Technical Specification for Optical Linear Heat Sensing (OLHS) System

Project-1: 1 x 800 MW TSGENCO KOTHAGUDEM FGD
Project-2: 4 x 270 MW TSGENCO BHADRADRI FGD
Project-3: 2 x 500 MW NTPL, TUTICORIN FGD

Revisions: Refer to record of revisions	**Prepared by :**	**Checked by :**	**Approved by :**	**Date :**
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1 INTENT OF SPECIFICATION

1.1 Design, Engineering, Manufacturing, Assembly, System Integration, testing at vendor works, inspection by purchaser, supply (Packing and Transportation to site), installation support and commissioning of Optical LHS System (OLHS).

1.2 The material supply and installation shall be done as per the applicable codes and standards. Responsibility of the bidder is up to final handover of OLHS systems to End user.

1.3 Training of End user / Purchaser's manpower to operate and maintain the system.

1.4 Supply of complete documentation covering Design, Sizing, Installation, Operation and maintenance aspects, Engineering documents including Technical data sheets, catalogues/brochures, As-built drawings, O&M manuals & Device charts of the system and tests carried out during Commissioning.

2 PROJECT DESCRIPTION

PROJECT-1: **1 x 800MW TSGENCO KOTHAGUDEM FGD**

Owner	Telangana State Power Generation Corporation Limited (TSGENCO)
Project	1x800 MW Kothagudem FGD
Owner's Consultant	Development Consultants Pvt. Ltd.
Location	Kothagudem, Telangana
Nearest Railway Station	Bhadrachalam Road – 12 kms
Nearest Town	Bhadrachalam – 30 kms

PROJECT-2: **4 x 270MW TSGENCO BHADRADRI FGD**

Owner	Telangana State Power Generation Corporation Limited (TSGENCO)
Project	4 x 270 MW Bhadradri FGD
Owner's Consultant	Desein Consulting Engineers, New Delhi
Location	Manuguru, Telangana
Nearest Railway Station	Manuguru
Nearest Town	Manuguru

PROJECT-3: **2 x 500MW NTPL, TUTICORIN FGD**

Owner	NLC Tamil Nadu Power Limited (NTPL)
Project	2 x 500 MW NTPL FGD
Owner's Consultant	Development Consultants Pvt. Ltd.
Location	Tuticorin, Tamil Nadu
Nearest Railway Station	Port Trust Railway Yard – 1km
Nearest Town	Tuticorin – 5.5 kms
Nearest Airport	Pudukottai – 60 kms

3 INSTRUCTIONS TO BIDDERS

3.1 This specification shall be read in conjunction with all its annexures listed later in this specification. In case of any discrepancy arising between this specification & its annexures, the most stringent of all (as determined by purchaser) shall be followed and the decision of Purchaser shall be final & binding on Bidder, without any cost & delivery implications. Further, if a requirement in this specification or any of the annexures, calls for a decision from the Purchaser, it shall be bidder's sole responsibility to clearly bring out/highlight the same distinctively in his pre-bid queries (Annexure-F) within one week of issue of Enquiry, so as to enable purchaser to furnish their decision/clarification. If such issues/requirements are not duly addressed by bidder during the pre-bid stage and if such issues/requirements are observed later during order execution stage, it shall be binding on the bidder to comply with the final decision made by the purchaser subsequently, without any cost, delivery, or any other commercial implications.

3.2 Offers with incomplete information as mentioned in this specification are likely to be rejected outright without any further interaction with the Bidder.

3.3 All materials supplied under this contract shall be new and unused.

3.4 All equipment/items as applicable shall be UL/FM/VDs/LPCB approved.

3.5 Any technical features [over & above BHEL enquiry specification requirements] proposed by Bidder will not be given preference for the purpose of evaluation.

3.6 Bidder must submit the "Duly filled & Signed copy of Checklist" (Annexure-J) along with necessary supporting documents compulsorily as part of their technical offer without which offer is liable for rejection without any further interaction with the Bidder

3.7 All mounting hardware/ accessories/fittings etc. required for the erection of OLHS System shall be included in the scope of bidder and the same shall be included in the base price even if such items are not explicitly mentioned in this specification.

3.8 The Bidder shall accept full responsibility for the faultless working of all the equipment and the OLHS system as a whole.

3.9 Bidder offer shall be strictly as per these specification requirements. Unsolicited or alternate offers from the bidders will not be entertained.

