



Bharat Heavy Electricals Ltd.,  
Electronics Division,  
Mysore Road, Bangalore – 560 026

**Tender Document for " Supply and E&C support services for I P CCTV SYSTEM FOR  
NTPC-GADARWARA STPP (2X800 MW) , FGUTP UNCHAHAR (1X500 MW ) ,  
NABINAGAR STPP (3X660 MW ) , TANDA (2X660 MW ) and NORTH KARANPURA  
STPP (3X660 MW ) PROJECTS (RFQ NO: HDC0000447)**

|                                                    |                                                                                                                                                                                                                                                                     |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TENDER REFERENCE DOC</b>                        | HDC0000447                                                                                                                                                                                                                                                          |
| <b>TENDER DOCUMENT AVAILABLE FROM</b>              | REFER E-PROCUREMENT SYSTEM WEBSITE                                                                                                                                                                                                                                  |
| <b>LAST DATE AND TIME FOR SUBMISSION OF TENDER</b> | REFER E-PROCUREMENT SYSTEM WEBSITE                                                                                                                                                                                                                                  |
| <b>DATE AND TIME FOR TENDER OPENING</b>            | REFER E-PROCUREMENT SYSTEM WEBSITE                                                                                                                                                                                                                                  |
| <b>SUBMISSION OF TENDER</b>                        | Bidder to submit tender in E-procurement site :<br><a href="https://bheleps.buyjunction.in/">https://bheleps.buyjunction.in/</a> .<br>Refer instructions give in tender document for offer submission of bid in E-procurement site.<br>Service provider: M-junction |

This Tender Document Contains documents as per below index:

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Contact Person at BHEL: CHANDRAIAH H D , SENIOR MANAGER/PURCHASE(CE-MM-PR) Ph: 080-26998674  
:Amit Kumar Sharma, Manager / CE-Enng, Ph 08026998885 /  
[sharmaak@bheledn.co.in](mailto:sharmaak@bheledn.co.in) for technical clarifications

Note: Bidders are requested to visit [www.bhel.com](http://www.bhel.com) or [www.bheledn.com](http://www.bheledn.com) or [bheleps.buyjunction.in](http://bheleps.buyjunction.in) to download complete technical specification including all Annexures

# REQUEST FOR QUOTATION

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                |                                                                                                       |              |               |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>BHARAT HEAVY ELECTRICALS LIMITED</b><br>Electronics Division<br>PB No. 2606, Mysore Road Bangalore - 560026<br>INDIA                                                                | <b>RFQ NUMBER:</b><br>HDC0000447<br><br><b>RFQ DATE:</b><br>12 SEP 2016                                                                        | <b>Due Date</b><br><b>AS PER EPS</b><br><b>Time: 13:00 HRS</b><br><br><b>VENUE:</b><br>NEW ENGG. BLDG |              |               |
| <b>PURCHASE FILE COPY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                        | (for all correspondence)<br>Purchase Executive CHANDRAIAH H D<br>Phone : 26998674<br>Fax : 00918026989217<br>E-mail : chandraiah@bhelcdn.co.in |                                                                                                       |              |               |
| Please submit your lowest quotation subject to our terms and conditions attached for the material mentioned below. The quotation must be enclosed in a sealed envelope / Fax superscribed with RFQ no and due date, should reach us on or before the due date by <b>13.00</b> hours IST and will be opened on the same day at <b>13.30</b> hours at the venue mentioned above. <b>PLEASE DROP THE OFFER IN THE BOX PROVIDED AT RECEPTION.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                        |                                                                                                                                                |                                                                                                       |              |               |
| Sl No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Description                                                                                                                                                                            | Qty                                                                                                                                            | Unit                                                                                                  | Delivery qty | Delivery Date |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PR0880000180 Mandatory Spares CCTV system<br>Test Certificate                                                                                                                          | 5                                                                                                                                              | ST                                                                                                    | 1            | 01.01.2017    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                |                                                                                                       | 1            | 01.01.2017    |
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| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PR0900000137 IP CCTV System<br>IP BASED CLOSE CIRCUIT TELEVISION<br>INCLUDING ITEMS LIKE CAMERA, LENSES<br>AND ACCESSORIES<br>AS PER SPEC: RARITPS/415/CCTV REV 00<br>Test Certificate | 5                                                                                                                                              | ST                                                                                                    | 1            | 01.01.2017    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                |                                                                                                       | 1            | 01.01.2017    |
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| <b>Total Number of Items - 2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                        |                                                                                                                                                |                                                                                                       |              |               |
| Please note that the tender will be opened in the presence of the bidders or his authorised representatives (maximum two per organisation) who choose to be present with authorisation letters. Refer annexure for the terms and conditions.<br>Preference will be given to vendors who accept our standard payment terms i.e 100% payment - 30 days after receipt of material at our works subject to acceptance.<br>Please specify Terms of delivery, Excise duty, sales tax, Ex-BHEL, Ex-works surcharge, Insurance, P&F, Freight and other taxes very clearly.<br>For evaluation, exchange rate (TT selling rate of SBI) as on scheduled date of tender opening (Part-I bid in case of two part bid) shall be considered.<br>The offers of the bidders who are on the banned list as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site: <a href="http://www.bhel.com">www.bhel.com</a> |                                                                                                                                                                                        |                                                                                                                                                |                                                                                                       |              |               |
| i). This is only RFQ not an order.<br>ii). In all correspondence quote RFQ No. & due date.<br>iii). In Quotation BHEL material code / RFQ Sl. No. should be mentioned clearly.<br>iv). Quotation Envelope / Fax not superscribed with RFQ No. and due date is liable for rejection.<br>v). Quotation should remain valid for a minimum period of 90 days from due date.<br>vi). In case of non-receipt of Quotation or regret letter for 3 consecutive RFQs you are liable to be removed from our vendors list.<br>vii). All Prices should be written in words and numbers.<br>viii). Excise Chapter Heading should be mentioned for all items where VAT is applicable.                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                        |                                                                                                                                                |                                                                                                       |              |               |
| Note: Refer attached NIT Document for Commercial terms & Conditions & Instructions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                        |                                                                                                                                                |                                                                                                       |              |               |

For and On behalf of BHEL

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13/09/16



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## Purchase Specification Of CCTV system

416/NTPC-5/CCTV

REV No. : 00

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**PROJECT : GADARWARA STPP 2 x 800 MW  
NABINAGAR STPP 3 x 6660 MW  
NORTH KARANPURA 3x660MW  
FGUTP UNCHAHAR 1 x 500 MW  
TANDA 2x660MW**

**CUSTOMER : NTPC**

**EQUIPMENT : IP CCTV System**

Dept Code

416

DRN.

NAME

SIGN

DATE

PREPARED

Amit Kr Sharma

31-Aug-16

APPROVED

Rajasekar K

31-Aug-16

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## Purchase Specification CCTV system

416/NTPC-5/CCTV

REV No. : 00

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### REVISION HISTORY SHEET

| REV No. | DATE        | NATURE OF CHANGE | REASON | PREPARED BY | REVIEWED BY |
|---------|-------------|------------------|--------|-------------|-------------|
| 00      | 31 Aug 2016 | FIRST ISSUE      | ---    | AKS         | KRS         |

#### LEGENDS:

**SI** : System Integrator**CDBS** : Camera Data Base Server**PCDBS** : Primary camera Data Base Server**SCDBS** : Secondary Camera Data Base Server**CMWS** : Camera Monitoring Workstation**CMWSWM** : Camera Monitoring Workstation With Monitor**CMWSWJ** : Camera Monitoring Workstation Without Monitor**LVS** : Large Video Screen**VMS** : Video Management System Software**VCA** : Video Content Analytics Software**OFC** : Optical Fiber Cable**SDK** : Software Development Kit

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| <p style="writing-mode: vertical-rl; transform: rotate(180deg);"> COPYRIGHT AND CONFIDENTIAL<br/> The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED<br/> This must not be used directly or indirectly, in any manner detrimental to the interest of the company </p> |  | <div style="text-align: center;"> <b>SECTION-A</b><br/> <b>GENERAL INSTRUCTIONS TO BIDDERS</b> </div> <p><b>INTRODUCTION:</b> System Integrators quoting on behalf of CCTV OEM or CCTV OEM participating directly (henceforth referred as Bidders) are required to submit complete technical offer for supply, erection, commissioning and handing over of IP based CCTV system for thermal power plants of M/s NTPC located at Unchahar, Gadarwara, Tanda, Nabinagar and North Karanpura. All documents submitted by bidders shall be in English language only.</p> <p>Pre-Qualification Requirement (henceforth referred as PQR) for bidders are mentioned in section-B and technical requirement are mentioned in section-C of this document.</p> <p><b>1. Submission of Documents:</b></p> <p>a) All documents/Forms/Authorisation letters etc as listed in Section-B shall be uploaded by bidder under PART-1 section in EPS portal.</p> <p>b) Complete technical offer / proposal (refer section-C Cl 9 for list of documents to be submitted under technical offer) shall be uploaded by bidder under PART-2 section of EPS portal.</p> <p>c) Price bids are to be entered by bidder under PART-3 section of EPS portal. The priced BOM, having unit rate of each item shall be attached in PART-3 ONLY.</p> <p><b>3. Evaluation Methodology</b></p> <p>a) PART-1 bid related to PQR qualification will be opened first for review and evaluation by BHEL.</p> <p>b) If a bidder does not submit complete PQR document or document submitted by bidder does not meet the PQR criteria mentioned, offer of such bidders will be summarily rejected and will not be considered for further evaluation in the tender.</p> <p>c) Technical bids of those bidders who meet PQR criteria shall be opened for review and further consideration by BHEL.</p> <p>d) Bidders declared qualified for meeting PQR criteria as mentioned in section B but are not approved by M/s NTPC as System Integrator of CCTV, their credential documents (submitted under section-B cl 1, 2 &amp; 3) shall be forwarded to M/s NTPC for approval. If M/s NTPC does not approve such bidders, their offer will be technically rejected and shall not be considered further in the tender.</p> <p>e) Provenness and Track Record (henceforth referred as PTR) criteria for Camera OEM with VMS software are indicated in Section-C Cl 7 of this specification and list of approved makes of camera OEM is indicated at Section-C Annex-7. Bidders quoting for CCTV system with unapproved make of camera should submit all documents/forms etc mentioned at section-B cl 4. Documents furnished by bidder shall be reviewed by BHEL and if found meeting PTR / PQR criteria, the same set of documents shall be forwarded to M/s NTPC for approval of camera OEM. In case the offered unapproved make of camera is not approved by M/s NTPC, then the complete offer of such bidder will be technically rejected. Therefore bidders are advised to quote most suitable make and model of CCTV camera which meets all PTR and technical specification requirements of the camera mentioned in Section-C</p> <p>d) Bidders quoting CCTV system with unapproved make of camera are suggested/permitted to submit two offers. One offer with unapproved make and other with approved make of camera though quoting second offer with approved make of camera is not compulsory. The credentials of unapproved make of camera with VMS will be submitted to M/s NTPC for</p> |                                       |                                                 |
|                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                       |                                                 |

