

**BHEL-ELECTRONICS DIVISION, BENGALURU**  
**COMMON CONTRACTING DEPARTMENT**

**NOTICE INVITING TENDER**

1.	<b>Tender Ref No:</b>	<b>BHEL-EDN/ CCD-CAPEX/ CANTEEN BOILER/ GeM-02/24-25</b>	
2.	Tender Type	Open Tender -Two part ( e-Tender)	
3.	Scope of Procurement	SUPPLY, ERECTION , TESTING AND COMMISSIONING OF LPG FIRED NON IBR BOILERS ( TOTAL STEAM GENERATING CAPACITY OF 1000 KG / HR.) AND AUXILIARIES FOR CANTEEN AT BHEL-EDN, BANGALORE.	
4.	Delivery Location	<b>BHEL-EDN, BANGALORE-560026</b>	
5.	Delivery Period	<b>Supply within 12 Weeks</b> from the date of Purchase Order (PO) and <b>Erection &amp; Commissioning</b> within <b>10 weeks</b> of intimation / clearance from BHEL. Validity of PO shall be <b>9 months</b> from issue of PO.	
6.	Earnest Money Deposit Amount	<b>₹1,50,000/- ( Exempted for MSE and Start up Firm)</b>	
7.	Contents of Tender Document.	<b>A] Part-I Techno-Commercial Bid</b> ANNEX-1A (PQR, Technical & Commercial Bid) 24 ANNEX -1B (Scope of Supply, Installation and Commissioning.) 19 ANNEX -1C (General Terms & Conditions of Contract) 08 ANNEX -1D (Special Terms & Conditions of Contract) 01 ANNEXURES-A TO I 13	<b>Pages</b>
		<b>B] Part- II Price Bid</b> ANNEX -II (Price bid)( For Price Break up)	<b>Pages</b> 7
9.	Submission of offer	To be submitted electronically by logging to e-Procurement portal (GeM) ( <a href="https://gem.gov.in.">https://gem.gov.in.</a> )	
10.	Due date and time for submission of offer	<b>27.09.2024/ 16:00 Hr.</b>	
11.	Due date and time for opening of Technical bid	<b>27.09.2024/ 16:30 Hr.</b>	
12.	Contact details for queries related to tender	<b>Shri. Satya Prakash</b> , Sr. Manager / CCD, BHEL-EDN, Bengaluru. Contact No:080 2699 8040 / 7598217987; e-mail: <a href="mailto:cccd.edn@bhel.in">cccd.edn@bhel.in</a> ;	
13.	Address of Tender Inviting Authority	<b>Shri. Vishal Singh</b> , SDGM/ CCD Common Contracting Department (CCD) 2 <sup>nd</sup> Floor, New Engineering Building BHEL-Electronics Division, Mysore Road Bengaluru-560026	

**PART-I (TECHNO -COMMERCIAL BID)****INSTRUCTIONS TO THE TENDERER**

- The bidder shall submit the bid online by logging in to user account of bidder on e-procurement portal (GeM) as specified in NIT. Offer submitted by any other mode is not acceptable.
- The bidder has to upload the scanned copy of all the mentioned original documents (in colour) during online bid-submission. It is advised that all the documents to be submitted are kept scanned or converted to PDF format in a separate folder in their computer before starting online submission.
- Bidder shall ensure that the total size of the scanned documents to be uploaded remains minimum. If required, documents may be scanned at lower resolutions say at 150 dpi. However, it shall be sole responsibility of bidder that the uploaded documents remain legible.
- The tender documents must be signed digitally / physically by Partner/ Director of the Firm or by the person holding the Power of Attorney on behalf of the Firm concerned for having accepted the conditions and upload in e-procurement portal. In the latter case, a copy of Power of Attorney, duly attested by a Notary Public must accompany the offer.
- Bidder are advised not to wait till the last minutes or last few seconds w.r.t tender closing time to submit their offer to avoid complications related with internet connectivity / network problem/ power failure etc.
- Tenderer should arrange for the EMD as specified in the tender. EMD should be submitted as per Part-I(A)/Prequalification Bid/EMD (including EMD waiver, if any).
- In case EMD is paid through offline payment mode, the original should be posted/couriered/given in person in a sealed cover super scribbling 'Tender number/date/Part-I(A)/EMD' to the Tender Inviting Authority, within the bid submission date and time for the tender.
- Techno-commercial bid will be considered only, if the Part-I(A)/Prequalification Bid/EMD is valid. EMD in any other form or tender without EMD will be summarily rejected.
- In case of offline payments, the hardcopies of Earnest Money Deposit (EMD) document/ DD submitted to CCD/BHEL-EDN, Bengaluru and the soft-copies uploaded at the time of online bid submission should be the same, otherwise the tender will be summarily rejected.
- Any deviation to this tender terms & conditions, and schedules of this tender will lead to rejection of the offer.
- Tenderer who have been suspended or black listed or issued with "Show Cause Notice" by **BHEL-EDN, Bengaluru** or any other unit of BHEL or GOI will not be allowed to participate in the tender and bidder should declare the same in the tender. Even during the course of evaluation/ finalization of tender if it is found that the tenderer is black listed/ barred from business transaction/ under business hold, BHEL will not consider them for further participation in the tender.
- Should a tenderer find discrepancies or omissions in the tender documents, or should there be any doubt as to their meaning, he should at once address the authority inviting the tender, for clarification well before the due date, so as to submit his tender in time. No extension of time shall be given for submission of the tender on any account.
- Rates should be quoted as per the Work / Rate schedule (Price bid/Part -II). Rates quoted in any other form will not be accepted and will be rejected.
- If a tenderer deliberately gives wrong information in his tender or creates conditions favorable for the acceptance of his tender, the BHEL will reject such offer at any stage.
- Words imparting singular number shall be deemed to include plural number and vice-versa where the context so requires.
- Canvassing in any form in connection with tenders is strictly prohibited and the tenders submitted by the Contractors who resort to canvassing will be liable for rejection.
- Should a Tenderer's or a Contractor's or in the case of a firm or company of contractors/any of its shareholder's or shareholder's relative is employed in BHEL, the authority inviting the tenders shall be informed in writing of this fact

at the time of submission of the tender, failing which the tender may be disqualified, or if such fact subsequently comes to light, the contract may be cancelled.

- The tender schedule, and the tender shall be deemed to form an integral part of the contract to be entered into for this work.
- BHEL reserves the right to cancel the tender at any stage due to unavoidable circumstances.

### **Check list for submission of offer**

Bidder shall submit the offer in two parts as Part-I (Techno-commercial Bid) and Part-II (Price Bid)

**Part -I (Techno -Commercial bid)** shall contain following documents:

- a) EMD related documents
- b) Duly Filled PQR, Technical and Commercial Conditions
- c) Duly Filled and Signed Annexures
- d) Duly signed copy of tender Document.

#### **Part-II (Price Bid)**

- a) Price quoted in GEM shall be inclusive of GST.

Price break-up of quoted rates shall be uploaded as per price bid format.

Sl. No	Description	Remarks
1	<b>Check list for Part-I: Techno commercial Bid ( EMD related documents )</b>	
1.1	<p>Documentary evidence to meet EMD Criteria:</p> <p>1. Copy of Payment Receipt for EMD amount as per tender. (As applicable)</p> <p>2. Valid MSE document for EMD exemption. ( As applicable )</p>	<input type="checkbox"/> uploaded / <input type="checkbox"/> Not uploaded
	<p><b>a.</b> EMD may be submitted in the form of Cash deposit (Before tender opening) / Bankers Cheque / Pay order / DD / FDR drawn in favour of BHEL-EDN, Bengaluru (Along with offer)/ EFT payment details vide SBI Collect as EMD / NEFT (Before tender opening). (Details for making online payment as per Annexure-C</p> <p><b>b.</b> EMD is waived off for MSE and Start Up Bidders based on submission of Valid Udyam Registration Certificate / Valid Start up Registration Certificate / Valid Registration to any other body as specified by ministry of MSME.</p> <p><b>c.</b> EMD in any other form (One Time EMD, BG for full amount of EMD etc.) is not acceptable.</p>	

Sl. No	Description	Remarks
2	<b>Check list for Part-I: Techno -Commercial Bid ( Pre-Qualification related documents )</b>	
2.1	Duly filled, Signed <b>Techno-Commercial Bid</b> (Annexure-IA) along with supporting documents.	<input type="checkbox"/> Uploaded / <input type="checkbox"/> Not uploaded
2.2	Duly Signed copy of Scope of Supply, Installation and Commissioning (Annexure-IB)  General Terms & Conditions of Contract (Annexure-IC) and  Special Terms & Conditions of Contract (Annexure-ID)	<input type="checkbox"/> Uploaded / <input type="checkbox"/> Not uploaded
2.3	Duly Filled and signed <b>Annexures -A to I ( As applicable )</b>	<input type="checkbox"/> Uploaded / <input type="checkbox"/> Not uploaded
2.3	Documentary evidence to meet Statutory Registration and License Criteria: Duly signed and sealed copy of Registrations 1) Income Tax Registration (PAN) 2) GST Registration. 3) Certificate of Incorporation (As applicable) 4) Partnership Deed (As applicable) 5) Power of Attorney (As applicable)	All relevant documents  <input type="checkbox"/> uploaded / <input type="checkbox"/> Not uploaded
3	Rates quoted shall be inclusive of GST and Price breakup to be uploaded as per Price bid format.	<input type="checkbox"/> Quoted Rates are inclusive of GST and Price breakup as per Price bid uploaded.  <input type="checkbox"/> Quoted Rates are excluding GST and Price breakup as per Price bid not uploaded.
4	All the information and relevant documents as asked in tender.	<input type="checkbox"/> Provided / <input type="checkbox"/> Not Provided

## ANNEXURE-1A

**PART-I (TECHNO -COMMERCIAL BID)****A: (BIDDERS PROFILE)**

1.	Name of the Enterprise/ Company/ Firm.	
2.	Name of Directors / Partners / proprietor of Enterprise/ Company/ Firm	
3.	Registered Address of Enterprise/ Company/ Firm	
4.	Contact Details: Landline /Mobile number:	
5.	E-mail Address for communication w.r.t tender	E-mail ID: .....
6.	Name and Contact details of person for communication related to Tender	Name: .....  Mobile No: .....
7.	Type of Business Entity	<input type="checkbox"/> Sole proprietorship / <input type="checkbox"/> Partnership <input type="checkbox"/> Private Limited Company / <input type="checkbox"/> Public Limited Company <input type="checkbox"/> Public Sector / <input type="checkbox"/> Govt. Org / <input type="checkbox"/> Others (Pl. Specify .....) ( Supporting document to be enclosed )
8.	Status of Firm as MSME / Start up recognized by DPIIT	<input type="checkbox"/> Micro <input type="checkbox"/> Small <input type="checkbox"/> Medium <input type="checkbox"/> Start-up recognized by DPIIT <input type="checkbox"/> None of the above ( Supporting document to be enclosed )
9.	BHEL Vendor Code (If any)	

**B: PRE-QUALIFICATION REQUIREMENT**

SL NO	QUALIFYING PARAMETER	QUALIFYING VALUE	BIDDER'S RESPONSE	REAMRKS
1	EMD ( Earnest Money Deposit )	₹1,50,000/- <b>Proof of Payment or Valid documentary evidence for availing exemption.</b>	EMD Payment Details:	Non submission of EMD along with offer will lead to rejection of offer.
	<p>A) EMD is payable in the form of Cash deposit (Before tender opening) / Bankers Cheque / Pay order / DD / FDR drawn in favour of BHEL- EDN, Bangalore (Along with offer) issued from scheduled bank / EFT payment vide SBI Collect as EMD (Before tender opening) is acceptable. Proof of payment (in case of EFT payment) to be enclosed along with offer.</p> <p>B) EMD is waived off for MSE and Start Up Bidders based on submission of Valid Udyam Registration Certificate / Valid Start up Registration Certificate / Valid Registration to any other body as specified by ministry of MSME.</p>			
2	OEM / Authorized Dealer	<p>Bidder shall be Original Equipment Manufacturer (OEM) or its authorized dealer. An authorized dealer cannot quote for products from more than one OEM.</p> <p>In case Bidder is an Authorized dealer, Bidder shall submit a current authorization letter from OEM. The authorization letter shall contain the contact details ( Name of contact Person, Postal Address, e-mail and Phone number) of OEM.</p>	<p>Bidder has quoted as</p> <p><input type="checkbox"/> OEM ( Original Equipment Manufacturer)</p> <p><input type="checkbox"/> Authorized Dealer</p> <p>Name of OEM: ..... .....</p> <p>In case of Authorized Dealer: <b>Authorization letter from OEM</b></p> <p><input type="checkbox"/> Enclosed with offer.</p> <p><input type="checkbox"/> Not enclosed with offer.</p>	<p>An authorized dealer cannot quote for the equipment from more than one OEM.</p>

3	<b>Manufacturing Base in India.</b>	<p>The OEM / OEM of Product which is offered by Authorized dealer should have the manufacturing base in India with necessary facilities to demonstrate the pre shipment inspection requirements.</p> <p>Bidder shall provide the Address and contact Details ( Name of contact Person, Postal Address, e-mail and Phone number) of the Manufacturing Base.</p>	<p><b>Manufacturing Base of OEM in India for offered Equipment</b></p> <p>Address:</p> <p>Name of Contact Person:</p> <p>.....</p> <p>e-mail ID:</p> <p>.....</p> <p>Phone / Mobile No:</p> <p>.....</p>	<p>Non availability of manufacturing base of OEM in India for the offered Equipment / Non submission of information will lead to rejection of Offer.</p>
4	<b>Service after Sales for the offered equipment with Spares support.</b>	<p>The OEM / Authorized dealer / Authorized Representative of OEM shall carryout Erection and commissioning at BHEL-EDN, Bangalore and shall provide prompt After Sales Services at Bengaluru, Karnataka only by Trained technical manpower / Engineer for the offered equipment with spares support.</p> <p>Bidder shall provide declaration to this effect along with the authorization letter from OEM.</p>	<p>Declaration for providing Service after Sales with spares support for the offered equipment at <b>Bengaluru, Karnataka</b></p> <p><input type="checkbox"/> Submitted with offer</p> <p><input type="checkbox"/> Not submitted with offer.</p>	<p>In case After Sales and Service support is to be provided by <b>Authorized representative</b> , a declaration to this effect to be furnished by the Representative along with authorization from OEM.</p>

5	<b>Experience of Supply, Installation and Commissioning of LPG fired Steam Boiler.</b>	<p>The bidder should have supplied and commissioned in India after 31.03.2017, <b>minimum 5 nos. of LPG Fired, Steam Boilers of similar or higher capacity.</b></p> <p>Bidder shall provide performance certificate/completion certificate for the same and details of customer with full contact details.</p> <p>BHEL at its discretion may independently approach any user for checking the performance of the reference supplies and after sales support. In case of any adverse remarks by users, BHEL reserves the right to reject the offer.</p>	<p><b>Details of customer to whom Equipment Supplied:</b></p> <p>Equipment Supplied:</p> <p>.....</p> <p>.....</p> <p>Name of Customer:</p> <p>.....</p> <p>Details of Contact Person (Customer):</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>Relaxation in experience shall be given to MSE / Start-up Firms. ( Subject to meeting the Technical Capability )</p>
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6	<b>Supply of New equipment</b>	<p>Offer shall be for new equipment and not for any refurbished / used equipment. All the parts used in the equipment shall be new and not used / refurbished ones. Operation, Maintenance and safety manuals shall be provided along with the supply. Also electrical circuit diagram and mechanical drawings shall be provided for maintenance.</p> <p><b>TRAINING :</b> Supplier shall impart training to persons for operation at the time of the commissioning.</p>	<p>The offered Equipment is</p> <p><input type="checkbox"/> New</p> <p><input type="checkbox"/> Used / Refurbished one.</p>	<p>Offer for Used / Refurbished Equipment will be rejected.</p>
7	<b>Warranty / Guarantee</b>	<p>Bidder shall provide warranty for satisfactory performance against manufacturing defects and faulty workmanship of the supplied material for 12 months from the date of commissioning or 18 months from the date of supply whichever is earlier.</p>	<p><b>Warranty for Supplied Equipment:</b></p>	<p>Non acceptance to provide Warranty will lead to rejection of offer.</p>

8	<b>Financial Soundness</b>	<p>Bidder shall have Average Annual Turnover of <b>₹ 15 Lakh</b> during last three consecutive years ending on 31st March 2024 ( 2021-22, 2022-23 &amp; 2023-24).</p> <p>Bidder shall submit IT Return acknowledgement AND (Balance sheet and Profit &amp; Loss statement certified by CA with membership number ) for last three consecutive years ending on 31st March 2024 ( 2021-22, 2022-23 &amp; 2023-24).</p>	<p><b>Turnover Details:</b></p> <p>Financial Year 2021-22: ₹.....Lakh.</p> <p>Financial Year 2022-23: ₹.....Lakh.</p> <p>Financial Year 2023-24: ₹.....Lakh.</p> <p>ITR, Balance Sheet, Profit &amp; Loss Statement Certified by CA for Fin. Year 2021-22, 2023-23 and 2023-24</p> <p> <input type="checkbox"/> Enclosed  <input type="checkbox"/> Not Enclosed       </p>	<p>Relaxation in Turnover shall be given to MSE / Start-up Firm.</p>
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## C: TECHNO-COMMERCIAL TERMS AND CONDITIONS

