

Ref: BHE/PW/PUR/2106057/Corg-04, Date: 09/07/2021

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To
ALL BIDDERS,

Sub: Corrigendum-04: Clarification to bidder's query & Amendment to Tender specification document

Reference:

1. **E-Tender Specification. No:** 2106057

2. **Scope of work:** Design, manufacture, assembly, inspection & testing at vendor's/ sub-vendor's works, proper packing and delivery to site, Erection & Commissioning of LIGHTING FIXTURES, LAMPS & MISCELLANEOUS ITEMS as mentioned in different sections of this specification, complete with all accessories for efficient and trouble-free operation for Owner's Office and Owner's Storage at 3x800MW PVUNL Patratu Project.

Corrigendum Ref: -

Sl. No.	Corrigendum Ref	Corrigendum Type
1	Corrigendum-01	Time extension
2	Corrigendum-02	Amendment to Tender document
3	Corrigendum-03	Time extension

Bidders to kindly take note of the following:

AA) Clarifications to Pre-Bid Queries by bidders & Amendment to the tender conditions

S. No.	Cl. Of Tender Specification	Description	Bidder's Query	BHEL Clarifications/ Amendment to the tender conditions
1	BOQ Sl. No. 7.2 & 7.4	20/25mm Heavy duty PVC/ GI.	Pl clarify it is PVC or GI conduit.	BOQ Sl. No.7.2: 20mm Dia Conduit shall be PVC type. BOQ Sl. No. 7.4: 25mm Dia Conduit shall be GI Type.

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S. No.	Cl. Of Tender Specification	Description	Bidder's Query	BHEL Clarifications/ Amendment to the tender conditions
2	BOQ Sl. No. 11.1 & 11.3	Decorative Panel	Pl clarify the means of decorative panel (flush mounted).	<p>a) Decorative lighting panels shall be designed for use in office areas, etc.</p> <p>b) Thickness of sheet steel shall be as per manufacturer's practice.</p> <p>c) LPs shall be of tone colour with elegant finish.</p> <p>d) LPs shall be provided with incomer and requisite number of outgoing circuits shall be as per BOQ i.e. (A12, A18 with 12 & 18 outgoing circuits respectively). For further details, Technical Specification Section-I refer Cl. No. 4.1 & 4.2.</p> <p>e) LPs shall be suitable for either surface or flush mounting. Flush mounted panels shall have the collared door suitable for matching with the wall.</p>
3	BOQ Sl. No. 11.5	LDB Details	Pl share spec of LDBs & rating of transformer.	Pls. refer Technical Specification Section-I: Cl. No 4.1: For Offsite Areas each LDP shall have 2 Incomers with 2x100% Transformers. Transformer Rating of 100kVA. Refer Cl. 4.1 for further details.

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S. No.	Cl. Of Tender Specification	Description	Bidder's Query	BHEL Clarifications/ Amendment to the tender conditions
4	Vol_IA-TCC, Part-II, Techno commercial Terms & Conditions Cl no. 9 pg 22 of 26, Annexure-I-Vol_IA-TCC, Section-III	Delivery schedule	15 weeks is accepted only for supply after drawing approval. For Erection, 12 weeks required subject to front availability. Or total delivery schedule should be 28 weeks.	Supply of material to site, Erection & Commissioning shall be completed within 20 (Twenty) weeks from the approval of 'Basic Design Documents' which covers drawings/ documents as mentioned in this specification. In case there is delay in submission of documents, the same shall be reduced from delivery period.
5			Inspection of material is applicable or not. If yes who will do the inspection.	Inspection of material is applicable. The materials shall be jointly inspected by BHEL and Customer's representative.
6			Storage facility shall be provided at owner end.	Storage shall be provided at site. The location may vary based on site availability and the internal transportation from storage to workplace shall be in the scope of the vendor.
7			Input drawing shall be provided for estimation of control/dimming system.	Input Drawings of buildings furnished in Corrigendum-02. Please refer the same.
8			Approved design agency	The updated approved designing agency list is enclosed as Annexure-A to this corrigendum.
9	BOQ Sl. No. No.2	Energy Management System	Please provide the drawings of buildings where the energy management system is required.	Drawings of buildings furnished in Corrigendum-02. Please refer the same.

