

Technical Specifications

| SL. No | Description and Technical Specification of the item | QTY | UNIT | Delivery |
|--------|--|------|------|----------|
| 1 | LT Automatic Power Factor Correction Panel of Indoor Type with compartmentalized design along with all switch gears, control gears and busbars, fully wired. | 2.00 | NO | 49 DAYS |

Sign. of the AUTHORISED SIGNATORY
(With Name, Designation and Company seal)

| Part A:- Pre-Qualification Criteria for LT Automatic Power Factor Correction Panels Required for BHEL, PPPU - Thirumayam | | |
|---|--|--------------------------|
| Sl. No. | BHEL's Requirement | Vendor's Response |
| 1 | The bidder should have supplied at least one LT APFC panel (of rating 300 kVAr or higher) in the last seven years from the date of tender opening. The bidder to enclose PO/ WO along with performance certificate/ work completion certificate in support of relevant experience. | |

| SI No | Description | | Vendor's offer |
|-------|---|---|----------------|
| 1.00 | Item description | LT Automatic Power Factor Correction Panel of Indoor Type with compartmentalized design along with all switch gears, control gears and busbars, fully wired | |
| 1.01 | Panel rating | 300 kVAr @415 V | |
| 1.02 | Capacitor bank stages | Preferably, 50 kVAr: 4 stages and 25 kVAr: 4 stages. Vendor to specify. Each capacitor bank stage shall be controlled by MCCB and capacitor duty contactor of suitable rating. | |
| 1.03 | Capacitor | Heavy duty capacitors with internal overpressure disconnector, discharge resistor and self healing property to be supplied | |
| 1.04 | Incoming voltage | 3 phase 415 V ± 10%, 50 Hz | |
| 1.05 | System | 3 phase, 4 wire system | |
| 1.06 | Type of service | Continuous duty, indoor operation | |
| 1.07 | Controller | Intelligent micro-processor based power factor controller with PF display. Number of stages: vendor to specify. | |
| 1.08 | Switching time | Variable and selectable | |
| 1.09 | Protection | Protection against over-voltage and over-current | |
| 1.10 | Modes of operation | Auto and Manual operation. The panel shall have auto/ manual selection switch. Individual banks shall have illuminated push buttons to use in case of manual operation. | |
| 1.11 | Panel incomer | 3 pole MCCB 630 A, 36 kA breaking capacity | |
| 1.12 | Auxiliary supply | BHEL will only provide 3 phase 4 wire input power connection to the panel. Panel should have inbuilt components to generate required auxiliary/ control supply. | |
| 1.13 | Measurement and display | a) Digital meter for current, voltage, power factor etc. should be provided. b) R-Y-B indication shall be provided in the panel. | |
| 1.14 | CT ratio | 630/ 5 | |
| 1.15 | Dimension | Width: Max 1350 mm, Height: vendor to specify, Depth: vendor to specify | |
| 1.16 | Enclosure details | Free standing and floor mounting type with CRCA sheet steel enclosure | |
| 1.17 | Thickness of sheet steel | Enclosure-1.6 mm, Supports - 1.6 mm, Doors-1.6 mm and Partitions-1.2 mm CRCA | |
| 1.18 | Ingress protection | IP 54 or better | |
| 1.19 | Reference IS | The panel should be manufactured as per the guidelines of IS 16636: 2017 latest revision | |
| 1.20 | Ambient temperature | 50 deg C. | |
| 1.21 | Cable entry | Provision of bottom cable entry shall be made with sufficient head room for cable termination. Removable gland plate with knock-outs for 185 sqmm cables (3 runs) shall be provided at the bottom of the panel. | |
| 1.22 | Earthing of panel | Suitable provisions for connecting the earth flat on both sides of the panel (for double earthing) to be provided. | |
| 1.23 | Panel cooling | At least 2 nos. of exhaust fans and 2 nos. of ventilation louvers to be provided on the panel. | |
| 2.00 | General Features | | |
| 2.01 | The panel should be suitable for continuous operation in dusty industrial environment. It should be adequately dust-proof and vermin-proof. | | |
| 2.02 | The panel should have compartmentalized design with each capacitor bank positioned in individual compartment. Perforated plates should be provided at each compartment's floor for ventilation. | | |

