that are required for two years trouble free operation. The spares offer should accompany the offer of main equipment, otherwise the quotation will be overlooked.

**Validity :** The offers for main equipment and spares shall be kept open for acceptance for 120 days (one hundred and twenty days) for the date of opening of the tender.

**Test Certificates, Operating and Maintenance Manuals :** The tenderer shall clearly mention in their offer that Test Certificates and Operating and Manuals, etc., as called for in technical specification, in the required number of copies will be provided at no extra cost. If any amount is payable as extra, the same shall be indicated separately in the offer.

**Terms and payment :** In the event of an order the purchaser will arrange for an unconfirmed irrevocable letter of credit against presentation of documents. Under, no circumstances confirmed irrevocable letter of credit will be established by the purchaser.

### General :

- (i) Preference will be given to suitable indigenous or ex-stock imported offers, failing which imported offers from incoming consignment against the indigenous supplies "Stock and sale Licence" will be accepted, if Stock and sale licence is not available with the indigenous suppliers, the same shall be indicated in their offer.
- (ii) The offer should reach us before the time of opening of tenders. The offer will be opened at 14.30 hours on the due date in the presence of the tenderers who may like to be present.
- (iii) **BANK GUARANTEE (if applicable) :** The supplier in the event of an order, should furnish a Bank Guarantee from an approved Bank at no extra cost in a proforma which will be supplied to the supplier, along with the order, for an amount equivalent to 10% of the value of the contract. The Bank Guarantee should remain in full force and effect during the period that would be taken of successful completion of the contract and shall continue to be enforceable till 12 months from the date of receipt of receipt of consignment at purchaser's site or 18 months from the date of last shipment at the port of Delivery, whichever is earlier.
- (iv) **INCOTERMS :** The definition for terms shall be as per Incoterms 2000
- (v) **PLEASE QUOTE YOUR RATE FOR ALL THE FOLLOWING CONDITIONS.**
  - (a) FOB on at sight L.C.
  - (b) On C & F Chennai Port India with at sight L.C.
  - (c) Rate on credit basis with rate of interest and period of credit.
  - (d) Rates with suppliers credit.

#### Payment Mechanism at BHEL, Ranipet

(Effective for all tenders issued by BHEL Ranipet from 01 July 2011 onwards unless otherwise notified of change/s in writing given by an authorized official of BHEL, Ranipet)

BHEL, Ranipet's payment mechanism will be as follows: (All Bidders are requested to read this carefully and take note of it before submitting their offer)

All bills of Suppliers processed for payment by BHEL, Ranipet shall pass through the following mile stones:

(1) Receipt of materials at BHEL, Ranipet Stores (evidenced by the Day-Book Number and Date generated at BHEL Stores, Ranipet) or Receipt of materials at Project Site / Destination specified in the Purchase Order (as evidenced by the acknowledgement given by the Consignee).

(2) Acceptance of the supplied materials at BHEL Stores, Ranipet. (Proof of evidence: Stores Receipt voucher - Short form "SRV", raised by BHEL Stores, Ranipet referenced by the SRV Number and Date)

(3) Receipt and Registration of the Bills / Invoices of the Supplier at BHEL, Ranipet Accounts Department. (evidenced by the ABS Number and Date)

(4) Receipt of clarifications, if any that may be required by BHEL, Ranipet Accounts or Purchase Department, from the Supplier. (As evidenced by the IOM Inward Date)

(5) Bill processing and passing.

(6) Payment release.

All these events are transparently available in the SCM web-site of BHEL, Ranipet, {<http://bapscm.bhelrpt.co.in/purc>} which can be viewed by all registered supplier with a password. Allowed Time frames:

A] From DB to SRV: 10 Days

B] From SRV to ABS: 15 Days

C] From ABS to Bill Pass: 07 Days (if Stage 4 above is not applicable)

OR

From IOM to Bill Pass: 07 Days (if Stage 4 above is applicable)

D] From Bill Pass to Payment Release: As per payment terms of the Purchase order.

All Suppliers payment/s would be released based on seniority of receipt of the processed bills at the payment section of BHEL, Ranipet Accounts Department.

The seniority would be based on the sequence of milestone events listed above.

In the sequence of the bill processing the preceding mile-stone seniority will be void, if the subsequent event occurs beyond the permitted time frame between two successive events.

Thus for example:

Start seniority would be with the DB date.

If the SRV date is greater than 10 days of the DB date, then the seniority of the DB date would be replaced by the SRV date.

If the ABS date is greater than 15 days of the SRV date, then the seniority would be reckoned by the ABS date.

If the Bill pass date is greater than 07 days of the ABS date then the seniority would be the date of inward receipt of the IOM.

The logics of these sequence is that SRV, ABS, IOM inward entry are dependent entirely on submission of correct documentation by Suppliers, as called for in the Purchase Order. If the documents are correctly submitted each of the milestone listed above will occur within BHEL, Ranipet within the timelines specified above.

Hence, in their own interest all Suppliers are requested to take note of this process and comply with the same.

Caution: Suppliers' payments would get delayed / affected if they fail to adhere to the submission of the documents specified in the Purchase Order / Contract, since the listed milestone events occurrence are contingent upon the availability of the requisite documents.

PRODUCT STANDARD  
ELECTRICAL C & I  
BAP/BHEL/RANIPET - 632 406.

TECI: NTPC: PCCAB: REV 01  
Page - 01 of 07  
EFFECTIVE DATE: 16.09.2016

**TITLE** : TECHNICAL SPECIFICATION FOR BOUGHT OUT ITEMS FOR ESP  
**ITEM** : POWER AND CONTROL CABLES.  
**CUSTOMER** : NATIONAL THERMAL POWER CORPORATION LTD (NTPC)

| NAME     |                  | DESIGNATION | SIGNATURE                                                                            | DATE       |
|----------|------------------|-------------|--------------------------------------------------------------------------------------|------------|
| PREPARED | A.K.PALANISAMY   | Sr Engineer |   | 16.09.2016 |
| CHECKED  | M.JEYAMURUGANAND | SDGM        |  | 16.09.2016 |
| APPROVED | M.JEYAMURUGANAND | SDGM        |  | 16.09.2016 |

ISSUED BY

**EDC - ECI**

REVISION NO: 01 - XLPE SPECIFICATION ADDED

INITIAL RELEASE: 09.03.2009

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**1.0.0 SCOPE:**

1.1.0 The scope of supply of cables includes, design, manufacture, inspection, testing, packing and delivery.

**2.0.0 APPLICATION:**

2.1.0 The cables to be supplied under this specification are intended to be used for the interconnection of various electrical equipments of Electrostatic Precipitator (ESP), such as Transformer Rectifier, Electronic Controller, Auxiliary Control panel, Rapping Motors, Heaters etc.

**3.0.0 APPLICABLE STANDARDS**

3.1.0 The cable shall be manufactured, tested and packed as per the following standards (latest issues and their amendments if any). In case of any conflict between these standards and this technical specification, the latter shall prevail to the extent of such difference.

3.1.1 IS 1554 (Part I) – For PVC insulated ( heavy duty ) electric cables for working voltage upto and including 1100 V.

3.1.2 IS 7098 (Part - I) - For cross linked polyethylene (XLPE) insulated cables, for working voltages upto and including 1100V

3.1.3 IS 3961 - Recommended current ratings for cables.

3.1.4 IS 5831 - PVC insulation and sheath of electrical cables

3.1.5 IS 8130 - Conductors for insulated electric cables and flexible cords

3.1.6 IS 9938 - Recommended colours for PVC insulation for LF wires and cables

3.1.7 IS 10418 - Specification for drums for electric cables.

3.1.8 IS 10462 (Part-I) - Fictitious calculation method for determination of dimensions of protective coverings of cables

3.1.9 IS 10810 - Methods of test for cables.

3.1.10 IEEE 383 - Standard for type test of Class II electric cables, field splices and connections for Nuclear Power Generation stations.

3.1.11 ASTM D 2843 - Standard test method for density of smoke from the burning or decomposition of plastics.

3.1.12 ASTM D 2863 - Standard test method for measuring the minimum oxygen concentration to support candle like construction of plastics.

- 3.1.13 IEC 754 (Part-I). - Test on gases evolved during combustion of electric cables
- 3.1.14 SS 4241475 - Flammability testing of cables. (F3 CATEGORY)
- 3.1.15 IEC 332 (part 3) (category B) - Test on electric cables under fire condition.

#### **4.0.0 SITE ENVIRONMENT:**

- 4.1.1 Ambient Temperature : 5 deg.C to 50 deg.C
- 4.1.2 Relative Humidity : 100 %
- 4.1.3 Design Ambient Temp. : 50 deg.C
- 4.1.4 Fault Level : 50 KA for 1 sec.

#### **5.0.0 SPECIFICATION OF CABLE:**

##### **5.1.0 CONDUCTOR**

- 5.1.1 Material :  
i. Stranded Aluminium - H2 grade as per IS 8130.  
ii. Copper - Annealed bare copper of electrolytic grade as per IS 8130.  
Bare/tinned copper as per enquiry/purchase order
- 5.1.2 Construction : Multi stranded for any cross section for both ALUMINIUM and COPPER conductor cables.
- 5.1.3 Number of strands : Minimum 7 strands.
- 5.1.4 Shape : Compacted type for sizes above 10 Sq.mm
- 5.1.5 Cross section area : As per Purchase enquiry / purchase order. The specified area shall be maintained strictly as per enquiry immaterial of DC resistance.
- 5.1.6 Tensile strength : Minimum 100 N/mm<sup>2</sup> for aluminium conductor

##### **5.2.0 INSULATION**

- 5.2.1 Material : XLPE as per IS 7098 (Part-I) or PVC type A as per IS 5831 as per Enquiry/PO.

- 
- 5.2.2 Method of application : Extrusion
- 5.2.3 Thickness : As per IS 1554 (Part-1) for PVC insulated cables as per IS 7098 (Part-1) for XLPE insulated cables.
- 5.2.4 Colour identification
- i) Cores of the cables of upto 5 cores shall be identified by colouring of insulation. Following colour scheme shall be adopted.
- ii)
- |        |   |                                   |
|--------|---|-----------------------------------|
| 1 core | : | Red, Black, Yellow or Blue        |
| 2 core | : | Red & Black                       |
| 3 core | : | Red, Yellow & Blue                |
| 4 core | : | Red, Yellow, Blue and Black       |
| 5 core | : | Red, Yellow, Blue, Black and Grey |
- 5.2.5 For cables having more than 5 cores, core identification shall be done by numbering the insulation of cores sequentially, starting by number 1 in the inner layer (e.g. say for 10 core cable, core numbering shall be from 1 to 10). The number shall be printed in Hindu-Arabic numerals on the outer surfaces of the cores. All the number shall be of the same colour, which shall contrast with the colour of insulation. The colour of insulation for all the cores shall be grey only. The numerals shall be legible and indelible. The numbers shall be repeated at regular intervals along the core, consecutive numbers being inverted in relation to each other. When the number is a single numeral, a dash shall be placed underneath it. If the number consists of two numerals, these shall be disposed one below the other and a dash placed below the lower numeral. The spacing between consecutive numerals shall not exceed 50 mm.
- 5.2.6 For reduced neutral conductors, the core shall be black.
- 5.2.7 Shade of insulation colour : As per IS 9938
- 5.3.0 FILLERS ( if provided ) :
- 5.3.1 Material : Non-hygroscopic, Fire Retardant, suitable for the operating temp. of cable.
- 5.4.0 **INNER SHEATH:**
- 5.4.1 Material : PVC type ST-1 as per IS 5831 for PVC insulated cable & PVC type ST-2 as per IS 5831 for XLPE insulated cable.
- 5.4.2 Method of application : Extrusion
- 5.4.3 Thickness : As per IS 1554 (Part-I)
- 5.4.4 Colour : Black for power & control cable
- 5.5.0 **ARMOURING** : No armouring shall be provided.