C.1	TECHNICAL TERMS AND CONDITIONS
	<b>EQUIPMENT: LPG FIRED NON IBR BOILER, ASSOCIATED AUXILIARIES AND PIPING</b>
SL NO	EQUIPMENT NAME
	<p><b>LPG FIRED NON IBR BOILER ( STEAM GENERATING CAPACITY NOT LESS THAN 400 KG / HR) QTY.- 2 Nos.</b></p> <p><b>LPG FIRED NON IBR BOILER ( STEAM GENERATING CAPACITY NOT LESS THAN 200 KG / HR) QTY.- 1 Nos.</b></p>
SL NO	EQUIPMENT DESCRIPTION
1	<p><b>EACH LPG FIRED NON IBR BOILER shall consist of</b></p> <p>1) <b>Pressure Part assembly</b> consisting of closely wound helical vertical membrane coil fabricated out of seamless tubes and flats.</p> <p>2) <b>Double Jacketed Air casing</b> with aluminium radiator to enclose the pressure part and serve as integral combustion Air pre heater.</p> <p>3) <b>Pressure Atomised forced draft , down firing burner assembly</b> suitable for LPG firing with Reverse Flame Technology.</p> <p>4) <b>Blower</b> coupled with motor, mounted on bottom chassis duly connected to jacket.</p> <p>5) <b>Feed Water Pump</b> with surge suppressor and Relief Valve , mounted on pumping module, Strainer, Drain Valves for economiser, Relief Valve for Feed water pump, NRV on Feed water Line , Ball valve for Coil blow down.</p> <p>6) <b>Atmospheric economiser and heat optimiser</b> to preheat feed water.</p> <p>7) <b>Steam separator Assembly, Main Steam Stop Valve, Auxiliary Steam Stop Valve and Single port Spring loaded safety Valve.</b></p> <p>8) <b>Pre wired control Panel</b> with necessary switch gear, power and control circuitry.</p> <p>9) <b>Piping of feed water line</b> between optimiser, economiser, feed pump and Boiler.</p> <p>10) <b>Required Instruments , controls and Safety Equipments.</b></p> <p>11) <b>LPG Gas Train consisting of</b></p> <p>a) Gas Pressure Reducing Station consisting of Manual Ball Valve, Gas Filter, Pressure Gauge , Safety Shut off Valve , Gas Governor &amp; Safety Relief Valve.</p> <p>b) Gas Control Selection consisting of Pressure Switch, Upstream Solenoid Valve, Downstream Solenoid Valve &amp; Pressure Gauge.</p>
SL NO	TECHNICAL SPECIFICATION:
	<p>Type: LPG FIRED, NON-IBR, Steam Boiler</p> <p>Capacity (F &amp; A at 100 Deg Centigrade) not less than 200 Kg/Hr or 400 Kg/Hr.</p> <p>Maximum Working Pressure: 10.54 Kg/Sq. Cm</p> <p>Thermal Efficiency (Based on NCV): Not less than 88% (<math>\pm 2\%</math>)</p> <p>Fuel: LPG</p> <p>Operation: Suitable for operation on 415 V +/- 10%, 50 Hz, 3 phase supply</p>

	<p><b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b></p> <ol style="list-style-type: none"> <li>1. Space allocated for Boiler equipment shall be taken into consideration before ordering the equipment and they shall fit into the space provided with required clearances all around as per relevant rules and regulations.</li> <li>2. The contractor shall secure the approval of the BHEL for detailed working drawings before proceeding with the works. For this purpose, they shall submit 3 sets of drawings. Any alterations proposed by BHEL shall be incorporated in the drawings by the contractor and the corrected drawings shall be submitted once again for approval.</li> <li>3. The erection of boiler will be carried out after dismantling of one boiler at a time. During erection the boiler system along with its accessories will be erected in total.</li> <li>4. The end connections with Header, chimney, feed water etc. will be carried out on weekends/Holidays in order not to disturb existing canteen operations.</li> <li>5. Commissioning of boiler will be carried immediately after end connections are given and trials will be taken. All safety interlocks and working to be proven during the same.</li> </ol>
	<p><b>BIDDER'S RESPONSE</b>  <b>( Specification of offered Equipment)</b></p>
<b>SL NO</b>	<b>EQUIPMENT NAME</b>
	<b>LPG Manifold with Vaporiser for LPG Fired Boilers Qty: 1 Set</b>
	<b>EQUIPMENT DESCRIPTION</b>
2	<p>I) LPG Gas Vaporiser shall consist of</p> <p>a) LPG Gas manifold from LPG bank to Boiler Gas train for all 3 boilers with approx.. length of 80-100 metres.</p> <p>b) Header designed suitably to meet pressure and flow requirements.</p> <p>c) All isolations, safety accessories for header and manifold with tapping points to serve all three boilers.</p> <p>d) LPG Gas vaporiser of approved make as per tender.</p>

	<p><b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b></p> <ol style="list-style-type: none"> <li>1. The scope includes supply, installation, commissioning and testing of Gas Manifold and vaporiser from outlet of cylinder storage area to connection at Gas train of respective boilers. The piping required is approximate 80-100 metres.</li> <li>2. The commissioning of header, manifold etc. and need connections to be carried on weekends/holidays in order not to disturb existing canteen operations.</li> <li>3. The erection of manifold with all necessary tests, safety to be made before connecting to the boiler system.</li> <li>4. The manifold, header to be designed to meet pressure and flow requirements of LPG for boilers capacity of 600Kg/Hr.</li> </ol>
	<p><b>BIDDER'S RESPONSE</b>  <b>( Specification of offered Equipment)</b></p>
<b>SL NO</b>	<b>EQUIPMENT NAME</b>
	<p><b>Flue Gas Outlet System for LPG Fired boilers</b> Qty: 1 Set  1 Set comprises of  a) 1 No. for LPG Boiler with Steam Generating Capacity of 400 Kg. / Hr <b>each for Two Boilers.</b>  b) 1 No. for LPG Boiler with Steam Generating Capacity of 200 Kg. / Hr)</p>
	<p><b>EQUIPMENT DESCRIPTION</b></p> <p>Flue Gas outlet system for each Boiler consisting of  a) Duct of suitable size /Dia. (painted with temperature resistant Paint), suitable reducer, bend, supports and flange joints (without insulation) and 0-600 Degree Celsius dial thermometer for each Boiler.</p>
	<p><b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b></p>
3	<ol style="list-style-type: none"> <li>1. Each Flue gas outlet system to be connected to the chimney.</li> <li>2. All flanged connections to be provided with suitable gaskets to avoid leakages.</li> <li>3. Initially it may be required to make provisions for flue gas outlet other than chimney till all boilers are erected and chimney is erected.</li> <li>4. Necessary MS supports to be provided.</li> </ol>
	<p><b>BIDDER'S RESPONSE ( Specification of offered Equipment)</b></p>

SL NO	EQUIPMENT NAME
	<b>Common Chimney for 3 Nos. of LPG Fired Boilers (Total capacity of 1000 Kg. / Hr) Qty: 1 No</b>
	<b>EQUIPMENT DESCRIPTION</b> <p>Common Chimney for 3 Nos, of LPG Fired Boilers consisting of Chimney ( self-support mounted fabricated with MS pipe, MS angle support structure and weather cowl). Height 15 meters and Diameter suitable to take flue gas of LPG fired boiler of capacity 1000 Kg/Hr.</p>
	<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b> <ol style="list-style-type: none"> <li>1. The chimney shall be erected on foundation. The template/ drawing for base needs to be provided to facilitate erection.</li> <li>2. Access ladder and platform with safety railings till sampling point from the bottom to be provided. Chimney to be painted with Primer and Temperature resistant paint.</li> </ol>
4	<b>BIDDER'S RESPONSE ( Specification of offered Equipment)</b>
SL NO	EQUIPMENT NAME
	<b>Softener System with pH Booster Pump for Boiler Feed water Supply Qty: 2 set</b>
	<b>EQUIPMENT DESCRIPTION</b> <p>Each Softener System set consisting of</p> <ol style="list-style-type: none"> <li>a) 1 No. of PH Booster Pump and Motor suitable to run at 415 + or – 10% , 50 HZ, 3 phase.</li> <li>b) 1 No. of softener with capacity of 2 Cubic Metre with sufficient resin to cater inlet and outlet water requirements.</li> <li>c) Piping and Necessary valves for parallel operation of Pumps.</li> <li>d) Containers required for regeneration with suitable injectors and piping.</li> </ol>
5	<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b> <ol style="list-style-type: none"> <li>1. The raw/ input water parameters at the inlet of softner system is as below: <ol style="list-style-type: none"> <li>a) Appearance: Clear</li> <li>b) Suspended matter, oil, greases: Nil</li> <li>c) Total hardness: 200 - 400 mg/L</li> <li>d) pH: 6.5 to 8.5</li> <li>e) Chloride as Cl: 50-100 ppm</li> <li>f) Total Alkalinity: 150 -250 mg/L</li> <li>g) Total Dissolved Solids: max 650 mg/L</li> </ol> </li> <li>2. Outlet water parameters after softner: <ol style="list-style-type: none"> <li>a. Appearance : Clear</li> <li>b. Suspended matter, oil, greases : Nil</li> <li>c. Total hardness (as CaCO<sub>3</sub>) : Max. 2 to 5 ppm</li> </ol> </li> </ol>

	<p>d. pH : 8.5 to 9.5</p> <p>e. Other parameters as suitable for boiler soft water requirements</p> <p>3. Supports to be provided wherever required.</p> <p>4. MS Frame for pumps to be made and installed on foundation.</p> <p>5. The outlet water parameters to be proved during commissioning.</p> <p>6. Necessary hardness measuring kit to be provided.</p> <p>7. Line diagram with valve operation sequence to be supplied along with system.</p>								
	<p><b>BIDDER'S RESPONSE</b>  <b>( Specification of offered Equipment)</b></p>								
6	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">SL NO</th><th style="text-align: left; padding: 5px;"><b>EQUIPMENT NAME</b></th></tr> </thead> <tbody> <tr> <td data-bbox="216 1244 255 1327" style="text-align: center; vertical-align: top; padding: 5px;">6</td><td data-bbox="255 1244 1511 1327"> <b>Feed Water System for LPG Fired Boilers</b>   Qty: 1 Set         </td></tr> <tr> <th style="text-align: left; padding: 5px;">EQUIPMENT DESCRIPTION</th><th style="text-align: left; padding: 5px;"></th></tr> <tr> <td data-bbox="216 1551 255 2068" style="text-align: center; vertical-align: top; padding: 5px;"></td><td data-bbox="255 1551 1511 2068"> <p>Feed water System for 3 Nos of LPG Fired Boilers consisting of</p> <p>a) Storage Tank of capacity 5 KL with water level indicator along with structural Support for mounting of tank to get required feed water pressure at inlet. Access ladder till tank from the bottom of support with required safety railings.</p> <p>b) Valves , Fittings, Pipes, Bends , Reducers, Supports, Flanges and other necessary piping Materials for Feed water System piping from Raw Water Inlet to softener System Inlet and from softener System Outlet to inlet of feed water pump of each boiler (3 Nos. of LPG Fired Boilers with combined Steam generating capacity of 1000 Kg / Hr).</p> <p>c) Provision for overflow, drain line also needs to be provided.</p> <p>Total length of piping is approx. 30-35 metres.</p> </td></tr> </tbody> </table>	SL NO	<b>EQUIPMENT NAME</b>	6	<b>Feed Water System for LPG Fired Boilers</b> Qty: 1 Set	EQUIPMENT DESCRIPTION			<p>Feed water System for 3 Nos of LPG Fired Boilers consisting of</p> <p>a) Storage Tank of capacity 5 KL with water level indicator along with structural Support for mounting of tank to get required feed water pressure at inlet. Access ladder till tank from the bottom of support with required safety railings.</p> <p>b) Valves , Fittings, Pipes, Bends , Reducers, Supports, Flanges and other necessary piping Materials for Feed water System piping from Raw Water Inlet to softener System Inlet and from softener System Outlet to inlet of feed water pump of each boiler (3 Nos. of LPG Fired Boilers with combined Steam generating capacity of 1000 Kg / Hr).</p> <p>c) Provision for overflow, drain line also needs to be provided.</p> <p>Total length of piping is approx. 30-35 metres.</p>
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	<p><b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b></p> <p>Technical Specification:</p> <p>1) All Feed water pipes shall be constructed out of SS 304 Sch 40 (Heavy duty) / PPR / HDPE pipes of heavy duty ratings and all fittings used shall be heavy duty conforming to relevant standards.</p> <p>All joints in the piping system shall generally be by welding (fusion type in PPR), unless otherwise mentioned or directed at site. All welding shall be done by qualified welders.</p> <p>2) All the structures, piping supports to be painted with one coat of primer and two coats of smoke grey enamel paint.</p> <p>3) The assembly of the piping has to be done as per instructions of EIC and care should be taken that the existing or any other equipment/piping is not damaged.</p> <p>4) All piping shall be tested to hydrostatic test pressure of at least one and half times the max. operating pressure but not less than 6 Kg/Sq.cm for a period of not less than 6 Hrs. All leaks and defects in joints revealed during the testing shall be rectified, retested and gotten approved. Test reports have to be submitted after completion testing work.</p> <p>5) The piping supports to be provided at suitable distance and also suitable structures to be built with channels wherever required for pipe routing.</p> <p>6) All the structures, piping supports to be painted with one coat of primer and two coats of smoke grey enamel paint.</p>
	<b>BIDDER'S RESPONSE ( Specification of offered Equipment)</b>
<b>SL NO</b>	<b>EQUIPMENT NAME</b>
	<b>Steam Pressure Reducing Station for LPG Fired Boilers. Qty: 1 Set</b>
	<b>EQUIPMENT DESCRIPTION</b>
7	Steam Pressure Reducing Station consisting of Direct acting Pressure Reducing Station with Fabricated moisture separator, Standard CS Gate & Globe Valves, CS Safety Valve for Flow Rate: 600 Kg / Hr, Up Stream Pressure: 10 Kg./ Cm <sup>2</sup> , Downstream Pressure: 3 Kg /Cm <sup>2</sup> and Safety Valve Set Pressure: 3.5 Kg / Cm <sup>2</sup> . To be supplied of approved make
	<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b>
	<ol style="list-style-type: none"> <li>1. The PRV needs to be erected at location as per instructions of engineer in charge.</li> <li>2. Required supporting to be provided for the same.</li> <li>3. The PRV to be set suitable for canteen cooking operations as per instructions of Engineer in charge at the time of commissioning.</li> </ol>

	<b>BIDDER'S RESPONSE ( Specification of offered Equipment)</b>
<b>SL NO</b>	<b>EQUIPMENT NAME</b>
	<b>Steam Distribution Header</b> for LPG Fired Boilers. Qty: 1 Set
	<b>EQUIPMENT DESCRIPTION</b>
	Steam Distribution Header consisting of Steam Distribution Header, 2 no's of Inlet Nozzles with safety valves, 3 no's of Outlet Nozzles with safety valves, Condensate pocket , Trap
	<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b>
8	<ol style="list-style-type: none"> <li>1. The header should be suitably designed to handle steam capacity and pressure for all three boilers at a time i.e. 1000 Kg/Hr.</li> <li>2. It should be insulated to avoid any heat loss.</li> <li>3. During commissioning all leakages to be checked and verified and working of safety valve to be verified.</li> <li>4. Required support for the header to be provided.</li> <li>5. All condensate, drain, trap outlet should be taken upto outside the building.</li> </ol>
	<b>BIDDER'S RESPONSE ( Specification of offered Equipment)</b>
<b>SL NO</b>	<b>EQUIPMENT NAME</b>
	<b>Steam Piping with Insulation</b> from LPG Fired Boilers to Cooking Vessels Area Qty: As per BOQ
	<b>EQUIPMENT DESCRIPTION</b>
9	Steam Piping with Insulation consisting of SS Steam pipes of various diameters, Valves, Bends, Traps, MS Support Structures, Valves , Pressure Gauge , Temperature Gauge and Insulating materials as per BOQ.
	<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b>

	<p>1) All steam pipes shall be constructed out of SS 304 sch 40 (Heavy duty) / PPR pipes of heavy duty ratings and all fittings used shall be heavy duty conforming to relevant standards.</p> <p>2) The piping supports to be provided at suitable distance and also suitable structures to be built with channels wherever required for pipe routing.</p> <p>3) All the structures, piping supports to be painted with one coat of primer and two coats of smoke grey enamel paint.</p> <p>4) All piping shall be tested to hydrostatic test pressure of at least one and half times the max. operating pressure but not less than 10 Kg/Sq.cm for a period of not less than 24 hours. All leaks and defects in joints revealed during the testing shall be rectified, retested and gotten approved. Test reports have to be submitted after completion testing work</p> <p>5) All insulation on Steam Piping shall be applied only after the system has been pressure tested and for use in canteen.</p> <p>6) Before applying insulation for Steam piping and fittings shall be wire brushed and cleaned to remove dust, dirt, mortar and etc. After insulation work aluminium cladding work has to be carried out with Aluminium sheet (26G) and fixing has to be done</p>
	<p><b>BIDDER'S RESPONSE</b>  <b>( Specification of offered Equipment)</b></p>
<b>SL NO</b>	<b>NAME OF WORKS</b>
	<b>Dismantling of Existing Diesel Fired Non IBR boilers with associated auxiliaries.</b>
	<p><b>WORK DESCRIPTION</b></p> <p>Dismantling of Existing Diesel Fired Boiler ( 2 Nos. of Capacity 400 Kg / Hr each) along with Accessories, Steam line , Diesel Tank and other associated Piping.</p>
	<p><b>SCOPE OF WORK</b></p> <ol style="list-style-type: none"> <li>1. The dismantling of existing boilers, piping and accessories to be carried out as per instructions of engineer in charge.</li> <li>2. The dismantled parts to be stored at location as per directions of Engineer In charge.</li> <li>3. The disposal of dismantled parts will be carried out by BHEL separately.</li> <li>4. Dismantling to be carried out one boiler at a time and as per instructions of Engineer In charge, so as not to obstruct canteen operations.</li> </ol>
10	<p><b>BIDDER'S RESPONSE</b>  <b>( Specification of offered Equipment)</b></p>

COMMERCIAL TERMS AND CONDITIONS				
OFFER PRICE AND BID EVALUATION				
SL	DESCRIPTION	DETAILS	BIDDER'S RESPONSE	REMARKS
1.1	OFFER PRICE BREAK UP	<p>Bidder shall quote separate price for "Supply" and "Erection and Commissioning (E&amp;C)".</p> <p><b>The estimated percentage of E&amp;C value is 10 % of Total Offer Value ( Supply + E&amp;C)</b></p> <p>In case the quoted value is less than the value (%) specified in the tender or separate E&amp;C values are not mentioned in the offer, Value of E&amp;C portion shall be deemed to be considered as the value mentioned above &amp; accordingly supply value will be adjusted from the quoted value and balance will be released as per Payment Term indicated in tender.</p>	<p>Separate Price quoted for "Supply" and "Installation and Commissioning"</p> <p><input type="checkbox"/> Quoted / <input type="checkbox"/> Not Quoted.</p>	Quoting in any other format will lead to rejection of offer.
1.2	OFFER PRICE SUBMITTED IN GEM	<p>The quoted offer price in GEM against "Supply" and "Erection and Commissioning ( E&amp;C)" shall be inclusive of applicable GST and Offer Currency shall be INR.</p> <p>( The quoted offer price includes Material cost, Freight ,Packing &amp; forwarding charges , Installation and commissioning Charges and any other charges including GST )</p>	<p><input type="checkbox"/> The offer value quoted in GEM is in INR inclusive of Applicable GST.</p> <p><input type="checkbox"/> The offer value quoted in GEM is in ..... exclusive of Applicable GST.</p>	Offer quoted in GEM exclusive of GST will lead to rejection of offer.