| SI No | Description | Vendor's offer |
|--------------|--|----------------|
| 2.03 | Sufficient headroom should be provided in each compartment for easy cable termination and maintenance. | |
| 2.04 | All control wiring shall be carried out with 1100 V single core FRLS PVC flexible copper cables of suitable cross section. All wires shall be identified with number ferrules at both ends. | |
| 2.05 | The panel shall be equipped with Aluminium (electrolytic grade) bus bars along with suitable insulator support. All busbars shall be insulated with heat shrinkable insulating sleeve, colour coded for easy identification of individual phases and neutral. | |
| 2.06 | No volt release switch should be provided in the panel. | |
| 3.00 | Acceptable Makes | |
| 3.01 | Switch gears: L&T, Legrand, C&S, Siemens, Schneider, ABB, Havells or any other reputed makes acceptable to BHEL. | |
| 3.02 | Capacitor: L&T, Siemens, Schneider, ABB, Havells, GE, EPCOS, Keltron, Tibcon, Philips, Neptune, Meher or any other reputed makes acceptable to BHEL. | |
| 3.03 | Current Transformer: Kappa, AE or any other reputed makes acceptable to BHEL. | |
| 4.00 | Drawing Approval | |
| 4.01 | The supplier shall send the GA drawings within 1 week from the date of PO, along with electrical diagrams and complete bill of materials to BHEL for approval. Manufacturing to start after getting BHEL's approval. | |
| 5.00 | Documentation | |
| 5.01 | Hardcopy and softcopy of Operation, Maintenance and Programming manual in English for Automatic Power Factor Controller, with circuit/ wiring diagram to be supplied along with the panel. | |
| 6.00 | Pre-Dispatch Inspection | |
| 6.01 | Pre-dispatch inspection shall be carried out at vendor's works. The vendor should produce the wiring diagrams and the test reports of the panel during the pre-dispatch inspection. During the pre-dispatch inspection, the supplier has to energize the panel and demonstrate the functioning. | |
| 7.00 | Delivery Period | |
| 7.01 | Maximum 6 weeks from the date of drawing approval by BHEL. | |
| 8.00 | Erection and Commissioning | |
| 8.01 | Installation and Commissioning of the APFC panel will be carried out by BHEL under the supervision and guidance of supplier's representative. During commissioning, the supplier's representative has to provide support for programming the controller to suit the reactive power compensation. | |
| 9.00 | Warranty | |
| 9.01 | The supplier to provide warranty for all the supplied components for at least 12 months from the date of successful commissioning at BHEL. | |
| 10.00 | Scope of Supply | |
| 10.01 | LT Automatic Power Factor Correction Panel of Indoor Type with compartmentalized design along with all switch gears, control gears and busbars, fully wired - as specified above. - 2 nos. | |
| 10.02 | Spares | |
| | i. Automatic power factor controller - 1 no. | |
| | ii. Capacitor duty contactor with damping resistors - 4 nos of each variety. | |
| | iii. Power factor correction capacitors - 4 nos of each variety. | |
| | iv. Incomer MCCB 3 pole, 630A - 2 nos. | |

Annexure – A- Special Conditions for GeM Enquiry

The terms and condition mentioned in this document are applicable in addition to the Buyer Added Bid Specific Additional Terms & Conditions and GeM General Terms and Conditions. Bidders shall furnish pointwise confirmation/details.