**5.6.0 OUTER SHEATH:**

- 5.6.1 Material : FRLS PVC type ST1 as per IS 5831 for PVC insulated cable & FLRS PVC type ST2 as per IS 5831 for XLPE insulated cable.
- 5.6.2 Method of application : Extrusion
- 5.6.3 Thickness : As per IS 1554 (Part-1) for PVC insulated cable & as per IS 7098 (Part-1) for XLPE insulated cable.
- 5.6.4 Colour
- i) For power cable : Black
  - ii) For control cable : Grey

**5.7.0 ADDITIONAL REQUIREMENT OF OUTER SHEATH:  
(REQUIREMENT OF FRLS PROPERTIES)**

- 5.7.1 i. Oxygen index : Minimum 29 ( As per ASTM D 2863)  
ii. Temperature index : Not less than 250°C at 21 oxygen index (when tested as per ASTM D 2863)
- 5.7.2 Max. acid gas generation by weight : Maximum 20% (when tested as per IEC 754 – A Part-I)
- 5.7.3 Light transmission : Minimum 40% (when tested as per ASTM D 2843), Smoke density rating shall be max.60%. This is average value and not instantaneous value.
- 5.7.4 Flammability : All cables shall pass the flammability test Per IEC 332 part 3 (category B) and as per IEEE 383.
- 5.7.5 Flame resistance : All cables shall meet the flame resistance requirement as per Category F3 of SS 4241475.

**5.8.0 GENERAL REQUIREMENTS:**

- 5.8.1 The cable shall be designed to withstand all mechanical, electrical and thermal stresses under the foreseen steady state and transient / fault operation conditions. All cables shall be suitable for high ambient, high humid tropical Indian conditions.
- 5.8.2 Cable shall be 1100V grade, PVC/XLPE insulated, unarmoured having outer sheath of FRLS (Fire retardant low smoke) PVC ST1/PVC ST2.

- 5.8.3 All cables, other than single core unarmoured cables, shall have distinct extruded PVC inner sheath of black colour.
- 5.8.4 The PVC cable shall be designed for a steady state continuous conductor temperature of 70 deg. C and short circuit withstand temperature of 160 deg C.
- 5.8.5 The XLPE cable shall be designed for a steady state continuous conductor temperature of 90 deg. C and short circuit withstand temperature of 250 deg C.
- 5.8.6 For outer sheath, polyethylene based halogen free material is not acceptable.
- 5.8.7 Allowable tolerance on overall diameter of the cable shall be + / - 2 mm maximum over the declared value in the technical data sheet .
- 5.8.8 The nominal current rating of all PVC insulated cables shall be as per IS 3961.
- 5.8.9 Repaired cables shall not be offered and the same will not be accepted. Pimples, fish eye, blowholes etc., are not acceptable.
- 5.8.10 In addition to manufacturer's identification on cables as per IS, following embossing/printing shall also be provided over outer sheath.
- 1) Cable size & voltage grade - To be embossed
  - 2) Word FRLS at every 5 metre - To be embossed
  - 3) Sequential marking of length of cables in metres at every one metre – To be embossed / printed
- The embossing/printing shall be progressive, automatic, in line and shall be legible and indelible.
- 5.8.11 The cables shall be supplied in non-returnable wooden or steel drums in coil form of length 1000 metres  $\pm 5\%$ .
- 5.8.12 Progressive markings to read "FRLS" at every 5 metres shall be provided by embossing on the outer sheath of all cables.
- 5.8.13 The cable cores shall be laid up with fillers between the cores wherever necessary. The fillers should not be stick to insulation and inner sheath.

#### **6.0.0 PACKING AND MARKING:**

- 6.1.0 The cable shall be wound on a non-returnable drum in length of 1000 metres  $\pm 5\%$  and packed. Cables of size 1C-240 sq.mm / 2C-185 sq.mm and above sizes can be supplied in 500 mtrs drum length or as mentioned in enquiry/purchase order. The packing shall be suitable for keeping it in outside which shall withstand heavy rain & dusty environment. The remaining length shall be supplied in a single drum. Cut bits or not acceptable. Over all quantity tolerance against each size shall be +0%, -2%.
- 6.1.1 The wooden drum shall be provided as per IS 10418.

- 6.1.2 The ends of the cable shall be properly sealed with heat shrinkable PVC / rubber caps secured by 'U' nails so as to eliminate ingress of water during transportation, storage and erection.
- 6.1.3 The information as detailed in Clause 18.2 of IS 1554 (Part-I) shall be stencilled on each drum.
- 6.1.4 Non – hygroscopic PVC/ POLYETHYLENE sheet shall be provided on the surface of the barrel of the drum and over outermost layer of the cable.
- 6.1.5 Wood preservative anti-termite treatment shall be applied to the enter drum.
- 6.1.6 Each dream shall carry manufacturer's name, Purchaser's name, address, item number, contact number and type, size and length of cable and net gross weight stencilled on both sides of drum. A tag containing same information shall be attached to the leading end of the cable. An arrow and suitable accompanying wording shall be marked on one end of the reel indicating the direction in which it should be rolled.

**7.0.0 DOCUMENTS TO BE SUBMITTED AFTER AWARD OF CONTRACT:**

The data sheet shall be submitted in soft media, within 10 days from the date of order, for approval.

**8.0.0 INSPECTION AND TESTING:**

- 8.1.0 The cable shall be inspected and tested based on the following documents.

1. NTPC approved Quality Plan
2. BHEL Technical Specification (TEP)
3. BHEL Purchase order
4. BHEL approved suppliers data sheet

- 9.0.0 This specification meets NTPC contract specification. Hence no deviation shall be taken by the supplier.

|                                                                                                                                 |                    |                                                                                                                                                                       |                                                                                                                       |                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>PROJECT: NTPC-NCTPP<br/>DADRI-II (4X490MW)<br/>FGD PACKAGE<br/>CONTRACTOR:BHEL-RANIPET<br/>CONTRACT NO: .: CS-6130-109-9</b> |                    | <b>CONTRACT QUALITY<br/>REQUIREMENTS (CQR) for<br/>POWER &amp; CONTROL CABLE<br/>NTPC-NCTPP DADRI-II (4X490MW)<br/>FGD PACKAGE<br/>(BHEL CUST No: G501&amp; G502)</b> | <b>DOC.NO:<br/>BAP/QR/G501&amp;G502/<br/>P&amp;C:009<br/>Rev NO. : 00<br/>PAGE : Page 1 of 2<br/>DATE: 17 05 2018</b> | <b>##Enquiry No:<br/><br/>##Supplier Name:<br/><br/>##Offer reference:<br/><br/>##Date:</b> |
| <b>Sl. NO.</b>                                                                                                                  | <b>DESCRIPTION</b> | <b>BHEL/NTPC Requirements</b>                                                                                                                                         |                                                                                                                       | <b>##Specific confirmations by the vendor</b>                                               |

**ITEM: LT POWER & CONTROL CABLES**

|    |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
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| 01 | <b>Type Test Requirements</b> | <ol style="list-style-type: none"> <li>Vendor shall submit the type test reports of all the type tests as listed in SL NO:4 and carried out with in 10 years from the data of NTPC bid opening date 19 12 2017. These reports should be for the test conducted on the similar equipment to those proposed to be supplied under this enquiry and test(s) should have been either conducted at an independent laboratory (or) should have been witnessed by TPI/BHEL/NTPC.</li> <li>However if vendor is not able to submit the similar type test report as per above condition (or) in the case of type test reports are not found to be meeting the specification requirement, the vendor shall conduct all the tests at no additional cost to BHEL either at third party lab (or) own lab in the presence of TPI/BHEL/NTPC and submit the reports for approval</li> <li>Type Test reports review and approval by NTPC is a must</li> <li>The following type test certificates shall be submitted.</li> </ol> <p><b><u>CONDUCTOR</u></b></p> <ul style="list-style-type: none"> <li>✓ Resistance test : For Al/Cu</li> <li>✓ Tensile test : For circular non-compacted conductors only</li> <li>✓ Wrapping test: For circular non-compacted only</li> </ul> <p><b><u>ARMOUR WIRES/FORMED WIRES (If it is applicable)</u></b></p> <ul style="list-style-type: none"> <li>✓ Measurement of dimensions</li> <li>✓ Tensile test</li> <li>✓ Elongation test</li> <li>✓ Torsion test : For round wire only</li> <li>✓ Wrapping test: For aluminum wires/formed wires only</li> <li>✓ Resistance Test</li> <li>✓ Mass of zinc coating test : For GS formed wires/ wires only</li> <li>✓ Uniformity of Zinc coating t: For GS formed wires/wires only.</li> <li>✓ Adhesion test : For GS formed wires/wires only.</li> </ul> <p><b><u>PVC INSULATION &amp; PVC SHEATH</u></b></p> <ul style="list-style-type: none"> <li>✓ Test for thickness</li> <li>✓ Tensile strength and elongation test before ageing and after ageing</li> <li>✓ Ageing in air oven</li> <li>✓ Loss of mass test: For PVC Insulation &amp; PVC sheath only</li> <li>✓ Hot deformation test: PVC insulation &amp; PVC sheath only.</li> <li>✓ Shrinkage test</li> <li>✓ Thermal stability test: For PVC insulation &amp; PVC sheath only</li> <li>✓ Oxygen index test: For outer sheath only</li> <li>✓ Smoke density test : For other sheath only</li> <li>✓ Acid gas generation test: For outer sheath only</li> <li>✓ Heat shock Test: For PVC insulation &amp; sheath only</li> <li>✓ Hot set test ( For XLPE Insulation Only )</li> <li>✓ Water absorption test ( For XLPE Insulation only)</li> </ul> <p><b><u>COMPLETED CABLES</u></b></p> <ul style="list-style-type: none"> <li>✓ Flammability test as per IEC 332 Part – III. Cat -B</li> <li>✓ Insulation Resistance test (Volume Resistivity Method)</li> <li>✓ High Voltage Test</li> </ul> |  |
|----|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

|                                                                                                                      |             |                                                                                                                                                   |                                                                                                   |                                                                                |
|----------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| PROJECT: NTPC-NCTPP<br>DADRI-II (4X490MW)<br>FGD PACKAGE<br>CONTRACTOR:BHEL-RANIPET<br>CONTRACT NO: .: CS-6130-109-9 |             | CONTRACT QUALITY<br>REQUIREMENTS (CQR) for<br>POWER & CONTROL CABLE<br>NTPC-NCTPP DADRI-II (4X490MW)<br>FGD PACKAGE<br>(BHEL CUST No: G501& G502) | DOC.NO:<br>BAP/QR/G501&G502/<br>P&C:009<br>Rev NO. : 00<br>PAGE : Page 2 of 2<br>DATE: 17 05 2018 | ##Enquiry No:<br><br>##Supplier Name:<br><br>##Offer reference:<br><br>##Date: |
| Sl.<br>NO.                                                                                                           | DESCRIPTION | BHEL/NTPC Requirements                                                                                                                            |                                                                                                   | ##Specific<br>confirmations by the<br>vendor                                   |