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S. No.	Cl. Of Tender Specification	Description	Bidder's Query	BHEL Clarifications/ Amendment to the tender conditions
10	BOQ Sl. No. 4.4 & 4.5	-	Please provide the complete requirement and specification of LAN & TEL HUB. Also provide the locations where the system shall be placed.	LAN HUB/ Network Switch specification is enclosed as Annexure-B to this corrigendum. TEL HUB shall be in line with office/ industry practices. The location of the systems shall be based on drawings of building and design memorandum.
11	BOQ Sl. No. 6.2 & 6.3	-	Please provide the sweep, rpm & wattage of Fans.	Sl. No. 6.2: Pedestal Fan 400mm Sweep (50-65W). Exhaust fan sweep shall be in line with the cutouts mentioned in the drawings. (35-55W).
12	BOQ Sl. No. 7.2 & 7.4:	-	Please provide the exact type/ requirement of conduit i.e. GI or PVC because there is huge price difference in both types.	BOQ Sl. No.7.2: 20mm Dia Conduit shall be PVC type. BOQ Sl. No. 7.4: 25mm Dia Conduit shall be GI Type.
13	BOQ Sl. No. 8.4 & 8.5:	-	Please provide the size and specification of LAN & Telephone cable. Please note that the quantities of all types/ size of cables i.e. from sr. no. 8.4 to 8.7 are less and no manufacturer will provide the inspection for the same so request you please provide the inspection waiver for the same.	Tender Condition shall prevail regarding inspection.

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S. No.	Cl. Of Tender Specification	Description	Bidder's Query	BHEL Clarifications/ Amendment to the tender conditions
14	BOQ Sl. No. 9.0 & 10.0	-	Please note that convention type system requirements are not available now so request you accept the same with LED type.	LED Type is acceptable, further battery back- up shall be in line with Technical Specification Section-I Clause No-4.6 & 4.7.

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All other Terms and conditions of the Tender Specification shall remain unaltered unless expressly amended by BHEL in writing. Bidders are requested to submit as a part of their offer, a copy of this corrigendum duly Digitally countersigned by the authorized signatory as a token of Bidder's unqualified acceptance of this corrigendum.

BIDDERS MAY PLEASE NOTE THAT SUBJECT TENDER IS E-TENDER AND THE OFFER IS TO BE SUBMITTED ONLY IN E-PROCUREMENT PORTAL→
<https://eprocurebhel.co.in>

BIDDERS WHO HAVE ALREADY SUBMITTED THEIR OFFERS PRIOR TO ISSUANCE OF THIS CORRIGENDUM IN E-TENDER PORTAL ARE REQUIRED TO RE-SUBMIT THEIR OFFER AFTER TAKING COGNIZANCE OF THIS CORRIGENDUM.

Thanking you,
Yours faithfully,

GM (Purchase)