3.10 The design information, specifications and drawings indicate the "Minimum" requirements and are intended to enable Bidders to ascertain the extent of the work involved. Bidders are expected to supplement the information included in this specification as required and submit a comprehensive bid.

3.11 Deviations, if any, shall be clearly brought out only in Deviation format (Annexure – K). Any deviation or clarification shall be raised in pre-bid stage only as mentioned in 3.1 above. Deviations if submitted along with the bid shall not be considered. Hence bidder must submit 'NO DEVIATION' format duly signed / stamped as part of the bid.

4 CODES, STANDARDS & REGULATIONS

4.1 The design, engineering, installation, testing, commissioning of the package shall be as per all relevant & applicable codes/standards, however specifically the following to be followed:

a) Tariff Advisory Committee (TAC)/LPA India/NFPA USA

b) Underwriters Laboratories (UL)-USA,
c) VDS Standards,
d) Loss Prevention Certification Board (LPCB),
e) Factory Mutual (FM),
f) Indian Electricity (Supply) Act (IEA)
g) Rules for Fire Alarm System of India, and
h) IS 2189 (Selection, Installation and Maintenance of Automatic Fire Detection and Alarm System-Code of Practice).
i) Any other equivalent internationally recognized body acceptable to BHEL/End customer.

5 LIST OF ANNEXURES

Document No.	Document Name
Annexure – [A]	Tender Drawings & No. of MVWS Zones
Annexure – [B]	Price Bid format [for Main Supply + Mandatory Spares + Services]
Annexure – [C]	Technical Specification for OLHS System
Annexure – [D]	-NIL-
Annexure – [E]	-NIL-
Annexure – [F]	Pre Bid Query Format
Annexure – [G]	Master Document Schedule
Annexure – [H]	Vendor List
Annexure – [I]	Quality Requirements
Annexure – [J]	Checklist
Annexure – [K]	No Deviation Format
Annexure – [L]	Domestic Packing Details

6 SCOPE MATRIX

Sl. No	Description	Engineering by	Supply by	Erection by	Supervision of Erection by	Commissioning by	Remarks
1	Optical LHS System	Bidder	Bidder	BHEL (Note-3)	Bidder (Note-3)	Bidder + BHEL (Note-2)	
2	Complete Engg. (including submission of OLHS Cable laid layouts for conveyors & cable galleries) and documentation	Bidder	NA	NA	NA	NA	

Notes:

1) Termination including its accessories for all types of cables at bidder-supplied items/panels shall be in Bidder scope.
2) BHEL will provide the necessary manpower required for commissioning. However, system commissioning shall be done by bidder only.
3) Any special activities involved in erection like FO cable splicing, terminations, etc. shall be by bidder.
4) All commissioning spares, tools & tackles as required during testing, erection and commissioning at site of FDA system are included in bidder's scope & shall be supplied along with the main supply/package and deemed included / quoted in the main package.

7 TECHNICAL SPECIFICATIONS

7.1 Linear Heat sensing cable shall be non-electrically operated optical fiber type.

7.2 The detector system shall consist of an optical fiber sensor and the detection unit. The detector unit shall house the electronic circuitry that interfaces with the optical fiber sensor.

7.3 The optical fiber shall be connected to the detector unit in a single continuous loop to ensure redundancy and full coverage of the protected zones even if the cable is broken/cut/damage at one point.

7.4 The fire or excessive temperature condition shall be sensed by the fiber. The detector unit shall recognize the change in optical transmittance of the fiber and cable breaker Fire/Alarm condition shall be identified within 1mtrs locational accuracy.

7.5 The detector unit / controller shall have programmable potential free relay outputs for interfacing with Fire Detection & Alarm (FDA) system. These relay outputs shall be as per the no. of protection zones as per Annexure – A (Input List).

7.6 Battery backup for OLHS system shall be considered by bidder for 48 hours normal operation and 30 minutes alarm condition.

7.7 OLHS cable shall be considered for conveyors listed in Annexure - A

7.8 OLHS cable shall be considered for cable galleries listed in Annexure – A

7.9 Sequential marking (like OEM details, length in meters, type of cable etc.) for every meter shall be done on OLHS cable.

7.10 Refer Annexure – C-1, Annexure – C-2 & Annexure – C-3 for further details pertaining to 1x800MW Kothagudem FGD, 4x270MW Bhadradri FGD and 2x500MW NTPL, Tuticorin projects respectively.