| <u>To be filled by bidder</u> | | | | |
|---|--|-------------------------|--------------------|---|
| Description of the item/Equipment: | | | | |
| GeM Tender No. & Date | | | | |
| Name of the firm (Bidder) : | | | | |
| Address : | | | | |
| Contact person 1 | | Contact person 2 | | |
| Name: | | Name: | | |
| Designation: | | Designation: | | |
| Office Phone: | | Office Phone: | | |
| Mobile: | | Mobile: | | |
| e-mail: | | e-mail: | | |
| Sl | Terms and conditions/Details required | | | Vendor's confirmation |
| 1. | Indicate the MSME status of the bidder. MICRO/SMALL/MEDIUM/Non-MSME (Udyam certificate is to be uploaded in proof of above). | | | |
| 2. | Any Bidder falling under MSE category shall furnish the following details & submit documentary evidence/ Govt. Certificate etc. in support of the same along with their offer. | | | |
| | Type under MSE | SC/ST Owned | Women Owned | Others (excluding SC/ST & Women Owned) |
| | Micro | | | |
| | SMALL | | | |
| | Note: If the bidder does not furnish the above in the tender, offer shall be processed construing that the bidder is not falling under MSE category. | | | |
| 3. | Payment terms shall be as per clause 9 of Buyer Added Bid Specific Additional Terms & Conditions for this tender. Confirm your acceptance for the payment terms relevance to your MSME status indicated above. | | | |
| | Note: If it is indicated as "For availing benefits of Priority Sector Lending(PSL) ONLY" in Udyam certificate, then no MSME benefit will be considered for this tender. | | | |
| 4. | Liquidated Damages shall be as per clause 18 of Buyer Added Bid Specific Additional Terms & Conditions. Confirm your acceptance. | | | |

| | | |
|-----|--|------------------|
| 5. | Offers from Indigenous supplier will be considered only if they have a valid GST registration certificate. Please Indicate the GST registration number. If any specific exemption is available, a declaration with due supporting documents need to be furnished for considering the offer. | GST No._____ |
| 6. | Performance Bank Guarantee: Not Applicable | |
| 7. | HSN Code for the quoted items | HSN CODE : _____ |
| 8. | Rate quoted in GeM portal should be on FOR destination basis inclusive of all taxes, P&F, freight etc. Transit Insurance is under Supplier scope. Please indicate how much GST percentage is included in quoted price. | GST in %: _____ |
| 9. | Technical (Specification, brand, etc.) and commercial terms agreed against BHEL clarifications during the techno-commercial evaluation stage should also be honoured by the bidder, even if they aren't explicitly part of the final GeM contract. The rationale behind this is that such agreements influence the final decision and are not captured by GeM in to the GeM contract. Please confirm your acceptance. | |
| 10. | All the terms and conditions in Buyer Added Bid Specific Additional Terms & Conditions of this tender are read, understood and agreed by the vendor without any deviation. Vendor to confirm. | |
| 11. | Duly filled, signed and stamped copies of the annexures as indicated in clause 31 of Buyer Added Bid Specific Additional Terms & Conditions of the enquiry are to be provided in the letter head of the Supplier. Please fill the annexures with GeM enquiry number, Item description and your company name wherever required. Also please Tick the appropriate option wherever required. | |
| 12. | There will not be any RA (Reverse Auction). Hence suppliers to quote their best price while submitting their offer itself. | |

Vendor's Seal & Signature

CHECK LIST

NOTE: - Suppliers are required to fill in the following details in their Letterhead and no column should be left blank