**ITEM: LT POWER & CONTROL CABLES**

|    |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
|----|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|    |                          | 5. The Test reports along with test certificates shall also be given as PDF file with index sheet & page control thro Email & CD (File size to less than 9MB).(.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 02 | Quality Plan Requirement | <p>1. NTPC SQP ref: <b>SQP-0000-999-QOE-S-040 Rev: 00</b> Dt 21 01 2014 is applicable for Control cable and NTPC SQP ref: <b>SQP-0000-999-QOE-S-041 Rev 00</b> Dt 21 01 2014 is applicable for Power cable.</p> <p>2. The applicable NTPC SQPs for control and power cables are attached.</p> <p>3. Vendor shall submit the filled up Endorsement sheet for above NTPC approved SQPs separately for control cable and power cable with signature &amp; seal along with this offer (typical copy attached).</p>                                                                                                                                            |  |
|    |                          | <p>4. Specific confirmation for Document Package in the event of an order (2 hard copies + 2 CDs in PDF file) is to be given containing the following with proper linkages (.)</p> <ul style="list-style-type: none"> <li>(i) Index Sheet</li> <li>(ii) MQP/RQP/Endorsement sheet</li> <li>(iii) TCs identified by BHEL/NTPC for record for “CHP” and Verification portion as given in RQP/MQP.</li> <li>(iv) Final Inspection Report + all applicable Test Certificates</li> <li>(v) BHEL/BHEL authorized Inspection Agency report + TC</li> <li>(vi) Type test reports conducted/submitted with approval</li> <li><b>(vii) NTPC CHP/MDCC</b></li> </ul> |  |

**Supplier signature with seal**

**## Necessarily to be filled up by the vendor at the time of offer itself otherwise the offer may not be considered w.r.t Quality Requirements being customer specific requirements.**



| Item: 1.1 KV Power (XLPE & PVC) Insulated cables FRLS                                                                                                                                                                                                                                                                                                                              |                                            | STANDARD QUALITY PLAN (CONFORMING TO CODE: IS 1554 PART 1, IS 7098 Part-I AND NTPC TECHNICAL SPECIFICATION) |       |               |                               | QP. NO. 0000-999- QOE- S-041 REV-00 DATE : 03-02-12 |                                    | REVIEWED BY   |          | APPROVED BY |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------|---------------|-------------------------------|-----------------------------------------------------|------------------------------------|---------------|----------|-------------|--|
| Sl. No                                                                                                                                                                                                                                                                                                                                                                             | Component & Operations                     | Characteristics                                                                                             | Class | Type of check | Quantum of check              | Reference Document                                  | Acceptance Norms                   | Record Format | Agency   | Remarks     |  |
| 1                                                                                                                                                                                                                                                                                                                                                                                  | 2                                          | 3                                                                                                           | 4     | 5             | M C/N                         | 7                                                   | 8                                  | 9             | D* M C N | 11          |  |
| <b>Instructions:</b> 1) Cable manufacturer to maintain records to show co- relation of raw materials to finished cables i.e raw material batch/ lot no. should be traceable to the cable drum.<br>2) Cable manufacturer to maintain all quality control records identified as per all QP stages enumerated below whether it is identified for NTPC verification or witness or not. |                                            |                                                                                                             |       |               |                               |                                                     |                                    |               |          |             |  |
| <b>A Raw material/ Brought out Items</b>                                                                                                                                                                                                                                                                                                                                           |                                            |                                                                                                             |       |               |                               |                                                     |                                    |               |          |             |  |
| 1.01                                                                                                                                                                                                                                                                                                                                                                               | Aluminum                                   | 1. Make                                                                                                     | MA    | Verify        | 100%                          | MANUFACTURER APPROVED SOURCES                       | MANUFACTURER APPROVED SOURCES      | QCR           | V        | --          |  |
|                                                                                                                                                                                                                                                                                                                                                                                    |                                            | 2. Resistivity                                                                                              | MA    | Elect         | As per Cable Mnfr Std.        | IS5082                                              | IS5082                             | --do--        | P        | --          |  |
| 1.02                                                                                                                                                                                                                                                                                                                                                                               | PVC / XLPE/compound for insulation         | 1. Make                                                                                                     | MA    | Verify        | --do--                        | MANUFACTURER APPROVED SOURCES                       | MANUFACTURER APPROVED SOURCES      | --do--        | V        | --          |  |
|                                                                                                                                                                                                                                                                                                                                                                                    |                                            | 2. Type/ Grade                                                                                              | MA    | Verify        | 100%                          | NTPC ADS                                            | NTPC ADS                           | --do--        | V        | V           |  |
|                                                                                                                                                                                                                                                                                                                                                                                    |                                            | 3. All acceptance test as per manufacturer norms including thermal stability test for PVC insulation        | MA    | Verify        | As per manufacturer norms     | NTPC ADS                                            | NTPC ADS                           | --do--        | V        | V           |  |
| 1.03                                                                                                                                                                                                                                                                                                                                                                               | PVC Compound for Inner sheath              | 1. Make                                                                                                     | MA    | Verify        | --do--                        | MANUFACTURER APPROVED SOURCES                       | MANUFACTURER APPROVED SOURCES      | --do--        | V        | V           |  |
|                                                                                                                                                                                                                                                                                                                                                                                    |                                            | 2. Type/ Grade                                                                                              | MA    | Verify        | --do--                        | NTPC ADS                                            | NTPC ADS                           | --do--        | V        | V           |  |
| 1.04                                                                                                                                                                                                                                                                                                                                                                               | Steel wire / Formed Wire ( As applicable ) | 1. Make                                                                                                     | MA    | Verify        | --do--                        | MANUFACTURER APPROVED SOURCES                       | MANUFACTURER APPROVED SOURCES      | --do--        | V        | V           |  |
|                                                                                                                                                                                                                                                                                                                                                                                    |                                            | 2. Dimension                                                                                                | MA    | Meas          | 1 sample from each size / lot | NTPC APPROVED DATA SHEET & IS 3975                  | NTPC APPROVED DATA SHEET & IS 3975 | --do--        | P        | --          |  |
|                                                                                                                                                                                                                                                                                                                                                                                    |                                            | 3. All acceptance tests as per IS 3975                                                                      | MA    | Verify        | As per IS 3975                | IS 3975                                             | IS 3975                            | Supplier TC   | V        | --          |  |
| 1.05                                                                                                                                                                                                                                                                                                                                                                               | PVC compound for Sheath                    | 1. Make                                                                                                     | MA    | Verify        | As per manufacturer norms     | MANUFACTURER APPROVED SOURCES                       | MANUFACTURER APPROVED SOURCES      | QCR           | V        | --          |  |
|                                                                                                                                                                                                                                                                                                                                                                                    |                                            | 2. Type / Grade                                                                                             | MA    | Verify        | 100%                          | NTPC ADS                                            | NTPC ADS                           | QCR           | V        | V           |  |
|                                                                                                                                                                                                                                                                                                                                                                                    |                                            | 3. All acceptance test as per manufacturer norms                                                            | MA    | Verify        | As per manufacturer norms     | NTPC ADS                                            | NTPC ADS                           | QCR           | V        | V           |  |

| Item: 1.1 KV Power (XLPE & PVC) Insulated cables FRLS |                        | STANDARD QUALITY PLAN<br>(CONFORMING TO CODE: IS 1554 PART 1, IS 7098 Part-I AND NTPC TECHNICAL SPECIFICATION) |       |               |                                  | OP. NO. 0000-999- QOE- S-041<br>REV-00 DATE : 03-02-12<br>Page 2 of 11<br>VALID UP TO: 02-02-15 |                                        | REVIEWED BY<br>INDERJIT SINGH<br>VIKRAM TALWAR<br>RAJEEV GARG | APPROVED BY<br>Approved<br>A.K. Garg |        |    |    |                                                                                 |         |
|-------------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------|-------|---------------|----------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|--------------------------------------|--------|----|----|---------------------------------------------------------------------------------|---------|
| Sl. No                                                | Component & Operations | Characteristics                                                                                                | Class | Type of check | Quantum of check                 |                                                                                                 | Reference Document                     | Acceptance Norms                                              | Record Format                        | Agency |    |    |                                                                                 | Remarks |
|                                                       |                        |                                                                                                                |       |               | M                                | C/N                                                                                             |                                        |                                                               |                                      | D*     | M  | C  | N                                                                               |         |
| 1                                                     | 2                      | 3                                                                                                              | 4     | 5             | 6                                |                                                                                                 | 7                                      | 8                                                             | 9                                    | 10     |    |    | 11                                                                              |         |
|                                                       |                        | 4. Thermal Stability                                                                                           | MA    | Chem          | One sample / Batch               | --                                                                                              | NTPC ADS                               | NTPC ADS                                                      | QCR                                  | P      | -- | -- |                                                                                 |         |
|                                                       |                        | 5. Oxygen Index                                                                                                | MA    | Chem          | --do--                           | --                                                                                              | NTPC ADS/ IS 10810 Part 58             | NTPC ADS/ IS 10810 Part 58                                    | --do--                               | P      | -- | -- |                                                                                 |         |
|                                                       |                        | 6. Acid Gas Emission                                                                                           | MA    | Chem          | One sample / Batch               | --                                                                                              | NTPC ADS / IEC60754                    | NTPC ADS / IEC60754                                           | QCR                                  | P      | -- | -- |                                                                                 |         |
| 1.06                                                  | Wooden Drum            | 1. Dimension                                                                                                   | MI    | Meas          | Manuf. Std.                      | --                                                                                              | IS 10418                               | IS10418                                                       | --do--                               | P      | -- | -- |                                                                                 |         |
|                                                       |                        | 2. Anti termite treatment                                                                                      | MI    | Chem          | Cable manuf. std                 | --                                                                                              | CABLE MANUF. STD.                      | CABLE MANUF. STD.                                             | COC                                  | V      | V  | V  | COC from drum manuf.                                                            |         |
| 1.07                                                  | Steel Drum             | 1. Dimension                                                                                                   | MI    | Meas          | --do--                           | --                                                                                              | --do--                                 | --do--                                                        | QCR                                  | P      | -- | -- |                                                                                 |         |
|                                                       |                        | 2. Surface finish                                                                                              | MI    | Meas          | --do--                           | --                                                                                              | --do--                                 | --do--                                                        | --do--                               | P      | -- | -- |                                                                                 |         |
| B Process & Stage Inspection                          |                        |                                                                                                                |       |               |                                  |                                                                                                 |                                        |                                                               |                                      |        |    |    |                                                                                 |         |
| 2.01                                                  | Wire Drawing           | 1.Surface finish                                                                                               | MA    | Visual        | One sample/Settin g of each size | --                                                                                              | SHOULD BE SMOOTH & FREE FROM SCRATCHES | SHOULD BE SMOOTH & FREE FROM SCRATCHES                        | QCR                                  | P      | -- | -- |                                                                                 |         |
|                                                       |                        | 2. Wire Diameter                                                                                               | MA    | Meas          | --do--                           | --                                                                                              | NTPC ADS                               | NTPC ADS                                                      | --do--                               | P      | -- | -- |                                                                                 |         |
|                                                       |                        | 3. Tensile test                                                                                                | CR    | Mech          | --do--                           | --do--                                                                                          | --do--                                 | --do--                                                        | --do--                               | P      | V  | V  | Refer Sl. No.3.03(iii)                                                          |         |
|                                                       |                        | 4. Wrapping test                                                                                               | CR    | Mech          | --do--                           | --do--                                                                                          | --do--                                 | --do--                                                        | --do--                               | P      | V  | V  | --do--                                                                          |         |
| 2.02                                                  | Bunching / stranding   | 1. No. of wires                                                                                                | MA    | Meas          | --do--                           | --                                                                                              | NTPC ADS                               | NTPC ADS                                                      | --do--                               | P      | -- | -- |                                                                                 |         |
|                                                       |                        | 2.Dia of wire                                                                                                  | MA    | Meas          | --do--                           | --                                                                                              | --do--                                 | --do--                                                        | --do--                               | P      | -- | -- |                                                                                 |         |
|                                                       |                        | 3. Dimension of Conductor                                                                                      | MA    | Meas          | --do--                           | --do--                                                                                          | --do--                                 | --do--                                                        | --do--                               | P      | -- | -- |                                                                                 |         |
|                                                       |                        | 4.Direction of lay                                                                                             | MA    | Visual        | --do--                           | --do--                                                                                          | ---                                    | --do--                                                        | --do--                               | --do-- | P  | -- | --                                                                              |         |
|                                                       |                        | 5.Records of strand breakage / welding during conductor stranding                                              | MA    | Verify        | --do--                           | --                                                                                              | IS 8130                                | IS8130                                                        | --do--                               | P      | -- | -- |                                                                                 |         |
|                                                       |                        | 6.Surface finish                                                                                               | MA    | Visual        | --do--                           | -                                                                                               | --do--                                 | --do--                                                        | --do--                               |        |    |    |                                                                                 |         |
|                                                       |                        | 7. DC Resistance                                                                                               | CR    | Meas          | --do--                           | -                                                                                               | IS8130/NTPC ADS                        | IS8130/ NTPC ADS                                              | --do--                               | P      | -- | -- |                                                                                 |         |
| 2.03                                                  | Insulation extrusion   | 1. Surface finish                                                                                              | MA    | Visual        | One sample/Settin g of each size | -                                                                                               | NTPC spec                              | SHOULD BE SMOOTH. NO POROSITY IS PERMITTED.                   | QCR                                  | P      | -- | -- | XLPE/ PVC compound shall be preferably loaded in to extruder by suction method. |         |