8 INSTALLATION GUIDELINES

OLHS system is to be designed & supplied to cover the entire cable galleries and coal conveyor areas of the power plant. Corresponding drawings of cable galleries & conveyors are made available in Annexure – A of this specification. Bidder to necessarily follow TAC guidelines for designing OLHS system. Following are minimum installation guidelines to be followed for estimation & supply of LHS system.

8.1 Cable Galleries:

a) Each cable tray shall be protected by OLHS cable unless the vertical distance between the trays is uniformly less than 500 mm in which case alternate trays (in addition to the top and bottom trays) shall be protected.
b) The LSHS cable shall be laid on the cables in straight line fashion in each of top, bottom and in every alternate tray.
c) It is also possible to suspend the OLHS cables below the trays so as to be within 200 mm of the cable-runs at a pitch of 1.2 M like a catenary.

d) Where the width of the tray exceeds 1M, two LSHS cables shall be laid on the trays as above. Alternatively, cables maybe laid in an zigzag fashion in which case pitch of the zigzag profile shall not exceed 1.2 metres.
e) It is always necessary to install two LSHS cables below the lower most tray because accumulation of filth, rubbish and waste in such areas is a possible rendering them fire-prone.
f) Approval of the committee must be obtained before commencing the installation for their specific requirements. Necessary support shall be extended by the bidder in obtaining such approvals.

8.2 Belt Conveyors:

a) The following fire situations shall be considered for the protection of the conveyors with OLHS cables:
- Stationery conveyor
- Moving conveyor
- Belt Roller friction
- Belt friction with adjoining portions of the structures
- Spill of fuel, lubricants on the return belt.

b) The LSHS cables shall be considered for detection of any one combination of two or more of the situations described above.
c) The method of mounting the LSHS cables under the above circumstances depends upon convenience mounting as well as the vulnerability of the LSHS cables.
d) The LSHS cables shall be mounted as close to the Risks mentioned above as possible i.e. on both sides of the belt rollers, or above the material carrying belt on separate supports or combination of both depending on the circumstances.
e) Approval of the Committee shall be obtained before commencing the installation for their specific requirements if any. Necessary support shall be extended by the bidder in obtaining such approvals.
f) Heat sensing cable, as detector shall be used for coal conveyor gallery including bearings and both drive pulley and non-drive pulley, transfer points. Linear heat sensing cable shall be provided along the whole length of the top belt and bottom belt of each conveyor and on bearing and pulley of driving and non-driving ends (in a zig-zag fashion).

9 BIDDER'S SCOPE OF SUPPLY

9.1 Complete design, engineering and supply of OLHS system is in bidder scope. Below are the minimum requirements specified for OLHS system. However, bidder shall include all items for achieving complete functionality of the system.

a) Optical Linear Heat Sensing cable for coal conveyors
b) Optical Linear Heat Sensing cable for cable galleries
c) OLHS cable controller
d) Converters / SMPS (230 V AC to 24 V DC)
e) UPS
f) OLHS cable termination accessories (patch cords, pigtails, LIU etc.)
g) Relay outputs
h) Splicing kit and splicing accessories
i) Laptop with basic software along with license key.
j) Programming software with license key
k) Commissioning software with license key
l) Termination accessories like lugs, glands, junction boxes etc.

m) Erection hardware for the supplied equipment / items.
n) Earthing material for terminating earthing points to nearest BHEL earth pit.
o) Mandatory spares
p) Erection & commissioning spares
q) Special tools & tackles
r) All accessories such as fittings, fastenings, sleeves, straps, staples, clips (mounting) rings, test terminals, Junction Box etc. as may be required for interconnection of linear heat detector cables as well as interconnection to control and Power Cable.

Notes:-

- HDPE conduit shall be provided for OLHS cable which is laid outside cable galleries and coal conveyors.
- OLHS cable drum length shall be finalized during detail engineering based on the final loop configuration. Jointing of OLHS cable is not acceptable.
- All software updates for programming and commissioning of OLHS system shall be provided by bidder without any commercial implication until handing over of the system.
- No. of relay outputs required for each controller shall be in line with zone details listed in Annexure – A (Input list).
- Bidder shall **consider wastage margins, cut length margins and any other margins** (based on bidder experience) to meet the functionality and performance of the system as intended.
- Bidder shall consider an **additional 10% of OLHS cable** over and above the designed quantity (including margins as specified above) to accommodate input variations (if any).

10 BIDDER'S SCOPE OF SERVICES

10.1 Supervision of erection & commissioning, performance guarantee testing & trial run, final handing over to end customer and training for the supplied systems shall be included in bidder's scope of Service.