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| <p style="text-align: center;">COPYRIGHT AND CONFIDENTIAL</p> <p style="text-align: center;">The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED<br/>This must not be used directly or indirectly, in any manner detrimental to the interest of the company</p> |  | <p>approval and if M/s NTPC approves the camera make with VMS, that offer of CCTV system only will be considered in the tender for further evaluation. If NTPC does not approved such makes of camera, then the alternate offer of CCTV system quoted with approved make of camera will be considered for further evaluation.</p> <p>Price bid, PQR documents (as per section-B) and technical bids (as per section-C) must be submitted in complete and separately for both offers in respective section in EPS portal. In case a bidder submits two offer with same make of camera in both offers, then both offer of bidder will be summarily rejected.</p> <p>3. If required during evaluation of PQR / Technical bids, the bidder should visit BHEL-Electronics Division, Bangalore for discussion in 3 days notice. Further in event of order, the successful bidder along with Camera OEM representative shall visit M/s NTPC – Noida for discussion on document approval on as required basis.</p> <p>4. This specification does not prohibit any vendor to quote / participate in this tender with clause wise deviation from the specification. Changes in technical specification / scope / BOM, if any, shall be informed to participating bidders only.</p> <p>5. All bidders, irrespective of their existing approval with BHEL / other units of BHEL / NTPC, should submit all above mentioned documents.</p> <p>6. Consolidated Pre-Bid queries must be sought by Bidders through email within 15days from floating the tender and it is suggested &amp; preferred that bidders may visit BHEL-EDN for seeking clarifications to such queries. Clarification sought within 7 days from due date of bid submission will not be entertained and replied.</p> |                                               |                                                                      |
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| COPYRIGHT AND CONFIDENTIAL<br>The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED<br>This must not be used directly or indirectly, in any manner detrimental to the interest of the company |  | <div data-bbox="743 331 956 367" data-label="Section-Header"> <h2>SECTION-B</h2> </div> <div data-bbox="488 421 1211 459" data-label="Section-Header"> <h3>PRE QUALIFICATION REQUIREMENTS</h3> </div> <div data-bbox="298 508 1516 611" data-label="Text"> <p>The bidder should be original equipment manufacturer (OEM) of CCTV camera or System Integrator of CCTV system and meet all of following Pre-qualification requirements mentioned below:</p> </div> <div data-bbox="298 649 1516 1003" data-label="List-Group"> <ol style="list-style-type: none"> <li>1. The bidder should have supplied and commissioned CCTV system during last 7 years as on bid submission due date of this tender in a power plant / cement plant / petroleum refinery / steel plants / coal mine / other process industry / large commercial establishments which involves cameras in outdoor locations and meeting any one of the following three criteria for quantity of camera: <ol style="list-style-type: none"> <li>i. Installation of minimum 20 nos of camera in three projects each<br/>OR</li> <li>ii. Installation of minimum 30 nos of camera in two projects each.<br/>OR</li> <li>iii. Installation of minimum 60 nos of camera in one project</li> </ol> </li> </ol> </div> <div data-bbox="298 1075 1516 1503" data-label="Text"> <p>Bidder should furnish all of following document to substantiate the above requirement:</p> <ol style="list-style-type: none"> <li>i) Unpriced PO copy</li> <li>ii) Commissioning report/MOM signed by user</li> <li>iii) Performance certificate (if available) issued by user</li> <li>iv) List of past supplies in tabular form mentioning name of project, Name &amp; contact details of contact person of user of the system, year of supply, year of commissioning make and model of camera etc.</li> <li>v) System Integrators participating on behalf of OEM of cameras of CCTV system should submit colour scanned file of Manufacturer Authorisation Letter (ink signed) from OEM indicating their relationship with the bidder, consent to participate in this tender and confirmation for support / troubleshooting during commissioning and operation of the systems.</li> </ol> </div> <div data-bbox="298 1541 1516 1966" data-label="List-Group"> <ol style="list-style-type: none"> <li>2. OEM of camera based outside India who are submitting offer for this tender, shall have authorized representatives in India for support related to Documentation, technical support, troubleshooting, Erection, Commissioning and other co-ordination work. Letter from OEM detailing Indian representative details should be provided.<br/>OEM to also furnish an undertaking letter that in case of change in Indian representative / agent, OEM shall continue to support for commissioning and troubleshooting the supplies made through this tender.</li> <li>3. System Integrators participating on behalf of OEM of cameras of CCTV system should submit following documents: <ol style="list-style-type: none"> <li>i) Bidder must furnish letter issued by camera OEM confirming to provide service and spare support for at least 5 years for the offered solution, after supply of the system.</li> </ol> </li> </ol> </div> |                                               |                                                                      |



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| <p style="writing-mode: vertical-rl; transform: rotate(180deg);"> COPYRIGHT AND CONFIDENTIAL<br/> The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED<br/> This must not be used directly or indirectly, in any manner detrimental to the interest of the company </p> |  | <p>ii) Unpriced BOM with make and model number of each items offered</p> <p>4. OEM of camera offered by bidder not mentioned as “approved” in section-C Annexure-7, shall submit following documents to meet PQR requirements:</p> <p>i) PTR requirement of combination of camera and VMS software is mentioned at section-C cl 7. The bidder shall submit following supporting documents: unpriced PO copy, detailed BOM / Datasheet clearly indicating the make/model/qty of camera and make of VMS software, contact details of end user, commissioning certificate/MOM/performance certificate clearly indicating date of commissioning.</p> <p>ii) The camera OEM shall submit filled up NTPC’s sub-supplier approval form provided Section-C Annexure-9 of this specification.</p> <p>iii) Technical compliance to all technical specification of camera mentioned in section-C</p> <p>iv) If the camera OEM is based outside India, then the OEM shall have authorised service centre in India for undertaking repair of Camera. List of such service centre(s) must be submitted along with supporting documents like copies of service tax or sales tax or VAT registration or property tax receipt etc</p> <p>5. Bidder should have a clean track record, i.e. the bidder should not be under hold or blacklist by any of the BHEL units / any Govt of India PSU / Govt of India as on bid submission date. To this effect, a declaration should be given by the bidder.</p> <p>6. The Bidder’s Average Annual financial turnover during the last 3 financial year, ending 31st March 2016 should be at least 8 crore INR per year. Certificate from bankers/chartered accountant/IT return in this regard should be submitted along with the offer.</p> |                                               |                                                                      |
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| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">           COPYRIGHT AND CONFIDENTIAL<br/>           The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED<br/>           This must not be used directly or indirectly, in any manner detrimental to the interest of the company         </p> |  | <p><b>1. Project Location:</b></p> <p><b>GADARWARA 2x800MW:</b><br/>           GADARWAR A 2x800MW Thermal Plant is located at GADARWARA, Distt Narsinghpur, Madhya Pradesh, India. The site is located near villages Gangai &amp; Umaraiya (about 9 Kms from Gadarwara town in Narsinghpur district of Madhya Pradesh. The major cities Bhopal &amp; Jabalpur are located at about 210 Kms &amp; about 140 kms respectively from proposed project site. The nearest BG Railway Station, Gadarwara, on Jabalpur- Itarsi Section on central railway main Line is about 9 Kms from proposed project site. The nearest commercial airport, Bhopal and Jabalpur are located about 240 Kms and about 155 Kms respectively from site. The plant latitude and longitude are 22o 51' 42" N and 78o 52' 08" respectively</p> <p><b>NABINAGAR 3x660MW:</b><br/>           The plant is located in Aurangabad district of Bihar at a distance of about 15 kms. from Barun in Aurangabad district of Bihar and is approachable from NH-2 through a 20 kms (approx.) long single lane metalled road. The Aurangabad city is about 55 kms. from project site. Nearest railway station is Ankorha on Sone – Garwa Road Section of Eastern Central Railway at about 1.0 Kms. from the project site. The nearest airport at Gaya is at a distance of about 120 Kms from project site. The distances of site from Patna Airport and Varansi Airport are about 250 Kms &amp; 220 Kms respectively</p> <p><b>NORTH KARANPURA 3x660MW:</b><br/>           North Karanpura Super Thermal Power Project (3x660 MW), a pit head coal based thermal power project, is located in Hazaribagh and Chatra districts of Jharkhand State. Basic inputs i.e. coal, water and land have already been tied up. The project is proposed for the States &amp; Union Territories of Northern, Western and Eastern Regions and the State of Jharkhand. The capacity of the project is 1980 MW comprising of three (3) units of 660 MW each.<br/> <b>Location and Approach</b><br/>           The power project is proposed to be located near Tandwa town in Chatra districts in the state of Jharkhand on Hazaribagh-Chatra State highway at a distance of about 50 kms from Hazaribagh city. The nearest commercial airport is Ranchi at a distance of 150 kms from project site. The nearest railhead Khalari Railway Station on Ranchi-Garhwa section of Eastern Railways is about 40 kms from project site. Major rail/road distances from the project site are as under:<br/>           City Distance Approx. (kms)<br/>           Ranchi 150<br/>           Khalari 40<br/>           The site is located near Tandwa town having latitude and longitude of about 23o 50' N to 23o 52' N and 84o 59' E to 85o 2' E respectively.</p> <p><b>UNCHAHAR 1x500MW:</b><br/>           Feroze Gandhi Unchahar Thermal Power Station, FGUTPS Is conceived as a Load Centre coal based Power Station of 1050 MW capacity by UPSEB. The land</p> |                                               |                                                                      |
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| COPYRIGHT AND CONFIDENTIAL<br>The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED<br>This must not be used directly or indirectly, in any manner detrimental to the interest of the company |  | <p>for the project was acquired and stage-I (2x210 MW) was implemented by UPSEB. The 2x210 MW Unchahar station was taken over by NTPC from Uttar Pradesh Rajya Vidyut Utpadan Nigam of Uttar Pradesh in 1992. Thereafter, NTPC implemented Stage-II (2x210 MW) and Stage-III (1X 210 MW). The CCTV system being procured under this tender specification is for additional unit of 1x500 MW under Stage-IV thus making the ultimate capacity of the FGUTPP 1550 MW. GADARWARA 2x800MW Thermal.</p> <p>The plant is located in Raebareli district of Uttar Pradesh, having latitude and longitude of 25°54'50"N and 81°19'50"E respectively. It is bounded by villages Khnapur, Faridpur and Khaliqpur Khurd. Mustafabad town is located at a distance of about 3 Kms from the plant. Unchahar railway station on Allahabad-Raebareli broad gauge (BG) section of Northern Railway (NR) is 2 Kms away. The nearest airport is located at Lucknow a distance of approximately 110 km from the project site.</p> <p><b>TANDA 2x660MW STAGE-II:</b><br/>           The Stage-I (4x110 MW) of the project is under commercial operation and the Stage-II shall be a mega project comprising of two units of 660 MW each. The site is located on the right bank of Main Tanda Canal near Bahadurpur village in Ambedkar Nagar District of Uttar Pradesh having latitude and longitude of 26° 35' 30" N and 82° 47' 35" 40' E respectively. The site is approachable from Tanda - Faizabad State Highway. Nearest railway station Akbarpur is at a distance of 20 kms on Faizabad-Shahganj section of Northern Central railways. The nearest airport at Lucknow is at a distance of about 240 Kms from the project site.</p> <p><b>2. INTENT OF SPECIFICATION</b></p> <p>2.01.01 This specification is intended to cover the design, manufacture, assembly, Inspection and testing at Bidder's works; delivery including packaging, crating in road worthy packing for the items and all accessories specified in the scope of supply and as required for safe and trouble free operation of CLOSE CIRCUIT TELEVISION (CCTV) SYSTEM</p> <p>2.01.02 All systems covered herein shall be for the permanent phase of the project and shall include but not be limited to; design, supply, supervision of interface installation Bidder's works, test, commission and hand over to owner.</p> <p>2.01.03 It is not the intent to completely specify all details of design and construction herein. Nevertheless, the system shall conform to high standard of engineering, design and workmanship in all respects and shall be capable of performing satisfactorily in continuous commercial operation under the prevailing environmental condition of the project site.</p> |                                               |                                                                      |
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| COPYRIGHT AND CONFIDENTIAL<br>The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED<br>This must not be used directly or indirectly, in any manner detrimental to the interest of the company |  | <b>3. SCOPE OF WORK AND EXCLUSIONS</b><br><br><b>GENERAL</b><br><p>The scope of work in this document specifies the technical &amp; contractual requirements for the design, supply, erection, testing and commissioning of CCTV System. Bidder shall be fully responsible for compliance of the system to be supplied in line with the requirements of this specification. Provisions included in the specification will not be limitative to the scope of work and bidder shall be responsible for supply, installation, erection, commissioning and handing over of complete system. Bidder shall provide supply/services for any further activities which will improve the quality &amp; performance of the system offered within the quoted price. Tentative list of distribution of cameras are listed in the <a href="#">Annexure-2</a> of this specification. The plot plan of the projects are enclosed as <a href="#">Annexure-5</a></p> <p><b>INCLUSION IN SUPPLY:</b> The scope of supply in this specification includes Design, fabrication, manufacture and assembly, inspection, shop testing at manufactures works, supply, transportation. to site, site testing, erection and commissioning and performance testing of the complete CCTV system.</p> <p><b>SCOPE OF SERVICE</b><br/>           Following service shall also be provided by Bidder for equipment &amp; systems supplied under this specification <b>except project specific exclusion mentioned in later section of the specification:-</b></p> <ul style="list-style-type: none"> <li>▪ Carrying out detail engineering, preparation and submission of all drawings as specified elsewhere in this specification including preparation and submission of area wise bill of materials, layout and erection drawings showing location of all system equipment and components, cable schedule, cable tray/rack and conduit routing.</li> <li>▪ Inspection and testing at Bidder's works as per the approved Quality Assurance Plan.</li> <li>▪ Packing and forwarding of all items (except cable &amp; poles) included under this specification in a weather proof container with lock and key. The bidder shall be responsible for safe storage of the items inside the container against weather. It shall be bidder's responsibility to take materials out of container for erection and commissioning of the systems.</li> <li>▪ The erection, installation and commissioning of the complete CCTV system will be in bidder scope of services. This will include storage in weather proof container, fixing of camera using suitable camera mount (as per site requirement), all cable laying &amp; termination/splicing of all cables, fixing of conduits/cable tray, installation and commissioning of all items supplied under CCTV system as required basis. The cables of the systems will be generally laid on the cable tray available in the plant. For end termination, the cable may be required to be laid inside conduits/cable trays. Underground cabling is also to be done where ever cable tray is not available.</li> </ul> |                                               |                                                                       |
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- Storage and security to be arranged by vendor at site at their cost for all the equipment's supplied till handing over to the END user(M/S. NTPC).
- Labor regulations especially obtaining labor license, furnishing of wage sheet and PF deposit challan along with yearly returns to be provided by the vendors each month.
- It is highly preferable to provide the CCTV solution based on open architecture as described in the specification with any one of the approved makes. Proprietary products / solutions are not acceptable.