LEGEND:- \*RECORDS, IDENTIFIED WITH "TICK" UNDER COLUMN "D" SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.

-M:MANUFACTURER/SUPPLIER, C:MAIN SUPPLIER, N:NTPC, P:PERFORM W:WITNESS,V:VERIFICATION AS APPROPRIATE, CHP:NTPC SHALL IDENTIFY IN COLUMN "N" AS "W"

FORMAT NO:QS-01-QA1-P-10/F3-R1

| Item: 1.1 KV Power (XLPE & PVC) Insulated cables FRLS |                            | STANDARD QUALITY PLAN<br>(CONFORMING TO CODE: IS 1554 PART 1, IS 7098 Part-I AND NTPC TECHNICAL SPECIFICATION) |       |               |                                  |                                    | QP. NO. 0000-999- QOE- S-041<br>REV-00 DATE : 03-02-12<br>Page 3 of 11 |                  | REVIEWED BY<br>INDERJIT SINGH<br>VIKRAM TALWAR<br>RAJEEV GARG |        | APPROVED BY<br>APK: Garg<br>D..... |    |                                                                                  |
|-------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------|-------|---------------|----------------------------------|------------------------------------|------------------------------------------------------------------------|------------------|---------------------------------------------------------------|--------|------------------------------------|----|----------------------------------------------------------------------------------|
| Sl. No                                                | Component & Operations     | Characteristics                                                                                                | Class | Type of check | Quantum of check                 |                                    | Reference Document                                                     | Acceptance Norms | Record Format                                                 | Agency |                                    |    | Remarks                                                                          |
|                                                       |                            |                                                                                                                |       |               | M                                | C/N                                |                                                                        |                  |                                                               | D*     | M                                  | C  |                                                                                  |
| 1                                                     | 2                          | 3                                                                                                              | 4     | 5             | 6                                | 7                                  | 8                                                                      | 9                | 10                                                            | 11     |                                    |    |                                                                                  |
|                                                       |                            | 2.Colour of cores                                                                                              | MA    | Visual        | One sample/Settin g of each size | NTPC ADS                           | NTPC ADS                                                               | QCR              | P                                                             | --     | --                                 | -- |                                                                                  |
|                                                       |                            | 3.Thickness                                                                                                    | CR    | Meas          | --do--                           | NTPC ADS                           | NTPC ADS                                                               | --do--           | P                                                             | --     | --                                 | -- |                                                                                  |
|                                                       |                            | 4.Spark Test                                                                                                   | CR    | Elect         | 100%                             | CABLE MANUF. STD.                  | No FAILURE                                                             | --do --          | P                                                             | V      | V                                  | V  | 1.Spark test failure record is to be verified.<br>2.Core repairing not permitted |
|                                                       |                            | 5. Hot Set                                                                                                     | CR    | Mech          | One sample/Settin g of each size | IS 7098- Part I                    | IS 7098- Part I                                                        | --do--           | P                                                             | --     | --                                 | -- | Sample is to be taken from both top & bottom end                                 |
|                                                       |                            | 1. Core sequence                                                                                               | MA    | Visual        | --do--                           | IS 1554 (Part I) & IS 7098- Part I | IS 1554 (Part I) & IS 7098- Part I                                     | --do--           | P                                                             | --     | --                                 | -- |                                                                                  |
| 2.04                                                  | Laying up                  | 2. Direction of lay                                                                                            | MA    | Visual        | --do--                           | --do--                             | --do--                                                                 | --do--           | P                                                             | --     | --                                 | -- |                                                                                  |
| 2.05                                                  | Inner Sheath               | 3. Dia over laid up core                                                                                       | MA    | Meas          | --do--                           | NTPC ADS                           | NTPC ADS                                                               | --do--           | P                                                             | --     | --                                 | -- |                                                                                  |
|                                                       |                            | 1.Colour                                                                                                       | MA    | Visual        | --do--                           | --do--                             | --do--                                                                 | --do--           | P                                                             | --     | --                                 | -- |                                                                                  |
|                                                       |                            | 2. Surface Finish                                                                                              | MA    | Visual        | 100%                             | NTPC SPECIFICATION                 | FISH EYE, BLOW HOLE NOT PERMITTED                                      | --do--           | P                                                             | --     | --                                 | -- |                                                                                  |
| 2.06                                                  | Armouring ( As Applicable) | 3.Thickness                                                                                                    | MA    | Meas          | One sample/Settin g of each size | NTPC ADS                           | NTPC ADS                                                               | --do--           | P                                                             | --     | --                                 | -- |                                                                                  |
|                                                       |                            | 4.Dia over inner sheath                                                                                        | MI    | Meas          | --do--                           | --do--                             | --do--                                                                 | --do--           | P                                                             | --     | --                                 | -- |                                                                                  |
|                                                       |                            | 1.Dimension                                                                                                    | MA    | Meas          | --do--                           | --do--                             | --do--                                                                 | --do--           | P                                                             | --     | --                                 | -- |                                                                                  |
|                                                       |                            | 2.No. of wires / strip                                                                                         | MA    | Meas.         | --do--                           | --do--                             | --do--                                                                 | --do--           | P                                                             | --     | --                                 | -- |                                                                                  |
|                                                       |                            | 3. Direction of lay                                                                                            | MA    | Visual        | --do--                           | IS 1554 (Part I) & IS 7098- Part I | IS 1554 (Part I) & IS 7098- Part I                                     | QCR              | P                                                             | --     | --                                 | -- |                                                                                  |

LEGEND:- \*RECORDS, IDENTIFIED WITH "TICK" UNDER COLUMN "D" SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.

-M:MANUFACTURER/SUPPLIER, C:MAIN SUPPLIER, N:NTPC, P:PERFORM W:WITNESS,V:VERIFICATION AS APPROPRIATE, CHP:NTPC SHALL IDENTIFY IN COLUMN "N" AS "W/"  
FORMAT NO:QS-01-QAI-P-10/F3-R1