10.2 Number of man-days and number of visits as specified in Annexure-B of this specification shall be considered. However, either or both of the number of man days or no. of visits may increase / decrease based on the actual site requirement. Unit rate quoted shall be applicable for this purpose.

10.3 Bidder to mobilize concerned competent person for supervision of Erection & commissioning activities at site within a period of 7 days of receipt of intimation in this regard from BHEL.

10.4 Bidder to note that the supervision charges for erection & commissioning shall consists of the following:

a) Per day supervision charges of an Engineer including all other expenses like boarding, lodging, local travel, insurance etc.
b) Travel expenses (inclusive of any clearance charges like Visa fee etc., insurance) from / to vendor works to site.
c) Vendors shall arrange their own Test equipment, commissioning tools, manpower etc. as required.
d) Vendor is also required to provide on the job training to Purchaser / End Customer's operation personnel by associating them in all the day to day pre-commissioning, commissioning and maintenance activities and process operations (like control system operation, trouble procedures, emergency procedures, safety requirements etc.). Training certificate along with license key for the

trained persons is to be provided by the bidder. Per man-day charges quoted by bidder shall also be applicable for the Training charges/rates.

Above services shall be ordered by BHEL Site at the time of commissioning. However, vendor shall submit the price offer for the Services as per Annexure-B of this specification and same shall be considered for bid evaluation.

10.5 For supervision of E&C services, LOI shall be issued by BHEL – PE&SD and PO shall be placed by BHEL – Site.

10.6 Per diem charges shall be applicable from the day bidder's person reaches site, up to the day he leaves the site.

11 MANDATORY SPARES

Mandatory spares for OLHS system shall be as listed below:-

PROJECT-1 : 1 x 800MW KOTHAGUDEM FGD

S. No.	Item Description	Quantity	Units
1.	Optical LHS Cable for Cable Galleries	10% of total quantity	Mtrs.
2.	Optical LHS Cable for Coal Conveyors	10% of total quantity	Mtrs.
3.	Field mounted Optical/Electronic Items/Accessories for Linear Heat Sensing Cable	2 Nos. of each type	SET

PROJECT-2 : 4 x 270MW BHADRADRI FGD

S. No.	Item Description	Quantity	Units
1.	Optical LHS Cable for Cable Galleries	10% of total quantity	Mtrs.
2.	Optical LHS Cable for Coal Conveyors	10% of total quantity	Mtrs.
3.	Field mounted Optical/Electronic Items/Accessories for Linear Heat Sensing Cable	2 Nos. of each type	SET

PROJECT-3 : 2 x 500MW NTPL TUTICORIN FGD

S. No.	Item Description	Quantity	Units
1.	Optical LHS Cable for Cable Galleries	10% of total quantity	Mtrs.
2.	Optical LHS Cable for Coal Conveyors	10% of total quantity	Mtrs.

12 ERECTION & COMMISSIONING SPARES

12.1 All commissioning spares as required during erection and commissioning of the system are to be included in bidder's scope & shall be supplied along with the main supply/package.

12.2 Bidder to ensure that all the spares are procured from the original equipment manufacturers (as per their recommendation) and shall make them available at site well before the start of commissioning activities.

13 POWER SUPPLY

13.1 230 V AC single phase feeders are made available at following locations for powering OLHS controllers and hence the controllers shall be envisaged at any of the following locations only.

PROJECT-1 : 1 x 800MW KOTHAGUDEM FGD

- FGD Control Building

PROJECT-2 : 4 x 270MW BHADRADRI FGD

- FGD Control Building

PROJECT-3 : 2 x 500MW NTPL TUTICORIN FGD

- FGD Control Building

13.2 Power supply shall be arranged at the above locations. Further distribution and conversion as required for the system is in bidder scope.

13.3 Vendor shall supply accessories (like cable glands, lugs, connectors, pigtails etc.) required for termination of purchaser's as well as vendor power & control cables at vendor supplied equipment.

13.4 All internal distributions shall be designed such that a single power fault in any instrument branch system shall not cause a trip of the entire system. Each consumer shall be provided with separate switch & isolation fuse.

14 EARTHING

14.1 Earthing shall be carried in-line with standard industrial practices. Scheme for recommended earthing system/earth pit shall be furnished by vendor during detail engineering for purchaser's approval.

14.2 Earth points of all panels / items shall be looped together and shall be terminated at nearest BHEL's earth raisers at single point.