| | | | |
|----------|---|--|---------------------------|
| A | Name and Address of the Supplier | | |
| B | GSTN No. the Supplier (Place of Execution of Contract / Purchase Order) | | |
| C | Details of Contact person for this Tender | Name: Mr./ Ms. Designation: Telephone No: Mobile No: Email ID: | |
| D | EMD DETAILS | Not applicable | |
| E | DESCRIPTION | APPLICABILITY (BY BHEL) | ENCLOSED BY BIDDER |
| i. | Whether Pre - Qualification Criteria is understood and provided proper supporting documents. | Applicable/ Not Applicable | YES / NO |
| ii. | Whether all pages of the Tender documents including annexures, appendices etc are read and understood | Applicable/ Not Applicable | YES / NO |
| iii. | Audited Balance Sheet and profit & Loss Account for the last three years | Applicable/ Not Applicable | YES / NO |
| iv. | Copy of PAN Card & GST registration | Applicable/ Not Applicable | YES / NO |
| v. | Submission of Udyam certificate as specified in Tender (applicable in case of MSME supplier) | Applicable/ Not Applicable | YES / NO |
| vi. | Offer forwarding letter / tender submission letter as per Annexure – 2 | Applicable/ Not Applicable | YES / NO |
| vii. | Submission of Certificate of No Deviation as per Annexure – 3 | Applicable/ Not Applicable | YES / NO |
| viii. | Declaration regarding Insolvency/ Liquidation/ Bankruptcy Proceedings as per Annexure – 4 | Applicable/ Not Applicable | YES / NO |
| ix. | Declaration by Authorized Signatory as per Annexure – 5 | Applicable/ Not Applicable | YES / NO |
| x. | Declaration by Authorized Signatory regarding Authenticity of submitted Documents Annexure – 6 | Applicable/ Not Applicable | YES / NO |
| xi. | Submission of Non-Disclosure Certificate as per Annexure – 7 | Applicable/ Not Applicable | YES / NO |
| xii. | Submission of Integrity Pact as specified in Tender as per Annexure – 8 | Applicable/ Not Applicable | YES / NO |
| xiii. | Declaration confirming knowledge about Site Conditions as per Annexure – 9 | Applicable/ Not Applicable | YES / NO |

| | | | |
|--------|--|-----------------------------------|----------|
| xiv. | Declaration reg. Related Firms & their areas of Activities as per Annexure – 10 | Applicable/ Not Applicable | YES / NO |
| xv. | Declaration for relation in BHEL as per Annexure – 11 | Applicable/ Not Applicable | YES / NO |
| xvi. | Declaration reg. minimum local content in line with revised public procurement as per Annexure – 12 | Applicable/ Not Applicable | YES / NO |
| xvii. | Declaration regarding compliance to Restrictions under Rule 144 (xi) of GFR 2017 as per Annexure – 13 | Applicable/ Not Applicable | YES / NO |
| xviii. | Bank Account Details for E-Payment as per Annexure – 14 | Applicable/ Not Applicable | YES / NO |
| xix. | Power of Attorney for submission of tender as per Annexure – 15 | Applicable/ Not Applicable | YES / NO |
| xx. | Proforma of Bank Guarantee for Earnest Money as per Annexure – 16 | Applicable/ Not Applicable | YES / NO |
| xxi. | Treatment of cases regarding conflict of interest as per Annexure – 20 | Applicable/ Not Applicable | YES / NO |

NOTE: Strike off 'YES' or 'NO', as applicable. Tender not accompanied by the prescribed **above applicable documents** are liable to be summarily rejected.

DATE:

**Sign. of the AUTHORISED SIGNATORY
(With Name, Designation and Company seal)**

CERTIFICATE OF NO DEVIATION

(To be Typed & submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Subject: No Deviation Certificate

Ref: 1) GeM Bid No:

2) All other pertinent issues till date

We hereby confirm that we have not changed/ modified/materially altered any of the tender documents as downloaded from the website/ issued by BHEL and in case of such observance at any stage, it shall be treated as null and void.

We also hereby confirm that we have neither set any Terms and Conditions and nor have we taken any deviation from the Tender conditions together with other references applicable for the above referred GeM Bid.

We further confirm our unqualified acceptance to all Terms and Conditions, unqualified compliance to Tender Conditions.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

**(Signature, date & seal of
authorized representative of the
bidder)**

Date:

Place:

UNDERTAKING

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir/Madam,

Sub: DECLARATION REGARDING INSOLVENCY/ LIQUIDATION/ BANKRUPTCY PROCEEDINGS

Ref: GeM Bid Specification No:

I/We, _____ declare that, I/We am/are not admitted under insolvency resolution process or liquidation under Insolvency and Bankruptcy Code, 2016, as amended from time to time or under any other law as on date, by NCLT or any adjudicating authority/authorities

**Sign. of the AUTHORISED SIGNATORY
(With Name, Designation and Company seal)**

Place:

Date:

DECLARATION BY AUTHORISED SIGNATORY OF BIDDER

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: **Declaration by Authorised Signatory regarding Authenticity of submitted documents.**

Ref: 1) GeM Bid No. & Date:

2) All other pertinent issues till date

I/We, hereby certify that all the documents submitted by us in support of possession of "Qualifying Requirements" are true copies of the original and are fully compliant required for qualifying / applying in the bid and shall produce the original of same as and when required by Bharat Heavy Electricals Limited.