| Item: 1.1 KV Power (XLPE & PVC) Insulated cables FRLS |                                                   | STANDARD QUALITY PLAN<br>(CONFORMING TO CODE: IS 1554 PART 1, IS 7098 Part-I AND NTPC TECHNICAL SPECIFICATION) |       |               |                                  |      | QP. NO. 0000-999- QOE- S-041<br>REV-00 DATE : 03-02-12<br>Page 4 of 11<br>VALID UP TO: 02-02-15                                                                                                                                                                                                                                                                                                                                         |                                                                   | REVIEWED BY<br>INDERJIT SINGH<br>VIKRAM TALWAR<br>RAJEEV GARG |    | APPROVED BY<br>RAJEEV GARG |    | AGENCY: C, N |    |                                                                                | Remarks |
|-------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------|---------------|----------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|----|----------------------------|----|--------------|----|--------------------------------------------------------------------------------|---------|
| Sl. No                                                | Component & Operations                            | Characteristics                                                                                                | Class | Type of check | Quantum of check                 |      | Reference Document                                                                                                                                                                                                                                                                                                                                                                                                                      | Acceptance Norms                                                  | Record Format                                                 | D* | M                          | C  | N            |    |                                                                                |         |
|                                                       |                                                   |                                                                                                                |       |               | M                                | C/N  |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                   |                                                               |    |                            |    |              |    |                                                                                |         |
| 1                                                     | 2                                                 | 3                                                                                                              | 4     | 5             | 6                                |      | 7                                                                                                                                                                                                                                                                                                                                                                                                                                       | 8                                                                 | 9                                                             | 10 |                            |    |              | 11 |                                                                                |         |
|                                                       |                                                   | 4.Coverage & Quality of armouring                                                                              | MA    | Meas.         | 100%                             | --   | Min. area of coverage of armouring shall be 90%. The gap between amour wires / formed wires shall not exceed one amour wire/ formed wire space & there shall be no cross over/ over riding of amour wire / formed wire. Zn rich paint shall be applied on amour joint surface of G.S. Wire /formed wire. The breaking load of amour wire joint shall not be less than 95% of that amour wire / formed wire. (As per NTPC specification) |                                                                   | QCR                                                           | P  | --                         | -- | --           |    |                                                                                |         |
|                                                       |                                                   | 5 Dia over armouring                                                                                           | MA    | Meas.         | One sample/Settin g of each size | --   | NTPC ADS                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                   | --do--                                                        | P  | --                         | -- | --           |    | PVC FRLS compound shall be preferably loaded in to extruder by suction method. |         |
| 2.07                                                  | Outer Sheath                                      | 1. Surface finish                                                                                              | MA    | Visual        | 100%                             | --   | Pimple, Fish Eye, Burnt particles, Blow Hole not permitted. Repairing on outer sheath not permitted. (As per NTPC specification)                                                                                                                                                                                                                                                                                                        |                                                                   | --do--                                                        | P  | --                         | -- | --           |    |                                                                                |         |
|                                                       |                                                   | 2.Colour of sheath                                                                                             | MA    | Visual        | One sample/Settin g of each size | --   | NTPC ADS                                                                                                                                                                                                                                                                                                                                                                                                                                | NTPC ADS                                                          | --do--                                                        | P  | --                         | -- | --           |    |                                                                                |         |
|                                                       |                                                   | 3. Dia over outer sheath                                                                                       | MA    | Meas          | --do--                           | --   | NTPC ADS                                                                                                                                                                                                                                                                                                                                                                                                                                | NTPC ADS                                                          | --do--                                                        | P  | --                         | -- | --           |    |                                                                                |         |
|                                                       |                                                   | 4.Thickness of outer sheath                                                                                    | CR    | Meas          | --do--                           | -    | --do--                                                                                                                                                                                                                                                                                                                                                                                                                                  | --do--                                                            | --do--                                                        | P  | --                         | -- | --           |    |                                                                                |         |
|                                                       |                                                   | 5. Embossing quality                                                                                           | MA    | Visual        | 100%                             | -    | Drum no., IS1554-1 / IS7098-1,Cable size, Voltage grade & Words "FRLS" at every 5 meter is to be embossed. Embossing shall be automatic, in line & marking shall be legible & indelible. (As per NTPC specification)                                                                                                                                                                                                                    |                                                                   | --do--                                                        | P  | --                         | -- | --           |    | Drum no. on cable may be embossed/print ed                                     |         |
|                                                       |                                                   | 6. Sequential marking                                                                                          | MA    | Visual        | Full length                      | --   | Sequential marking of length of cable in meter at every one meter is to be embossed / printed. Embossing / printing shall be progressive, automatic, in line & marking shall be legible & indelible. ( A s per NTPC specification )                                                                                                                                                                                                     |                                                                   | --do--                                                        | P  | --                         | -- | --           |    |                                                                                |         |
| C                                                     | Finished Cables                                   |                                                                                                                |       |               |                                  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                   |                                                               |    |                            |    |              |    |                                                                                |         |
| 3.01                                                  | Type test reports clearance from NTPC Engineering | All type tests as per NTPC specification                                                                       | CR    | Doc.          | 100%                             | 100% | NTPC SPECIFICATION / NTPC ADS / IS 1554 (PartI) & IS 7098- Part 1                                                                                                                                                                                                                                                                                                                                                                       | NTPC SPECIFICATION / NTPC ADS / IS 1554 (PartI) & IS 7098- Part 1 | --do--                                                        | ✓  | P                          | V  | V            |    |                                                                                |         |

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FORMAT NO:QS-01-QAL-P-10/F3-R1

| Item: 1.1 KV Power (XLPE & PVC) Insulated FRLS cables |                                             | STANDARD QUALITY PLAN<br>(CONFORMING TO CODE: IS 1554 PART 1, IS 7098 Part-I AND NTPC TECHNICAL SPECIFICATION) |       |               |                                                                                        | QP. NO. 0000-999- QOE- S-041<br>REV-00 DATE : 03-02-12<br>Page 5 of 11<br>VALID UP TO: 02-02-15 |                                               | REVIEWED BY<br>INDERJIT SINGH<br>VIKRAM TALWAR<br>RAJEEV GARG | APPROVED BY<br>A.K. Garg<br>NTPC |    |        |   |   |              |
|-------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------|---------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------|----------------------------------|----|--------|---|---|--------------|
| Sl. No                                                | Component & Operations                      | Characteristics                                                                                                | Class | Type of check | Quantum of check                                                                       |                                                                                                 | Reference Document                            | Acceptance Norms                                              | Record Format                    | D* | Agency |   |   | Remarks      |
|                                                       |                                             |                                                                                                                |       |               | M                                                                                      | C/ N                                                                                            |                                               |                                                               |                                  |    | M      | C | N |              |
| 1                                                     | 2                                           | 3                                                                                                              | 4     | 5             | 6                                                                                      |                                                                                                 | 7                                             | 8                                                             | 9                                |    | 10     |   |   | 11           |
| 3.02                                                  | Routine Tests                               | 1.High Voltage test at room temperature                                                                        | CR    | Elect         | 100%                                                                                   |                                                                                                 | NTPC ADS / IS 1554 (Part I) & IS 7098- Part I | NTPC ADS / IS 1554 (Part I) & IS 7098- Part I                 | Test certificate                 | ✓  | P      | W | W | Refer note 2 |
|                                                       |                                             | 2.Conductor Resistance                                                                                         | CR    | Elect         | 100%                                                                                   |                                                                                                 | NTPC ADS / IS 1554 (Part I) & IS 7098- Part I | NTPC ADS / IS 1554 (Part I) & IS 7098- Part I                 | Test certificate                 | ✓  | P      | W | W | Refer note 2 |
| 3.03                                                  | Acceptance Tests                            |                                                                                                                |       |               |                                                                                        |                                                                                                 |                                               |                                                               |                                  |    |        |   |   |              |
| 3.03 (i)                                              | Construction of finished Cable              | 1. OD of Cable                                                                                                 | MA    | Meas.         | Each type & size of cables as per sampling plan of IS 1554 ( Part I) & IS 7098- Part I |                                                                                                 | NTPC ADS                                      | NTPC ADS                                                      | --do--                           | ✓  | P      | W | W |              |
|                                                       |                                             | 2. Laying of core                                                                                              | CR    | Visual        | --do--                                                                                 |                                                                                                 | NTPC ADS / IS 1554 (Part I) & IS 7098- Part I | NTPC ADS / IS 1554 (Part I) & IS 7098- Part I                 | --do--                           | ✓  | P      | W | W |              |
|                                                       |                                             | 3. Core Identification                                                                                         | CR    | Visual        | --do--                                                                                 |                                                                                                 | --do--                                        | --do--                                                        | --do--                           | ✓  | P      | W | W |              |
|                                                       |                                             | 4. Colour of outer sheath                                                                                      | MA    | Visual        | --do--                                                                                 |                                                                                                 | NTPC ADS                                      | NTPC ADS                                                      | --do--                           | ✓  | P      | W | W |              |
|                                                       |                                             | 5. Inner sheath thickness                                                                                      | CR    | Meas          | - do -                                                                                 |                                                                                                 | --do--                                        | --do--                                                        | --do--                           | ✓  | P      | W | W |              |
|                                                       |                                             | 6. Inner sheath colour                                                                                         | MA    | Visual        | - do -                                                                                 |                                                                                                 | - do -                                        | - do -                                                        | --do--                           | ✓  | P      | W | W |              |
| 3.03 (ii)                                             | Armour wires/ Formed wires ( if applicable) | 1.Dimensions                                                                                                   | CR    | Meas          | --do--                                                                                 |                                                                                                 | NTPC ADS /IS1554(PartI)/IS3975                | NTPC ADS /IS1554(PartI) /IS3975                               | --do--                           | ✓  | P      | W | W |              |
|                                                       |                                             | 2. No. of wires/ formed wire                                                                                   | CR    | Mech          | -- do --                                                                               |                                                                                                 | --do--                                        | --do--                                                        | --do--                           | ✓  | P      | W | W |              |
|                                                       |                                             | 3. Tensile test                                                                                                | CR    | Mech          | --do--                                                                                 |                                                                                                 | --do--                                        | --do--                                                        | --do--                           | ✓  | P      | W | W |              |
|                                                       |                                             | 4. Elongation test                                                                                             | CR    | Mech          | --do--                                                                                 |                                                                                                 | --do--                                        | --do--                                                        | --do--                           | ✓  | P      | W | W |              |
|                                                       |                                             | 5.Torsion test ( for round wires only)                                                                         | CR    | Mech          | --do--                                                                                 |                                                                                                 | --do--                                        | --do--                                                        | --do--                           | ✓  | P      | W | W |              |
|                                                       |                                             | 6. Wrapping test                                                                                               | CR    | Mech          | --do--                                                                                 |                                                                                                 | --do--                                        | --do--                                                        | --do--                           | ✓  | P      | W | W |              |
|                                                       |                                             | 7. Resistance test                                                                                             | CR    | Mech          | --do--                                                                                 |                                                                                                 | --do--                                        | --do--                                                        | --do--                           | ✓  | P      | W | W |              |

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FORMAT NO:QS-01-QAL-P-10/F3-R1

| Item: 1.1 KV Power (XLPE & PVC) Insulated FRLS cables |                        | STANDARD QUALITY PLAN<br>(CONFORMING TO CODE: IS 1554 PART 1, IS 7098 Part-I AND NTPC TECHNICAL SPECIFICATION) |       |               |                                                                                         |  | QP. NO. 0000-999- QOE- S-041<br>REV-00 DATE : 03-02-12<br>Page 6 of 11<br>VALID UP TO: 02-02-15 |                                |                  | REVIEWED BY<br>INDERJIT SINGH<br>VIKRAM TALWAR<br>RAJEEV GARG |   | APPROVED BY<br>A.K. Garg<br>NTPC |   |                                                                                                                                                                                                        |  |
|-------------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------|-------|---------------|-----------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------|--------------------------------|------------------|---------------------------------------------------------------|---|----------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Sl. No                                                | Component & Operations | Characteristics                                                                                                | Class | Type of check | Quantum of check<br>M C/N                                                               |  | Reference Document                                                                              | Acceptance Norms               | Record Format    | D*                                                            | M | C                                | N | Remarks                                                                                                                                                                                                |  |
| 1                                                     | 2                      | 3                                                                                                              | 4     | 5             | 6                                                                                       |  | 7                                                                                               | 8                              | 9                | 10                                                            |   |                                  |   | 11                                                                                                                                                                                                     |  |
|                                                       |                        | 8.Mass of Zinc coating                                                                                         | CR    | Meas          | Each type & size of cables as per sampling plan of IS 1554 ( Part 1 ) & IS 7098- Part I |  | NTPC ADS /IS1554(Part1)/IS3975                                                                  | NTPC ADS /IS1554(Part1)/IS3975 | Test certificate | ✓                                                             |   | P                                | W | W                                                                                                                                                                                                      |  |
|                                                       |                        | 9. Uniformity of Zinc Coating                                                                                  | CR    | Chem.         | --do--                                                                                  |  | --do--                                                                                          | --do--                         | --do--           | ✓                                                             |   | P                                | W | W                                                                                                                                                                                                      |  |
|                                                       |                        | 10.Adhesion test                                                                                               | CR    | Mech          | --do--                                                                                  |  | --do--                                                                                          | --do--                         | --do--           | ✓                                                             |   | P                                | W | W                                                                                                                                                                                                      |  |
|                                                       |                        | 11.Freedom from defects                                                                                        | CR    | Visual        | --do--                                                                                  |  | --do--                                                                                          | --do--                         | --do--           | ✓                                                             |   | P                                | W | W                                                                                                                                                                                                      |  |
| 3.03 (iii)                                            | Conductor              | 1.Resistance Test                                                                                              | CR    | Elect         | --do--                                                                                  |  | --do--                                                                                          | --do--                         | --do--           | ✓                                                             |   | P                                | W | W                                                                                                                                                                                                      |  |
|                                                       |                        | 2.Tensile test ( For aluminum conductor only )                                                                 | CR    | Mech          | Each type & size of cables as per sampling plan of IS 1554 (Part 1)/7098(Part-1)        |  | NTPC ADS/ IS 8130                                                                               | NTPC ADS/ IS 8130              | --do--           | ✓                                                             |   | P                                | W | Test report of manufacturer to be reviewed as per Sl. No. 2.01 for Tensile test & wrapping test ( for Aluminum ) in case this test is not applicable for cable under inspection as per IS 8130 cl. 6.2 |  |
|                                                       |                        | 3. Wrapping test (For aluminum conductor only)                                                                 | CR    | Mech          | --do--                                                                                  |  | --do--                                                                                          | --do--                         | --do--           | ✓                                                             |   | P                                | P | W                                                                                                                                                                                                      |  |