1.3	BID EVALUATION	<p>The evaluation of Techno-Commercially qualified offers to arrive at L1 ( Lowest Bid) shall be done based on "Net Cash Outflow to BHEL" and the evaluation Currency shall be INR.</p> <p>The Net cash outflow to BHEL shall be calculated as follows:</p> <p><b>Net Cash Outflow to BHEL= [ ( Offer Price excluding applicable GST ) + (Applicable GST )-(GST Credit ) ]</b></p> <p>GST Credit is NIL for this case.</p> <p><b><i>The Package wise lowest bidder shall be considered for award of work.</i></b></p> <p><b><i>In case Non MSE bidder is L1, MSE bidder with the offer price in the band of L1+15 will be given preference as per MSE Act.</i></b></p>	<input type="checkbox"/> Accepted <input type="checkbox"/> Not Accepted	Non acceptance will lead to rejection of offer
1.4	BID VALIDITY	<p>Quoted Prices shall remain firm during offer validity period i.e., <b>90 days from the date of techno-commercial Bid opening.</b></p>	<input type="checkbox"/> Accepted <input type="checkbox"/> Not Accepted	Non acceptance will lead to rejection of offer
1.5	BID VALIDITY FOR SUCCESSFUL BIDDER	<p>For Successful bidder, the award price shall remain firm during entire contract period or extended contract period.</p> <p>Price variation on any account is not permissible / acceptable.</p>	<input type="checkbox"/> Accepted <input type="checkbox"/> Not Accepted	Non acceptance will lead to rejection of offer

2 PAYMENT TERMS				
2.1	Payment Terms	<p><b>80% of Supply Value</b> shall be made within 45 days from the date of receipt of material at BHEL as per Specification along with necessary documents such as Test Certificates, Manuals or any document as per tender.</p> <p><b>20% of Supply Value and 100% of Erection and Commissioning (E&amp;C) charges</b> shall be made against E&amp;C Certificate issued by BHEL and submission of Performance Bank Guarantee (PBG).</p> <p>There shall be <b>No Advance Payment</b> against Supply or Erection &amp; Commissioning.</p>	<p><b>Payment Terms :</b></p> <p><input type="checkbox"/> Accepted</p> <p><input type="checkbox"/> Not Accepted</p>	Any deviation / Non acceptance will lead to rejection of offer.
3 DELIVERY				
3.1	Terms of Delivery	Ex- BHEL- EDN , Bangalore (Delivery of Material and Services consequential to supply shall be made to EDN/BHEL Bangalore )	<p><input type="checkbox"/> Accepted</p> <p><input type="checkbox"/> Not Accepted</p>	Non acceptance will lead to rejection of offer.

3.2	<p><b>Delivery Period:</b> Time Period for "Supply" and "Erection &amp; Commissioning (E&amp;C)"</p>	<p><b>Time period for Supply:</b> The time period for Supply of Equipment shall be <b>12 weeks</b> from issue of Purchase order.</p> <p>The supply period includes the time required for approval of drawing and any other input from BHEL.</p> <p><b>Time Period for Erection and Commissioning (E&amp;C) :</b> The time period for Erection and Commissioning (E&amp;C) of Equipment shall be <b>10 weeks</b> from the date of intimation from BHEL to vendor for readiness of Site. The erection, testing for accessories to be started immediately after delivery so that they are ready before the boiler is delivered and ready for erection. The boiler commissioning to be carried out on weekends/holidays in order not to disturb existing canteen operations.</p> <p>Bidder shall quote their earliest schedule for Supply and E&amp;C against Schedule indicated above.</p> <p>BHEL reserves the right to accept an offer not meeting the NIT schedule.</p> <p><b>Validity of PO shall be 9 months from issue of PO.</b></p>	<input type="checkbox"/> Accepted  <input type="checkbox"/> Not Accepted	
3.3	<p>Best possible Delivery Period as per Bidder</p>	<p>Bidder shall Indicate their best possible Delivery Period for " Supply" from the date of Issue of PO and best possible time for "E&amp;C" after Intimation from BHEL. BHEL reserves the right to accept an offer not meeting the NIT schedule.</p>	<p><b>Best possible Delivery Period for</b> "Supply" .....Weeks from issue of PO.</p> <p>" Installation and Commissioning" .....Weeks from the date of intimation from BHEL.</p>	

3.4	Permissible Deviation in Time period for "Supply" and "E&C" w.r.t schedule mentioned in NIT which is acceptable to BHEL.	Deviation of <b>2 weeks in Time period for "Supply"</b> and <b>1 week in Time period for "E&amp;C"</b> w.r.t Delivery Period mentioned in NIT shall be acceptable.	<p>No Deviation in delivery Period Sought.</p> <p><b>Deviation in Delivery Period</b></p> <p><b>For "Supply "</b>:</p> <p>..... Weeks beyond the Delivery Schedule of <b>12 weeks</b> (As Per NIT).</p> <p><b>For " Installation and Commissioning "</b></p> <p>: ..... Weeks beyond the Delivery Schedule of <b>10 weeks</b> (As Per NIT ).</p>	Any deviation beyond permissible deviation in Delivery Period will lead to rejection of offer.
3.8	Rescheduling of Deliveries	BHEL reserves the right of postponement, rescheduling or staggering of delivery based on the project schedule. No compensation / payment shall be admissible on account of rescheduling of deliveries.	<input type="checkbox"/> Accepted  <input type="checkbox"/> Not Accepted	Non acceptance will lead to rejection of offer.

4 LD AND PENALTY	
4.1	<p>Penalty on delay in "Supply" and / or "E&amp;C" will be applicable for the delays attributable to vendor.</p> <p>Penalty will be considered separately for "Supply" and Erection and Commissioning (E&amp;C) w.r.t delivery schedule mentioned in PO.</p> <p>For the purpose of penalty for delay in "Supply" of the equipment the duration shall be reckoned from the date of issue of Purchase order by BHEL.</p> <p><b><i>The Penalty for delayed supply</i></b> shall be @0.5% per week of delay of Total PO value (Supply +E&amp;C) in E&amp;C subject to maximum of 10% of total PO value.</p> <p><b><i>The Penalty for delayed E&amp;C</i></b> shall be @0.5% per week of delay of Total PO value (Supply +E&amp;C) in supply subject to maximum of 10% of total PO value.</p> <p>Maximum penalty for delay in Supply and E&amp;C together shall be limited to 15% of Total PO value.</p>

5 PERFORMANCE SECURITY				
5.1	Contract Execution Bank Guarantee (CEBG): ( Applicable for Successful Bidder )	<p>The successful bidder shall furnish a Contract Execution Bank Guarantee (CEBG) for 10% of total PO value within 30 days of issue of PO and valid until 30 days after the date of E&amp;C certificate, which will be issued on completion of Erection and commissioning of equipment as prescribed in PO.</p> <p>If the supplier fails to submit the CEBG even within 60 days from date of PO, BHEL reserves the right to cancel the PO &amp; forfeit the EMD given by the supplier. In addition, action will be taken in line with extant guidelines for Suspension of Business dealings with supplier.</p>	<input type="checkbox"/> Accepted  <input type="checkbox"/> Not Accepted	Non acceptance will lead to rejection of offer
5.2	Performance Bank Guarantee (PBG): ( Applicable for Successful Bidder )	<p>The successful bidder shall furnish a Performance Bank Guarantee (CEBG) for 10% of total PO value immediately after completion of E&amp;C of equipment and before submission of E &amp; C Bill. The PBG shall be valid until 30 days beyond the warranty Period.</p> <p>If vendor fails to submit PBG on time, vendor agrees to accept for the final 10% payment, payable after the warranty period + 6 months of claim period against supplementary invoice subject to the completion of commissioning (if applicable).</p>	<input type="checkbox"/> Accepted  <input type="checkbox"/> Not Accepted	Non acceptance will lead to rejection of offer
5.3	Bank Charges	All bank charges required to be paid for participating in Tender / to comply with tender terms and conditions during execution of contract shall be borne by Vendor.	<input type="checkbox"/> Accepted  <input type="checkbox"/> Not Accepted	Non acceptance will lead to rejection of offer

STATUTORY AND LEGAL COMPLIANCE				
6	6.1	Compliance to <b>GFR 2017 Rule 144(xi)</b> Restrictions on procurement from a bidder of a country which shares a land border with India	Declaration for <b>GFR 2017 Rule 144(Xi)</b> as per attached format to be submitted by bidder.	Declaration for <b>GFR 2017 Rule 144(Xi)</b> as per Format  <input type="checkbox"/> Enclosed with offer  <input type="checkbox"/> Not enclosed with offer
6.2	6.3	Compliance to clause 9 (a) of Revised Public Procurement ( <b>Preference to Make in India</b> Order, 2017) of DPIIT Dated 13.06.2020.	Declaration for <b>Make in India</b> as per attached format to be submitted by bidder.	Declaration for <b>Make in India</b> as per Format  <input type="checkbox"/> Enclosed with offer  <input type="checkbox"/> Not enclosed with offer
		Compliance to <b>MSME Act 2006, Public Procurement Policy-2012 and Related circulars</b> w.r.t relaxation in EMD, PQR and preference in procurement.	Bidder shall provide details w.r.t Status of firm as Micro / Small Enterprises / Start up recognized by Competent Authority. Valid Registration Certificate to be enclosed.  In case valid documents are not provided, Bidder shall not be eligible for relaxation in EMD, PQR and no preference shall be considered in procurement.	<b>Status of Bidder:</b>  <input type="checkbox"/> Micro Enterprise <input type="checkbox"/> Small Enterprise <input type="checkbox"/> Medium Enterprise <input type="checkbox"/> Start Up Enterprise <input type="checkbox"/> Others  Copy of Registration as Micro / Small / Medium / Start up along with CA certificate for MSE status  <input type="checkbox"/> Enclosed with offer <input type="checkbox"/> Not enclosed with offer <input type="checkbox"/> Not applicable

6.4	<b>No Deviation w.r.t General Terms and Conditions of Contract as per NIT</b>	<p>Bidder shall provide declaration for unconditional acceptance to <b>General Terms and Conditions of Contract</b></p> <p>Any deviation mentioned anywhere in the offer shall be ignored and shall not be considered for evaluation.</p>	<p>Declaration for No Deviation as per Format</p> <p><input type="checkbox"/> Enclosed with offer</p> <p><input type="checkbox"/> Not enclosed with offer</p>	<p>Non submission of declaration in Bidders Company Letter Head as per Format will lead to rejection of offer.</p>
6.5	<b>Reverse Auction ( RA )</b>	<p>BHEL reserves the right to conduct Reverse Auction amongst Techno-Commercially Qualified Bidders as per RA guidelines through GEM.</p> <p>In case of non-acceptance for Participation in Reverse auction ( RA ) , Price bid of Techno-commercially qualified bidders not accepting for RA and Offer value after RA shall be considered for arriving at L1.</p>	<p><input type="checkbox"/> Agreed for participation in RA ( Reverse Auction )</p> <p><input type="checkbox"/> Not Agreed for Participation in RA ( Reverse Auction)</p>	

7 GOODS AND SERVICES TAX ( GST)				
7.1	<b>GST REGISTRATION OF BIDDER</b>	<p>Bidder shall provide <b>GST No.</b> allotted to their organization.</p> <p>Copy of GST and PAN to be enclosed.</p>	<p>PAN:</p> <p>.....</p> <p>GST No:</p> <p>.....</p> <p>Copy of PAN and GST Registration</p> <p>Enclosed with offer</p> <p>Not enclosed with Offer.</p>	
7.2	<b>GST CODES FOR SUPPLY AND SERVICES</b>	<p><b>HSN code for Material ( "Supply") and SAC code for Services ( "E&amp;C") and applicable GST % against Supply and E&amp;C to be indicated.</b></p>	<p>HSN Code for " Equipment ":</p> <p><input type="checkbox"/> Enclosed / <input type="checkbox"/> Not Enclosed</p> <p>SAC Code for " Installation and commissioning ":</p> <p>.....</p>	
7.3	<b>SUBMISSION OF GST INVOICE</b>	<p>Bidder shall submit GST invoice complete in all respect as per GST council at least 45 days prior to the <b>cut-off date*</b> (Time limit as declared by GST Council) to enable BHEL to avail GST Credit.</p> <p><b>*The cut-off date as of now is September of the subsequent Financial year.</b></p> <p><b>The provision of Tax Collected at Source ( TCS ) is applicable for this tender.</b></p> <p>In case BHEL is not able to avail GST Credit due to non-submission of complete set of invoice and other supporting billing documents as per PO within the above mentioned cut-off date , GST will not be paid to vendor.</p>	<p><input type="checkbox"/> Accepted</p> <p><input type="checkbox"/> Not Accepted</p>	

ANNEXURE-IBPART-I (TECHNO COMMERCIAL BID)BILL OF QUANTITY, SCOPE OF SUPPLY, ERECTION AND COMMISSIONING**A. BILL OF QUANTITY**

BILL OF QUANTITY			
SL NO	DESCRIPTION	UOM	QTY
<b>A</b>	<b>Supply, Erection, Testing and Commissioning of LPG fired Non IBR boilers</b>		
1	Supply of <b>LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 400 Kg. / Hr.</b> as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	2
2	Erection, Testing and Commissioning of <b>LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 400 Kg. / Hr.</b> as per Specification at BHEL-EDN, Bangalore.	Set	2
3	Supply of <b>LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 200 Kg. / Hr.</b> as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1
4	Erection, Testing and Commissioning of <b>LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 200 Kg. / Hr.</b> as per Specification at BHEL-EDN, Bangalore.	Set	1
<b>B</b>	<b>Supply, Erection, Testing and Commissioning of Flue Gas Outlet System for LPG Fired Non IBR Boilers</b>		
1	Supply of <b>Flue Gas Outlet System consisting of Flue gas duct of suitable size for LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 400 Kg. / Hr.</b> as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	2
2	Erection, Testing and Commissioning of <b>Flue Gas Outlet System for LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 400 Kg. / Hr.</b> as per Specification from Boiler to Chimney at BHEL-EDN Bangalore.	Set	2
3	Supply of <b>Flue Gas Outlet System for LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 200 Kg. / Hr.</b> as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1
4	Erection, Testing and Commissioning of <b>Flue Gas Outlet System for LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 200 Kg. / Hr.</b> as per Specification at BHEL-EDN Bangalore.	Set	1