**EXCLUSIONS** from scope of supply / services:

- a) Lifting of CCTV 42U panels / from stores to CCTV control room- **All projects**
- b) Following exclusions are applicable only for Unchahar & Karanpura projects
  - i) Laying of FO/Power/Alarm/CAT-5e cables
  - ii) Splicing and termination of FO cables
  - iii) Fixing and mounting of poles for camera
  - iv) Fixing of cable tray & conduits required for laying CCTV system cables
- c) Following exclusion is applicable only for Tanda project
  - i) Supply of FO and CAT-5 cables (however laying, splicing and termination of these cables shall be in bidder scope.
- d) Supply and erection of towers for wirelss connectivity of cameras for Tanda & Karanpura.

#### 4. ENVIRONMENTAL CONDITIONS

Instruments, devices and equipments for location in outdoors/indoor/air-conditioned areas shall be designed to suit the environmental conditions indicated below and shall be suitable for continuous operation in the operating environment of a coal fired utility station and also during periods of air conditioning failure without any loss of function, or departure from the specification requirements covered under this specification.

| Ambient Temperature<br>(outside cabinets) | Pressure   | Relative humidity | Atmosphere  | Required protection Class<br>of CABINETS |
|-------------------------------------------|------------|-------------------|-------------|------------------------------------------|
| <b>Outdoor Location</b>                   |            |                   |             |                                          |
| 55 degree C max.                          | Atmosphere | 100 % Max.        | Air (dirty) | IP 55                                    |
| 4 degree C min.                           | Atmosphere | 5 % min.          | Air (dirty) | IP 55                                    |
| <b>Indoor Location</b>                    |            |                   |             |                                          |
| 55 degree C max.                          | Atmosphere | 95 % Max.         | Air         | IP 54**                                  |
| 4 degree C min.                           | Atmosphere | 5 % min.          | Air         | IP 54**                                  |
| <b>Air Conditioned Areas</b>              |            |                   |             |                                          |
| 24 +/- 5 degree C normal                  | Atmosphere | 95 %Max.          | Air         | IP 22***                                 |
| 50 degree C max.*                         | Atmosphere | 5 %min.           | Air         | IP 22***                                 |

\* During air conditioning failure.

\*\*For non-ventilated enclosures. For ventilated enclosures, protection class shall be IP 42.

\*\*\*With a suitable canopy at the top to prevent ingress of dripping water. For Hazardous areas the protection class shall be in accordance with the requirements of the relevant NEC code for the location

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|                                                                                                                                                                                                                                                            |                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |
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| <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> <p><b>COPYRIGHT AND CONFIDENTIAL</b></p> <p>The information contained in this document is the property of <b> BHARAT HEAVY ELECTRICALS LIMITED</b><br/>This must not be used directly or indirectly, in any manner detrimental to the interest of the company</p> </div> |  | <p><b>Detailed specifications of system components:</b> The detailed technical specification of the CCTV system is enclosed as <a href="#">Annexure-I</a>. However, project specific technical requirement are mentioned below. The bidder's offer shall meet both specification requirements.</p> <p><b>8.2 Video Management System software (VMS)</b> to handle a system of cameras are per quantity mentioned in location of camera / BOM and including spare as mentioned in detailed technical specification.</p> <p>8.2.1 The VMS specified shall be an enterprise class client / server based IP video security solution that provides seamless management of digital video and data across an IP network.</p> <p>8.2.2 The VMS shall be a fully distributed solution, designed for limitless multi-site and multiple server installations requiring 24/7 surveillance</p> <p>8.2.3 On screen controls shall be provided to achieve remote operation i.e PTZ operation of cameras</p> <p>8.2.4 VMS shall offer centralized management of all devices, Recording servers and Users and must empower a flexible rule-based system driven by schedules and events.</p> <p>8.2.5 The VMS system shall enable recording to be done at the aggregation sites and shall allow the Command &amp; Control center to import selected video's on demand.</p> <p>8.2.6 VMS shall be open to any LVS/video wall system integration.</p> <p>8.2.7 VMS shall have inbuilt analytics that will meet all specification requirements OR it should be possible to integrate external Video Analytics systems from one or more vendors.</p> <p>8.2.8 The Video Management System software shall include multicast and multi-streaming support.</p> <p>8.2.9 The VMS/Recording Server shall record and store video images from all cameras for minimum of fifteen (15) days at 4CIF 25 FPS for SD cameras and 25/30 FPS at 1920x1080 for HD cameras as well as the historical data of system activities. <b>All storage calculations should be based on this requirement and calculations for sizing SHOULD BE INCLUDED in offer.</b></p> <p>8.2.10 The VMS must be user friendly and shall require only minimum training to allow an operator to perform his daily routine with minimum supervision.</p> <p>8.2.11 The VMS shall be of scalable server and client based architecture that allows full virtual matrix switching and control systems.</p> <p>8.2.12 VMS shall be installed on standard servers and storage technologies built on windows operating systems OR if from OEM of CCTV camera full details of configuration to be provided.</p> <p>8.2.13 The VMS management server shall be able to scan an IP network for new devices (cameras or servers).</p> <p>8.2.14 The Video Management System shall support a versatile rule based engine that makes it easy to automate different aspects of the system, including the control of cameras, system behavior and external devices, such as lights and doors, based on events or time schedules, eliminating the need for manual control with numerous options including support to time profiles.</p> <p>8.2.15 Multi-live streaming shall define multiple streams for live viewing with different properties.</p> <p>8.2.16 The Video Management System shall incorporate intuitive map functions allowing for multilayered map environment. The map functionality shall allow for the interactive</p> |                                                                             |                                                                             |

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| COPYRIGHT AND CONFIDENTIAL<br>The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED<br>This must not be used directly or indirectly, in any manner detrimental to the interest of the company | control of the complete surveillance system, at-a-glance overview of system integrity, and seamless drag-and-drop integration with video wall module option.                                                                                                                                                                                                                                                                                                                                                                                     |                                               |                 |
|                                                                                                                                                                                                                                        | 8.2.17 The activation of the VMS or Camera disconnected alarm shall display the alarm location with animated camera's icon shown in the location map, and the pre-defined alarm documents.                                                                                                                                                                                                                                                                                                                                                       |                                               |                 |
|                                                                                                                                                                                                                                        | <b>8.3     <u>ALARM MANAGEMENT &amp; MONITORING</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                               |                 |
|                                                                                                                                                                                                                                        | 8.3.1 The VMS shall support a central alarm management and monitoring function, providing an alarm / event queue where all incoming events are on display. The alarm queue shall provide, but not limited to, the following information: <ul style="list-style-type: none"><li>❖ Alarm date and time</li><li>❖ Alarm status</li><li>❖ Current alarm condition</li><li>❖ Detector/input name/address</li><li>❖ Alarm location</li><li>❖ Message priority</li><li>❖ Operator who is working on the alarm/event when it was acknowledged.</li></ul> |                                               |                 |
|                                                                                                                                                                                                                                        | 8.3.2 All incoming alarms at the client workstation shall consist of the following: <ul style="list-style-type: none"><li>❖ Comprehensive alarm message.</li><li>❖ Blinking icon representing new alarm.</li><li>❖ Status of the alarm messages</li><li>❖ Graphical map showing alarm location with flashing icon associated with the alarm.</li><li>❖ Audible alarm / buzzer.</li></ul>                                                                                                                                                         |                                               |                 |
|                                                                                                                                                                                                                                        | 8.3.3 The alarm support shall allow for continuous monitoring of the operational status and event-triggered alarms from servers, cameras and other devices.                                                                                                                                                                                                                                                                                                                                                                                      |                                               |                 |
|                                                                                                                                                                                                                                        | 8.3.4 The alarm support shall provide a real-time overview of alarm status, or technical problems, while allowing for immediate visual verification and troubleshooting.                                                                                                                                                                                                                                                                                                                                                                         |                                               |                 |
|                                                                                                                                                                                                                                        | <b><u>CAMERA VIEW WORKSTATION FUNCTIONALITIES:</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |                 |
|                                                                                                                                                                                                                                        | 8.3.5 On screen controls shall be provided to achieve remote operation i.e. PTZ operation of cameras.                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 8.3.6 It shall be possible to view live video from multiple cameras on the surveillance system. Refer technical specification annexure for number of cameras per view.                                                                                                                                                                                                                                                                                                                                                                           |                                               |                 |
|                                                                                                                                                                                                                                        | 8.3.7 To access views of cameras on any PC with a client viewer application installed.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               |                 |
|                                                                                                                                                                                                                                        | 8.3.8 Use multiple screens as well as floating windows for displaying different views simultaneously.                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 8.3.9 View video from selected cameras in greater magnification and/or higher quality in a designated hotspot.                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                               |                 |
|                                                                                                                                                                                                                                        | 8.3.10 Receive and send video through the matrix functionality, control PTZ cameras.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                               |                 |
|                                                                                                                                                                                                                                        | 8.3.11 Use digital zoom on live as well as recorded video.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               |                 |
| 8.3.12 To activate manually triggered events.                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |                 |
| 8.3.13 Get quick overview of sequences with detected motion.                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |                 |
| 8.3.14 Get quick overviews of alerts.                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |                 |
| <b><u>PLAYBACK &amp; EXPORT</u></b>                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |                 |

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|                                                                                                                                                                                                                                                                                                                                  |  | <p>8.5 19" LCD Monitor KVM Console with 8-Port Switch- 2nos (panel mount, integrated with keyboard and mouse) to be mounted in the same rack along with the servers. Each KVM Console should have 8 sets of ports (either DVI or RGB based on corresponding matching port of server &amp; USB interface for keyboard and mouse) so that one no KVM Console can be shared for 8 nos of servers . Required sets of cables to be included in offer and shall be supplied, laid and commissioned by bidder.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                               |                                                                       |



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### 8.6 22 Inch LED Backlit Monitor:

|       |                   |                                                                           |
|-------|-------------------|---------------------------------------------------------------------------|
| 8.6.1 | Viewable size min | 21.5 inches                                                               |
| 8.6.2 | Max resolution    | 1920 x 1080 Pixels.                                                       |
| 8.6.3 | Contrast ratio    | 1000:1                                                                    |
| 8.6.4 | Brightness        | 250 cd /m <sup>2</sup> .                                                  |
|       | Viewing angle     | 160V / 170H Typical (@ 10:1 CR)                                           |
| 8.6.5 | Interface         | VGA & DVI D                                                               |
| 8.6.6 | Power supply      | 100 to 240 VAC; 50/60Hz.                                                  |
| 8.6.7 | Other features    | Height adjustable stand, pivot, tilt and swivel provisions to be present. |

### 8.7 Full Function Keyboard:

|       |                     |                                                                                                                                                                |
|-------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.7.1 | Interface           | USB 1.1/2.0 Complaint.(USB extender device for length upto 150 ft to be provided)                                                                              |
| 8.7.2 | Power               | USB interface.                                                                                                                                                 |
| 8.7.3 | System requirements | Windows 7 or above, Vista, XP, 2000, 2003 Server                                                                                                               |
| 8.7.4 | Keypad jog dial     | 22 keys: 10 application defined hotkeys of which 5 are backlit.<br>0-9, tab, alt<br>6 application defined hotkeys.<br>Deflection Shuttle operating angle 160°. |

### 8.8 Joy Stick:

|       |                     |                                                                                                                                                                                                    |
|-------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.8.1 | Interface           | USB 1.1/2.0 Complaint.(USB extender device for length upto 150 ft to be provided)                                                                                                                  |
| 8.8.2 | Power               | USB interface.                                                                                                                                                                                     |
| 8.8.3 | Casing              | Polycarbonate ABS                                                                                                                                                                                  |
| 8.8.4 | Functionality       | Hall-effect joystick with three axis.<br>- X/Y: for pan and tilt - Z: knob for zoom<br>6 application defined hotkeys.<br>DeflectionSquare delimiter<br>Pan/Tilt (XY): +/- 15°<br>Zoom (Z): +/- 25° |
| 8.8.5 | Approvals           | EN 55022: Class B; EN 55024; EN 61000-6-2.                                                                                                                                                         |
| 8.8.6 | System Requirements | Windows 7 and 8, Vista, XP, 2000, 2003 Server.                                                                                                                                                     |

### 8.9 Alarm I/O Device:

|       |               |                                               |
|-------|---------------|-----------------------------------------------|
| 8.9.1 | Input ports   |                                               |
| 8.9.2 | Output ports  |                                               |
| 8.9.3 | Interface     | RJ-45, 10/100 mbps Ethernet.                  |
| 8.9.4 | Mounting kit  | DIN Rail or Rack Mount.                       |
| 8.9.5 | Compatibility | Should seamlessly integrate with proposed VMS |





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### 8.10 Type-I Switch (Layer-III Router):

Switch description: L3 Managed Switch with min **8** 10/100/1000 BaseT and minimum 2 \* 1 Giga SFP SM LC ports loaded( *suitable for min distance of 5 KM*).  
(*minimum or as required for all network and alarm devices in the respective zone*)  
Fan less design - Yes  
Operating temp Min 40° C  
Other features Ethernet Ring Protection, Shall support VLAN, MSTP, ACL, QoS.