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FORMAT NO:QS-01-QAL-P-10/F3-R1

| Item: 1.1 KV Power (XLPE & PVC) Insulated FRLS cables |                                  | STANDARD QUALITY PLAN<br>(CONFORMING TO CODE: IS 1554 PART 1, IS 7098 Part-1 AND NTPC TECHNICAL SPECIFICATION) |       |               |                                                                                        | QP. NO. 0000-999- QOE- S-041<br>REV-00 DATE : 03-02-12<br>Page 7 of 11<br>VALID UP TO: 02-02-15 |                                             | REVIEWED BY<br>INDERJIT SINGH<br>VIKRAM TALWAR<br>RAJEEV GARG |                  | APPROVED BY:<br>A.K. Garg<br>M.P.C., NTPC |        |   |   |                   |                    |
|-------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------|-------|---------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------|------------------|-------------------------------------------|--------|---|---|-------------------|--------------------|
| Sl. No                                                | Component & Operations           | Characteristics                                                                                                | Class | Type of check | Quantum of check                                                                       |                                                                                                 | Reference Document                          | Acceptance Norms                                              | Record Format    | D*                                        | Agency |   |   | Remarks           |                    |
|                                                       |                                  |                                                                                                                |       |               | M                                                                                      | C/ N                                                                                            |                                             |                                                               |                  |                                           | M      | C | N |                   |                    |
| 1                                                     | 2                                | 3                                                                                                              | 4     | 5             | 6                                                                                      |                                                                                                 | 7                                           | 8                                                             | 9                |                                           | 10     |   |   | 11                |                    |
| 3.03 (IV)                                             | PVC/XLPE/Insulation & PVC Sheath | 1. Thickness of insulation & PVC Sheath                                                                        | CR    | Meas          | Each type & size of cables as per sampling plan of IS 1554 (Part 1) / IS 7098 (Part-1) |                                                                                                 | NTPC ADS/ IS 1554 (Part I) & IS 7098 Part I | NTPC ADS/ IS 1554 (Part I) & IS 7098 Part I                   | Test Certificate | ✓                                         | P      | W | W |                   |                    |
|                                                       |                                  | 2. Tensile strength & elongation at break of insulation & outer sheath (before ageing)                         | CR    | Mech          | Each type & size of cables as per sampling plan of IS 1554 (Part 1) / IS 7098 (Part-1) |                                                                                                 | NTPC ADS/ IS 1554 (Part I) & IS 7098 Part I | NTPC ADS/ IS 1554 (Part I) & IS 7098 Part I                   | Test Certificate | ✓                                         | P      | W | W | Refer Note 3 Also |                    |
|                                                       |                                  | 3. Tensile strength & elongation at break of insulation & outer sheath (after Ageing )                         | CR    | Mech          | Refer Note 3                                                                           |                                                                                                 | --do--                                      | --do--                                                        | --do--           | --do--                                    | ✓      | P | W | W                 | Refer Note 3 ath ) |
|                                                       |                                  | 4. Insulation resistance (Volume resistivity method)                                                           | CR    | Elect         | Each type & size of cables as per sampling plan of IS 1554 ( Part 1 ) & IS 7098-Part I |                                                                                                 | --do--                                      | --do--                                                        | --do--           | --do--                                    | ✓      | P | W | W                 |                    |
|                                                       |                                  | 5. High voltage test at room temperature                                                                       | CR    | Elect         | Each type & size of cables as per sampling plan of IS 1554 ( Part 1 ) & IS 7098-Part I |                                                                                                 | --do--                                      | --do--                                                        | --do--           | --do--                                    | ✓      | P | W | W                 |                    |
|                                                       |                                  | 6. Hot Set test ( for XLPE insulation only)                                                                    | CR    | Phy           | --do--                                                                                 |                                                                                                 | --do--                                      | --do--                                                        | --do--           | --do--                                    | ✓      | P | W | W                 |                    |
|                                                       |                                  | 7. Thermal stability on PVC Insulation and outer sheath                                                        | CR    | Chem          | One sample of each offered lot of all offered sizes                                    |                                                                                                 | --do--                                      | --do--                                                        | --do--           | --do--                                    | ✓      | P | W | W                 |                    |

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| Item: 1.1 KV Power (XLPE & PVC) Insulated FRLS cables |                        | STANDARD QUALITY PLAN<br>(CONFORMING TO CODE: IS 1554 PART 1, IS 7098 Part-I AND NTPC TECHNICAL SPECIFICATION) |       |               |                                                     | Q.P. NO. 0000-999- QOE- S-041<br>REV-00 DATE : 03-02-12<br>Page 8 of 11<br>VALID UP TO: 02-02-15 |                                                                                                                                                                                                                                                                                                                                                                                                          | REVIEWED BY<br>INDERJIT SINGH<br>VIKRAM TALWAR<br>RAMEEV |                  | APPROVED BY<br>A.K. Garg<br>Dt.... |                 | Remarks |         |
|-------------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------|-------|---------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------|------------------------------------|-----------------|---------|---------|
| Sl. No                                                | Component & Operations | Characteristics                                                                                                | Class | Type of check | Quantum of check<br>M C/N                           |                                                                                                  | Reference Document                                                                                                                                                                                                                                                                                                                                                                                       | Acceptance Norms                                         | Record Format    | D*                                 | Agency<br>M C N |         | Remarks |
| 1                                                     | 2                      | 3                                                                                                              | 4     | 5             | 6                                                   |                                                                                                  | 7                                                                                                                                                                                                                                                                                                                                                                                                        | 8                                                        | 9                |                                    | 10              |         | 11      |
|                                                       |                        | 8.Oxygen index Test on outer sheath                                                                            | CR    | Chem          | One sample of each offered lot of all offered sizes |                                                                                                  | NTPC ADS / IS10810 Part 58                                                                                                                                                                                                                                                                                                                                                                               | NTPC A.D.S                                               | --do--           | ✓                                  | P               | W       | W       |
|                                                       |                        | 9.Smoke density rating test on outer sheath                                                                    | CR    | Chem          | One sample of each offered lot of all offered sizes |                                                                                                  | NTPC ADS & ASTM D2843                                                                                                                                                                                                                                                                                                                                                                                    | NTPC ADS                                                 | --do--           | ✓                                  | P               | W       | W       |
|                                                       |                        | 10.Acid gas generation test on outer sheath                                                                    | CR    | Chem          | One sample of each offered lot of all offered sizes |                                                                                                  | NTPC ADS & IEC 60754-1                                                                                                                                                                                                                                                                                                                                                                                   | NTPC ADS                                                 | Test Certificate | ✓                                  | P               | W       | W       |
|                                                       |                        | 11.Flammability test on completed cable                                                                        | CR    | Chem          | Refer Note 4                                        | Refer Note 4                                                                                     | NTPC ADS & IEC 60332 Part-3 (Category-B)                                                                                                                                                                                                                                                                                                                                                                 | NTPC ADS                                                 | --do--           | ✓                                  | P               | W       | W       |
|                                                       |                        | 12.Surface finish & length measurement.                                                                        | CR    | Visual & Meas | One length of each size                             | One length of each size                                                                          | (1) Drum no. (2) IS1554-1 /IS7098-1, Cable size, Voltage grade & Words " FRLS" at every 5 meter is to be embossed. Embossing shall be automatic, in line & marking shall be legible & indelible. (3) Sequential marking of length of cable in meter at every one meter is to be embossed / printed. Embossing / printing shall be progressive, automatic, in line & marking shall be legible & indelible |                                                          | --do--           | ✓                                  | P               | W       | W       |
|                                                       |                        | 13. Sequence of cores armour coverage, gap between two consecutive armour/ formed wire                         | CR    | Visual & Meas | One length of each size                             | One length of each size                                                                          | Min. area of coverage of armouring shall be 90%. The gap between armour wires / formed wires shall not exceed one armour wire/ formed wire space & there shall be no cross over/ over riding of armour wire / formed wire. Zn rich paint shall be applied on armour joint surface of G.S. Wire /formed wire                                                                                              |                                                          | --do--           | ✓                                  | P               | W       | W       |
| 4                                                     | Packing                | 1. Sealing                                                                                                     | MA    | Visual        | 100%                                                | 100%                                                                                             | (1)IS1554(Part-I) & IS 7098-Part I (2) The surface of the drum and the outer most cable layer shall be covered with water proof cover. (3) Both the ends of cables shall be properly sealed with heat shrinkable PVC/ rubber caps secured by "U" nails.                                                                                                                                                  |                                                          | QCR              | ✓                                  | P               | --      | --      |
| 4.01                                                  | Identification         | NTPC Sealing                                                                                                   | MA    | Visual        | 100%                                                | 100%                                                                                             | Sealing shall be visible                                                                                                                                                                                                                                                                                                                                                                                 |                                                          | QCR              | ✓                                  | P               | V       | V       |

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FORMAT NO:QS-01-QAL-P-10/F3-R1



|        |                        |                                                                  |                                                                                                                       |                                                                                                 |                                                               |                                          |                  |               |        |         |
|--------|------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------|------------------|---------------|--------|---------|
|        |                        | <b>Item: 1.1 KV Power (XLPE &amp; PVC) Insulated FRLS cables</b> | <b>STANDARD QUALITY PLAN</b><br>(CONFORMING TO CODE: IS 1554 PART 1, IS 7098 Part-I AND NTPC TECHNICAL SPECIFICATION) | QP. NO. 0000-999- QOE- S-041<br>REV-00 DATE : 03-02-12<br>Page 9 of 11<br>VALID UP TO: 02-02-15 | REVIEWED BY<br>Inderjit Singh<br>Vikram Talwar<br>Rajeev Garg | APPROVED BY<br>A.K. Garg<br>Dt. 03-02-12 |                  |               |        |         |
| Sl. No | Component & Operations | Characteristics                                                  | Class                                                                                                                 | Type of check                                                                                   | Quantum of check                                              | Reference Document                       | Acceptance Norms | Record Format | Agency | Remarks |
| 1      | 2                      | 3                                                                | 4                                                                                                                     | 5                                                                                               | 6                                                             | 7                                        | 8                | 9             | 10     | 11      |