5	Supply of <b>Chimney for Flue Gas Outlet System of LPG Fired Non IBR Boilers with total steam generating capacity of 600 Kg/ Hr.</b> as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1
6	Erection, Testing and Commissioning of <b>Chimney for Flue Gas Outlet System of LPG Fired Non IBR Boilers with total steam generating capacity of 600 Kg/ Hr.</b> as per Specification at BHEL-EDN Bangalore.	Set	1
C	Supply, Erection, Testing and Commissioning of <b>softener System</b> for Feed water of LPG Fired Non IBR boilers.		
1	Supply of <b>softener System consisting of softener, pH Booster Pump</b> with capacity of <b>2 Cubic Meter</b> and associated piping as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	2
2	Erection, Testing and Commissioning of <b>softener System consisting of softener, pH Booster Pump with capacity of 2 Cubic Meter</b> and associated piping as per Specification from Raw water inlet to Boiler Feed water storage tank at BHEL-EDN Bangalore.	Set	2
D	Supply, Erection, Testing and Commissioning of <b>Feed water System</b> for LPG Fired Non IBR boilers.		
1	Supply of <b>Boiler Feed water system consisting of Storage Tank of Capacity 5 KL with vertical structural support for mounting of stand</b> , associated piping from Raw water inlet to softener system inlet and softener system outlet to Feed water inlet of three Boilers as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1
2	Erection, Testing and Commissioning of <b>Boiler Feed water system consisting of Storage Tank of Capacity 5 KL with vertical structural support for mounting of stand, associated piping</b> from Raw water inlet to softener system inlet and softener system outlet to Feed water inlet of three Boilers as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1
E	Supply, Erection, Testing and Commissioning of <b>Pressure Reducing Station and Steam Distribution Header</b> for output of LPG Fired Non IBR boilers.		
1	Supply of <b>Pressure Reducing Station for Flow rate of Not less than 600 Kg/Hr</b> consisting of Pressure reducing valve, Moisture Separator, Valves and associated auxiliaries as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1

2	Erection, Testing and Commissioning of <b>Pressure Reducing Station for Flow rate of Not less than 600 Kg/Hr</b> consisting of Pressure reducing value, Moisture Separator, Valves and associated auxiliaries as per Specification from Boiler feed water tank to Boiler Feed water inlet at BHEL-EDN Bangalore.	Set	1
3	Supply of <b>Steam Distribution Header</b> consisting of 2 inlet and three outlet nozzles, Safety Value, Condensate pocket , Trap and associated piping as per Specification for Steam output of LPG Fired Non IBR Boilers with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1
4	Erection, Testing and Commissioning of <b>Steam Distribution Header</b> consisting of 2 inlet and three outlet nozzles, Safety Value, Condensate pocket , Trap and associated piping as per Specification for Steam output of LPG Fired Non IBR Boilers with delivery at BHEL-EDN Bangalore	Set	1
<b>F</b>	Supply, Erection, Testing and Commissioning of <b>LPG Gas Manifold with Vaporiser</b> for LPG Fired Non IBR boilers.		
1	Supply of <b>LPG Gas Manifold with Vaporiser</b> for individual LPG Fired Boilers consisting of Gas Pressure reducing station, Gas Control Selection , Manifold, Vaporiser and associated gas piping from LPG Storage Area to Boilers as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1
2	Erection, Testing and Commissioning of <b>LPG Gas Manifold with Vaporiser</b> for individual LPG Fired Boilers consisting of Gas Pressure reducing station, Gas Control Selection , Manifold, Vaporiser and associated gas piping from LPG Storage Area to Boilers as per Specification with delivery at BHEL-EDN Bangalore	Set	1
<b>G</b>	Supply, Erection, Testing and Commissioning of <b>Steam Piping with Accessories</b>		
1	Supply, Fabrication, Installation, Erection, Testing and commissioning of <b>SS pipe Sch-40</b> (For steam Header and piping) including incidentals such as nipple, tees, collars, gaskets with nut and bolts with necessary cutting, welding etc. This also includes making holes in walls and setting it right after work. The pipes have to be properly clamped and MS angle support to be given as required.		
1.1	50 mm	Rmt	6
1.2	40 mm	Rmt	54
1.3	25 mm	Rmt	12
1.4	20 mm	Rmt	12

1.5	15 mm	Rmt	36
2	Supply, Welding, Installation, Testing and commissioning of <b>SS Class 150 Flanges</b>		
2.1	50 mm	No.	6
2.2	40 mm	No.	16
2.3	25 mm	No.	6
2.4	20 mm	No.	6
2.5	15 mm	No.	40
3	Supply, Welding, Installation, Testing and commissioning of <b>SS Heavy Duty Bend</b> .		
3.1	50 mm	No.	4
3.2	40 mm	No.	10
3.3	25 mm	No.	4
3.4	20 mm	No.	8
3.5	15 mm	No.	50
4	Supply, Welding, Installation, Testing and commissioning of <b>1/2" PN16 Steam Valve</b> near Vessels and for isolation of Steam Traps	No.	15
5	Supply, Welding, Installation, Testing and commissioning of <b>1/2" Steam Traps TD3</b> in steam line and near vessels.	No.	20
6	Supply, Welding, Installation, Testing and commissioning of <b>1/2" Steam Float Traps</b> in steam line and near vessels Header.	No.	3
7	Supply, installation and fixing of Swing Plate Check Valve Class 150 to the piping with Size of 40mm.	No.	2
8	Supply, installation and fixing of Pressure Gauge ( Big Dial ) with "U" tube and stopcock to piping with necessary welding and insulation.	No.	4
9	Supply, Installation and fixing of Temperature Gauge.	No.	2
10	MS structure fabrication for pipe support, Boiler Frames, Header Support including MS angles, Anchor Bolts, Base Plates, Channels, Welding, Positioning and Labour charges along with one coat of Primer and two coats of Synthetic enamel paint.	Kg	1500

11	Supply, Installation and fixing of Insulation with Rockwool LRB Mattresses with Chicken mesh & with Aluminium Cladding-Up to 100NB<50mm & 125<75mm thick. The insulation work includes fixing of all insulation over all pipe fittings , valves, Strainers, Pressure Gauge fittings etc. covered under different items of BOQ.		
11.1	50 mm	Rmt	10
11.2	40 mm	Rmt	64
11.3	25 mm	Rmt	16
11.4	20 mm	Rmt	20
11.5	15 mm	Rmt	40
<b>H</b>	<b>Dismantling of Existing Diesel Fired Non IBR boilers with associated auxiliaries.</b>		
1	Dismantling of Existing Diesel Fired Boiler ( 2 Nos. of Capacity 400 Kg / Hr each) along with Accessories, Steam line , Diesel Tank and other associated Piping.	AU	1

**B. SCOPE OF SUPPLY, ERECTION, TESTING AND COMMISSIONING:****The Specification of Equipment to Supplied is as follows:**

B	INTRODUCTION
	<p><b>Bharat Heavy Electricals Ltd, Electronics Division premises at Mysore Road, Bangalore-26</b> is operating an Industrial Canteen with steam boiler for preparation of food. The Boiler serves requirements of steam for cooking at canteen. Existing requirement of steam is catered by Diesel fired Non IBR steam boiler of 400 Kg/ Hr capacity. It is planned to upgrade the existing Boiler with LPG Fired Vertical Coil Type Steam boiler NON IBR of 400 Kg/Hr (2 Nos) and 200 Kg/Hr (1 No) Capacity with replacement of steam piping and accessories, Feed water system, Softener system, Flue gas ducts and Provision of Gas manifold with vaporiser as specified in BOQ. The specifications cover supply, installation, testing, commissioning and handing over of Boiler and allied systems as mentioned in the scope.</p> <p>The scheme and type of equipments which will be used for providing Boiler and allied systems shall comprise of following: -</p> <ol style="list-style-type: none"> <li>1. Supply, installation, testing and commissioning of LPG Fired NON IBR Steam boiler of capacity not less than 400 Kg/Hr (2 Nos) and 200 Kg/Hr (1 No) along with allied mounting, accessories and safety controls etc.</li> <li>2. Supply installation, testing and commissioning of Steam piping with fittings, valves, steam traps, Pressure and temperature Gauges.</li> <li>3. Supply installation, testing and commissioning of Feed water system and piping.</li> <li>4. Supply installation, testing and commissioning of Softener system with pumps and piping.</li> <li>5. Supply installation, testing and commissioning of Gas piping, Gas manifold with vaporiser.</li> <li>6. Supply, installation and testing of flue gas outlet system with accessories.</li> <li>7. All minor civil works such as breaking and making good of openings in wall / ceiling / floor for the passage of pipes, drain pipes, cables, and earth wires.</li> <li>8. To provide Necessary mounting frames / supporting arrangements/foundation for the Pumps, piping Panel, etc.</li> <li>9. To operate, test and adjust all components as required including the adjustment and fine tuning of valves and controls for smooth operation of Boiler system.</li> </ol>

	<b>EQUIPMENT: LPG FIRED NON IBR BOILER, ASSOCIATED AUXILIARIES AND PIPING</b>
<b>SL NO</b>	<b>EQUIPMENT NAME</b>
	<b>LPG FIRED NON IBR BOILER ( STEAM GENERATING CAPACITY NOT LESS THAN 400 KG / HR) QTY.- 2 Nos.</b>  <b>LPG FIRED NON IBR BOILER ( STEAM GENERATING CAPACITY NOT LESS THAN 200 KG / HR) QTY.- 1 No.</b>
	<b>EQUIPMENT DESCRIPTION</b>
1	<p><b>EACH LPG FIRED NON IBR BOILER shall consist of</b></p> <p>1) <b>Pressure Part assembly</b> consisting of closely wound helical vertical membrane coil fabricated out of seamless tubes and flats.</p> <p>2) <b>Double Jacketed Air casing</b> with aluminium radiator to enclose the pressure part and serve as integral combustion Air pre heater.</p> <p>3) <b>Pressure Atomised forced draft , down firing burner assembly</b> suitable for LPG firing with Reverse Flame Technology.</p> <p>4) <b>Blower</b> coupled with motor, mounted on bottom chassis duly connected to jacket.</p> <p>5) <b>Feed Water Pump</b> with surge suppressor and Relief Valve , mounted on pumping module, Strainer, Drain Valves for economiser, Relief Valve for Feed water pump, NRV on Feed water Line , Ball valve for Coil blow down.</p> <p>6) <b>Atmospheric economiser and heat optimiser</b> to preheat feed water.</p> <p>7) <b>Steam separator Assembly, Main Steam Stop Valve, Auxiliary Steam Stop Valve and Single port Spring loaded safety Valve.</b></p> <p>8) <b>Pre wired control Panel</b> with necessary switch gear, power and control circuitry.</p> <p>9) <b>Piping of feed water line</b> between optimiser, economiser, feed pump and Boiler.</p> <p>10) <b>Required Instruments , controls and Safety Equipments.</b> Burner Programmer with matching Flame detector, Set Audio Visual Alarms for Abnormal conditions, Steam Pressure switch for burner ON-OFF control, Steam Pressure Gauge, Steam temperature indicator cum switch for high alarm, Low water level alarm switch on economiser, blow down valve limit switch, Fuel Pressure Indicator and isolating Needle valve for indicating instruments.</p> <p>11) <b>LPG Gas Train consisting of</b></p> <p>a) Gas Pressure Reducing Station consisting of Manual Ball Valve, Gas Filter, Pressure Gauge , Safety Shut off Valve , Gas Governor &amp; Safety Relief Valve.</p> <p>b) Gas Control Selection consisting of Pressure Switch, Upstream Solenoid Valve, Downstream Solenoid Valve &amp; Pressure Gauge.</p>
	<b>TECHNICAL SPECIFICATION:</b>
	<p>Type: LPG FIRED, NON-IBR, Steam Boiler</p> <p>Capacity (F &amp; A at 100 Deg Centigrade) not less than 200 Kg/Hr or 400 Kg/Hr.</p> <p>Maximum Working Pressure: 10.54 Kg/Sq. Cm</p> <p>Thermal Efficiency (Based on NCV): Not less than 88% (<math>\pm 2\%</math>)</p> <p>Fuel: LPG</p> <p>Operation: Suitable for operation on 415 V +/- 10%, 50 Hz, 3 phase supply</p>

<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b>	
<ol style="list-style-type: none"> <li>1. Space allocated for Boiler equipment shall be taken into consideration before ordering the equipment and they shall fit into the space provided with required clearances all around as per relevant rules and regulations.</li> <li>2. The contractor shall secure the approval of the BHEL for detailed working drawings before proceeding with the works. For this purpose, they shall submit 3 sets of drawings. Any alterations proposed by BHEL shall be incorporated in the drawings by the contractor and the corrected drawings shall be submitted once again for approval.</li> <li>3. The erection of boiler will be carried out after dismantling of one boiler at a time. During erection the boiler system along with its accessories will be erected in total.</li> <li>4. The end connections with Header, chimney, feed water etc. will be carried out on weekends/Holidays in order not to disturb existing canteen operations.</li> <li>5. Commissioning of boiler will be carried immediately after end connections are given and trials will be taken. All safety interlocks and working to be proven during the same.</li> </ol>	
SL NO	<b>EQUIPMENT NAME</b>
2	<p><b>Manifold with Vaporiser for LPG Fired Boilers</b></p> <p><b>EQUIPMENT DESCRIPTION</b></p> <p>I) LPG Gas Vaporiser shall consist of</p> <ol style="list-style-type: none"> <li>a) LPG Gas manifold from LPG bank to Boiler Gas train for all 3 boilers with approx.. length of 80-100 metres.</li> <li>b) Header designed suitably to meet pressure and flow requirements.</li> <li>c) All isolations, safety accessories for header and manifold with tapping points to serve all three boilers.</li> <li>d) LPG Gas vaporiser of approved make as per tender.</li> </ol>
<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b>	
<ol style="list-style-type: none"> <li>1. The scope includes supply, installation, commissioning and testing of Gas Manifold and vaporiser from outlet of cylinder storage area to connection at Gas train of respective boilers. The piping required is approximate 80-100 metres.</li> <li>2. The commissioning of header, manifold etc. and need connections to be carried on weekends/holidays in order not to disturb existing canteen operations.</li> <li>3. The erection of manifold with all necessary tests, safety to be made before connecting to the boiler system.</li> <li>4. The manifold, header to be designed to meet pressure and flow requirements of LPG for boilers capacity of 600Kg/Hr.</li> </ol>	

SL NO	EQUIPMENT NAME
3	<p><b>Flue Gas Outlet System for LPG Fired boilers</b> Qty: 1 Set  1 Set comprises of  a) 1 No. for LPG Boiler with Steam Generating Capacity of 400 Kg. / Hr <b>each for Two Boilers.</b>  b) 1 No. for LPG Boiler with Steam Generating Capacity of 200 Kg. / Hr)</p>
	<b>EQUIPMENT DESCRIPTION</b>
	Flue Gas outlet system for each Boiler consisting of a) Duct of suitable size /Dia. (painted with temperature resistant Paint), suitable reducer, bend, supports and flange joints (without insulation) and 0-600 Degree Celsius dial thermometer for each Boiler.
	<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b>
	<ol style="list-style-type: none"> <li>1. Each Flue gas outlet system to be connected to the chimney.</li> <li>2. All flanged connections to be provided with suitable gaskets to avoid leakages.</li> <li>3. Initially it may be required to make provisions for flue gas outlet other than chimney till all boilers are erected and chimney is erected.</li> <li>4. Necessary MS supports to be provided.</li> </ol>
SL NO	EQUIPMENT NAME
4	<p><b>Common Chimney for 3 Nos. of LPG Fired Boilers</b> (Total capacity of 1000 Kg. / Hr) Qty: 1 No</p>
	<b>EQUIPMENT DESCRIPTION</b>
	Common Chimney for 3 Nos, of LPG Fired Boilers consisting of Chimney ( self-support mounted fabricated with MS pipe, MS angle support structure and weather cowl). Height 15 meters and Diameter suitable to take flue gas of LPG fired boiler of capacity 1000 Kg/Hr.
	<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b>
	<ol style="list-style-type: none"> <li>1. The chimney shall be erected on foundation. The template/ drawing for base needs to be provided to facilitate erection.</li> <li>2. Access ladder and platform with safety railings till sampling point from the bottom to be provided.</li> <li>3. Chimney to be painted with Primer and Temperature resistant paint.</li> </ol>
SL NO	EQUIPMENT NAME
5	<p><b>Softener System with pH Booster Pump</b> for Boiler Feed water Supply Qty: 2 set</p>
	<b>EQUIPMENT DESCRIPTION</b>
	Each Softener System set consisting of a) 1 No. of PH Booster Pump and Motor suitable to run at 415 + or – 10% , 50 HZ, 3 phase. b) 1 No. of softener with capacity of 2 Cubic Metre with sufficient resin to cater inlet and outlet water requirements. c) Piping and Necessary valves for parallel operation of Pumps. d) Containers required for regeneration with suitable injectors and piping.