### 8.11 Type-II Switch(Distribution Switch):

|        |                    |                                                                                                                                                                                  |
|--------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.11.1 | Switch description | L2 Managed Switch with min <b>20</b> 10/100/1000 BaseT and, 2 * 1 Giga SFP SM LC ports loaded( <i>suitable for min distance of 15 KM</i> ).<br>( <i>minimum or as required</i> ) |
| 8.11.2 | Fan less design    | Yes                                                                                                                                                                              |
| 8.11.3 | Operating temp     | Min 40° C                                                                                                                                                                        |
| 8.11.4 | Other features     | Ethernet Ring Protection, Shall support VLAN, MSTP, ACL, QoS.                                                                                                                    |

### 8.12 Type-III Switch(Edge Switch):

|        |                    |                                                                                                                              |
|--------|--------------------|------------------------------------------------------------------------------------------------------------------------------|
| 8.12.1 | Switch description | L2 Managed Switch with min <b>8</b> 10/100 BaseT and 2 * 1 Giga SFP SM LC ports loaded.<br>( <i>minimum or as required</i> ) |
| 8.12.2 | Fan less design    | Yes                                                                                                                          |





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|        |                |                                                               |
|--------|----------------|---------------------------------------------------------------|
| 8.12.3 | Operating temp | Min 50° C                                                     |
| 8.12.4 | Other features | Ethernet Ring Protection, Shall support VLAN, MSTP, ACL, QoS. |

### 8.13 Type-IV Switch(Alarm I/F Switch):

|        |                    |                                                                                                                      |
|--------|--------------------|----------------------------------------------------------------------------------------------------------------------|
| 8.13.1 | Switch description | L2 Managed Switch with min <b>20</b> 10/100 BaseT and 2 * 1 Giga SFP SM LC ports loaded.<br>(minimum or as required) |
| 8.13.2 | Other features     | Ethernet Ring Protection<br>Console Port for Management<br>Shall support IPv6, VLAN, MSTP, ACL, QoS                  |

### 8.14 Cat 5e Unshielded Twisted Pair Cable (UTP):

Category 5 Unshielded Twisted paired of 4 pair **305** meter cable shall be compliant with ANSI/TIA/EIA-568-C.2 standards

|        |                       |                                                                                          |
|--------|-----------------------|------------------------------------------------------------------------------------------|
| 8.14.1 | Construction          | 4 Pair Unshielded Twisted Pairs                                                          |
| 8.14.2 | Insulation            | HDPE Insulation                                                                          |
| 8.14.3 | Sheath                | PVC                                                                                      |
| 8.14.4 | Conductor             | 24 AWG solid bare copper                                                                 |
| 8.14.5 | Safety                | UL Listed and ETL verified                                                               |
| 8.14.6 | Operating Temperature | Upto 60° C                                                                               |
| 8.14.7 | Certification         | Cable should be RoHS compliant and relevant certificate to be enclosed in Technical bid. |

### 8.15 Cat 5e UTP Patch Cable:

UTP Patch Cable – 3 Meters Length

|        |                                                                 |
|--------|-----------------------------------------------------------------|
| 8.15.1 | Cat 5e UTP, 4 Pair Stranded Copper Cable with RJ 45 Connectors. |
| 8.15.2 | 1000 Mbps – 3 Meters Length.                                    |
| 8.15.3 | Stranded, Unshielded 24 AWG                                     |
| 8.15.4 | Polycarbonate Plug & Gold over Nickel Contacts                  |
| 8.15.5 | Confirming to EIA/TIA 568B                                      |
| 8.15.6 | UL/ETL Verified.                                                |

### 8.16 Single Mode Fiber Patch Cable

Fiber Patch Cable - 3 Meters Length

|        |                                                                                                                                                    |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.16.1 | <b>SC-LC</b> or <b>SC-SC</b> Duplex(refer BOM), 9/125 microns Single Mode with plastic molded plug type connector. Standard 2.5mm Ceramic ferrule. |
| 8.16.2 | Confirming to EIA/TIA 568                                                                                                                          |



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### 8.17 Cat5e Patch Panel:

|        |                                                                                                       |
|--------|-------------------------------------------------------------------------------------------------------|
| 8.17.1 | Powder coated steel in 24 port configuration                                                          |
| 8.17.2 | Should support port identification numbers on the front of the panel.                                 |
| 8.17.3 | IDC: Suitable for 22-26 AWG stranded and solid wire compatible with both 110 & Krone punch down tools |
| 8.17.4 | The Cat-5e transmission performance should be in compliance with the ANSI/TIA/EIA 568C.2 standard     |
| 8.17.5 | RoHS Compliant                                                                                        |
| 8.17.6 | 50 µmches gold on plug contact area ,<br>Phosphor bronze with nickel plated IDC Contact               |

### 8.18 Light Interface Unit (LIU) 24 port:

LIU- 24 Port Rack mount loaded with SC SM Simplex Couplers. Cable entry for six nos. shall be considered for this LIU.

|        |                                                                                                         |
|--------|---------------------------------------------------------------------------------------------------------|
| 8.18.1 | 19" Rack Mountable Cabinet                                                                              |
| 8.18.2 | LIU Box Powder Coated Aluminum alloy, Cable grommets should be FR Grade Nylon. Flame retardant plastic. |
| 8.18.3 | SC Simplex SM Couplers compatibility to optical fiber 9/125 µm.                                         |
| 8.18.4 | Operating temperature of coupler up to 80°C.                                                            |
| 8.18.5 | LIU qualifies as per ISO/IEC. Couplers – UL listed. RoHS Complaint.                                     |

### 8.19 Light Interface Unit (LIU)12 port:

LIU – 12 Port Rack mount loaded with SC SM Simplex Couplers.

|        |                                                                                                         |
|--------|---------------------------------------------------------------------------------------------------------|
| 8.19.1 | 19" Rack Mountable Cabinet                                                                              |
| 8.19.2 | LIU Box Powder Coated Aluminum alloy, Cable grommets should be FR Grade Nylon. Flame retardant plastic. |
| 4.25.3 | SC Simplex SM Couplers compatibility to optical fiber 9/125 µm.                                         |
| 4.25.4 | Operating temperature of coupler up to 80°C.                                                            |
| 4.25.5 | LIU qualifies as per ISO/IEC. Couplers – UL listed. RoHS Complaint.                                     |

### 8.20 SC Pigtail Simplex (Single mode FOC)

### 8.21 Industrial Panel:

|        |                              |                                                                                                                                                                                              |
|--------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.21.1 | Floor standing Panel (Frame) | Basic frame consists of separate height; width and depth channels made from 2mm thick sheet steel and then welded together using a solid steel corner block to provide exceptional rigidity. |
| 8.21.2 | Front door                   | 2mm thick single front door, with partial glass window dimensions as                                                                                                                         |



## Purchase Specification CCTV system

**416/NTPC-5/CCTV**

**REV No. : 00**

Page 23 of 26

- Earth continuity kit
- Earthing bar

Cables for connecting equipment to main earthing point  
Vertical and horizontal copper bars for earthing.

### 8.22 Industrial Wall Mount Enclosure:

Industrial Wall Mount Enclosure for housing Edge switch, LIU and Power distribution arrangement to camera.

|         |                                                                                                                                                                                          |                                                                                                                                                                                                                                             |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.22.1  | Wall mount rack                                                                                                                                                                          | Overall structural construction of 1.2mm thickness                                                                                                                                                                                          |
| 8.22.2  | Front door                                                                                                                                                                               | 1.2mm thick, front glass door with lock                                                                                                                                                                                                     |
| 8.22.3  | Rear panel                                                                                                                                                                               | 1.2mm thick, rear wall mounted section hinged to the front section with a pair of 19" rails                                                                                                                                                 |
| 8.22.4  | Top panel                                                                                                                                                                                | 1.2mm thick panel with cable entry facility, fan mounting option and vents at the front.                                                                                                                                                    |
| 8.22.5  | Bottom panel                                                                                                                                                                             | 1.2mm thick panel with cable entry facility                                                                                                                                                                                                 |
| 8.22.6  | 19" rails                                                                                                                                                                                | Adjustable 19" rails at the front to mount 19" equipment.                                                                                                                                                                                   |
| 8.22.7  | Load bearing capacity                                                                                                                                                                    | Load rating of 20Kgs                                                                                                                                                                                                                        |
| 8.22.8  | Dimensions <ul style="list-style-type: none"> <li>• Width</li> <li>• Height</li> <li>• Depth</li> </ul>                                                                                  | 600 width in mm<br>12U<br>500 depth in mm (400mm + 100mm)                                                                                                                                                                                   |
| 8.22.9  | Material                                                                                                                                                                                 | Steel                                                                                                                                                                                                                                       |
| 8.22.10 | Powder coating                                                                                                                                                                           | Light grey (RAL 7035)                                                                                                                                                                                                                       |
| 8.22.11 | Accessories <ul style="list-style-type: none"> <li>• 1U fan tray</li> <li>• Cooling fans</li> <li>• Cantilever shelf</li> <li>• Cable manager</li> <li>• Earth continuity kit</li> </ul> | 1.2mm thick tray with 2 fans position<br><br>230v AC, 50 Hz, 90 cfm.<br><br>1.2mm thick, 1U, 20kg load bearing capacity<br><br>1U cable manager for horizontal cable routings<br><br>Cables for connecting equipment to main earthing point |

### 8.23 Cable Tray:

Perforated mild steel, hot dip Galvanized cable trays with cover – Height 25mm, Width 50mm, and thickness 2.0mm, Coupler plate and cover are also

|                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                     |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------|-------------------------------------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                        | <br>A4-10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Purchase Specification<br/>CCTV system</b>                                                                                                                       | 416/NTPC-5/CCTV |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                     | REV No. : 00    |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                     | Page 24 of 26   |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
| COPYRIGHT AND CONFIDENTIAL<br>The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED<br>This must not be used directly or indirectly, in any manner detrimental to the interest of the company | of 2mm thick mild steel and hot dip galvanized. Associated fasteners shall be zinc passivated/electroplated. (Standard length of each tray: 2.5m).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                     |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        | 8.23.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Perforated cable trays along with associated accessories such as coupler plates, bends, and covers shall be fabricated from minimum 2.0 mm thick mild steel sheets. |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        | 8.23.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | The hot dip galvanized coupler plates thickness of 2mm shall be provided.                                                                                           |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        | 8.23.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | All trays with above mentioned accessories shall be hot dip galvanized after fabrication.                                                                           |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        | 8.23.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Weight of zinc coating shall be 610gm/sq. mtrs with minimum thickness of zinc deposit at any spot as 86 microns.                                                    |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        | 8.23.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Cable trays shall be supplied in standard length of 2500 mm.                                                                                                        |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        | 8.23.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Finished cable trays and accessories shall be free from sharp edges, corners, burrs and unevenness.                                                                 |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        | 8.23.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Coupler plates and accessories like fasteners etc.; shall be provided on “As required” basis. Fasteners shall be zinc passivated / electroplated.                   |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        | 8.24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>1 inch Flexible GI Conduit:</b><br>Galvanized steel, helically wound, Flexible Conduit System                                                                    |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        | 8.25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>1KVA Mini UPS:</b><br>1 KVA online mini UPS with 30 minutes battery backup at 700 watts load and shall have remote monitoring facility with SNMP module.         |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        | <table><tr><td>8.25.1</td><td>Input voltage : 140 – 270 VAC<br/>Frequency 47 – 53HZ.</td></tr><tr><td>8.25.2</td><td>Output : 1 KVA<br/>Rated voltage: 230V AC 50HZ.<br/>Power factor : &gt;= 0.7<br/>Overall efficiency &gt;= 85 %<br/>Automatic switch over time :&lt; 5 millisecond or better.<br/>With overload, short circuit, over &amp; under voltage protections.<br/>Battery : SMF<br/>SNMP(Network ) interface card</td></tr></table>                                                                                                                                                                                                    |                                                                                                                                                                     |                 | 8.25.1 | Input voltage : 140 – 270 VAC<br>Frequency 47 – 53HZ. | 8.25.2 | Output : 1 KVA<br>Rated voltage: 230V AC 50HZ.<br>Power factor : >= 0.7<br>Overall efficiency >= 85 %<br>Automatic switch over time :< 5 millisecond or better.<br>With overload, short circuit, over & under voltage protections.<br>Battery : SMF<br>SNMP(Network ) interface card |
|                                                                                                                                                                                                                                        | 8.25.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Input voltage : 140 – 270 VAC<br>Frequency 47 – 53HZ.                                                                                                               |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
| 8.25.2                                                                                                                                                                                                                                 | Output : 1 KVA<br>Rated voltage: 230V AC 50HZ.<br>Power factor : >= 0.7<br>Overall efficiency >= 85 %<br>Automatic switch over time :< 5 millisecond or better.<br>With overload, short circuit, over & under voltage protections.<br>Battery : SMF<br>SNMP(Network ) interface card                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                     |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |
| 8.26                                                                                                                                                                                                                                   | <b>Junction Box</b><br>a) Material- min 4mm thick FRP (Fiberglass Reinforced Polyester)<br>b) Type- Screwed at four corners of door, door gasket shall be synthetic rubber<br>c) Mounting clamps and accessories: Mounting plate of 2mm thick mild steel to be Provided inside JB, mounting clamps suitable for mounting on walls, columns, structures etc. shall be provided. The brackets, bolts, nuts, screws, glands, SS handle and Lugs required for erection shall be of SS304, included in Bidders scope of supply. M6 earthing to be provided.<br>d) Protection Type : IP55 of indoor and IP65 for outdoor<br>e) Grounding: To be provided |                                                                                                                                                                     |                 |        |                                                       |        |                                                                                                                                                                                                                                                                                      |