**Notes:**

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |  |  |  |  |  |  |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| 1)             | If the compound manufacturer is carrying out Ageing test , test report of compound manufacturer is to be reviewed. If the compound manufacturer is not carrying out ageing test, then cable manufacturer is to carry out ageing test & test report is to be reviewed ( quantum of ageing test sample shall be one sample /batch )                                                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |
| 2)             | (a) <b>In case of manufacturers / supplier who have supplied cables in the past through Corporate Centre/ Regional Offices</b> :- Routine Test of manufacturer internal test report are to be verified by NTPC at the time of final inspection.<br>2(b) <b>In case of manufacturers / supplier WHO HAVE NOT SUPPLIED cables in the past through Corporate Centre/ Regional Offices</b> ,- Routine Test are to be witnessed by Main Contractor & NTPC. This is in addition to manufacturer internal test report to be verified by NTPC at the time of final inspection. |  |  |  |  |  |  |  |  |  |
| 3)             | <b>Refer table on page 10 &amp; 11 of 11 for Sampling &amp; Acceptance criteria.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |
| 4)             | For PVC insulated LT power cable :- For cables with OD less than equal to 30 mm, any size of cable may be clubbed together.<br>For cables where OD is more than 30 mm, clubbing to be done for cables having similar ODs.<br>For XLPE insulated LT Power cable: Clubbing to be done for cables having similar ODs.                                                                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |
| <b>LEGEND:</b> | <b>NTPC ADS: NTPC approved data sheet, QCR: quality control records of cable manufacturer, CABLE MANUF STD- cable manufacturer's internal plant standard, MI: minor, MA: major, CR: critical, COC- certificate of conformance</b>                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |

|                                                                                                                                                 |                        |                                                                                                                       |       |                                                                                                  |                           |                                                                        |                  |                                                                                                                           |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------|--------|
|  <b>Item: 1.1 KV Power (XLPE &amp; PVC) Insulated cables</b> |                        | <b>STANDARD QUALITY PLAN</b><br>(CONFORMING TO CODE: IS 1554 PART 1, IS 7098 Part-I AND NTPC TECHNICAL SPECIFICATION) |       | QP. NO. 0000-999- QOE- S-041<br>REV-00 DATE : 03-02-12<br>Page 10 of 11<br>VALID UP TO: 02-02-15 |                           | REVIEWED BY<br>INDERJIT SINGH Gidol<br>VIKRAM TALWAR Vd<br>RAJEEV GARG |                  | APPROVED BY<br><br>A.K. Garg<br>Director |        |
| Sl. No                                                                                                                                          | Component & Operations | Characteristics                                                                                                       | Class | Type of check                                                                                    | Quantum of check<br>M C/N | Reference Document                                                     | Acceptance Norms | Record Format                                                                                                             | Agency |
| 1                                                                                                                                               | 2                      | 3                                                                                                                     | 4     | 5                                                                                                | 6                         | 7                                                                      | 8                | 9                                                                                                                         | 10     |
| <b>Sampling &amp; Acceptance Criteria</b>                                                                                                       |                        |                                                                                                                       |       |                                                                                                  |                           |                                                                        |                  |                                                                                                                           |        |
| Criteria                                                                                                                                        |                        | Manufacturer experience prerequisite                                                                                  |       | Condition                                                                                        |                           | Testing procedure                                                      |                  | Remarks                                                                                                                   |        |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                            |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Samples as per relevant IS from every size/ type of cable in the offered lot shall be tested for Tensile Strength &amp; Elongation (before ageing). The values will be compared with corresponding values mentioned in the Type Test report accepted by NTPC. These values of Tensile Strength &amp; Elongation ( before ageing ) should be within +/- 15% tolerance (final values should be more than the minimum values indicated in relevant standard) of the Type Test report</p> | <p>In case of Manufacturers/ Supplier who have supplied cables in the past through Corporate Centre / Regional offices</p> | <p>In case of sizes/ type which meet the criteria</p> | <p>1 Sample of PVC insulation &amp; outer sheath per type of cables offered which have met the criteria, will be put on accelerated ageing test (refer IRS specification no. IRS: S-63/2007 Rev 3.0). The samples shall be aged in air oven at temperature of 130°C +/- 2°C for 5 hours. 1 Sample of XLPE insulation per type of cables offered which have met the criteria, will be put on ageing test as per IS 7098. After wards the samples shall be tested for Tensile Strength &amp; Elongation. Acceptance norms shall be as per relevant IS. <b>This test shall be witnessed by NTPC.</b></p> | <p>In case the samples do not meet the requirement in accelerated ageing test <b>then 1 sample of that size/ type will be put on ageing test as per IS.</b></p> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                            |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                 |



|        |                        | <b>Item: 1.1 KV Power (XLPE &amp; PVC) Insulated FRLS cables</b> |       | <b>STANDARD QUALITY PLAN</b><br>(CONFORMING TO CODE: IS 1554 PART 1, IS 7098 Part-I AND NTPC TECHNICAL SPECIFICATION)   |                           | QP. NO. 0000-999- QOE- S-041<br>REV-00 DATE : 03-02-12<br>Page 11 of 11<br>VALID UP TO: 02-02-15 |                                                                                                                                     | REVIEWED BY<br>INDERJIT SINGH<br>VIKRAM TALWAR<br>RAJEEV GARG |    | APPROVED BY<br>Approved<br>D.A.K. Garg. |         |
|--------|------------------------|------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|----|-----------------------------------------|---------|
| Sl. No | Component & Operations | Characteristics                                                  | Class | Type of check                                                                                                           | Quantum of check<br>M C/N | Reference Document                                                                               | Acceptance Norms                                                                                                                    | Record Format                                                 | D* | Agency<br>M C N                         | Remarks |
| 1      | 2                      | 3                                                                | 4     | 5                                                                                                                       | 6                         | 7                                                                                                | 8                                                                                                                                   | 9                                                             | 10 | 11                                      |         |
|        |                        |                                                                  |       | In case of Manufacturers/ Supplier WHO HAVE NOT SUPPLIED cables in the past through Corporate Centre / Regional offices |                           | In case of size /type which meet the criteria                                                    | 1 Sample per type out of all sizes which have met the criteria, will be put on ageing test and witnessed by NTPC as per relevant IS |                                                               |    |                                         |         |
|        |                        |                                                                  |       |                                                                                                                         |                           | In case of size/ type which do not meet the criteria                                             | Particular size / type will be put on ageing test as per IS. <b>This test shall be witnessed by NTPC</b>                            |                                                               |    |                                         |         |

LEGEND:- \*RECORDS, IDENTIFIED WITH "TICK" UNDER COLUMN "D" SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.

-M:MANUFACTURER/SUPPLIER, C:MAIN SUPPLIER, N:NTPC, P:PERFORM W:WITNESS,V:VERIFICATION AS APPROPRIATE, CHP: NTPC SHALL IDENTIFY IN COLUMN "N" AS "W"

FORMAT NO:QS-01-QAL-P-10/F3-RI

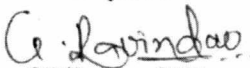
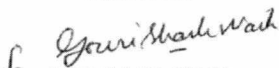
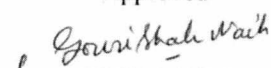
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|  | <b>BHEL: BAP: RANIPET</b><br><b>ELECTRICAL C&amp;I</b><br><b>Pre-Qualification requirement for</b><br><b>POWER CABLES</b> | REF: RFW80195:POWER CABLES |
|                                                                                   |                                                                                                                           | REVISION NO:00             |
|                                                                                   |                                                                                                                           | DATE:13.07.2018            |

The Qualification requirements (QR) for participation in the tender for POWER CABLES is detailed below. Bidders should meet the qualification requirement specified below.  
Offers of bidders who do not meet qualification requirement will not be considered.

**ITEM: POWER CABLES**

|                                                            |                                                                         |
|------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>SCOPE:</b> Supply : Yes; Erection & Commissioning : No; |                                                                         |
| 1                                                          | Vendor shall be a manufacturer of POWER cables.                         |
| 2                                                          | Vendor shall produce test reports establishing in house test facilities |
| 3                                                          | Capability of manufacturing capacity : 100 KM / month.                  |
| 4                                                          | Vendor should have manufactured and supplied 1 KM of FRLS cable         |
| 5                                                          | Vendor should have supplied 20 KM of similar cable to any one project.  |
| 6                                                          | Vendor should be approved by NTPC for supply of similar cables          |
| 7                                                          | Vendor to furnish technical catalogue for cables.                       |

Documentary evidence for the above requirements shall be submitted by bidder.  
Final acceptance of Bidder is subject to approval of End customer.

|                                                                                                                   |                                                                                                                |                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Prepared<br><br>GR/Sr.Engr/ECI | Reviewed<br><br>MJM/AGM/ECI | Approved<br><br>MJM/AGM/ECI |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|

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|                   |                                    |  |                            |       |          |                |                |  |  |  |  |
|-------------------|------------------------------------|--|----------------------------|-------|----------|----------------|----------------|--|--|--|--|
| MFGR.'s<br>LOGO   | MANUFACTURER'S NAME AND<br>ADDRESS |  | MANUFACTURING QUALITY PLAN |       |          |                | PROJECT :      |  |  |  |  |
|                   |                                    |  | ITEM :                     |       | QP NO.:  |                | PACKAGE :      |  |  |  |  |
|                   |                                    |  | SUB-SYSTEM:                |       | REV.NO.: |                | CONTRACT NO. : |  |  |  |  |
|                   |                                    |  |                            | DATE: |          | MAIN-SUPPLIER: |                |  |  |  |  |
| PAGE: .... OF.... |                                    |  |                            |       |          |                |                |  |  |  |  |

| SL.<br>NO | COMPONENT &<br>OPERATIONS | CHARACTERISTICS | CLASS | TYPE OF<br>CHECK | QUANTUM<br>OF CHECK |     | REFERENCE<br>DOCUMENT | ACCEPTANCE<br>NORMS | FORMAT OF<br>RECORD |    | AGENCY |     |   | REMARKS |
|-----------|---------------------------|-----------------|-------|------------------|---------------------|-----|-----------------------|---------------------|---------------------|----|--------|-----|---|---------|
|           |                           |                 |       |                  | M                   | C/N |                       |                     |                     |    |        | M   | C |         |
| 1.        | 2.                        | 3.              | 4.    | 5.               | 6.                  |     | 7.                    | 8.                  | 9.                  | D* | **     | 10. |   | 11.     |
|           |                           |                 |       |                  |                     |     |                       |                     |                     |    |        |     |   |         |