14.3 Earthing material required for terminating earth points at BHEL earth pit shall be included in bidder scope.

15 DOCUMENTATION

15.1 Following information/documents to be included with offer without which the bid is liable for rejection:

a) Duly filled & Signed copy of Checklist (Annexure-J)
b) Duly Signed Deviation format (Annexure-K) indicating "NO DEVIATION".
c) Duly Signed Unpriced price schedule (Annexure-B) indicating "QUOTED".
d) Documents in support of Pre-Qualification Criteria

15.2 Documentation after P.O. Placement

a) Submission of documents as per "Master documents schedule" (which will be finalized in Kick-off meeting after award of the contract) within 2 weeks of placement of LOI (for approval by BHEL and / or BHEL's customer in 4 sets)
b) Further BHEL will provide comments on vendor submitted document within 15 days for revision & resubmission. Vendor shall follow up with BHEL for non-receipt of comments/approvals.

c) Revised drawings / Documents shall be submitted by Bidder in 7 days of receipt of comments / observations from BHEL. BHEL shall revert within 15 days on receipt of these revised documents / drawings from vendor for approvals.

d) All the approvals required for manufacturing shall be completed within 4 months from P.O to meet the P.O delivery schedule. Accordingly, vendor shall ensure the submission of approval category documents (which are required for manufacturing) and obtain their approvals.

e) Vendor shall obtain final approvals on all technical and quality aspect documents before inspection dates.

f) It is vendor's responsibility to obtain approvals from BHEL as earliest as possible to meet PO delivery schedules. Accordingly, vendor to plan and execute the supplies in time.

g) Erection drawings for OLHS components indicating erection hardware to be submitted for approval.

h) Drawings of furniture for PC and printer to be submitted for approval

15.3 Documents to be submitted along with the Consignment.

(Note: submission of these documents are commercially linked) - all in 16 sets (2 sets to be included with dispatch consignment and balance to BHEL Purchase department).

a) Complete O& M manual.

b) Approved Engineering documents

c) Test Certificates documents

d) As-Built documents

e) Guarantee certificates

f) 3 sets of CD-ROM – containing O&M manual and Engineering documents (1 set to be included with item dispatch and balance to BHEL purchase department).

16 MARKING, PACKING AND DESPATCH

16.1 All items shall be marked (stamped/etched) in accordance with the applicable code/standard/specification. In addition, the item code, if available, shall also be marked.

16.2 For ease of identification, the color of painted strip (wherever required) shall be as per the applicable standard.

16.3 Part number/Dispatch link-up of all the equipment/items supplied and their co-relation with system/drawing/approved BOQ.

16.4 Paint or ink for marking shall not contain any harmful metal or metal salts which can cause corrosive attack either ordinarily or in service. Special items/smaller items shall have attached corrosion resistant tag providing salient features.

16.5 The equipment shall be transported to site by the vendor in fully assembled condition. However, in case some components are liable to be damaged during transit, the same shall be dismantled and supplied separately, to be reassembled at site the vendor. Assembly of the item supplied loose at site and repairing of any item damaged during transport shall be in the vendor's scope. The vendor shall send each consignment to site with a detailed packing list.

16.6 All the equipment shall be divided into several sections for protection and ease of handling during transportation. The equipment shall be properly packed for transportation by ship/rail or trailer. The equipment shall be wrapped in polythene sheets before being placed in crates/cases to prevent damage to the finish. Crates/cases shall have skid bottom for handling.

16.7 Special notations such as 'Fragile', 'This side up', 'Center of gravity', 'Weight', 'Owner's particulars', 'PO Nos.' etc. shall be clearly marked on the package together with other details as per purchaser order.

16.8 The equipment/items may be stored outdoors for long periods before installation. The packing shall be completely suitable for outdoor storage in areas with heavy rains/high ambient temperature, unless otherwise agreed.