|                                                                                                                                                                                                                                            |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               |                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------|
|                                                                                                                                                                                                                                            |                                                     | <br>A4-10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Purchase Specification<br/>CCTV system</b> | 416/NTPC-5/CCTV |
|                                                                                                                                                                                                                                            |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               | REV No. : 00    |
|                                                                                                                                                                                                                                            |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               | Page 25 of 26   |
| f) Colour: To be decided during detailed engineering.                                                                                                                                                                                      |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               |                 |
| <b>8 Bill of Material : Refer Annexure-8 for detailed BOM for each project</b>                                                                                                                                                             |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               |                 |
| COPYRIGHT AND CONFIDENTIAL<br><br>The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED<br>This must not be used directly or indirectly, in any manner detrimental to the interest of the company | <b>Notes for BOM:</b>                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               |                 |
|                                                                                                                                                                                                                                            | 1                                                   | Some item quantities are marked with(*) is based on the information available to BHEL as on tender date and 5 to 10% additional quantity may be required based on site condition.<br>These quantities shall be finalized by the successful SI (immediately after finalization of order) by making a site survey and discussing with BHEL / NTPC. Alternatively additional quantities, as required, shall be supplied at the time of commissioning at the same unit rates quoted.                                                                                                                                                                                                                                                                        |                                               |                 |
|                                                                                                                                                                                                                                            | 2                                                   | <b>Camera alarm contact interface:</b> Any SI prefers to use camera alarm contacts instead of alarm I/O device may require to run individual control cable from every camera location to field enclosure and a combined cable (i.e. 2/3/4 camera combination) from field enclosure to customer panel. In this scenario control cable quantity may be required as 2400mtr +10000 mtr as specified in Sl.No 5.18. (If camera alarm contacts are used, then item no 5.11 and 5.15 are not required but 10000mtr. 4 pair FRLS amour cable is to be considered)<br>If alarm contacts are interfaced with a separate alarm I/O device (instead of camera alarm contact) from CCTV panel to customer panel control cable quantity may be required as 2400 mtr. |                                               |                 |
|                                                                                                                                                                                                                                            | 3                                                   | BHEL will provide 230 VAC 50HZ single phase centralized UPS power supply at each power generation unit of the project's CCR area to the Power Distribution panel of CCTV system. SI may use this UPS supply to power the CCTV items like Servers, Clients, Network active components and Field Enclosures located up to 500 mtr from CCR. For far away Field Enclosures (located beyond 500mtr from CCR) shall be powered from 1 KVA online mini UPS. Any power conversion needed by camera / other equipment due to their rated operating voltage level / types the suitable power packs shall be included from the same make of the main equipment.                                                                                                   |                                               |                 |
|                                                                                                                                                                                                                                            | 4                                                   | SI shall ensure fiber patch cable compatibility at Switch side and LIU side (i.e. simplex / duplex or type of connector or SMOFC / MMOFC etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                               |                 |
|                                                                                                                                                                                                                                            | 5                                                   | Industrial grade furniture for database Servers i.e., multitier rack to be provided as per drawing shown in the annexure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                               |                 |
|                                                                                                                                                                                                                                            | 6                                                   | For all the software Permanent licenses for required qty and Life time support for all the software to be included.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                               |                 |
|                                                                                                                                                                                                                                            | <b>9 Documents to be submitted Along with offer</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               |                 |



|                                                                                                                                                                                                                                        |                                                                                                                                                                                       |                                                                                            |                                               |                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------|
|                                                                                                                                                                                                                                        |                                                                                                                                                                                       | <br>A4-10 | <b>Purchase Specification<br/>CCTV system</b> | 416/NTPC-5/CCTV |
|                                                                                                                                                                                                                                        |                                                                                                                                                                                       |                                                                                            |                                               | REV No. : 00    |
|                                                                                                                                                                                                                                        |                                                                                                                                                                                       |                                                                                            |                                               | Page 26 of 26   |
| COPYRIGHT AND CONFIDENTIAL<br>The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED<br>This must not be used directly or indirectly, in any manner detrimental to the interest of the company | 9.1 Manufacture Authorization Form (MAF) from camera OEM, VMS, Server and Network Switch describing/confirming following details.                                                     |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.1.1 Tender reference and date.                                                                                                                                                      |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.1.2 The quoted products are brand new. <b>(Refurbished / repaired items are not acceptable)</b>                                                                                     |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.1.3 Products are not in End of Life category list (EOL).                                                                                                                            |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.1.4 Spares availability for 5 years from the date of main supply.                                                                                                                   |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.1.5 System Integrator (SI) is an authorized partner for sales and service support.                                                                                                  |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.1.6 Compatibility of the offered model with other CCTV components.                                                                                                                  |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.2 Data sheets for all the items.                                                                                                                                                    |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.3 Signed Technical compliance to each clause of this specification.                                                                                                                 |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.4 Deviations if any; Bidder may note that for all the items exact or better specifications (if model meeting exact specification is not available) are acceptable but not inferior. |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.5 Compliance sheet: Bidder must provide a tabular compliance sheet duly signed with seal for all sections of this purchase specification.                                           |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.6 Block diagram for connectivity of CCTV system                                                                                                                                     |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.7 Write-up on functionality of each item and overall system                                                                                                                         |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | <b>Documents to be submitted after receipt of order</b>                                                                                                                               |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.8 On receiving the order prior to supply, manufacturing datasheet for all the items to be provided which will be approved by end user                                               |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.9 Quality plan based on format attached in this specification.                                                                                                                      |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.10 Power distribution scheme drawing.                                                                                                                                               |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.11 Network scheme drawing.                                                                                                                                                          |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.12 General Arrangement (GA) of Power Distribution, Network panel and wall mount Enclosure.                                                                                          |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.13 User manuals for all the equipment.                                                                                                                                              |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.14 Original Software Set up CDs OS, VMS, VCA and any other relevant CDs.                                                                                                            |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.15 Standard Test certificates for Camera, camera accessories, Computers, Storage, Network switches, Fiber, Power and UTP cables.                                                    |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | <b>To be submitted for project site</b>                                                                                                                                               |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.16 Operation and Maintenance manual.                                                                                                                                                |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.17 System check-out or Acceptance document. This document shall provide functional and parameter verification of various system features.                                           |                                                                                            |                                               |                 |
|                                                                                                                                                                                                                                        | 9.18 Handing over document / Minutes of Meeting (MOM) with BHEL Site / End user.                                                                                                      |                                                                                            |                                               |                 |



**ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್**  
**भारत हेवी इलेक्ट्रिकल्स लिमिटेड**  
**Bharat Heavy Electricals Ltd.,**  
**(A Government of India undertaking)**  
**Electronics Division**  
**PB 2606 , Mysore Road Bangalore , 560026 INDIA**

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CE: PR: 003- Rev 00

**SPECIAL COMMERCIAL CONDITIONS OF CONTRACT**

Reference is brought to BHEL's Instructions to Bidders (Document Ref: CE: PR: 001- Rev 00) and General Commercial Conditions for Contract (Document Ref: CE: PR: 002- Rev 00). These documents along with required annexures are available in our website: NIL. These two documents along with Special Conditions of Contract annexed to this RFQ will form an integral part of the contract as and when the RFQ culminates into a Purchase Order / Contract.

RFQ No: HDC0000447 RFQ Date: 13.09.2016  
 Due Date: AS PER EPS  
 Projects: NTPC-GADARWARA STPP (2X800 MW ) SITE – MADHYA PRADESH STATE  
FGUTP-UNCHAHAAR(1X500MW)SITE–NEAR-ALLAHABAD,UTTARPRADESH-STATE  
NPGL-NABINAGAR (3X660 MW )- BIHAR STATE  
NTPC-TANDA TPP C&I (2X660 MW ), UTTAR PRADESH STATE  
NORTH KARANPURA STPP (3X660 MW ),JHARKHANDA STATE

Item Description: I P CCTV SYSTEM

**NOTE: BIDS TO BE SUBMITTED IN THREE PARTS Refer instructions to bidders clause B for details.**

**Purchase Executives:** In cases where tender documents are bulky, or due to some reasons tender documents are required to be submitted by hand, the offers are to be handed over to either of the following Purchase Officers:

Mr. CHANDRAIAH H D SENIOR MANAGER /MM PR PURCHASE PHONE: 080- 26998674

**E-mail IDs:** In case offers are sent through E-mail, please send the offers to both of the following email IDs:

chandraiah@bheledn.co.in

**E-tendering:** Applicable / Not Applicable **NOTE: QUANTITY , UNIT RATES AND VALUE QUOTED IN EPS PORTAL ONLY WILL BE CONSIDERED FOR BID EVALUATION . SIMILARLY ANY DISCOUNTS GIVEN IN THE EPS PORTAL ONLY WILL BE CONSIDERED AND IF DISCOUNTS GIVEN IN ATTACHMENTS , SAME WILL NOT BE CONSIDERED FOR BID EVALUTION.**

**Reverse Auction:** Applicable & Will be intimated during commercial clarifications to technically acceptable vendors.

In case BHEL does not resort to Reverse Auction, the price bids and price impacts (if any) shall be opened as per BHEL's standard practice.

**Splitting of tendered quantity to MSE vendors:** The tendered quantity will /will not be split to MSE vendors subject to submission of relevant documents by vendors. **Refer clause H of Instructions to Bidders for conditions applicable and for information on documents to be submitted.**

**Destination: Indigenous scope of** Items are to be directly despatched to above mentioned SITE and Imported scope of items to be despatched to Bangalore Airport.

Road Permit, if applicable, will be issued by BHEL along with Despatch Clearance.

**Project Benefits:**

- **Indigenous scope of supply:**
  - a) Project is Mega Power Project or Ultra Mega Power Project: Eligible for "NIL" Excise Duty. Necessary PAC documents for availing Excise Duty exemption by suppliers will be furnished by BHEL for Gadawara ,Nabinagar,Tanda and Northkaranpur projects.
  - b) Physical Export project: Eligible for complete exemption of Excise Duty & Sales Tax. Necessary documents for availing such benefits will be furnished by BHEL to suppliers.
  - c) Nuclear Power Project under a special category: Eligible for claiming Terminal Excise Duty benefit from DGFT as per present EXIM policy. Confirm submission of following in original:
    - Disclaimer Certificate (Annexure -XI)
    - Copy of Excise Invoice attested by Suptd of Central Excise authorities with signature and seal, in blue ink, to enable BHEL to claim terminal Excise duty benefit from DGFT.
- **Imported scope of supply :**

**NOTE: MERIT CUSTOMS DUTY ARE APPLICABLE FOR ALL ABOVE 5 PROJECTS.**

Indicate station of despatch: \_\_\_\_\_

Indicate place of manufacturing (wherever applicable): \_\_\_\_\_

- **Indigenous scope of supply:** Ex-works (including Packing & Forwarding charges but excluding Taxes & Duties): \_\_\_\_\_
- **Imported scope of supply:** F.C.A. (for air consignments) /F.O.B. (for sea consignments) (including Packing, Forwarding, Handling, Ancillary charges like processing of Sight Draft/ Letter of Credit, negotiation of bank documents, Export declaration, Country of Origin etc): \_\_\_\_\_