<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b>	
SL NO	EQUIPMENT NAME
6	<p><b>Feed Water System</b> for LPG Fired Boilers Qty: 1 Set</p> <p><b>EQUIPMENT DESCRIPTION</b></p> <p>Feed water System for 3 Nos of LPG Fired Boilers consisting of</p> <p>a) Storage Tank of capacity 5 KL with water level indicator along with structural Support for mounting of tank to get required feed water pressure at inlet. Access ladder till tank from the bottom of support with required safety railings.</p> <p>b) Valves , Fittings, Pipes, Bends , Reducers, Supports, Flanges and other necessary piping Materials for Feed water System piping from Raw Water Inlet to softener System Inlet and from softener System Outlet to inlet of feed water pump of each boiler (3 Nos. of LPG Fired Boilers with combined Steam generating capacity of 1000 Kg / Hr).</p> <p>d) Provision for overflow, drain line also needs to be provided.</p> <p>Total length of piping is approx. 30-35 metres.</p>

<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b>	
Technical Specification: <ol style="list-style-type: none"> <li>1) All Feed water pipes shall be constructed out of SS 304 sch 40 (Heavy duty) / PPR / HDPE pipes of heavy duty ratings and all fittings used shall be heavy duty conforming to relevant standards.</li> <li>2) All joints in the piping system shall generally be by welding (fusion type in PPR), unless otherwise mentioned or directed at site. All welding shall be done by qualified welders.</li> <li>3) All the structures, piping supports to be painted with one coat of primer and two coats of smoke grey enamel paint.</li> <li>4) All piping shall be tested to hydrostatic test pressure of at least one and half times the max. operating pressure but not less than 6 Kg/Sq.cm for a period of not less than 6 Hrs. All leaks and defects in joints revealed during the testing shall be rectified, retested and gotten approved. Test reports have to be submitted after completion testing work.</li> <li>7) The piping supports to be provided at suitable distance and also suitable structures to be built with channels wherever required for pipe routing.</li> <li>8) All the structures, piping supports to be painted with one coat of primer and two coats of smoke grey enamel paint.</li> </ol>	
<b>SL NO</b>	<b>EQUIPMENT NAME</b>
7	<p><b>EQUIPMENT DESCRIPTION</b></p> <p>Steam Pressure Reducing Station consisting of Direct acting Pressure Reducing Station with Fabricated moisture separator, Standard CS Gate &amp; Globe Valves, CS Safety Valve for Flow Rate: 600 Kg / Hr., Up Stream Pressure: 10 Kg./ Cm<sup>2</sup>, Downstream Pressure: 3 Kg /Cm<sup>2</sup> and Safety Valve Set Pressure: 3.5 Kg / Cm<sup>2</sup>. To be supplied of approved make</p>
	<p><b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b></p> <ol style="list-style-type: none"> <li>1. The PRV needs to be erected at location as per instructions of engineer in charge.</li> <li>2. Required supporting to be provided for the same.</li> <li>3. The PRV to be set suitable for canteen cooking operations as per instructions of Engineer in charge at the time of commissioning.</li> </ol>
<b>SL NO</b>	<b>EQUIPMENT NAME</b>
8	<p><b>EQUIPMENT DESCRIPTION</b></p> <p>Steam Distribution Header consisting of Steam Distribution Header, 2 no's of Inlet Nozzles with safety valves, 3 no's of Outlet Nozzles with safety valves, Condensate pocket , Trap</p>
	<p><b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b></p> <ol style="list-style-type: none"> <li>1. The header should be suitably designed to handle steam capacity and pressure for all three boilers at a time i.e. 1000 Kg/Hr.</li> <li>2. It should be insulated to avoid any heat loss.</li> <li>3. During commissioning all leakages to be checked and verified and working of safety valve to be verified.</li> <li>4. Required support for the header to be provided.</li> <li>5. All condensate, drain, trap outlet should be taken upto outside the building.</li> </ol>

SL NO	EQUIPMENT NAME
	<b>Steam Piping with Insulation from LPG Fired Boilers to Cooking Vessels Area Qty: As per BOQ</b>
	<b>EQUIPMENT DESCRIPTION</b>
	Steam Piping with Insulation consisting of SS Steam pipes of various diameters, Valves, Bends, Traps, MS Support Structures, Valves , Pressure Gauge , Temperature Gauge and Insulating materials as per BOQ.
	<b>SCOPE OF ERECTION , TESTING AND COMMISIONING</b>
9	<p>1) All steam pipes shall be constructed out of SS 304 sch 40 (Heavy duty) / PPR pipes of heavy duty ratings and all fittings used shall be heavy duty conforming to relevant standards.</p> <p>2) The piping supports to be provided at suitable distance and also suitable structures to be built with channels wherever required for pipe routing.</p> <p>3) All the structures, piping supports to be painted with one coat of primer and two coats of smoke grey enamel paint.</p> <p>4) All piping shall be tested to hydrostatic test pressure of at least one and half times the max. operating pressure but not less than 10 Kg/Sq.cm for a period of not less than 24 hours. All leaks and defects in joints revealed during the testing shall be rectified, retested and gotten approved. Test reports have to be submitted after completion testing work</p> <p>5) All insulation on Steam Piping shall be applied only after the system has been pressure tested and for use in canteen.</p> <p>6) Before applying insulation for Steam piping and fittings shall be wire brushed and cleaned to remove dust, dirt, mortar and etc. After insulation work aluminium cladding work has to be carried out with Aluminium sheet (26G) and fixing has to be done</p>
SL NO	NAME OF WORKS
	<b>Dismantling of Existing Diesel Fired Non IBR boilers with associated auxiliaries.</b>
	<b>WORK DESCRIPTION</b>
	Dismantling of Existing Diesel Fired Boiler ( 2 Nos. of Capacity 400 Kg / Hr each) along with Accessories, Steam line , Diesel Tank and other associated Piping.
10	<b>SCOPE OF WORK</b>
	<ol style="list-style-type: none"> <li>1. The dismantling of existing boilers, piping and accessories to be carried out as per instructions of engineer in charge.</li> <li>2. The dismantled parts to be stored at location as per directions of Engineer In charge.</li> <li>3. The disposal of dismantled parts will be carried out by BHEL separately.</li> <li>4. Dismantling to be carried out one boiler at a time and as per instructions of Engineer In charge, so as not to obstruct canteen operations.</li> </ol>

	<b>TERMS AND CONDITIONS W.R.T SUPPLY, ERECTION, TESTING AND COMMISSIONING</b>
<b>A]</b>	<b>SCHEMATIC LAYOUT OF BOILERS AND AUXILIARIES:</b>
	<ol style="list-style-type: none"> <li>1. Space allocated for Boiler equipment at Canteen, BHEL-EDN Bangalore shall be taken into consideration before ordering the equipment and they shall fit into the space provided with required clearances all around as per relevant rules and regulations.</li> <li>2. The contractor shall secure the approval of the BHEL for detailed working drawings before proceeding with the works. For this purpose, they shall submit 3 sets of drawings. Any alterations proposed by BHEL shall be incorporated in the drawings by the contractor and the corrected drawings shall be submitted once again for approval.</li> <li>3. The tentative scheme / layout to be enclosed with offer.</li> </ol>
<b>B]</b>	<b>TEST CERTIFICATES, OPERATING INSTRUCTIONS / MANUALS , ACCEPTANCE OF EQUIPMENTS / MATERIALS AND PERFORMANCE CRITERIA:</b>
	<p><b>Testing:</b></p> <ol style="list-style-type: none"> <li>1. The Vendor will submit data Sheet Specifying details of Boiler and QAP for Boiler, and obtain approval thereof. BHEL May depute representative for witnessing the test. The test report complied in all respect may be submitted to BHEL.</li> <li>2. After manufacture of the equipment, all the necessary routine tests shall be carried out as per the relevant standards and as listed in the respective sections. Routine and type tests for the various items of equipment shall be performed at the contractor's/manufacturer's works and test certificates shall be furnished. BHEL may depute their authorised representatives to be present during these tests if they desire to do so. The contractor shall provide all test equipments, labour and other services required for these tests free of cost.</li> <li>3. Upon notification from the contractor that the installation has been completed, the contractor shall conduct under the direction and in the presence of BHEL's Engineer, tests on the Boiler System as per Performa furnished in the section 'Performance criteria' in technical specifications. In the event full load due to appliances as specified in design data in technical specifications is not available when the plant is ready for testing and commissioning, the contractor shall nevertheless conduct tests in the prevailing conditions but shall also repeat them as and when full load due to appliances materializes during the defects liability period. In case the work does not meet the full intent of the specifications and further tests are considered necessary, the contractor shall bear all expenses thereof.</li> <li>4. The contractor shall operate, test and adjust all components as required including the adjustment and fine tuning of valves and controls for smooth operation of Boiler system.</li> </ol>
	<p><b>Operating Instructions / Manual:</b></p> <ol style="list-style-type: none"> <li>1. The contractor shall furnish a neatly typed set of operating instructions securely framed. These instructions shall include information and guidance on operating pressures, temperatures, air quantities, etc. The contractor shall submit 3 copies of operation and maintenance manuals. Such manuals shall include the equipment catalogues, technical details, wiring diagrams, list of spares, part numbers, test certificates of all accessories used along with troubleshooting guide etc.</li> </ol>

**Acceptance of Equipments / Materials:**

1. The equipments proposed by the contractor should have proved its performance satisfactorily elsewhere. BHEL has the liberty to obtain more data to judge the performance of the equipment for which the contractor has to render reasonable assistance. The decision of accepting or rejecting the equipments / materials will rest with BHEL and will be binding on the contractor.
2. In case the contractor proposes alternate makes of equipments / materials, they should bring out the salient features and advantages of the same in comparison to the proposed makes of equipments / materials. The decision of BHEL in this regard is final and binding.
3. The vendors shall submit data sheet and drawings of major equipments such as Boiler, Softener, Pumps, PRV, Gas manifold and vaporisers & and in turn will obtain approval before supplying the equipment.
4. Test Certificates to prove the performance of Offered Equipment as per Technical Specification, User manual and Electrical Circuit Diagram to be provided along with the Equipment.
5. Bidder shall demonstrate Performance of the Equipment as per Technical Specification during Pre Dispatch Inspection.

**Performance Criteria:**

The efficiency of boiler is to be carried as per IS 8753.

All instruments required for testing shall be provided by the contractor.

The readings shall be taken in the presence of the BHEL representatives and duly signed by all concerned.

A copy of the test readings along with detailed calculations for capacities shall be submitted.

Format given below can be used for efficiency test as a reference.

Date: .....

Boiler Code No. .....

S.No	Time	Ambient air		Fuel		Feed water		Steam			Flue gas analysis			Surface Temp of boiler, °C
		Dry bulb Temp, °C	Wet Bulb Temp, °C	Flow Rate, kg/hr	Temp °C	Flow rate, m³/hr	Temp °C	Flow rate, m³/hr	Pressure kg/cm²g	Temp °C	O₂ %	CO₂ %	CO %	Temp °C
1.														
2.														
3.														
4.														
5.														
6.														
7.														
8.														

	<b>SCOPE OF WORK</b>
	<ol style="list-style-type: none"> <li>1. Access to the works site shall be allowed only to the contractor or his duly appointed representatives. Work at BHEL's premises shall be carried out at such times as approved by BHEL. The contractor shall take all safety precautions to ensure safety of properties and life at site. The contractor shall obey central, local and state regulations and enactments pertaining to workmen and labour and BHEL shall have the right to enquire into the matter and decide all complaints on such matters.</li> <li>2. On or before the scheduled date of completion, the site shall be cleared and handed over in a perfect condition. Till this date the contractor is liable for all expenses, damages and thefts which may occur at the site. The work damaged or destroyed before finally being taken over by BHEL either through the negligence of the contractor or carelessness of the subcontractors or representatives shall be rebuilt by the contractor at his cost or shall be rectified by BHEL and the costs incurred shall be debited to the contractor.</li> <li>3. The tenderer shall include the following works along with the other works specified in the tender: <ol style="list-style-type: none"> <li>a) All foundation bolts, vibration isolation pads, etc. for the equipments, MS framework / foundation for the boiler, piping manifolds etc.</li> <li>b) Providing supports for all pipes, ducts, cables, cable trays, etc.</li> <li>c) Providing drain piping for the boiler units up to a point where it can be lead out.</li> <li>d) Any other works connected with the Boiler and piping system, which is deemed to have been included in the scope of this contract to ensure satisfactory performance of the plant.</li> </ol> </li> </ol>
	<b>SCOPE OF GUARANTEE/ WARRANTY AND TRAINING:</b>
	<ol style="list-style-type: none"> <li>1. The items covered under this tender shall be warranted for satisfactory performance against manufacturing defects and faulty workmanship for a period of 12 months from the date of commissioning.</li> <li>2. Supplier shall impart training to persons for operation and Maintenance at the time of the commissioning.</li> </ol>

<b>LIST OF APPROVED MAKES OF MATERIALS:</b>					
S.N.	Details of Materials / Equipment Make	Make (Manufacturer's Name)			
5.1	<i>Feed water Pump</i>	<i>Dampf Kolben / Wasp /Kirloskar/Ebara/KSB</i>			
5.2	Pressure Reducing Valve (PRV)	<i>Spirax Forbes/ Thermax/Samson/ Uniklinger</i>			
5.3	Burner	<i>Kromschroder / Ecoflam / Novanta /</i>			
5.4	<i>Gas Train –</i>	<i>PESO Approved, Madas/Dungs/ Krom Schrodder / Vanaz</i>			
5.5	<i>Vaporiser</i>	<i>Gassol</i>			
5.6	<i>Pipes / Valves / Sheet:</i>				
	a. SS Pipes upto 200 mm dia	<i>TATA Steel / Jindal /SAIL/Suni Tomo</i>			
	b. <i>Aluminium Sheet: For All Thicknesses</i>	<i>SAIL/TATA Steel /SAIL Nippon/Jindal/ ISPAT</i>			
	c. <i>Butterfly Valve</i>	<i>Audco / Advance /Flowserve/Hawa</i>			
	d. <i>Ball Valve</i>	<i>BDK/Legris /L &amp;T / Forbes/</i>			
	e. <i>Check Valve</i>	<i>Advance / (L &amp; T) Audco/Hawa/ Forbes /flowserve</i>			
	f. <i>Globe valve (Stop valve)</i>	<i>Thermax/ Forbes/Audco/Flowserve</i>			
	g. <i>Dial Type Thermometer &amp; Pressure Gauge</i>	<i>Japsin / H Guru/FIEBIG/Wika / Waree</i>			
5.7	<i>Steam Traps</i>	<i>Thermax/ Forbes / Spirax / Pennant</i>			
5.8	<i>FRP Tank</i>	<i>Sintex/ Kaveri/ Plasto/ Jaldhara /Astral</i>			
<b>Equivalent makes of above materials meeting the quality are also acceptable subject to acceptance by BHEL.</b>					
<b>SAFETY CODES:</b>					
I.S. 660	-	-	Safety code for mechanical refrigeration.		
I.S. 659	-	-	Safety code for air conditioning		
I.S. 3016	-	-	Code of practice for fire precautions in welding and cutting operations.		
I.S. 818	-	-	Code of practice for safety and Health requirements in electrical & gas welding and cutting operations.		
I.S.5216	-	-	Code for safety procedures and practices in Electrical works.		
I.S. 3696	-	-	Safety code for scaffolds and ladders.		

	<b>CONTRACT PERIOD, DELIVERY SCHEDULE, PAYMENT TERMS, LD / PENALTY, CONTRACT EXECUTION BANK GUARANTEE (CEBG) AND PERFORMANCE BANK GUARANTEE (PBG)</b>
1	<b>CONTRACT PERIOD, DELIVERY SCHEDULE FOR SUPPLY, ERECTION AND COMMISSIONING:</b> <p>The validity of the contract shall be <b>9 months from date of issue of PO</b>. Supply, Erection &amp; Commissioning shall be carried out at BHEL-EDN, Bangalore -560026.</p>
	<p>The time period for <b>Supply</b> of Equipment shall be <b>12 weeks</b> from issue of Purchase order. The supply period includes the time required for approval of drawing and any other input from BHEL.</p> <p>Time Period for Erection and Commissioning (E&amp;C) :</p> <p>The time period for <b>Erection and Commissioning (E&amp;C)</b> of Equipment shall be <b>10 weeks</b> from the date of intimation from BHEL to vendor for readiness of Site. The erection, testing for accessories to be started immediately after delivery so that they are ready before the boiler is delivered and ready for erection. The boiler commissioning to be carried out on weekends/holidays in order not to disturb existing canteen operations.</p> <p>BHEL reserves the right to accept an offer not meeting the NIT schedule.</p>
2	<b>PAYMENT TERMS</b> <p><b>80% of Supply Value</b> shall be made within 45 days from the date of receipt of material at BHEL as per Specification along with necessary documents such as Test Certificates, Manuals or any document as per tender.</p> <p><b>20% of Supply Value and 100% of Erection and Commissioning (E&amp;C) charges</b> shall be made against E&amp;C Certificate issued by BHEL and submission of Performance Bank Guarantee (PBG).</p> <p>There shall be <b>No Advance Payment</b> against Supply or Erection &amp; Commissioning. <b>The quoted rates shall remain firm throughout the contract period / extended contract period. No additional payments / Price Variation shall be made against unit rate of items supplied on any ground.</b></p>

2.1	<b>DOCUMENTS REQUIRED FOR PROCESSING OF BILLS</b>
	<p><b>Following documents shall be required for processing of Bills</b></p> <p>1.) Proof of receipt of material at BHEL-EDN, Bangalore as per PO with endorsement of BHEL-EDN security and Stores on LR / Invoice copy.</p> <p>2.) Warranty Certificate for the supplied products issued by OEM of Product / Bidder as Applicable.</p> <p>3.) Original GST invoice for items as per PO (In duplicate) to be submitted in hard copy at BHEL-EDN, Bangalore. The copy of invoice shall also be uploaded on GEM portal against the PO.</p> <p>4.) Erection and Commissioning Certificate for the supplied Items (E&amp;C certificate shall be issued by BHEL after completion of E&amp;C.)</p> <p>5.) Performance Bank Guarantee (PBG) for a value of 10% of Order Value.</p> <p>6.) Any other document as per Tender Terms and Conditions.</p>
3	<p><b>LD/ PENALTY:</b></p> <p><b>Penalty on delay in “Supply” and / or “E&amp;C” will be applicable for the delays attributable to vendor.</b></p> <p>Penalty will be considered separately for “Supply” and Erection and Commissioning (E&amp;C) w.r.t delivery schedule mentioned in PO.</p> <p>For the purpose of penalty for delay in “Supply” of the equipment the duration shall be reckoned from the date of issue of Purchase order by BHEL.</p> <p>The Penalty for delayed supply shall be @0.5% per week of delay of Total PO value (Supply +E&amp;C) in supply subject to maximum of 10% of total PO value.</p> <p>The Penalty for delayed E&amp;C shall be @0.5% per week of delay of Total PO value (Supply +E&amp;C) in E&amp;C subject to maximum of 10% of total PO value.</p> <p>Maximum penalty for delay in Supply and E&amp;C together shall be limited to 15% of Total PO value.</p>