I / We hereby further confirm that no tampering is done with documents submitted in support of our qualification as bidder. I / We understand that at any stage (during bidding process or while executing the awarded contract) if it is found that fake / false / forged bid qualifying / supporting documents / certificates were submitted, it would lead to summarily rejection of our bid / termination of contract. BHEL shall be at liberty to initiate other appropriate actions as per the terms of the Bid / Contract and other extant policies of Bharat Heavy Electricals Limited.

Yours faithfully,

(Signature, Date & Seal of Authorized Signatory of the Bidder)

Date:

NON-DISCLOSURE CERTIFICATE

(To be Typed & submitted in the Letter Head of the Company/Firm of Bidder)

I/We understand that BHEL, Trichy is committed to Information Security Management System as per their Information Security Policy.

Hence, I/We M/s who are submitting offer for providing Supply/services to BHEL, Trichy against GeM Bid No..... hereby undertake to comply with the following in line with Information Security Policy of BHEL, Trichy.

- To maintain confidentiality of documents & information which shall be used during the execution of the Contract.
- The documents & information shall not be revealed to or shared with third party which shall not be in the business interest of BHEL, Trichy.

**(Signature, date & seal of Authorized
Signatory of the bidder)**

Date:

DECLARATION

Date: _____

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir/ Madam,

Sub: Details of related firms and their area of activities

Please find below details of firms owned by our family members that are doing business/ registered for same item with BHEL, _____ (NA, if not applicable)

| | | |
|-----|-------------------------------------|--|
| 1 | Material Category/ Work Description | |
| | Name of Firm | |
| | Address of Firm | |
| | Nature of Business | |
| | Name of Family Member | |
| | Relationship | |
| 2 | Material Category/ Work Description | |
| | Name of Firm | |
| | Address of Firm | |
| | Nature of Business | |
| | Name of Family Member | |
| | Relationship | |
| ... | | |

Note: I certify that the above information is true and I agree for penal action from BHEL in case any of the above information furnished is found to be false.

Regards,

(_____)

From: M/s

Supplier
Code:

Address:

DECLARATION FOR RELATION IN BHEL

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder failing which the offer of Bidder is liable to be summarily rejected)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Declaration for relation in BHEL

Ref: 1) GeM Bid Specification No:

I/We hereby submit the following information pertaining to relation/relatives of Proprietor/Partner(s)/ Director(s) employed in BHEL

Tick (✓) any one as applicable:

1. The Proprietor, Partner(s), Director(s) of our Company/Firm DO NOT have any relation or relatives employed in BHEL

OR

2. The Proprietor, Partner(s), or Director(s) of our Company/Firm HAVE relation/relatives employed in BHEL and their particulars are as below:

i.

ii.

**(Signature, Date & Seal of
Authorized Signatory of the Bidder)**

Note:

1. Attach separate sheet, if necessary.
2. If BHEL Management comes to know at a later date that the information furnished by the Bidder is false, BHEL reserves the right to take suitable action against the Bidder/Contractor.

**DECLARATION REGARDING MINIMUM LOCAL CONTENT IN LINE WITH
REVISED PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER
2017 DATED 04TH**

JUNE, 2020 AND SUBSEQUENT ORDER(S)

(To be typed and submitted in the Letter Head of the Entity/Firm providing certificate as applicable)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Declaration reg. minimum local content in line with Public Procurement (Preference to Make in India), Order 2017-Revision, dated 04th June, 2020 and subsequent order(s).