**NOTE: PLEASE PRODUCE COMPANY FINANCIAL SOLVENCY CERTIFICATE FOR ENABLE US TO EVALUATE YOUR OFFER FOR COMMERCIALLY SUITABLE.**

| S NO. | TERMS                                             | BHEL ACCEPTABLE TERM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | BIDDER'S CONFIRMATION                                                                                                                                     | DEVIATION IF ANY |
|-------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 01    | Validity                                          | The offer will be valid for a period of 120 days from the date of PQC bid opening.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AGREE                                                                                                                                                     |                  |
| 02    | Excise Duty & Cess<br><br><b>Refer Note below</b> | <p>If applicable, indicate current rate of Excise Duty and maximum rate of Excise Duty (against proof of Excise Invoice).</p> <p>However, for calculation purpose and arriving at "Total Cost to BHEL" maximum rate of Excise Duty will be considered. In case Excise Duty remains firm throughout the contract, the same shall be specifically indicated. Otherwise, maximum Excise Duty will be considered for arriving at lowest bidder.</p> <p>However, reimbursement of Excise Duty shall be at actuals against proof of Excise Invoice only. (Within contractual delivery).</p> <p><del>Physical export contract eligible for complete exemption of Excise duty against submission of necessary documents by BHEL like ARE 1/CT 1 form.</del></p> | <p><b>APPLICABLE / NOT APPLICABLE</b></p> <p>Present rate of Excise Duty with CESS<br/>.....%</p> <p>Maximum rate of Excise Duty with CESS<br/>.....%</p> |                  |
| 03    | Central Sales Tax (CST)                           | <p>If applicable, indicate current rate of sales tax against form "C".</p> <p>For issue of original form "C", vendor has to furnish "E1/E2" form. To enable vendor give E1/E2 form, photocopy of C form will be issued by BHEL.</p> <p>Please confirm submission of "E1/E2 Sale form".</p> <p><del>For physical export project, Sales Tax is exempted against necessary documents furnished by BHEL.</del></p>                                                                                                                                                                                                                                                                                                                                          | <p><b>APPLICABLE / NOT APPLICABLE</b></p> <p>Present Sales Tax rate against form "C"<br/>..... %</p> <p><b>CONFIRMED</b></p>                              |                  |
| 04    | Value Added Tax (VAT)                             | <p>If applicable, indicate current rate of VAT.</p> <p>When VAT is applicable, BHEL ROD's/ Nodal Agency's Name, TIN No. and address to be indicated in invoice. (Note that two original invoice and one tax invoice should be submitted to BHEL).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p><b>APPLICABLE / NOT APPLICABLE</b></p> <p>VAT rate at present<br/>..... %</p> <p><b>NOTED</b></p>                                                      |                  |
| 05    | Octroi                                            | If applicable, indicate current rate of octroi.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p><b>AGREE</b></p> <p>Present Octroi rate<br/>.....%</p>                                                                                                 |                  |
| 06    | Freight Charges (for indigenous scope of supply)  | <p>Freight charges shall be to vendor's account.</p> <p>Quote lumpsum reasonable Freight charges separately in priced offer, plus service tax if any.</p> <p>Vendor's offer will be evaluated on "Total cost basis" including freight charges.</p> <p>Vendor shall book the consignment through their approved Road carriers on "Freight pre-paid" and door delivery consignee copy attached basis. Freight charges to be claimed from BHEL along with POD (Proof of Delivery)</p>                                                                                                                                                                                                                                                                      | <p><b>AGREED</b></p> <p>and quoted as lumpsum amount in price bid.</p> <p>Service Tax ____% (extra /inclusive in freight charges)</p>                     |                  |

|                                                                                                                                                                                                                  |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                      |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                                                                                                                                                                                                  |                                                          | on original L/R.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                      |  |
| 07                                                                                                                                                                                                               | Service Tax on E&C and Training Charges                  | If applicable, indicate current rate of Service Tax _____%<br><br>Service Tax Regn. No. _____<br>Confirmation that Service Tax register is maintained.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | APPLICABLE / NOT APPLICABLE<br><br>CONFIRMED                                                                                                         |  |
| NOTE: For the items which will be dispatched from sub vendors works to customer project site directly, the taxes and duties i.e. ED+Cess, CST or VAT, payable by your vendors, will NOT be reimbursable by BHEL. |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                      |  |
| 08                                                                                                                                                                                                               | <del>Parting of license for imported raw materials</del> | <del>In case of Mega project, Ultra Mega project and Physical Export project where Custom Duty and Excise Duty are NIL and vendor is importing any raw materials / components for the enquired item, same are eligible for Zero Customs duty. As per EXIM policy, BHEL will part the import licence with the vendors to obtain import licence by themselves and custom clear the raw materials/ components by availing zero customs duty. Hence, please furnish list of raw materials / components to be imported by you with Quantity and CIF value (for which BHEL has to share import licence). The benefit due to the above shall be passed on to BHEL and confirmed in the quotation.</del><br><br><del>If there are no imported raw materials/components, same shall be confirmed in the offer.</del> | AGREE<br><br>CIF value .....<br><br>Yes, benefit passed-on to BHEL in the priced quotation.<br><br>We confirm that there are no imported components. |  |
| 09                                                                                                                                                                                                               | Delivery Period                                          | Within 08 weeks from the date of issue of approved documents or manufacturing clearance by BHEL, whichever is later .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | AGREE<br><br>..... weeks                                                                                                                             |  |
| 10                                                                                                                                                                                                               | Guarantee/ Warranty                                      | 1) 24 months from the date of delivery of goods or 18 months from the date of commissioning of goods, whichever is earlier for NTPC-Tanda & North karanpura project.<br>2) 18 months from the date of delivery of goods or 12 months from the date of commissioning of goods, whichever is earlier for NTPC-Gadarwara ,Unchahar & Nabinagar project.                                                                                                                                                                                                                                                                                                                                                                                                                                                        | AGREE                                                                                                                                                |  |
| 11                                                                                                                                                                                                               | Inspection agency                                        | Materials will be inspected by :<br>• BHEL<br>• Customer/Consultant/BHEL nominated Third Party Inspection Agency (TPIA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | AGREE                                                                                                                                                |  |
| 12                                                                                                                                                                                                               | Terms of Payment at the time of material supply          | Refer Clause "F" of Instructions to Bidder for BHEL standard Payment terms and loading factors applicable for non-compliance against payment terms:<br><b>Indigenous Scope:</b><br>a)Supply with E&C<br>b)Supply with Supervision of E&C<br>c)Supply only<br><b>Imported Scope:</b><br>d)Supply with E&C<br>e)Supply with Supervision of E&C<br>f)Supply only<br><br>Note: Kindly indicate if High Sea Sales will be operated. If yes, confirm submission of relevant documents as per Annexure V.                                                                                                                                                                                                                                                                                                          | AGREE<br><br><br><br><br><br><br><br><br><br>YES / NO<br><br>CONFIRMED                                                                               |  |
| 13                                                                                                                                                                                                               | Performance Bank Guarantee (PBG)                         | 1. PBG will be applicable for a period of 24 months + claim period of 6 months for a value equal to 10% of the basic value of the purchase order for Tanda & North karanpura projects.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AGREE                                                                                                                                                |  |

|    |                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                   |
|----|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------|
|    |                                                        | <p>2. PBG will be applicable for a period of 18 months + claim period of 6 months for a value equal to 10% of the basic value of the purchase order for NTPC-Gadarwara, Unchahar &amp; Nabinagar project.</p> <p>Refer Clause "G" of Instructions to Bidders.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |                                                   |
| 14 | <b>Terms of Payment not related to material supply</b> | <p><b>For Training:</b><br/>100% will be paid in 45 days from the date of completion of Training or 15 days from the date of submission of complete set of documentation, whichever is later. Separate invoice shall be submitted for Training charges along with documentary evidence.</p> <p><b>For Engineering &amp; Documentation Charges:</b><br/>100% will be paid in 45 days from the date of approval of final documents or 15 days from the date of submission of invoice, whichever is later. Separate invoice to be submitted for Engineering &amp; documentation charges.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | AGREE     |                                                   |
| 15 | <b>Mode of despatch</b>                                | <p><b>Indigenous Scope:</b><br/>By Road on Door Delivery Consignee Copy attached basis through your approved transporter (unless otherwise indicated in Despatch Instructions), only on receipt of Despatch Clearance from BHEL.</p> <p><b>Imported Scope:</b><br/>By Air/Sea through BHEL approved Consolidator/Freight Forwarder, only on receipt of Despatch Clearance from BHEL.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AGREE     |                                                   |
| 16 | <b>Despatch Documents</b>                              | <p>Complete set of despatch documents (original + 1 photocopy set) as per Purchase Order shall be forwarded to BHEL directly.</p> <p>Depending upon the project/customer demands, despatch documents may include one or more documents from the following:<br/>Commercial Invoice, Excise Invoice (if ED is applicable), Lorry Receipt (L/R), Packing List, Air Way Bill (AWB), Country of origin certificate, Warranty Certificate, Insurance Intimation letter, NIL Short Shipment Certificate, Original Performance Bank Guarantee (directly from issuing bank to BHEL), POD (Proof of Delivery) on original L/R, Disclaimer Certificate (as per BHEL format attached as Annexure XI) along with ER 1 form &amp; attested excise invoice (as per project demands like Nuclear Power plant) etc.</p> <p><b>The precise list of despatch documents needed for a particular project will be specified in the Purchase Order.</b></p> <p>One set of Invoice, Packing List and L/R or AWB shall be e-mailed/faxed immediately to BHEL-EDN after despatch.</p> | AGREE     |                                                   |
| 17 | <b>O &amp; M Manuals</b>                               | <p>As built Drawings, O &amp; M Manuals and other approved documents shall be furnished in required no. of sets as per Specification/Purchase Order.</p> <p>Note: Supply of above documents (O&amp;M) in required no. of sets along with material shall be indicated in packing list. If not mentioned BHEL may insist for submission in required sets once again.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AGREE     |                                                   |
| 18 | <b>Quantity Tolerance</b>                              | <p>If applicable, indicate Quantity tolerance for each of the line item.</p> <p><del>For Impulse/seamless/ GI pipes one random length applicable for each variety of pipes.</del></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CONFIRMED | <p>Quantity Tolerance<br/>..... % Per Variety</p> |

|    |                                              |                                                                                                                                                                                                                                       |              |  |
|----|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--|
| 19 | <b>Evaluation criteria for tendered item</b> | Itemwise evaluation of tendered item.<br><del>Splitting of tendered quantity to MSE vendors (if any) is applicable.</del><br>OR<br>Items will not be split on itemwise lowest offer. Items to be evaluated and procured as a package. | <b>AGREE</b> |  |
| 20 | <b>Integrity</b>                             | Integrity commitment will be applicable in the tender process and execution of contracts as mentioned in clause "I" of Instructions to Bidders.<br>IEM NAME: SRI V V R SASTRY , EX-CMD, BEL.                                          | <b>AGREE</b> |  |

**THE ENCLOSED INTGRETY PACT AGREEMENT FORMAT TO BE FILLED , SIGNED AND SUBMITTED ALONG WITH PART 1 TECHNICAL BID**

*\*Payment terms for High-Sea Sales procurement:*

***SUPPLY WITH E&C:***

*85% basic value will be paid in 45 days from the date of signing of High Sea Sale agreement or 15 days from the date of submission of complete set of documentation whichever is later.*

*15% of basic value (retention money), will be paid in 15 days from the date of completion of erection and commissioning against supplementary invoice with proof of completion of E&C*

***LOADING FACTORS FOR HSS PAYMENT TERM:***

*In all cases where credit period is 30 days with the above offered standard payment terms, loading applicable will be 5% of basic value.*

*All payment terms with credit period of less than 30 days and any other variation of payment terms are liable for rejection.*

*With this, it is inferred that vendor has understood and accepts all terms & conditions as indicated in Instructions to Bidders (Document Ref: CE: PR: 001- Rev 00) & General Commercial Conditions for Contract (Document Ref: CE: PR: 002- Rev 00).*

**VENDOR'S SIGNATURE WITH SEAL**

***NOTE: The above filled-in and signed-sealed document (in original) shall be furnished as part of Part-I Bid without fail. If no deviations are brought, it will be treated as if all terms and conditions of this enquiry are accepted by vendor without any deviation.***





ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್  
भारत हेवी इलेक्ट्रिकल्स लिमिटेड

**Bharat Heavy Electricals Ltd.,**  
**(A Government of India undertaking)**  
**Electronics Division**

PB 2606 , Mysore Road Bangalore , 560026 INDIA

CE: PR: 002- Rev 00

#### **GENERAL COMMERCIAL CONDITIONS FOR CONTRACT**

These 'General Commercial Conditions for Contract for Purchase' hereinafter referred to as GCC apply to all enquiries, tenders, requests for quotations, orders, contracts and agreements concerning the supply of goods and the rendering of related services (hereinafter referred to as "deliveries") to Bharat Heavy Electricals Limited and any of its units, regions or divisions (hereinafter referred to as "BHEL" or the Purchaser) or its projects / customers.

Any deviations from or additions to these GCC require BHEL's express written consent. The general terms of business or sale of the vendor shall not apply to BHEL. Acceptance, receipt of shipments or services or effecting payment shall not mean that the general terms of business or sale of the vendor have been accepted.

Orders, agreements and amendments thereto shall be binding if made or confirmed by BHEL in writing. Only the Purchasing department of BHEL is authorized to issue the Purchase Order or any amendment thereof.

Definitions: Throughout these conditions and in the specifications, the following terms shall have the meanings assigned to them, unless the subject matter or the context requires otherwise.

- a) 'The Purchaser' means Bharat Heavy Electricals Limited, Electronics division, Mysore road, Bangalore 560 026, a Unit of Bharat Heavy Electricals Limited (A Govt. of India Undertaking) incorporated under the Companies Act having its registered office at BHEL House, Siri Fort, New Delhi-110049, India and shall be deemed to include its successors and assigns. It may also be referred to as BHEL.
- b) 'The vendor' means the person, firm, company or organization on whom the Purchase Order is placed and shall be deemed to include the vendor's successors, representative heirs, executors and administrator as the case may be. It may also be referred to as Seller, Contractor or Supplier.
- c) 'Contract' shall mean and include the Purchase Order incorporating various agreements, viz. tender/ RFQ, offer, letter of intent / acceptance / award, the General Conditions of Contract and Special Conditions of Contract for Purchase, Specifications, Inspection / Quality Plan, Schedule of Prices and Quantities, Drawings, if any enclosed or to be provided by BHEL or his authorized nominee and the samples or patterns if any to be provided under the provisions of the contract.
- d) 'Parties to the Contract' shall mean the 'The Vendor' and the Purchaser as named in the main body of the Purchase Order.

#### **Interpretation:**

In the contract, except where the context requires otherwise:

- a) words indicating one gender include all genders;
- b) words indicating the singular also include the plural and words indicating the plural also include the singular;
- c) provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing, and
- d) "Written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record.