	<b>CONTRACT EXECUTION BANK GUARANTEE ( CEBG) AND PERFORMANCE BANK GUARANTEE (PBG)</b>
	<p><b>CONTRACT EXECUTION BANK GUARANTEE (CEBG)</b></p> <p>The successful bidder shall furnish a Contract Execution Bank Guarantee (CEBG) as per <b>Annexure-G</b> for 10% of total PO value within 30 days of issue of PO and valid until 30 days after the date of E&amp;C certificate, which will be issued on completion of Erection and commissioning of equipment as prescribed in PO.</p> <p>If the supplier fails to submit the CEBG even within 60 days from date of PO, BHEL reserves the right to cancel the PO &amp; forfeit the EMD given by the supplier.</p> <p>In addition, action will be taken in line with extant guidelines for Suspension of Business dealings with supplier.</p> <p><b>PERFORMANCE BANK GUARANTEE (PBG)</b></p> <p>The successful bidder shall furnish a Performance Bank Guarantee (CEBG) as per <b>Annexure-F</b> for 10% of total PO value immediately after completion of E&amp;C of equipment and before submission of E &amp; C Bill. The PBG shall be valid until 30 days beyond the warranty Period.</p> <p>If vendor fails to submit PBG on time, 10% of Order Value shall be deducted from the amount payable to vendor. The deducted amount shall be refunded after the warranty period + 6 months of claim period against supplementary invoice subject to the completion of commissioning (if applicable).</p>

## **PART-I (TECHNO -COMMERCIAL BID)**

### **ANNEXURE-IC**

#### **GENERAL TERMS & CONDITIONS OF CONTRACT**

##### **1. DEFINITION**

In these General Conditions of Contract, the following terms shall have meaning hereby assigned to them, except where the context otherwise requires:

- a) The "Contract" means, the documents forming the tender and acceptance thereof, together with all the documents referred to therein including general and special conditions to contract. All these documents as applicable taken together shall be deemed to form one contract and shall be complementary to one another.
- b) The "Work" means, the work described in the tender documents in individual Purchase orders as may be issued from time to time to the contractor by the Officer-In charge within the power conferred upon him including all notified or additional items of works and obligations to be carried out as required for the performance of contract.
- c) The "contractor" means, the individual Firm or Company whether incorporated or not, undertaking the work and shall include the legal personal representatives of such individuals or the persons composing the firm or Company or the successors of the firm or company and the permitted assigns of such individual or firm or Company.
- d) "The Officer-In charge" means, the Officer deputed by the BHEL to supervise the work or part of the work.
- e) "Approved" and "Directed" means, the approval or direction of the respective area **HOD** or person deputed by him for the particular purposes.
- f) "BHARAT HEAVY ELECTRICALS LIMITED" (hereinafter referred to as BHEL) shall mean the Board of Directors, Chairman, Executive Director, General Manager or, other Administrative Officer of the said Company including **AGM / CCD** authorised to invite tenders and enter into contract for works on behalf of the Company.
- g) The "Contract sum" means, the sum accepted or the sum calculated in accordance with the prices accepted in tender and / or the contract rates as payable to the contractor for the execution of the work during the currency of the contract.
- h) A "week" means, Seven Days, without regard to the number of hours worked or not worked in any day in that week.
- i) A "day" means, the day of 24 hours (TWENTY-FOUR) irrespective of the number of hours worked or not worked in that day.

##### **2. HEADING TO THE CONTRACT**

The heading to these conditions shall not affect the interpretations thereof.

##### **3. DEVIATIONS**

The contractor shall not carry out any work not covered by schedule except in pursuance of the written instructions of the respective area HOD. No such work shall be valid unless the same has been specifically confirmed and accepted by BHEL in writing and incorporated in the Contract.

##### **4. SUPPLY, ERECTION AND COMMISIONING TO BE CARRIED OUT**

The Contract shall include all labour, materials, tools, plant, equipment and transport which may be required for Supply, Erection and Commissioning of Equipment.

The Contractor will be deemed to have satisfied himself as to the nature of the site, local facilities of access and all matters affecting the execution of the work. No extra charges consequent on any misunderstanding in these respects or otherwise will be allowed.

##### **5. ASSIGNMENT OF TRANSFER OF CONTRACT**

The Contractor shall not, assign or transfer the contract or any part thereof, or any share, or interest thereon to any other persons.

## 6. SUB CONTRACT

The Contractor shall not sublet any portion of the contract.

## 7. COMPLIANCE TO REGULATIONS AND BYE -LAWS

The Contractor shall confirm to the provisions of any statute relating to the work and regulations and Bye-laws of any local authority. The Contractor shall be bound to give all notices required by statutory regulations or by-laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

## 8. EARNEST MONEY DEPOSIT (EMD) & SECURITY DEPOSIT (SD):

### Earnest Money Deposit (EMD):

Tender must be accompanied by Earnest Money for the amount mentioned in tender notice, pledged to BHEL- EDN, BANGALORE in any of the forms mentioned below.

#### Modes of Deposit:

The EMD shall be accepted only in the following forms:

- a) Cash deposit as permissible under the extant Income Tax Act (before tender opening)
- b) Electronic Fund Transfer credited in BHEL account (before tender opening)
- c) Banker's cheque/ Pay order/ Demand draft, in favour of BHEL (along with offer)
- d) FDR issued by Scheduled Banks/ Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL)
- e) In addition to the above, the EMD amount in excess of ₹ 2,00,000 / - (₹ Two lakhs) also acceptable in the form of Bank guarantee from scheduled banks. The bank guarantee in such cases shall be valid for at least six months. (BG Format attached as Annexure-J)

#### Forfeiture of EMD:

EMD by the tenderer will be forfeited as per tender documents if

- i) After opening the Tender, the Tenderer revokes his tender within the validity period or increases his earlier quoted rates. ii) If only, a part of the Supply, Erection and Commissioning included in the tender has been awarded to the tenderer and the tenderer refuses to take up the work the amount of Earnest Money to be forfeited will be based on the value of the contract so awarded.

#### General Terms related to EMD:

Earnest Money Deposit (EMD) will not carry any interest.

The Earnest Money Deposit (EMD) will be refunded to the unsuccessful tenderers within 15 days of acceptance of the award of work by successful tenderer / expiry of offer validity period.

## 9. GOODS & SERVICE TAX (GST) REGISTRATION & COMPLIANCE

1. Response to Tenders for Indigenous supplier will be entertained only if the vendor has a valid GST registration No (GSTIN) which should be clearly mentioned in the offer. If the dealer is exempted from GST registration, a declaration with due supporting documents need to be furnished for considering the offer. Dealers under composition scheme should declare that he is a composition dealer supported by the screen shot taken from GST portal. The dealer has to submit necessary documents if there is any change in status under GST.

2. Supplier shall mention their GSTIN in all their invoices (incl. credit Notes, Debit Notes) and invoices shall be in the format as specified/prescribed under GST laws. Invoices shall necessarily contain Invoice number (in case of multiple numbering system is being followed for billing like SAP invoice no, commercial invoice no etc., then the Invoice No. which is linked/uploaded in GSTN network shall be clearly indicated), Billed to

party (with GSTIN) & Shipped to party details, item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN / SAC Code, Place of Supply etc.

3. All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code).

4. Invoices will be processed only upon completion of statutory requirement and further subject to following:

a) Vendor declaring such invoice in Form GST ANX-1

b) Receipt of Goods or Services and Tax invoice by BHEL

5. As the continuous uploading of tax invoices in GSTN portal (in GST ANX-1) is available for all (i.e. both Small & Large) tax payers under proposed new GST Return System, all invoices raised on BHEL may be uploaded immediately in GST portal on dispatch of material /rendering of services. The supplier shall ensure availability of Invoice in GST portal before submission of invoice to BHEL. Invoices will be admitted by BHEL only if the invoices are available in GSTN portal (in BHEL's GST ANX-2).

6. In case of discrepancy in the data uploaded by the supplier in the GSTN portal or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit and will notify the supplier of the same. Supplier has to rectify the data discrepancy in the GSTN portal or issue credit note or debit note (details also to be uploaded in GSTN portal) for the shortages or rejections in the supplies or additional claims, within the calendar month informed by BHEL.

7. In cases where invoice details have been uploaded by the vendor but failed to remit the GST amount to GST Department (Form PMT-08 or Form GST RET-01 to be submitted) within stipulated time, then GST paid on the invoices pertaining to the month for which GST return not filed by the vendor will be recovered from the vendor along with the applicable interest (currently 24% p.a) and all subsequent bills of the vendor will not be processed till filing of the GST return by the vendor

8. In case GST credit is denied to BHEL due to non-receipt or delayed receipt of goods and/ or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, GST amount claimed in the invoice shall be disallowed to the vendor.

9. Where any GST liability arising on BHEL under Reverse Charge (RCM), the vendor has to submit the invoices to BHEL well within the timeline prescribed in GST Law, to enable BHEL to discharge the GST liability. If there is a delay in submission of invoice by the vendor resulting in delayed payment of GST by BHEL along with Interest, then such Interest payable or paid shall be recovered from the vendor.

10. Under GST regime, BHEL has to discharge GST liability on LD recovered from suppliers/contracts. Hence applicable GST shall also be recoverable from suppliers/contractors on LD amount. For this Tax Invoice will be issued by BHEL indicating the respective supply invoice number.

11. GST TDS will be deducted as per Section 51 of CGST Act 2017 and in line with Notification 50/2018 – Central Tax dated 13.09.2018. GST TDS certificate which will be generated in GST portal subsequent to vendor accepting the TDS deduction in the GST portal, will be issued to the vendor.

## 10. ORDERS UNDER THE CONTRACT

All orders, notices etc. to be given under the contract shall be in writing, typescript or printed and if sent by registered post to the address given in the tender of the Contract, shall be deemed to have been served on the date, when in the ordinary course they would have been delivered to him. The Contractor shall carry out without delay all orders given to him.

## 11. PRECAUTIONS AGAINST RISK

The Contractor shall be responsible for providing at his own expense for all precautions to prevent loss or damage from any and all risks and to minimize the amount of any such loss or damage and for the necessary steps to be taken for the said purpose.

## 12. DAMAGE / LOSS TO PROPERTY & INJURY TO WORKMEN

The Contractor shall at his own expense reinstate and make good to the satisfaction of the respective area **HOD** and pay compensation for any injury, loss or damage occurred to any property or rights whatever including property and rights of BHEL (or agents) servants or employee of BHEL, the injury loss or damage

arising out of or in any way in connection with the execution or purported execution of the contract and further the contractor shall indemnify BHEL against all claims enforceable against BHEL (or any agent, servant or employee of BHEL) or which would be so enforceable against BHEL, in respect of any such injury (including injury resulting in death) loss or damage to any person whomsoever or property including all claims which may arise under the Employees Compensation Act or otherwise.

## 15 LAWS GOVERNING THE CONTRACT

The contract shall be governed by the Indian Laws for the time being in force.

## 16. CANCELLATION OF CONTRACT FOR CORRUPT ACTS

BHEL, whose decision shall be final and conclusive, shall without prejudice to any other right or remedy which shall have accrued, shall accrue thereafter to BHEL cancel the contract in any of the following cases and the Contractor shall be liable to make payment to BHEL for any loss or damage resulting from any such cancellation to the same extent as provided in the case of cancellation for default.

If the Contractor shall:

- a) Offer or give or agree to give to any person in BHEL service any gift or consideration of any kind, as an inducement or reward for doing or for bearing to do or for having done or for having borne to do any act, in relation to the obtaining or execution of this or any other contract for BHEL service,  
OR
- b) enter into a contract or understanding with any person in BHEL in connection with which commission has been paid or agreed to be paid by him or with his knowledge, unless the particulars of any such commission and the terms of payment thereof have previously been disclosed in writing to BHEL,  
OR
- c) To obtain' a contract with BHEL as a result of ring tendering or by non-bonafide methods of competitive tendering, without first disclosing the fact in writing to BHEL.

## 17. CANCELLATION OF CONTRACT FOR INSOLVANCY ASSIGMENT OR SUBLetting OF CONTRACT

BHEL, without prejudice to any other right or remedy, which shall have accrued or shall accrue thereafter to BHEL, shall cancel the contract in any of the following cases:

If the Contractor,

- a) Being an individual or if a firm any partner thereof shall at any time be adjudged bankrupt or have a receiving order for administration of his estate, made against him or shall take any proceedings for liquidation or composition under any bankruptcy Act or assignment of his effects of composition or arrangement for the benefit of his creditors or purport to do so, or if any application made under any Bankruptcy Act for the time being in force for the sequestration of his estate or if a trust deed be granted by him on behalf of his creditors.

OR

- b) Being a Company, shall pass a resolution or Court shall make an order for the liquidation of its assets, or a receiver or Manager on behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or Manager.

OR

- c) Assigns, Transfers, Sublets or attempts to assign, transfer or sublet any portion of the work.

- d) Whenever BHEL exercises the authority to cancel the contract under these conditions, BHEL may have the work done by any means at the Contractor's risks and expenses provided always that in the event of the cost of the work so done (as certified by the respective area **HOD**) being less than the contract cost, the advantage shall accrue to BHEL and if the cost exceeds the money due to Contractor under the contract, the Contractor shall either pay the excess amount ordered by the respective area **HOD** or the same shall be recovered from the Contractor by other means.

e) In case BHEL carries out the work under the provisions of this condition, the cost to be taken into account in determining the excess cost to be charged to the Contractor under this condition shall consist of the cost of the materials, hire charges of tools and plants and / or labour provided by BHEL with an addition of such percentage to cover superintendence and establishment charges as may be decided by the respective area **HOD** whose decision shall be final and conclusive.

f) Labour engaged by the contractor should be disciplined & exhibit good behaviour in dealing with employees of BHEL. Any misbehaviour or undesirable conduct of any person engaged by the contractor is reported, contractor shall change that person immediately or else it may even lead to termination of the contract & in such case security deposit will be forfeited as penalty.

## 18. CANCELLATION OF CONTRACT IN PART OR FULL ON CONTRACTOR'S DEFAULT

If the contractor:

a) makes default in carrying out the work as directed and continues in that state after a reasonable notice from the respective area **HOD** or his authorized representative:

b) fails to comply with any of the terms & conditions of the contract or failure to comply orders after reasonable notice in writing with orders properly issued thereunder:

BHEL may without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to BHEL CANCEL the contract as whole or in part thereof or only such work order or items of work in default from the contract. Whenever BHEL exercises the authority to cancel the contract as a whole or part under this condition, BHEL may complete the work at the contractor's risk and cost (as certified by the respective area **HOD** which is final and conclusive) being less than the contract cost, the advantage shall accrue to BHEL. If the cost exceeds the money due to the Contractor under this contract, the Contractor shall either pay the excess amount ordered by the respective area **HOD** or the same shall be recovered from the Contractor by other means. In case BHEL carries out the work or any part thereof under the provisions of the conditions the cost to be taken into account in determining the excess cost to be charged to the Contractor under this condition shall consist of the cost of the materials, hire charges of tools and plant and/or labour provided by BHEL with an addition of such percentage to cover the superintendence and establishment charges as may be decided by the respective area **HOD** whose decision shall be final and conclusive.

## 19. TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR

Without prejudice to any of the rights or remedies under this contract, if the Contractor dies, or if the firm is dissolved or the company is liquidated, BHEL shall have the option of terminating the contract without compensation to the Contractor.

## 20. SPECIAL POWER TO TERMINATION

If at any time after the award of contract, BHEL shall for any reason whatsoever not require whole or any part of the work to be carried out the respective area **HOD** shall give notice in writing of the fact to the Contractor who shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the foreclosing of the work.

## 21. RECOVERY FROM CONTRACTOR

Whenever under the contract, any sum of money, shall be recoverable from or payable by the Contractor, the same may be deducted from or any sum then due or which at any time thereafter may become due to Contractor under the contract or under any other contract with BHEL or from his Security Deposit unless the contractor pays the claim on demand.

## **22. POST TECHNICAL AUDIT OF SUPPLY AND BILLS**

BHEL reserves the right to carry out the post-payment Audit and technical examination of the Supply, Erection and commissioning of Equipment and final bill including all supporting vouchers, abstracts etc., and enforce recovery of any sum becoming due as a result thereof in the manner provided in the presiding sub- paragraphs. However, no such recovery shall be enforced after three years of passing the final bill.

## **23. REFUND OF SECURITY DEPOSIT**

The Security Deposit may be refunded to the Contractor after completion of the contract provided, after the Contractor shall first have been paid the last and final bill and have rendered a "NO DEMAND CERTIFICATE".