16.9 The following minimum packing procedures shall be followed:-

a) All items shall be dry, clean and free from moisture, dirt and loose foreign material of all kinds.
b) All items shall be protected from rust, corrosion, and mechanical damage during transportation and handling.
c) Each variety and size of item shall be supplied in separate packaging marked with the purchase order no., item code (if available), and the salient specifications.
d) All electrical, instrumentation etc., shall be properly packed to prevent damage during transport, storage, handling at site.
e) All the items which the Bidders considered liable to be damaged during shipment or storage, shall be packaged for separate shipment. If instruments are removed from the panel, they and their connection shall be suitably tagged to ensure simple re installation at the job site. Each instrument shall be sealed in plastic bags containing moisture absorbing desiccants.
f) It shall be bidder’s sole responsibility to protect all the material during period of dispatch, storage and erection against corrosion, incidental damage due to vermin, sunlight, rain, high temperature, humid atmosphere, rough handling in transit and including delays in transit.
g) Mandatory Spare parts shall be packaged separately and clearly marked as ‘Mandatory Spares’.
h) If mandatory spare items are ordered, same shall be sent in pre-decided lots in containers/secure boxes distinctly marked in GREEN color with boldly written "S “mark on each face of the containers /secure boxes
i) Commissioning spares, Tools & tackles shall be packed separately & suitably tagged.
j) Refer Annexure – L for further details.

17 TESTING, INSTALLATION, COMMISSIONING & ACCEPTANCE

17.1 Final Inspection including document verification as per approved QAP shall be carried out by CUSTOMER /CONSULTANT/ CUSTOMER’s Third Inspection Agency & BHEL/BHEL’s Third Party Inspection Agency at vendor works.

17.2 In case any item sourced from foreign vendors (out of India), for those items inspection shall be carried out by Third party agencies like Lloyd’s /TUV/Bureau Veritas /BNV etc., (inspection charges shall borne by vendor) and test reports to be submitted to BHEL /End customer’s review for obtaining dispatch clearance.

18 SYSTEM INTEGRATION TEST (SIT)

18.1 The OLHS equipment including various sub units shall be completely wired and interconnected for the purpose of integrated test.

18.2 Fire and fault alarm conditions shall be simulated on each line and channel and the complete operational sequence shall be checked. The channels shall be tested for their capability for various zones and combinations.

18.3 The following tests shall be simulated, including any other test as required:

a) Single Fire Alarm, Multiple alarms in single loop & multiple loops
b) Single fault and Multiple faults (Earth fault, FO cable break etc.)
c) System diagnostic tests
d) System response time, time taken for acknowledge & reset actions at various locations etc. shall be checked.

19 ACCEPTANCE CRITERION

19.1 The reliable operation of the supplied OLHS system has to be demonstrated after testing and commissioning by conducting a test run of the entire system for one week (24x7), during which no failure of the system shall occur.

19.2 The final acceptance of the system will be based on on-field testing of the devices as well as the complete system. Code conformances shall be demonstrated in the acceptance tests. The service check of the system shall be done for 7 days. The equipment will be considered as commissioned after 7 days of uninterrupted successful operation.

20 PRICE BID FORMAT

20.1 Price bid formats are enclosed as Annexure-B1, Annexure-B2 & Annexure-B3 for 1x800MW Kothagudem FGD, 4x270MW Bhadradri FGD and 2x500MW NTPL, Tuticorin projects respectively. Bidder to furnish the offer in line with the same.

20.2 All the items included in the price bid format shall be quoted as per tender specification and pre-bid clarifications, if any. Responsibility of ensuring correctness & completeness of Scope of Supply & Services as per this specification requirement solely lies with bidder.

20.3 Prices quoted by the bidder shall remain firm till the successful handing over of the OLHS system to end customer/User.

20.4 Bidder to quote only base rates for all the items, Applicable taxes and duties shall be indicated separately.

20.5 The Priced Bid shall be submitted in Original (without any copy) duly signed and stamped on each page in a separate sealed envelope super scribing “Price Bid –Do not Open”. This shall not contain any condition whatsoever failing which the Bids shall be liable to be rejected. In case of any correction, the bidder shall put its signature and its stamp. Eraser fluid will not be allowed for making any correction.

21 VENDOR LIST

21.2 Project specific vendor list shall be as per Annexure-H of this specification. Bidder to follow the same.

21.3 Further, the supplied model shall be under regular manufacturing range and have Proven Track Record (PTR).

21.4 Bidder to comply with sub-vendor list enclosed with the specification. The sub-vendors for any item that is not appearing in the sub-vendor list (Annexure-H) shall be proposed for BHEL's approval.

21.5 Non-acceptance of any proposed sub-vendor by bidder shall not have any commercial implication. While submitting sub-vendors for approval of BHEL, bidder shall furnish following documents:

a) ISO certificate of Sub-vendors
b) Proven track record (references for makes and models supplied in the last 3 years along with supporting documents like unpriced PO, customer approved datasheets, proof of supply).

RECORD OF REVISIONS				
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