**Applicable Conditions:**

1. **Price Basis:** All prices shall be firm until the purchase order is executed / completed in all respects. No price variations / escalation shall be permitted unless otherwise such variations / escalations are provided for and agreed by BHEL in writing in the purchase order.
2. **Validity:** The offer will be valid for a period of 120 days from the date of technical bid opening date. Validity beyond 120 days, if required, will be specified in the SCC (special conditions of contract).
3. **Ordering and confirmation of Order:** Vendor shall send the order acceptance on their company letter head within two weeks from the date of Purchase Order or such other period as specified / agreed by BHEL. BHEL reserves the right to revoke the order placed if the order confirmation differs from the original order placed. The acceptance of goods/services/supplies by BHEL as well as payments made in this regard shall not imply acceptance of any deviations.  
The purchase order will be deemed to have been accepted if no communication to the contrary is received within two weeks (or the time limit as specified / agreed by BHEL) from the date of the purchase order.
4. **Documentation:** After receipt of Purchase Order, vendor should submit required documents like drawings, bill of materials, datasheets, catalogues, quality plan, test procedure, type test report , O & M Manuals and/or any other relevant documents as per Specification/Purchase Order, as and when required by BHEL/Customer.  
At any stage within the contract period, the vendor shall notify of any error, fault or other defect found in BHEL's documents /specifications or any other items for reference. If and to the extent that (taking account of cost and time) any vendor exercising due care would have discovered the error, fault or other defect when examining the documents/specifications before submitting the tender, the time for completion shall not be extended. However if errors, omissions, ambiguities, inconsistencies, inadequacies or other defects are found in the vendor's documents, they shall be corrected at his cost, notwithstanding any consent or approval.
5. **Penalty:**  
**For delay in documentation:** In the event of delay in submission of complete set of documents ((like drawings, bill of materials, datasheets, catalogues, quality plan etc. as called in tender specifications including soft copies wherever applicable) in required sets beyond three weeks (or as agreed/indicated in the Purchase Order) from the date of Purchase Order, penalty at 0.5% (half percent) per week or part thereof, limited to a maximum of 5% (five percent) of the basic material value of the Purchase Order will be applicable.  
  
**For delay in delivery:** In the event of delay in agreed contractual delivery as per Purchase Order, penalty @ 0.5 % (half percent ) per week or part thereof but limited to a max of 10% (ten percent) value of undelivered portion (basic material cost) will be applicable. Delivery will commence from the date of document approval by customer / BHEL or date of issue of manufacturing clearance, whichever is later. The date for which Inspection call is issued by vendor along with test certificates / test reports / Certificate of Conformance / calibration reports, as proof of completion of manufacturing will be treated as date of deemed delivery for penalty calculation. In the absence of furnishing such document indicated above as proof of completion of manufacturing along with inspection call, actual date of inspection will be considered as date of deemed delivery and BHEL will not be responsible for delay in actual date of inspection.  
  
Penalty for delayed documentation/delayed delivery, if applicable, shall be deducted at the time of first payment. If penalty is applicable for duration of less than a week, penalty @ 0.5% (half percent) of the basic material value will be deducted.
6. **Contract variations (Increase or decrease in the scope of supply):** BHEL may vary the contracted scope as per requirements at site. If vendor is of the opinion that the variation has an effect on the agreed price or delivery period, BHEL shall be informed of this immediately in writing along with technical details. Where unit rates are available in the Contract, the same shall be applied to such additional work. Vendor shall not

perform additional work before BHEL has issued written instructions / amendment to the Purchase Order to that effect. The work which the vendor should have or could have anticipated in terms of delivering the service(s) and functionality (i.e.) as described in this agreement, or which is considered to be the result of an attributable error on the vendor's part, shall not be considered additional work.

7. Reverse Auction: BHEL reserves the right to follow REVERSE AUCTION PROCEDURE (ONLINE BIDDING ON NETWORK) before finalising the Purchase order on technically competent bidders, as per the guidelines given in Annexure III. In case BHEL does not resort to Reverse Auction, the price bids and price impacts (if any) already submitted and available with BHEL shall be opened as per BHEL's standard practice.
8. Inspection: Prior written notice of at least 10 days shall be given along with internal test certificates / COC and applicable test certificates. Materials will be inspected by BHEL-EDN-QS/CQS or BHEL nominated Third Party Inspection Agency (TPIA) or BHEL authorized Inspection Agency or Customer / Consultant or jointly by BHEL & Customer / consultant. All tests have to be conducted as applicable in line with approved Quality plan or QA Checklist or Purchase specification and original reports shall be furnished to BHEL-EDN, Bangalore for verification / acceptance for issue of dispatch clearance.  
All costs related to inspections & re-inspections shall be borne by vendor. Whether the Contract provides for tests on the premises of the vendor or any of his Sub-contractor/s, vendor shall be responsible to provide such assistance, labour, materials, electricity, fuels, stores, apparatus, instruments as may be required and as may be reasonably demanded to carry out such tests efficiently. Cost of any type test or such other special tests shall be borne by BHEL only if specifically agreed to in the purchase order.
9. Transit Insurance: Transit insurance coverage between vendor's works and project site shall be to the account of BHEL, unless specifically agreed otherwise. However, vendor shall send intimation directly to insurance agency (as mentioned in dispatch instructions issued by BHEL) through fax/courier/e-mail, immediately on dispatch of goods for covering insurance. A copy of such intimation sent by vendor to insurance agency shall be given to BHEL along with dispatch documents. Dispatch documents will be treated as incomplete without such intimation copy. BHEL shall not be responsible for sending intimations to insurance agency on behalf of the vendor.
10. High Sea Sales (HSS): Customs clearance of the consignment landed on Indian Sea / Air ports will be done by BHEL based on the original HSS documents provided by vendors.  
Any delay in submission of complete / correct HSS documents to BHEL may incur demurrage charges. All demurrage charges on account of incomplete / incorrect HSS documents submission by vendor will be to vendor's account and all such charges will be recovered from any of the available vendor bills with BHEL.
11. Packaging and dispatch: The Seller shall package the goods safely and carefully and pack them suitably in all respects considering the peculiarity of the material for normal safe transport by Sea / Air / Rail / Road to its destination suitably protected against loss, damage, corrosion in transit and the effect of tropical salt laden atmosphere. The packages shall be provided with fixtures / hooks and sling marks as may be required for easy and safe handling. If any consignment needs special handling instruction, the same shall be clearly marked with standard symbols / instructions. Hazardous material should be notified as such and their packing, transportation and other protection must conform to relevant regulations.  
The packing, shipping, storage and processing of the goods must comply with the prevailing legislation and regulations concerning safety, the environment and working conditions. Any Imported/Physical Exports items packed with raw / solid wood packing material should be treated as per ISPM – 15 (fumigation) and accompanied by Phytosanitary / Fumigation certificate. If safety information sheets (MSDS – Material Safety Data Sheet) exist for an item or the packaging, vendor must provide this information without fail along with the consignment.  
Each package must be marked with Consignee name, Purchase order number, Package number, Gross weight and net weight, dimensions (L x B x H) and Seller's name. Packing list of goods inside each package with PO item number and quantity must also be fixed securely outside the box to indicate the contents of each box. Total number of packages in the consignment must also be indicated.  
Separate packing & identification of items should be as follows.
  1. Main Scope - All items must be tagged with part no. & item description.
  2. Commissioning spares - All items must be tagged with part no. & item description.
  3. Mandatory spares - All items must be tagged with part no. & item description.

12. Assignment of Rights & Obligations; Subcontracting: Vendor is not permitted to subcontract the delivery or any part thereof to third party or to assign the rights and obligations resulting from this agreement in whole or in part to third parties without prior written permission from BHEL. Any permission or approval given by the BHEL shall, however, not absolve the vendor of the responsibility of his obligations under the Contract.
13. Progress report: Vendor shall render such report as to the progress of work and in such form as may be called for by the concerned purchase officer from time to time. The submission and acceptance of such reports shall not prejudice the rights of BHEL in any manner.
14. Non-disclosure and Information Obligations: Vendor shall provide with all necessary information pertaining to the goods as it could be of importance to BHEL. Vendor shall not reveal confidential information that may be divulged by BHEL to Vendor's employees not involved with the tender/ contract & its execution and delivery or to third parties, unless BHEL has agreed to this in writing beforehand. Vendor shall not be entitled to use the BHEL name in advertisements and other commercial publications without prior written permission from BHEL.
15. Cancellation / Termination of contract: BHEL shall have the right to completely or partially terminate the agreement by means of written notice to that effect. Termination of the Contract, for whatever reason, shall be without prejudice to the rights of the parties accrued under the Contract up to the time of termination.  
BHEL shall have the right to cancel/foreclose the Order/ Contract, wholly or in part, in case it is constrained to do so, on account of any decline, diminution, curtailment or stoppage of the business.
16. Risk Purchase Clause: In case of failure of supplier, BHEL at its discretion may make purchase of the materials / services NOT supplied / rendered in time at the RISK & COST of the supplier. Under such situation, the supplier who fails to supply the goods in time shall be wholly liable to make good to BHEL any loss due to risk purchase.  
In case of items demanding services at site like erection and commissioning, vendor should send his servicemen /representatives within 7 days from the service call. In case a vendor fails to attend to the service call, BHEL at its discretion may also make arrangements to attend such service by other parties at the **RISK & COST** of the supplier. Under such situation the supplier who fails to attend the service shall be wholly liable to make good to BHEL any loss due to risk purchase / service including additional handling charges due to the change.
17. Shortages: In the event of shortage on receipt of goods and/or on opening of packages at site, all such shortages shall be made good within a reasonable time that BHEL may allow from such intimation and free of cost. In case BHEL raises an insurance claim, the cost of material limited to insurance settled amount less handling charges will have to be reimbursed by the Supplier.  
Transit Damages: In the event of receipt of goods in damaged condition or having found them so upon opening of packages at site, Supplier shall make good of all such damages within a reasonable time from such intimation by BHEL. In case BHEL raises an insurance claim, the cost of material limited to insurance settled amount less handling charges will be reimbursed.
18. Remedial work: Notwithstanding any previous test or certification, BHEL may instruct the vendor to remove and replace materials/goods or remove and re-execute works/services which are not in accordance with the purchase order. Similarly BHEL may ask the vendor to supply materials or to execute any services which are urgently required for any safety reasons, whether arising out of or because of an accident, unforeseeable event or otherwise. In such an event, Vendor shall provide such services within a reasonable time as specified by BHEL.
19. Indemnity Clause: Vendor shall comply with all applicable safety regulations and take care for the safety of all persons involved. Vendor is fully responsible for the safety of its personnel or that of his subcontractor's men / property, during execution of the Purchase Order and related services. All statutory payments including PF, ESI or other related charges have to be borne by the vendor. Vendor is fully responsible for ensuring that all legal compliances are followed in course of such employment.

20. Product Information, Drawings and Documents: Drawings, technical documents or other technical information received by Vendor from BHEL or vice versa shall not, without the consent of the other party, be used for any other purpose than that for which they were provided. They may not, without the consent of the Disclosing party, otherwise be used or copied, reproduced, transmitted or communicated to third parties. All information and data contained in general product documentation, whether in electronic or any other form, are binding only to the extent that they are by reference expressly included in the contract.

Vendor, as per agreed date/s but not later than the date of delivery, provide free of charge information and drawings which are necessary to permit and enable BHEL to erect, commission, operate and maintain the product. Such information and drawings shall be supplied in as many numbers of copies as may be agreed upon.

All intellectual properties, including designs, drawings and product information etc. exchanged during the formation and execution of the Contract shall continue to be the property of the disclosing party.

21. Intellectual Property Rights, Licenses: If any Patent, design, Trade mark or any other intellectual property rights apply to the delivery (goods / related service) or accompanying documentation shall be the exclusive property of the Vendor and BHEL shall be entitled to the legal use thereof free of charge by means of a non-exclusive, worldwide, perpetual license. All intellectual property rights that arise during the execution of the Purchase Order/ contract for delivery by vendor and/or by its employees or third parties involved by the vendor for performance of the agreement shall belong to BHEL. Vendor shall perform everything necessary to obtain or establish the above mentioned rights. The Vendor guarantees that the delivery does not infringe on any of the intellectual property rights of third parties. The Vendor shall do everything necessary to obtain or establish the alternate acceptable arrangement pending resolution of any (alleged) claims by third parties. The Vendor shall indemnify BHEL against any (alleged) claims by third parties in this regard and shall reimburse BHEL for any damages suffered as a result thereof.

22. Force Majeure: Notwithstanding anything contained in the purchase order or any other document relevant thereto, neither party shall be liable for any failure or delay in performance to the extent said failures or delays are caused by the "Act of God" and occurring without its fault or negligence, provided that, force majeure will apply only if the failure to perform could not be avoided by the exercise of due care and vendor doing everything reasonably possible to resume its performance.

A party affected by an event of force majeure which may include fire, tempest, floods, earthquake, riot, war, damage by aircraft etc., shall give the other party written notice, with full details as soon as possible and in any event not later than seven (7) calendar days of the occurrence of the cause relied upon. If force majeure applies, dates by which performance obligations are scheduled to be met will be extended for a period of time equal to the time lost due to any delay so caused.