## **24. FORCE MAJEURE CLAUSE**

If, at any time during the continuance 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, Hostile acts of the public enemy Civil Commotion, Epidemics, or Acts of God (Floods, Storm/Cyclone, Hurricane, Earthquake etc. ) then provided notice of happening of any such event is given by either party to other within 7 days from the date of occurrence thereof neither of the parties shall by reason of such event be entitled to terminate this Contract or claim for damages against the other in respect of such non-performance or delay for such period. Performance under the contract shall be resumed as soon as practicable after such event 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 of any such event, claims for extension of time may be granted for periods considered reasonable by the respective area **HOD** at his discretion subject to prompt notification by the contractor.

## **25. ARBITRATION**

Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the Parties, in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract, then, either Party may, by a notice in writing to the other Party refer such dispute or difference to the sole arbitration of an arbitrator appointed by Head of the **BHEL-EDN, Bengaluru**.

The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the Parties.

Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be **Bengaluru** (the place from where the contract is issued)

The cost of arbitration shall be borne as per the award of the Arbitrator. Subject to the arbitration in terms of Clause above, the Courts at **Bengaluru** (PI incorporate the name of the place where the Principal Civil Court having ordinary original civil jurisdiction to decide questions forming subject matter of the arbitration is located) shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.

Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the

Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner except where the contract has been terminated by either party in terms of this contract.

**In case of contract with Public Sector Enterprises (PSE) or a Government Department, the following shall be applicable**

In the event of any dispute or difference relating to the interpretation and application of the provisions of the Contract, such dispute or difference shall be referred by either Party for arbitration to the sole arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the arbitrator shall be binding upon the Parties to the dispute, provided, however, any Party aggrieved by such award may make further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary or Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the Parties hereto finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

**26. JURISDICTION:**

In case of any suit or other legal proceedings arising under or relating to this Contract, the courts at **Bengaluru, Karnataka** only shall have the Jurisdiction and is only after exhausting the, Arbitration, Clause 25.

**27. SECURACY OF CONFIDENTIAL INFORMATION:**

The Contractor undertakes and agrees that he/it will not disclose or reveal in part or full the proprietary/confidential information, which terms shall mean and include patents, trademarks, service marks, registered designs, copyright, design rights, know-how, confidential information, trade and business names and any other similar protected information of BHEL received during negotiation or currency of the contract to any third party or governmental authorities without written permission from BHEL. In the event of termination or expiry of the contract, the contractor shall return all proprietary/confidential information to BHEL. This clause shall survive termination or expiry of the contract.

BHEL reserves the right to initiate appropriate action including legal proceeds / termination of contract, recovery of damages, penalties etc., if the contractor is found guilty / wrong usage of the documents given by BHEL for any unauthorised activity.

**28. SIGNING OF CONTRACT**

Each contract document shall be signed by the Contractor with his usual signature. Contract by partnership or Hindu Joint Family firm, may be signed in the FIRM'S name by the Managing Partner or all /one of the Partners on behalf of the firm or the Karta or Manager for HUF as the case may be. Contract by a Company shall be signed with the name of the Company from a person authorised in this behalf and a Resolution or power of attorney or other satisfactory proof, showing that the person signing the Contract documents on behalf of the Company is duly authorised to do so, shall accompany the contract.

**29. FRAUD PREVENTION POLICY**

The Bidder along with its associate / collaborators / 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 fraud or suspected fraud as soon as it comes to their notice”.

Fraud Prevention policy and List of Nodal Officers shall be hosted on BHEL website, vendor portals of Units / Regions intranet.

**30. CONFLICT OF INTEREST**

"A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder(s) found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- a) they have controlling partner (s) in common; or
- b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or
- c) they have the same legal representative/agent for purposes of this bid; or
- d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or
- e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid; or
- f) Procurement directly from the manufacturers/ suppliers shall be preferred. In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:

1. The principal manufacturer directly or through one Indian agent on his behalf; and
2. Indian/foreign agent on behalf of only one principal;

In case bids are received from both the manufacturer/ supplier and the agent, bid received from the agent shall be ignored.

The extant guidelines issued by SS&P, Corp. Office for regulation of Agents of foreign principals shall be followed.

g) A bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; or

h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/similar line of business."

### **31. SUSPENSION OF BUSINESS DEALINGS WITH SUPPLIERS / CONTRACTORS:**

Penal action can be initiated on the suppliers / Contractors in line with extant 'Guidelines for Suspension of Business Dealings with Suppliers/ Contractors. The abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' has been uploaded on <http://www.bhel.comon> "supplier registration page".

### **32. BREACH OF CONTRACT, REMEDIES AND TERMINATION:**

In case of breach of contract, wherever the value of security instruments like performance bank guarantee available with BHEL against the contract is at least 10% of the contract value, the same shall be encashed.

In case the value of the security instruments available is less than 10% of the contract value, the balance amount shall be recovered from other financial remedies (i.e. available bills of the contractor, retention amount, etc. with BHEL) or legal remedies shall be pursued.

The balance scope of work shall be got done independently without Risk & Cost of the failed supplier/ contractor.

Further, levy of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.

### **33. PREFERENCE TO MAKE IN INDIA**

"For this procurement, Public Procurement (Preference to Make in India), Order 2017 dated 15.06.2017 & 28.05.2018 and subsequent Orders issued by the respective Nodal Ministry shall be applicable even if it is issued after this NIT but before finalization of contract / PO / WO against this NIT. In the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and / or local content in respect of this procurement, same shall be applicable.

**PART-I (TECHNO COMMERCIAL BID)****ANNEXURE-ID****SPECIAL TERMS & CONDITIONS OF CONTRACT****1. PARTICIPATION.**

The Parties who have been suspended or black listed or issued with "Show Cause Notice "by BHEL, EDN Bengaluru or any other BHEL Unit will not be allowed to participate in the Tender.

Other than the bidder, none of its group concerns or affiliates etc. shall participate in the tender either directly or indirectly through any other agency under same proprietor / common director(s) / common partner(s). The bidder should declare the same in the Tender. Even during the course of evaluation / finalization of Tender if it is found that some of the parties are not fulfilling the above clauses, BHEL will not consider them for further participation in the Tender.

**2. EVALUATION CRITERIA:**

- a. Technical Bids of tenderers will be evaluated for the Pre-Qualification/Technical / Commercial Eligibility Criteria on the basis of supporting documents and track record of the bidder.
- b. Price Bids of only those tenderers who are found to meet the Pre-Qualification/Technical Eligibility Criteria will be opened. Price Bids will be opened with prior information to the eligible bidders to facilitate the presence of the bidders or their authorized representatives to witness the Price Bid opening.

**3. CRITERIA FOR AWARD OF WORK:**

1. The evaluation of offer for award of work shall be on the basis of "Total Cost to BHEL/ **Net Cash outflow to BHEL after taking into account applicable Taxes and Duties.**
2. **The work will be awarded on Package Wise L1 basis.**
3. In case there are more than one L1 bidders, BHEL will invite fresh revised price bids from all such L1 bidders & ranking will be decided based on these revised bids. The new rates quoted should be lower than their previous L1 rates. In case if the revised bids submitted by L1 bidders is also same and none of the bidders are ready for further reduction in their rates, then L1 bidder will be selected based on draw of lots.
4. The quantity mentioned in BOQ / Price bid is tentative. BHEL reserves the right to increase or decrease the quantity during award of work or issue work order in phase manner as per requirement of BHEL.

**4. METHOD OF EVALUATION OF PRICES****Priority / Ranking**

1. Net cash outflow to BHEL including all charges, incidentals etc., inclusive of Goods & Service tax.

**5. RATE FINALIZATION**

1. Lowest prices received against BHEL Tender need not be the acceptable to BHEL and in that case BHEL would not consider the same for award of Contract. BHEL would negotiate or re-float the Tender opened if L1 price is not the lowest acceptable price to BHEL inter-alia other reasons.
2. Tenderers are requested to give their best prices at the first instant itself.
3. In the event of the final L1 prices are not reasonable / acceptable to BHEL, BHEL may resort to short closure of this Tender.

**6. FINALIZATION OF CONTRACT BY ADOPTING "REVERSE AUCTION":**

"BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on GEM Portal) for this tender. RA shall be conducted among the techno commercially qualified bidders. Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered for RA. In case any bidder(s) do (es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking."

# ANNEXURES

## ANNEXURE-A

### **A.EMD PAYMENT WIDE SBI-E COLLECT**

This explains how to make Payments towards Earnest Money Deposit (EMD) to BHEL-EDN, Bengaluru through SBI-E collect. Payments can be made using Internet Banking, Debit Cards/Credit Cards etc. SBI Charges a minimum amount (Service Charge) for every transaction. This may vary according to the MODE selected.

#### **STEP BY STEP PROCEDURE TO REMIT EMD AGAINST TENDER NOTIFICATION:**

Login to <https://www.onlinesbi.com>

1. Select State Bank Collect available on the top (pre login page)
2. Accept the terms and conditions and click "PROCEED"
3. Select State of Corporation / Institution as "KARNATAKA "
4. Type of Corporate / Institution as "PSU-Public Sector undertaking ".
4. Select PSU-Public Sector Undertaking Name as "BHARAT HEAVY ELECTRICALS LIMITED" and click "SUBMIT ".
5. In the next page, Select Payment Category as "OTHERS" and Sub Category as "EMD" (As applicable), fill details correctly & click "SUBMIT".
6. If all details entered are correctly populated, click "CONFIRM "to proceed.
7. Make payment as per your convenience. (Options available are payment of fees through SBI Net Banking, State Bank ATM cum Debit Cards / Other Bank Debit / Credit Cards and through SBI Branches).
8. SAVE & Keep the copy of receipt for future reference.

#### **PROCEDURE TO TAKE RECEIPT FOR A PAYMENT MADE, EVEN ON A LATER DATE:**

(PLEASE CHECK THE STATUS BEFORE MAKING PAYMENT SECOND TIME)

1. Login to [www.onlinesbi.com](https://www.onlinesbi.com)
2. Select State Bank Collect available on the top (pre login page)
3. Accept the terms and conditions and click "PROCEED"
4. Select "PAYMENT HISTORY "option available on the left side of screen.
5. Using two options as mentioned below, you can get the receipt:
  - a. Type the same Date of Birth, Mobile Number which you have entered at the time of making payment through SB collect. Select the date range and submit.
  - b. If you know the payment reference number, then enter the Reference number (DU...) along with anyone information (Date of Birth / Mobile number, which you have entered at the time of making payment). Select the date range and submit.
6. In the next page, take print out of receipt.

#### **A.1: EMD amount may also be remitted through NEFT/ RTGS to BHEL account as per following detail:**

Name of Bank: PUNJAB NATIONAL BANK  
 Branch: BHEL MYSORE ROAD  
 IFSC code: PUNB0424700  
 Account Number: 4247002100500157

**ANNEXURE-B****Certificate by Chartered Accountant on letter head for MSME bidder**

This is to Certify that M/S

..... (hereinafter referred to as 'company' / Partnership Firm / Proprietorship) having its registered office at

.....is registered under Micro, Small and Medium Enterprises Development Act, 2006 (**MSMED Act, 2006**) having Udyam Registration Number

**No:**.....

Category: ....., (Micro/Small/Medium). (Copy enclosed).

Further Verified from the Books of Accounts, the **investment and turnover** of enterprise for the latest audited financial year ..... is as follows:

1. Investment in plant and machinery or equipment (i.e. all tangible assets other than land and building, furniture and fittings) calculated as specified by the Ministry of Micro Small and Medium Enterprises vide its notification No. S.O.2119 (E) Dated: 26.06.2020 is ₹.....Lakh.
2. Turnover of the enterprise calculated as specified by the Ministry of Micro Small and Medium Enterprises vide its notification No. S.O.2119 (E) Dated: 26.06.2020 is ₹.....Lakh.
3. The above investment in plant and machinery or equipment is within the permissible limit of ₹..... Lakh **and** Turnover is within the permissible limit of ₹..... Lakh applicable for..... Micro / Small / Medium (Strike off which is not applicable) Category under MSMED Act 2006.

Date:

(Signature)

Name –

Membership Number –

Seal of Chartered Accountant.

ANNEXURE-C

## NO DEVIATION CUM DECLARATION CERTIFICATE

On Bidder Letter Head

I/ We, M/s.

.....have

read and clearly understood all the Terms and conditions in Tender Schedule of "SUPPLY, ERECTION, TESTING AND COMMISSIONING OF LPG FIRED NON IBR BOILERS (TOTAL STEAM GENERATING CAPACITY OF 1000 KG / HR.) AND AUXILIARIES FOR CANTEEN AT BHEL-EDN, BANGALORE." Tender Ref No: BHEL-EDN/ CCD-CAPEX/ CANTEEN BOILER/ GeM-02/24-25 /Date: 06.09.2024 and accordingly we accept the same without any deviation what so ever.

- I/ We unconditionally agree to all the tender conditions and no new conditions are imposed by us in the techno-commercial / price bid. I understand in the event of imposing any condition in the technical / price bid, such condition would be ignored by BHEL and only the prices will be considered for the purpose of evaluation.
- I/ We confirm that none of our group concern or affiliates etc., appears on the list of banned firms / companies by BHEL (list available on [www.bhel.com](http://www.bhel.com)) nor any of the Director / Partner / proprietor of bidder / such group concern or affiliate etc. are involved with such company.
- I/ We also declare that, we have not been suspended or black listed or issued with Show Cause Notice by BHEL-Electronics Division, Bengaluru or any other BHEL Unit or any PSU/ Government organization.
- I/ We confirm that other than us, none of our group concerns or affiliates etc. are participating in the tender either directly or indirectly through any other agency under same proprietor / common director(s) / common partner(s).
- I/ We confirm that I/ We will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- I/ We confirm that if any of the above statement / information furnished by us in this tender is found to be false/ fake at any stage of tender evaluation or during execution of contract, BHEL will have the right to initiate appropriate action including legal proceeds / termination of contract, recovery of damages, penalties etc. as deemed fit.

(Contractor Signature with Seal)

**ANNEXURE-D****On Bidder Letter Head**

*To,*

*M/s Bharat Heavy Electricals Ltd.  
Electronics Division, Mysore Road,  
Bangalore – 560026*

***Sub: Certificate as per Annex-III (transitional cases) of Restrictions Under Rule 144 (xi) of the General Financial Rules (GFRs) 2017, Dated 23.07.2020.***

*Tender Ref:*

*I (authorized signatory for M/s ..... ) have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India ,*

*We, M/s.....*

*..... [Vendor Name & Address] hereby certify that we are not from such a country and is eligible to be considered.*

*For M/s .....*

*Authorized Signatory  
(with company seal & Name)*

**ANNEXURE-E****On Bidder Letter Head**

To,  
M/s Bharat Heavy Electricals Ltd.  
Electronics Division, Mysore Road,  
Bangalore – 560026

*Sub: Certificate as per clause 9 (a) of Revised Public Procurement (Preference to Make in India Order, 2017 of DPIIT dated 13.06.2020.*

*Tender Ref:*

*I (authorized signatory for M/s ..... a 'Class-I Local Supplier' / 'Class-II Local Supplier' at the time of tender, bidding or solicitation hereby confirm that the item meets the Local Content requirement for 'Class-I Local Supplier' / 'Class-II Local Supplier' (Tick appropriate option & cut the other one) and the Local Content percentage is .....*

*The address is as below, where the local content / value addition is made:*

*[Factory Address]*

*For M/s .....*

*Authorized Signatory  
(with company seal & Name)*

**ANNEXURE-F****CONTRACT EXECUTION BANK GUARANTEE BOND**

*This deed of guarantee made this ..... day of ..... 20... by the..... Bank Ltd, (hereinafter referred to as "the Bank") in favour of Bharat Heavy Electricals Limited, Bangalore having its registered Office at New Delhi with its Unit Office at Bangalore whereas M/s..... having its registered office at ..... (hereafter called the "the Contractor") have entered in to contract with Bharat Heavy Electricals Limited, Bangalore for the supply of ..... vide Purchase Order No ..... dated .....*

1. *We ..... Bank Ltd, do hereby undertake to pay to Bharat Heavy Electricals Limited, Bangalore an amount not exceeding Rs..... against any loss or damage caused to or suffered or would be caused to or suffered by Bharat Heavy Electricals Limited, Bangalore by reason of any breach by the said Contractor of any of the terms or conditions contained in the said Purchase Order.*
2. *We, ..... Bank Ltd, do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from Bharat Heavy Electricals Limited, Bangalore stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by Bharat Heavy Electricals Limited, Bangalore by reason of any breach by the said Contractor of any of the terms or conditions contained in the said Purchase Order or by reason of the Contractor's failure to perform the said Purchase Order. 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.....*
3. *We, ..... Bank Ltd, further agree to the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Purchase Order and that it shall continue to be enforceable till all the dues of Bharat Heavy Electricals Limited, Bangalore under or by virtue of the said Purchase Order have been fully paid and its claims satisfied or discharged or till Bharat Heavy Electricals Limited, Bangalore certifies that the terms and conditions of the said Purchase Order have been fully and properly carried out by the said Contractor and accordingly discharges the guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the .....*
4. *We shall be discharged from all 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 and Payable only by any one of the BHEL Consortium Banks in India (List is attached herewith) notwithstanding the fact that the said enforcement is effected after the said. date.....*

5. For the purpose of this clause, any letter making demand on the Bank by Bharat Heavy Electricals Limited, Bangalore dispatched by Registered Post with Ack. Due or by Telegram or by any Electronic media addressed to the Bank ( any one of the BHEL Consortium Banks as per list attached as selected by the vendor) 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.
6. We,.....Bank Ltd, further agree with Bharat Heavy Electricals Limited, Bangalore that Bharat Heavy Electricals Limited, Bangalore 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 Purchase Order or to extend time of performance by the said contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by Bharat Heavy Electricals Limited, Bangalore against the said Contractor and to forbear or enforce any of the terms and conditions relating to the said Purchase Order and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor or for any forbearance, act or omission on the part of Bharat Heavy Electricals Limited, Bangalore or any indulgence by Bharat Heavy Electricals Limited, Bangalore to the said Contractor or by any such matter of thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.
7. Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts at Bangalore.
8. We, ..... Bank Ltd, lastly undertake not to revoke this guarantee during its currency except with the previous consent of Bharat Heavy Electricals Limited, Bangalore in writing.