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|                               |  |                                                                                                                                                                                                                                                                                                  |               |  |                    |                  |                   |             |  |
|-------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--|--------------------|------------------|-------------------|-------------|--|
|                               |  | <b>LEGEND:</b> * RECORDS, IDENTIFIED WITH "TICK" (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.<br>** M: MANUFACTURER/SUB-SUPPLIER C: MAIN SUPPLIER, N: NTPC<br>P: PERFORM W: WITNESS AND V: VERIFICATION. AS APPROPRIATE,<br>CHP: NTPC SHALL IDENTIFIED IN COLUM "N" AS 'W' |               |  | DOC. NO.:          |                  | REV..... CAT..... |             |  |
| MANUFACTURER/<br>SUB-SUPPLIER |  |                                                                                                                                                                                                                                                                                                  | MAIN-SUPPLIER |  | FOR<br>NTPC<br>USE |                  |                   |             |  |
| SIGNATURE                     |  |                                                                                                                                                                                                                                                                                                  |               |  |                    | REVIEWED BY      |                   | APPROVED BY |  |
|                               |  |                                                                                                                                                                                                                                                                                                  |               |  |                    | APPROVAL<br>SEAL |                   |             |  |



| ENDORSEMENT SHEET FOR QP<br>REFERENCE / STANDARD / FIELD QUALITY PLAN (RQP / SQP/RFQP/SFQP)                                                                                                |                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TO BE FILLED IN BY SUPPLIER AT TIME OF SUBMISSION                                                                                                                                          |                                                 |  | To be filled in by NTPC                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| PROJECT NAME                                                                                                                                                                               | NTPC-NCTPP DADRI-II (4X490MW) FGD PACKAGE       |                                                                                     | <b>REVIEW &amp; ENDORSEMENT BY NTPC PROJECT SPECIFIC QP NUMBER ALLOTTED QP NO.:</b><br><br><b>REV. NO.:      DATE:</b><br><br>** The RQP/SQP/RFQP/SFQP once endorsed for a particular contract shall remain valid even though the original QP may have expired or revised, unless / otherwise mutually agreed with the supplier. ①                                                                                                                                                                   |
| CONTRACT NO                                                                                                                                                                                | CS-6130-109-9, BHEL WORK ORDER NO (G501 & G502) |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| MAIN SUPPLIER                                                                                                                                                                              | BHARATHEAVY ELECTRICALS LIMITED (RANIPET)       |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| MANUFACTURER WORKS & ADDRESS                                                                                                                                                               |                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ITEM /EQUIPMENT / SYSTEM/<br>SUB-SYSTEM DETAILS i.e. MODEL TYPE /<br>SIZE /RATING etc.                                                                                                     |                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| APPROVED QP NO.: RQP/SQP/RFQP/SFQP                                                                                                                                                         |                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Confirmation by Main Supplier (TICK WHICHEVER APPLICABLE)                                                                                                                                  |                                                 |                                                                                     | (TICK APPLICABLE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| I. That the item/ component is identical to that considered for QP approval. OR. ✓                                                                                                         |                                                 |                                                                                     | <b>The QP is endorsed for this project without any change</b><br><br><b>The QP is endorsed for this project with changes as indicated.</b><br><u>DISTRIBUTION OF ENDORSEMENT OF</u><br><b>A) RQP/SQP:</b><br>1. MAIN SUPPLIER (WITH A COPY OF QP)<br>2. MANUFACTURER<br>3. RIO<br>4. CQA-SPL<br>5. CQA-O/C<br><b>B) RFQP/SFQP:</b><br>1. MAIN SUPPLIER (with a copy of QP)<br>2. MANUFACTURER<br>3. NTPC FQA (with a copy of QP)<br>4. NTPC Erection (with a copy of QP)<br>5. CQA-SPL<br>6. CQA-O/C |
| II. That there are minor changes in the item/ component with respect to that considered for QP approval, however the same do not affect the contents of QP. OR                             |                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| III. That there are minor changes in the item/ component with respect to that considered for QP approval, however the same affect the QP slightly, as indicated below / in attached sheet. |                                                 |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| SIGN.: (Main Supplier)      DATE:                                                                                                                                                          | SIGN.: (Manufacturer)                           | DATE:                                                                               | NTPC (Reviewed /Approved by/ Date & Seal)                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

|                                                                                  |                                                                       |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------|
|  | <b>CORPORATE QUALITY ASSURANCE</b><br><b>SUB-VENDOR QUESTIONNAIRE</b> |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------|

|             |                                                                                                                                                                                   |                                                                                                                                                                 |  |  |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>i.</b>   | <b>Item/Scope of Sub-contracting</b>                                                                                                                                              |                                                                                                                                                                 |  |  |
| <b>ii.</b>  | <b>Address of the registered office</b>                                                                                                                                           | <b>Details of Contact Person</b><br>(Name, Designation, Mobile, Email)                                                                                          |  |  |
| <b>iii.</b> | <b>Name and Address of the proposed Sub-vendor's works where item is being manufactured</b>                                                                                       | <b>Details of Contact Person:</b><br>(Name, Designation, Mobile, Email)                                                                                         |  |  |
| <b>iv.</b>  | <b>Annual Production Capacity for proposed item/scope of sub-contracting</b>                                                                                                      |                                                                                                                                                                 |  |  |
| <b>v.</b>   | <b>Annual production for last 3 years for proposed item/scope of sub-contracting</b>                                                                                              |                                                                                                                                                                 |  |  |
| <b>vi.</b>  | <b>Details of proposed works</b>                                                                                                                                                  |                                                                                                                                                                 |  |  |
| 1.          | <b>Year of establishment of present works</b>                                                                                                                                     |                                                                                                                                                                 |  |  |
| 2.          | <b>Year of commencement of manufacturing at above works</b>                                                                                                                       |                                                                                                                                                                 |  |  |
| 3.          | <b>Details of change in Works address in past (if any)</b>                                                                                                                        |                                                                                                                                                                 |  |  |
| 4.          | <b>Total Area</b>                                                                                                                                                                 |                                                                                                                                                                 |  |  |
|             | <b>Covered Area</b>                                                                                                                                                               |                                                                                                                                                                 |  |  |
| 5.          | <b>Factory Registration Certificate</b>                                                                                                                                           | <b>Details attached at Annexure – F2.1</b>                                                                                                                      |  |  |
| 6.          | <b>Design/ Research &amp; development set-up</b><br>(No. of manpower, their qualification, machines & tools employed etc.)                                                        | <b>Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design</b><br><b>Details attached at Annexure – F2.2</b><br>(if applicable) |  |  |
| 7.          | <b>Overall organization Chart with Manpower Details</b><br>(Design/Manufacturing/Quality etc)                                                                                     | <b>Details attached at Annexure – F2.3</b>                                                                                                                      |  |  |
| 8.          | <b>After sales service set up in India, in case of foreign sub-vendor</b><br>(Location, Contact Person, Contact details etc.)                                                     | <b>Applicable / Not applicable</b><br><br><b>Details attached at Annexure – F2.4</b>                                                                            |  |  |
| 9.          | <b>Manufacturing process execution plan with flow chart indicating various stages of manufacturing from raw material to finished product including outsourced process, if any</b> | <b>Details attached at Annexure – F2.5</b>                                                                                                                      |  |  |

|                                                                                  |                                                                       |
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|  | <b>CORPORATE QUALITY ASSURANCE</b><br><b>SUB-VENDOR QUESTIONNAIRE</b> |
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| 10.                                                                                                                                                                                                                                                                                                                                  | Quality Control exercised during receipt of raw material/BOI, in-process , Final Testing, packing                                                                                                                                                                                                                                                                                                                                                                      | Details attached at Annexure – F2.6                                                    |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------|---------------------------------------------------------|----------------|-------------------|----------------|--|-------|--|--|--|--|--|
| 11.                                                                                                                                                                                                                                                                                                                                  | Manufacturing facilities<br>(List of machines, special process facilities, material handling etc.)                                                                                                                                                                                                                                                                                                                                                                     | Details attached at Annexure – F2.7                                                    |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
| 12.                                                                                                                                                                                                                                                                                                                                  | Testing facilities<br>(List of testing equipment)                                                                                                                                                                                                                                                                                                                                                                                                                      | Details attached at Annexure – F2.8                                                    |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
| 13.                                                                                                                                                                                                                                                                                                                                  | If manufacturing process involves fabrication then-<br>List of qualified Welders<br>List of qualified NDT personnel with area of specialization                                                                                                                                                                                                                                                                                                                        | Applicable / Not applicable<br>Details attached at Annexure – F2.9<br>(if applicable)  |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
| 14.                                                                                                                                                                                                                                                                                                                                  | List of out-sourced manufacturing processes with Sub-Vendors' names & addresses                                                                                                                                                                                                                                                                                                                                                                                        | Applicable / Not applicable<br>Details attached at Annexure. –F2.10<br>(if applicable) |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
| 15.                                                                                                                                                                                                                                                                                                                                  | Supply reference list including recent supplies                                                                                                                                                                                                                                                                                                                                                                                                                        | Details attached at Annexure – F2.11<br>(as per format given below)                    |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                      | <table border="1" style="width: 100%;"> <tr> <th style="width: 10%;">Project/<br/>package</th> <th style="width: 10%;">Customer<br/>Name</th> <th style="width: 30%;">Supplied Item (Type/Rating/Model<br/>/Capacity/Size etc)</th> <th style="width: 20%;">PO ref no/date</th> <th style="width: 20%;">Supplied Quantity</th> <th style="width: 10%;">Date of Supply</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table> | Project/<br>package                                                                    | Customer<br>Name | Supplied Item (Type/Rating/Model<br>/Capacity/Size etc) | PO ref no/date | Supplied Quantity | Date of Supply |  |       |  |  |  |  |  |
| Project/<br>package                                                                                                                                                                                                                                                                                                                  | Customer<br>Name                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Supplied Item (Type/Rating/Model<br>/Capacity/Size etc)                                | PO ref no/date   | Supplied Quantity                                       | Date of Supply |                   |                |  |       |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                        |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
| 16.                                                                                                                                                                                                                                                                                                                                  | Product satisfactory performance feedback<br>letter/certificates/End User Feedback                                                                                                                                                                                                                                                                                                                                                                                     | Attached at annexure - F2.12                                                           |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
| 17.                                                                                                                                                                                                                                                                                                                                  | Summary of Type Test Report (Type Test Details, Report No, Agency, Date of testing) for the proposed product<br>(similar or higher rating)<br>Note:- Reports need not to be submitted                                                                                                                                                                                                                                                                                  | Applicable / Not applicable<br>Details attached at Annexure – F2.13<br>(if applicable) |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
| 18.                                                                                                                                                                                                                                                                                                                                  | Statutory / mandatory certification for the proposed product                                                                                                                                                                                                                                                                                                                                                                                                           | Applicable / Not applicable<br>Details attached at Annexure – F2.14<br>(if applicable) |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
| 19.                                                                                                                                                                                                                                                                                                                                  | Copy of ISO 9001 certificate<br>(if available)                                                                                                                                                                                                                                                                                                                                                                                                                         | Attached at Annexure – F2.15                                                           |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
| 20.                                                                                                                                                                                                                                                                                                                                  | Product technical catalogues for proposed item (if available)                                                                                                                                                                                                                                                                                                                                                                                                          | Details attached at Annexure – F2.16                                                   |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                        |                  |                                                         |                |                   |                |  |       |  |  |  |  |  |
| <table border="1" style="width: 100%;"> <tr> <td style="width: 15%;">Name:</td> <td style="width: 30%;"> </td> <td style="width: 15%;">Desig:</td> <td style="width: 30%;"> </td> <td style="width: 10%;">Sign:</td> <td style="width: 10%;"> </td> <td style="width: 10%;">Date:</td> <td style="width: 10%;"> </td> </tr> </table> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                        | Name:            |                                                         | Desig:         |                   | Sign:          |  | Date: |  |  |  |  |  |
| Name:                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Desig:                                                                                 |                  | Sign:                                                   |                | Date:             |                |  |       |  |  |  |  |  |

Company's Seal/Stamp:-