Notwithstanding above provisions, in an event of Force Majeure, BHEL reserves for itself the right to cancel the order/ contract, wholly or partly, in order to meet the overall project schedule and make alternative arrangements for completion of deliveries and other schedules.

23. Guarantee / Warranty: Wherever required, and so provided in the specifications / Purchaser Order, the Seller shall guarantee that the stores supplied shall comply with the specifications laid down, for materials, workmanship and performance. Unless otherwise specified, guarantee / warranty period shall be 30 months after the date of delivery of goods or 24 months from the date of commissioning of goods whichever is earlier. The guarantee / warranty period as described above shall apply afresh to replaced, repaired or re-executed parts of a delivery. Unless otherwise specifically provided in the Purchase Order, Vendor's liability shall be co terminus with the expiration of the applicable guarantee / warranty period.
24. Limitation of Liability: Vendor's liability towards this contract is limited to a maximum of 100% of the contract value and consequential damages are excluded. However the limits of liability will have no effect in cases of criminal negligence or wilful misconduct.
- The total liability of Vendor for all claims arising out of or relating to the performance or breach of the Contract or use of any Products or Services or any order shall not exceed the total Contract price.

25. Liability during guarantee / warranty: Vendor shall arrange replacement / repair of all the defective materials / services under its obligation under the guarantee / warranty period. The rejected goods shall be taken away by vendor and replaced / repaired. In the event of the vendor's failure to comply, BHEL may take appropriate action including disposal of rejections and replenishment by any other sources at the cost and risk of the vendor.  
In case, defects attributable to vendor are detected during first time commissioning or use, vendor shall be responsible for replacement / repair of the goods as required by BHEL at vendor's cost. In all such cases expiry of guarantee / warranty will not be applicable.
26. Liability after guarantee / warranty period: At the end of the guarantee / warranty, the Vendor's liability ceases except for latent defects (latent defects are defects / performance issues notices after the guarantee / warranty has expired). The Contractor's liability for latent defects warranty for the plant and equipment including spares shall be limited to a period of six months from the end of the guarantee / warranty period of the respective plant and equipment including spares or first time commissioning whichever is later but not later than 3 (three) years from the date of shipment.
27. Compliance with Laws: Vendor shall, in performing the contract, comply with all applicable laws. The vendor shall make all remittances, give all notices, pay all taxes, duties and fees, and obtain all permits, licences and approvals, as required by the laws in relation to the execution and completion of the contract and for remedying of any defects; and the Contractor shall indemnify and hold BHEL harmless against and from the consequences of any failure to do so.
28. Settlement of Disputes: Except as otherwise specifically provided in the Purchase Order, decision of BHEL shall be binding on the vendor with respect to all questions relating to the interpretation or meaning of the terms and conditions and instructions herein before mentioned and as to the completion of supplies/work/services, other questions, claim, right, matter or things whatsoever in any way arising out of or relating to the contract, instructions, orders or these conditions or otherwise concerning the supply or the execution or failure to execute the order, whether arising during the schedule of supply/work or after the completion or abandonment thereof. Any disputes or differences among the parties shall to the extent possible be settled amicably between the parties thereto, failing which the disputed issues shall be settled through arbitration. Vendor shall continue to perform the contract, pending settlement of dispute(s).
29. Arbitration Clause: In case amicable settlement is not reached in the event of any dispute or difference arising out of the execution of the Contract or the respective rights and liabilities of the parties or in relation to interpretation of any provision in any manner touching upon the Contract, such dispute or difference shall (except as to any matters, the decision of which is specifically provided for therein) be referred by either party to the sole arbitration of an Arbitrator appointed by the Executive Director/ General Manager of the purchasing unit/ region/ division of BHEL. Vendor shall have no objection even if the Arbitrator so appointed is an employee of BHEL or has ever dealt/ had to deal with any matter relating to this Contract.  
Subject as aforesaid the provisions of the Arbitration and Conciliation Act, 1996 of India or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause. It is a term of contract that the party initiating arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute. The venue for the arbitration shall be Bangalore, India. The award of the arbitrator shall be a speaking award and shall be final, conclusive and binding on all parties to this contract.  
The cost of arbitration shall be borne equally by the parties. Notwithstanding the existence of any dispute or difference or any reference for the arbitration, the vendor shall proceed with and continue without hindrance the performance of the work under the contract with due diligence and expedition in a professional manner.
30. Applicable Laws and Jurisdiction of Courts: Prevailing Indian laws both substantive and procedural, including modifications thereto, shall govern the Contract. Subject to the conditions as aforesaid, the competent courts in BANGALORE alone shall have jurisdiction to consider over any matters touching upon this contract.



31. General Terms: That any non-exercise, forbearance or omission of any of the powers conferred on BHEL and /or any of its authorities will not in any manner constitute waiver of the conditions hereto contained in these presents.

That the headings used in this agreement are for convenience of reference only.

That all notices etc., to be given under the Purchase order shall be in writing, type script or printed and if sent by registered post or by courier service to the address given in this document shall be deemed to have been served on the date when in the ordinary course, they would have been delivered to the addressee.

#### 1. Registration of Suppliers and Flow.

*Unregistered Supplier:* Supplier visits EPS at <https://bheleps.buyjunction.in>

- a. Supplier visits EPS at <https://bheleps.buyjunction.in>
- b. Clicks "REGISTER" for registration
- c. Fills up the Registration Page form
- d. MJ will ensure Authentication of Registration<sup>1</sup>
- e. Supplier logs in with the ID and password
- f. Supplier Maps the signing Certificate
- g. MJ will ensure the authentication the signing certificate<sup>1</sup>.
- h. Supplier Logs in to the system again and views the RFQ
- i. Supplier Attaches himself to the RFQ by clicking the Interested button
- j. Supplier fills the bid template and makes necessary attachments
- k. Supplier submits his bid by clicking CONFIRM.

NB:-

<sup>1</sup> – BHEL Administrator or user will have no role for approving Registration and Open Tenders and OSC for Any supplier who has registered himself from the front END which is in case of OT.

- For registered Supplier:

- Supplier visits EPS home page
- Supplier signs in with his/her user id and password
- Selects the RFQ Code and views it.
- Attaches himself to the RFQ by clicking the Interested button
- Supplier fills the bid template and makes necessary attachments
- Supplier submits his bid by clicking CONFIRM.

## 2. Open Tender Process For all units with data transfer Mechanism – Template based Bid submission mechanism

### • BID SUBMISSION

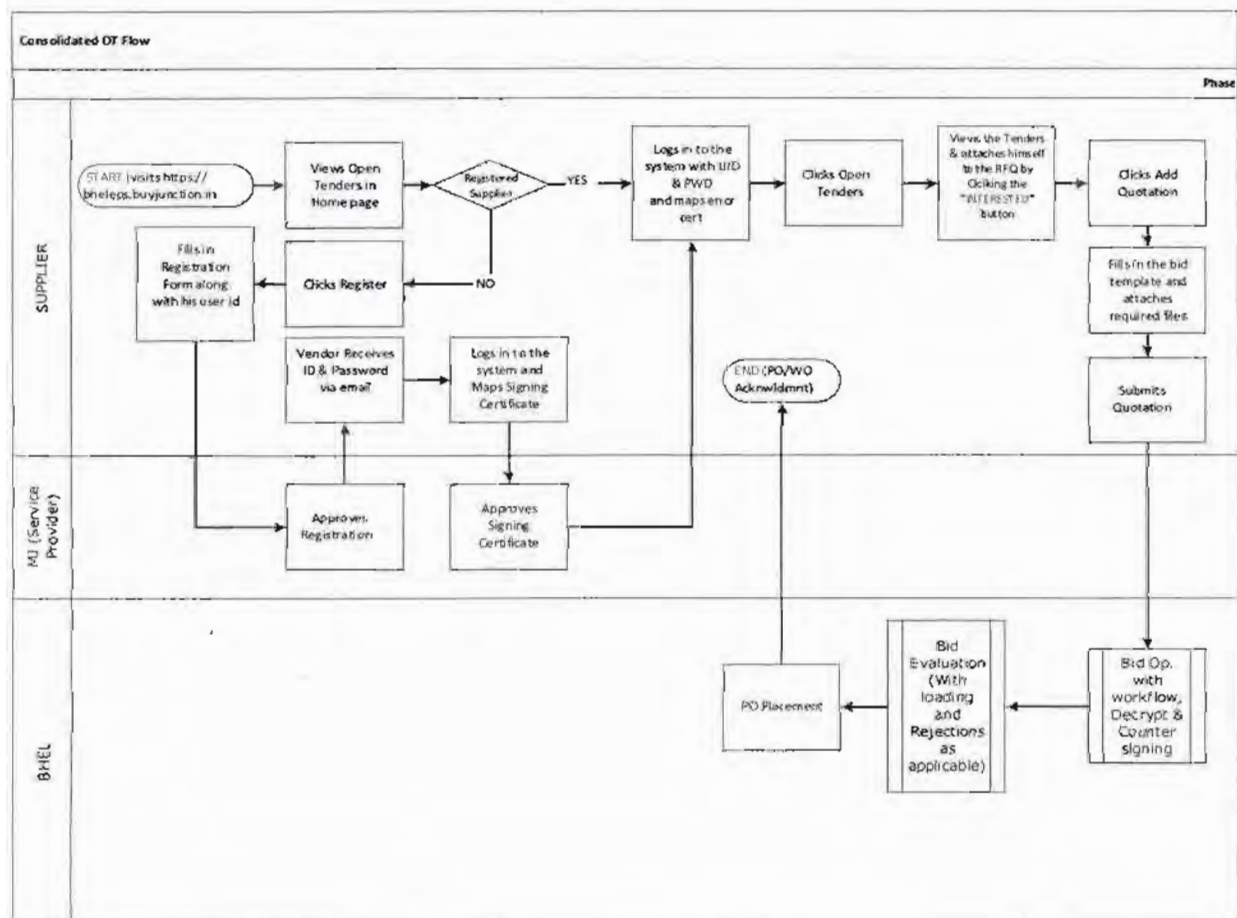
Supplier Login - Select RFQ & view it - Show INTEREST to participate - Respond to RFQ - Add Quotation – Upload proof of TENDER FEE & EMD with the valid document proof (as attachment) – Uploads Pre-qualification docs, Fills Techno-commercial & Price template – Submits Quotation.

NB:

<sup>2</sup> - ADD Intimation is mechanism by which RFQ owner adds Supplier/Contractor i.e known sources' email ids for intimation that an OT has been issued. This is for information sake only. This does not mean that unintimated supplier cannot participate in OTs. Intimations can be issued by RFQ owner only, both during Tender publication in draft mode and after tender publication till the tender is still live and is viewable by RFQ owner and Approvers only in View Intimation list link in RFQ. This is not to be printed in any report, including chronological report

EPS will only trigger intimation email to all the email ids in the Intimation list.

## 3. Consolidated Flow Diagram of OT process



## **INTEGRITY PACT**

### **Between**

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi – 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

### **and**

\_\_\_\_\_, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

### **Preamble**

The Principal intends to award, under laid-down organizational procedures, contract/s for

\_\_\_\_\_  
\_\_\_\_\_. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

## **Section 1 – Commitments of the Principal**

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
- 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
  - 1.1.3 The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

## **Section 2 – Commitments of the Bidder(s)/ Contractor(s)**

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved

in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he / she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. 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.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant IPC/ PC Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.



### **Section 3 – Disqualification from tender process and exclusion from future contracts**

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors". framed by the Principal.

### **Section 4 – Compensation for Damages**

- 4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/Bid Security.
- 4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

### **Section 5 – Previous Transgression**

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

## **Section 6 – Equal treatment of all Bidders/ Contractors/ Sub-contractors**

- 6.1 The Bidder(s)/ Contractor(s) undertake(s) to obtain from all subcontractors a commitment consistent with this Integrity Pact and report Compliance to the Principal. This commitment shall be taken only from those sub-contractors whose contract value is more than 20 % of Bidder's/ Contractor's contract value with the Principal. The Bidder(s)/ Contractor(s) shall continue to remain responsible for any default by his Sub-contractor(s).
- 6.2 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
- 6.3 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

## **Section 7 – Criminal Charges against violating Bidders/ Contractors /Sub-contractors**

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

## **Section 8 –Independent External Monitor(s)**

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- 8.5 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or heal the situation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 8.6 The Monitor will submit a written report to the CMD, BHEL within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.7 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.8 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant IPC / PC Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the

Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8.9 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.

8.10 The word 'Monitor' would include both singular and plural.

## **Section 9 – Pact Duration**

9.1 This Pact begins and shall be binding on and from the submission of bid(s) by bidder(s). It expires for the Contractor 12 months after the last payment under the respective contract and for all other Bidders 6 months after the contract has been awarded.

9.2 If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified as above, unless it is discharged/ determined by the CMD, BHEL.

## **Section 10 – Other Provisions**

10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.

10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

10.5 Only those bidders/ contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

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For & On behalf of the Principal

For & On behalf of the Bidder/ Contractor

(Office Seal)

(Office Seal)

Place-----

Date-----

Witness: \_\_\_\_\_

Witness: \_\_\_\_\_

(Name & Address) \_\_\_\_\_

(Name & Address) \_\_\_\_\_

\_\_\_\_\_