In witness whereof we..... (indicate the name of Bank) have hereunto set out Bank Seal  
 the..... day ..... month 201

The contact details of the Issuing Bank such as Email ID, Phone No. and Fax No. should be indicated in the CEBG. Also please note that the CEBG should be forwarded to us with the covering letter of the issuing Bank with signature and seal.

- (1) It should be typed in the Rs. 100 value of stamp paper.
- (2) It should be signed by TWO bank officials with Rubber stamp containing names & employee numbers of bank officials.
- (3) It should be submitted with bank covering letter with sign and seal of the bank official.

**Please note that issuance of the CEBG without meeting the above requirement will render the document invalid.**

**ANNEXURE-G****BANK GUARANTEE FOR PERFORMANCE SECURITY****Bank Guarantee No:****Date:****To****Bharat Heavy Electricals Limited  
Electronics Division, Bangalore****Dear Sirs,**

*In consideration of Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at BHEL House, Siri Fort, New Delhi - 110 049, India through its Unit BHEL-Electronics Division, Bangalore having awarded to NAME OF THE VENDOR/COMPANY with its registered office at ADDRESS OF THE VENDOR/COMPANY hereinafter referred to as the 'Supplier', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), Gem Bid Reference and GeM Contract Ref No dated xx.xx.202x valued at ₹.XX.00 (Rupees In Words Only) for Supply and installation of X No. NAME OF THE ITEM (hereinafter called the 'Contract') and the Supplier having agreed to provide a Contract Performance Bank Guarantee, equivalent to 10% (Ten Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,*

*we, NAME OF THE BANK, having registered/Head office at PLACE and inter alia a branch at NAME OF THE BRANCH , being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer any sum or sums up to a maximum amount of ₹.XX.00 (Rupees In Words Only) without any demur, immediately on first demand from the Employer and without any reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for its such demand.*

*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 ₹.XX.00 (Rupees In Words Only).*

*We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Supplier in any suit or proceeding pending before any Court or Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.*

*The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the Supplier shall have no claim against us for making such payment.*

*We the NAME OF THE 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 Contract/satisfactory completion of the performance guarantee period as per the terms of the Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.*

*We NAME OF THE BANK, further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Supplier and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.*

*The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Supplier and notwithstanding any security or other guarantee that the Employer may have in relation to the Supplier's liabilities.*

*This Guarantee shall remain in force up to and including XX.XX.202X and shall be extended from time to time for such period as may be desired by Employer.*

*This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.*

*Unless a demand or claim under this guarantee is made on us in writing on or before the 31.01.2026 we shall be discharged from all liabilities under this guarantee thereafter.*

*We, NAME OF THE BANK, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.*

*Notwithstanding anything to the contrary contained hereinabove:*

- a) *The liability of the Bank under this Guarantee shall not exceed. XX.00 (Rupees in Words Only)*
- b) *This Guarantee shall be valid up to XX.XX.202X*
- c) *Unless the Bank is served a written claim or demand on or before XX.XX.202X all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.*

*We, NAME OF THE BANK, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.*

*For and on behalf of  
(Name of the Bank)*

*Dated.....*

*Place of Issue.....*

**Note:**

1. Units are advised that expiry of claim period may be kept 3-6 months after validity date. It may be ensured that the same is in line with the agreement/ contract entered with the Vendor.
2. The BG should be on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Vendor/Contractor/Supplier /Bank issuing the guarantee.
3. In line with the GCC, SCC or contractual terms, Unit may carry out minor modifications in the Standard BG Formats. If required, such modifications may be carried out after taking up appropriately with the Unit/Region's Law Dept.
4. In Case of Bank Guarantees submitted by Foreign Vendors-
  - a. From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India) can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e. Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.
  - b. From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor Country's Bank)
    - b.1 In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by any of the Consortium Banks only will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter- Guarantee by Foreign Bank in favour of the Indian Bank's (BHEL's Consortium Bank) branch in India. It is advisable that all charges for issuance of Bank Guarantee/ counter- Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.
    - b.2 In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at sl.no. b.1 will required to be followed.
    - b.3 The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). The BG Format provided to them should clearly specify the same.

**ANNEXURE-H****ACCEPTANCE FOR ELECTRONIC FUND TRANSFER / RTGS TRANSFER**

To THE PURCHASE/CONTRACT EXECUTING AGENCY/BHEL

1	NAME & ADDRESS OF THE SUPPLIER / SUBCONTRACTOR	
2	VENDOR CODE assigned by BHEL	
<b><u>Details of Bank Account:</u></b>		
3	NAME & ADDRESS OF THE BANK	
4	NAME OF THE BRANCH	
5	BRANCH CODE	
6	MICR CODE	
7	ACCOUNT NUMBER	
8	TYPE OF ACCOUNT	CURRENT A/C / OD / CASH CREDIT
9	BENEFICIARY'S NAME	
10	IFSC CODE OF THE BRANCH	
11	EMAIL ID	
12	TELEPHONE/MOBILE NO.	

**CERTIFICATE I** / We hereby agree to receive the payments due from BHARAT HEAVY ELECTRICALS LIMITED by the National Electronic Funds Transfer and/or RTGS Transfer mode by credit to my / our above mentioned Bank Account. I / We also agree that payments made to the above mentioned Account is a valid discharge of the liability of Bharat Heavy Electricals Limited. I / We also agree to bear the applicable Bank Charges for the above mode of transfer. **A copy of the cheque leaf/cancelled cheque leaf of the above account is sent herewith.**

AUTHORISED SIGNATORY WITH NAME SEAL

**Banker's Certification**

We confirm that we are enabled for receiving RTGS and NEFT credits and we further confirm that the account number of \_\_\_\_\_ (name of account holder), the signature of the authorized signatory and the MICR and IFSC codes of our Branch mentioned above are correct.

PLACE:

(Manager / Officer's)

DATE:

Signature Under Bank stamp and Name Seal with Membership No.

(Telephone / Mobile No. \_\_\_\_\_)

Forwarded to Accounts Dept. We confirm the above details are verified with the records available with us.

Signature of the BHEL Executive with Name Seal (Operating the Contract/Services)

**ANNEXURE-I****List of Consortium Banks**

<b>Sl. No.</b>	<b>Bank Name</b>	<b>Type of Bank</b>
1	Bank of Baroda	PSU Bank
2	Canara Bank	PSU Bank
3	Central Bank	PSU Bank
4	HDFC Bank Limited	PSU Bank
5	Indian Bank	PSU Bank
6	Indian Overseas Bank	PSU Bank
7	Punjab National Bank	PSU Bank
8	State Bank of India	PSU Bank
9	Union Bank of India	PSU Bank
10	Axis Bank	Private Bank
11	Federal Bank Limited	Private Bank
12	ICICI Bank Limited	Private Bank
13	IDBI Bank Limited	Private Bank
14	IndusInd Bank Limited	Private Bank
15	Kotak Mahindra Bank Limited	Private Bank
16	RBL Bank Ltd.	Private Bank
17	Yes Bank Limited	Private Bank
18	Citi Bank N.A.	Foreign Bank
19	Deutsche Bank	Foreign Bank
20	Exim Bank	Foreign Bank
21	Hong Kong and Shanghai Banking Corporation Ltd	Foreign Bank
22	Standard Chartered Bank	Foreign Bank

ANNEXURE-II**PART-II****PRICE BID ( FOR PRICE BREAK UP )**

**NAME OF SUPPLY : SUPPLY, ERECTION , TESTING AND COMMISSIONING OF LPG FIRED NON IBR BOILER ( TOTAL STEAM GENERATING CAPACITY OF 1000 KG / HR.) AND AUXILIARIES FOR CANTEEN AT BHEL-EDN, BANGALORE.**

**TENDER REF NO:**

**NAME OF BIDDER:**

SL NO	DESCRIPTION	UOM	QTY	UNIT RATE (EXCLUDING GST)	TOTAL COST (EXCLUDING GST)	GST	TOTAL COST INCLUDING GST
<b>A</b>	<b>Supply, Erection, Testing and Commissioning of <i>LPG fired Non IBR boilers</i></b>						
1	Supply of <b><i>LPG fired Non IBR boiler</i></b> with steam generating capacity of <b><i>Not less than 400 Kg. / Hr.</i></b> as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	2				
2	Erection, Testing and Commissioning of <b><i>LPG fired Non IBR boiler</i></b> with steam generating capacity of <b><i>Not less than 400 Kg. / Hr.</i></b> as per Specification at BHEL-EDN, Bangalore.	Set	2				
3	Supply of <b><i>LPG fired Non IBR boiler</i></b> with steam generating capacity of <b><i>Not less than 200 Kg. / Hr.</i></b> as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1				
4	Erection, Testing and Commissioning of <b><i>LPG fired Non IBR boiler</i></b> with steam generating capacity of <b><i>Not less than 200 Kg. / Hr.</i></b> as per Specification at BHEL-EDN, Bangalore.	Set	1				

B	Supply, Erection, Testing and Commissioning of <b>Flue Gas Outlet System</b> for LPG Fired Non IBR Boilers						
1	Supply of <b>Flue Gas Outlet System</b> consisting of Flue gas duct of suitable size for <b>LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 400 Kg. / Hr.</b> as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	2				
2	Erection, Testing and Commissioning of <b>Flue Gas Outlet System for LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 400 Kg. / Hr.</b> as per Specification from Boiler to Chimney at BHEL-EDN Bangalore.	Set	2				
3	Supply of <b>Flue Gas Outlet System for LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 200 Kg. / Hr.</b> as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1				
4	Erection, Testing and Commissioning of <b>Flue Gas Outlet System for LPG fired Non IBR boiler</b> with steam generating capacity of <b>Not less than 200 Kg. / Hr.</b> as per Specification at BHEL-EDN Bangalore.	Set	1				
5	Supply of <b>Chimney for Flue Gas Outlet System of LPG Fired Non IBR Boilers with total steam generating capacity of 600 Kg/ Hr.</b> as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1				
6	Erection, Testing and Commissioning of <b>Chimney for Flue Gas Outlet System of LPG Fired Non IBR Boilers with total steam generating capacity of 600 Kg/ Hr.</b> as per Specification at BHEL-EDN Bangalore.	Set	1				

<b>C</b>	Supply, Erection, Testing and Commissioning of <b>softener System</b> for Feed water of LPG Fired Non IBR boilers.						
1	Supply of <b>softener System consisting of softener, pH Booster Pump</b> with capacity of <b>2 Cubic Meter</b> and associated piping as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	2				
2	Erection, Testing and Commissioning of <b>softener System consisting of softener, pH Booster Pump with capacity of 2 Cubic Meter</b> and associated piping as per Specification from Raw water inlet to Boiler Feed water storage tank at BHEL-EDN Bangalore.	Set	2				
<b>D</b>	Supply, Erection, Testing and Commissioning of <b>Feed water System</b> for LPG Fired Non IBR boilers.						
1	Supply of <b>Boiler Feed water system consisting of Storage Tank of Capacity 5 KL with vertical structural support for mounting of stand</b> , associated piping from Raw water inlet to softener system inlet and softener system outlet to Feed water inlet of three Boilers as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1				
2	Erection, Testing and Commissioning of <b>Boiler Feed water system consisting of Storage Tank of Capacity 5 KL with vertical structural support for mounting of stand, associated piping</b> from Raw water inlet to softener system inlet and softener system outlet to Feed water inlet of three Boilers as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1				

<b>E</b>	Supply, Erection, Testing and Commissioning of <b>Pressure Reducing Station and Steam Distribution Header</b> for output of LPG Fired Non IBR boilers.						
1	Supply of <b>Pressure Reducing Station for Flow rate of Not less than 600 Kg/Hr</b> consisting of Pressure reducing valve, Moisture Separator, Valves and associated auxiliaries as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1				
2	Erection, Testing and Commissioning of <b>Pressure Reducing Station for Flow rate of Not less than 600 Kg/Hr</b> consisting of Pressure reducing valve, Moisture Separator, Valves and associated auxiliaries as per Specification from Boiler feed water tank to Boiler Feed water inlet at BHEL-EDN Bangalore.	Set	1				
3	Supply of <b>Steam Distribution Header</b> consisting of 2 inlet and three outlet nozzles, Safety Value, Condensate pocket , Trap and associated piping as per Specification for Steam output of LPG Fired Non IBR Boilers with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1				
4	Erection, Testing and Commissioning of <b>Steam Distribution Header</b> consisting of 2 inlet and three outlet nozzles, Safety Value, Condensate pocket , Trap and associated piping as per Specification for Steam output of LPG Fired Non IBR Boilers with delivery at BHEL-EDN Bangalore	Set	1				

<b>F</b>	Supply, Erection, Testing and Commissioning of <b>LPG Gas Manifold with Vaporiser</b> for LPG Fired Non IBR boilers.						
7	Supply of <b>LPG Gas Manifold with Vaporiser</b> for individual LPG Fired Boilers consisting of Gas Pressure reducing station, Gas Control Selection , Manifold, Vaporiser and associated gas piping from LPG Storage Area to Boilers as per Specification with delivery at BHEL-EDN Bangalore including Freight, Packing and forwarding charges.	Set	1				
8	Erection, Testing and Commissioning of <b>LPG Gas Manifold with Vaporiser</b> for individual LPG Fired Boilers consisting of Gas Pressure reducing station, Gas Control Selection , Manifold, Vaporiser and associated gas piping from LPG Storage Area to Boilers as per Specification with delivery at BHEL-EDN Bangalore	Set	1				
<b>G</b>	Supply, Erection, Testing and Commissioning of <b>Steam Piping with Accessories</b>						
1	Supply, Fabrication, Installation, Erection, Testing and commissioning of <b>SS pipe</b> (For steam Header and piping) including incidentals such as nipple, tees, collars, gaskets with nut and bolts with necessary cutting, welding etc. This also includes making holes in walls and setting it right after work. The pipes have to be properly clamped and MS angle support to be given as required.						
1.1	50 mm	Rmt	6		-		-
1.2	40 mm	Rmt	54				
1.3	25 mm	Rmt	12				
1.4	20 mm	Rmt	12				
1.5	15 mm	Rmt	36				

2	Supply, Welding, Installation, Testing and commissioning of <b>SS Class 150 Flanges</b>						
2.1	50 mm	No.	6				
2.2	40 mm	No.	16				
2.3	25 mm	No.	6				
2.4	20 mm	No.	6				
2.5	15 mm	No.	40				
3	Supply, Welding, Installation, Testing and commissioning of <b>SS Heavy Duty Bend.</b>						
3.1	50 mm	No.	4				
3.2	40 mm	No.	10				
3.3	25 mm	No.	4				
3.4	20 mm	No.	8				
3.5	15 mm	No.	50				
4	Supply, Welding, Installation, Testing and commissioning of <b>1/2" PN16 Steam Valve</b> near Vessels and for isolation of Steam Traps	No.	15				
5	Supply, Welding, Installation, Testing and commissioning of <b>1/2" Steam Traps TD3</b> in steam line and near vessels.	No.	20				
6	Supply, Welding, Installation, Testing and commissioning of <b>1/2" Steam Float Traps</b> in steam line and near vessels Header.	No.	3				
7	Supply, installation and fixing of Swing Plate Check Valve Class 150 to the piping with Size of 40mm.	No.	2				

8	Supply, installation and fixing of Pressure Gauge ( Big Dial ) with "U" tube and stopcock to piping with necessary welding and insulation.	No.	4				
9	Supply, Installation and fixing of Temperature Gauge.	No.	2				
10	MS structure fabrication for pipe support, Boiler Frames, Header Support including MS angles, Anchor Bolts, Base Plates, Channels, Welding, Positioning and Labour charges along with one coat of Primer and two coats of Synthetic enamel paint.	Kg	1500				
11	Supply, Installation and fixing of Insulation with Rockwool LRB Mattresses with Chicken mesh & with Aluminium Cladding-Up to 100NB<50mm & 125<75mm thick. The insulation work includes fixing of all insulation over all pipe fittings , valves, Strainers, Pressure Gauge fittings etc. covered under different items of BOQ.						
11.1	50 mm	Rmt	10				-
11.2	40 mm	Rmt	64				-
11.3	25 mm	Rmt	16				-
11.4	20 mm	Rmt	20				-
11.5	15 mm	Rmt	40				-
<b>H</b>	<b>Dismantling of Existing Diesel Fired Non IBR boilers with associated auxiliaries.</b>						
1	Dismantling of Existing Diesel Fired Boiler ( 2 Nos. of Capacity 400 Kg / Hr each) along with Accessories, Steam line , Diesel Tank and other associated Piping.	AU	1				
<b>Total value</b>							