Ref: 1) GeM Bid Specification No:

2) All other pertinent issues till date

We hereby certify that the items/works/services offered by.....
(specify the name of the organization here) has a local content of _____ % and this meets the local content requirement for '**Class-I local supplier**' / '**Class II local supplier**' ** as defined in Public Procurement (Preference to Make in India), Order 2017-Revision dated 04.06.2020 issued by DPIIT and subsequent order(s).

The details of the location(s) at which the local value addition is made are as follows:

1. _____

2. _____

3. _____

4. _____

Thanking you,
Yours faithfully,

**(Signature, Date & Seal of
Authorized Signatory of the
Bidder)**

**** - Strike out whichever is not applicable.**

Note:

1. Bidders to note that above format, duly filled & signed by authorized signatory, shall be submitted along with the techno-commercial offer.
2. In case the bidder's quoted value is in excess of Rs. 10 crores, the authorized signatory for this declaration shall necessarily be the statutory auditor or cost auditor of the company (in the case of companies) or a practising cost accountant or practicing chartered accountant (in respect of suppliers other than companies).
3. In the event of false declaration, actions as per the above order and as per BHEL Guidelines shall be initiated against the bidder.

**DECLARATION REGARDING COMPLIANCE TO RESTRICTIONS UNDER RULE 144
(xi) OF GFR 2017**

(To be typed and submitted in the Letter Head of the Entity/ Firm providing certificate as applicable)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Declaration regarding compliance to Restrictions under Rule 144 (xi) of GFR 2017

Ref: 1) GeM Bid Specification No:
2) All other pertinent issues till date

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I certify that _____ (**SPECIFY THE NAME OF THE ORGANIZATION HERE**), is not from such a country/ has been registered with the Competent Authority (*attach valid registration by the Competent Authority, i.e., the Registration Committee constituted by the Dept. for Promotion of Industry and Internal Trade (DPIIT)*).

I hereby certify that we fulfil all requirements in this regard and is eligible to be considered.

Thanking you,

Yours faithfully,

**(Signature, Date & Seal of
Authorized Signatory of the Bidder)**

Note: Bidders to note that in case above certification given by a bidder, whose bid is accepted, is found to be false, then this would be a ground for immediate termination and for taking further action in accordance with law and as per BHEL guidelines.

TREATMENT OF CASES REGARDING CONFLICT OF INTEREST

The bidder notes that a conflict of interest would be said to have occurred in the tender process and execution of the resultant contract, in case of any of the following situations:

- i) If its personnel have a close personal, financial, or business relationship with any personnel of BHEL who are directly or indirectly related to the procurement or execution process of the contract, which can affect the decision of BHEL directly or indirectly;
- ii) The bidder (or his allied firm) provided services for the need assessment/ procurement planning of the Tender process in which it is participating;
- iii) Procurement of goods directly from the manufacturers/ suppliers shall be preferred. However, if the OEM/Principal insists on engaging the services of an agent, such agent shall not be allowed to represent more than one manufacturer/ supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer/ supplier could bid directly but not both. In case bids are received from both the manufacturer/ supplier and the agent, bid received from the agent shall be ignored. However, this shall not debar more than one Authorised distributor (with/ or without the OEM) from quoting equipment manufactured by an Original Equipment Manufacturer (OEM) in procurements under a Proprietary Article Certificate.
- iv) A bidder participates in more than one bid in this tender process. Participation in any capacity by a Bidder (including the participation of a Bidder as a partner/ JV member or sub-contractor in another bid or vice-versa) in more than one bid shall result in the disqualification of all bids in which he is a party. However, this does not limit the participation of an entity as a sub-contractor in more than one bid if he is not bidding independently in his own name or as a member of a JV.

The Bidder declares that they have read and understood the above aspects, and the bidder confirms that such conflict of interest does not exist and undertakes that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s), in this regard. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. **In case, the Bidder is found having indulged in above activities, the same will be considered as a violation of the tender conditions, and suitable action shall be taken by BHEL as per extant policies/ guidelines.**

(Signature, Date & Seal of Authorized
Signatory of the Bidder)