E-Tender Specification. No: 2106057**Annexure-A-Corrigendum-04**

LIST OF DESIGNERS				
S. No.	ITEM/SERVICE DESCRIPTION	VENDOR NAME	ADDRESS	CONTACT DETAILS
1	LIGHTING DESIGNER	AVAIDS TECHNOVATORS PVT. LTD.	4A/58, SHANKAR ROAD, NEW DELHI-110060	Mr. Rajendra Panda M: 9910481854 (email: rajendra@avaids.com)
2	LIGHTING DESIGNER	BAJAJ ELECTRICALS LTD.	801 (8th floor), Rustomjee Aspire, Bhanu Shankar Yagnik Marg, Off Eastern Express Highway Sion (E), Mumbai 400022	Mr. S. SREEMANY SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705 (email: srabans@bajajelectricals.com)
3	LIGHTING DESIGNER	KELSATEK SOLUTIONS PVT. LTD.	50/1 4TH FLOOR, CHURCH STREET, BANGALORE-560001	Mr. S S Mudaliar Sr. VP M: 6380471362 (email: mudaliar@kelsatek.com)
4	LIGHTING DESIGNER	M/s SUMANAM ENGINEERING SERVICES CONSULTANT	1, ADITHYA, KOWDIAR, TRIVANDRUM 695003	Mr. Anshad S Phone: 471-2437588 (email: shaw@sumanam.org)
5	LIGHTING DESIGNER	SPAN MANUFACTURING COMPANY LTD	27 First Floor, Bhiku Building, Murari Ghag Marg, Prabhadevi, Mumbai-400025	Ms Surbhi Jindal M: 9811026321 (email: spanmanufacturing@gmail.com, info@dalighthub.com)
6	LIGHTING DESIGNER	CITELUM INDIA PVT. LTD	Y-14A, GREEN PARK MAIN, NEW DELHI-110016	Mr. Satyabrata Meher M: 8155001095 (email: smeher@citelum.in)
7	LIGHTING DESIGNER	M/s SURYA ROSHNI LTD	Padma Tower 1, Rajendra Place, New Delhi-110008	Mr. Saurabh Gupta 9999433167 (email: saurabh.gupta@surya.in)
8	LIGHTING DESIGNER	M/s HPL ELECTRIC & POWER PVT. LTD.	WINDSOR BUSINESS PARK, B-1D, SECTOR-10 NOIDA-201301 (UP)	Name : Mr. Mahesh Sharma Designation: Sr. GM (HOD Projects) Email : msharma@hplindia.com Contact : 9818282236 Ashwani Kumar Mob-9971127370 Email: ashwani@hplindia.com

TECHNICAL SPECIFICATION OF NETWORK SWITCH

S. No.	Parameters/ Features	Detailed Specifications.
1	Ports	The offered switch should have following ports 24 Nos. of 10/100/1000Mbps Ethernet Ports 2Nos. of 1G slots for SFP modules and 2Nos. of 10G slots for SFP+ modules. Modules are to be supplied aggainst Add-on.
2	Forwarding Bandwidth	88Gbps or more
3	Throughout	68Mbps or more based on 64bytes packet.
4	Standards and Protocol Support	The switch should support following standards and protocols: 802.1Q VLAN 802.1p Priority & DSCP 802.1D Spanning Tree Protocol 802.1w (Rapid Spanning Tree Protocol) 802.1s (Multiple Spanning Tree Protocol) 802.3x Flow Control 802.1x Authentication VLAN Trunking Protocol or Equivalent to reduce administrative burden of configuring VLANs on multiple switches. IGMP Dynamic Trunking Protocol (DTP) or Equivalent. RADIUS 802.3ad Port/ Link Aggregation of all Ports. DHCP server & DHCP Relay DHCP snooping to filter untrusted DHCP messages. Simple Network Time Protocol (NTP) SPAN SSH & SCP SNMP v1, SNMP v2c, SNMP c3 Telnet & TFTP IPv6 IEEE 802.1ab (LLDP) Dynamic VLAN assignment.
5	Security & Performance Features required	Support for fast convergence features like PortFast/ UplinkFast or Equivalent. Support for broadcast/ multicast storm control to prevent degradation of switch performance from faulty end stations. Minimum no. of MAC addresses 16k Should support MAC address filtering based on source and destination addresses. Switch should support rate limiting (bandwith control). Rate limiting should be supported on the Ingress and Egress of any port without sacrificing additional ports. Should support multicasting. Should support Port mirroring. Should support stacking of up to 8 switches. 2 stack cables to be provided.
6	Stacking support Jumbo frame	Jumbo frames support up to 9k bytes.
7	VLAN support	Port based VLAN Voice VLAN for spreading and prioritising VoIP traffic. should support minimum 250 active VLANs. The offered switch should have the latest operating system supporting all the above features, standards and protocols.
8	Software	Should be able to move switch ports to low power state when not in use.

9	Sustainability	Should be manageable through a standard web browser & command line interface.
10	Manageability	Shall provide support for RoHS.
11	Environmental Features	Shall have features to improve energy efficiency like variable speed fans, shutoff unused ports etc.
		Operating temperatures of 0 deg C to 45 deg C.
		Safety and Emission standards including UL 60950-1; IEC 60950-1; EN 55022 Class A.
12	Additional Certifications	The proposed hardware model and software should be EAL2/NDPP or Higher certified under Common Criteria Program for security related functions or Indian Common Criteria Certification Scheme (IC3S). The certificate should be publicly available on https://www.commoncriteriaportal.org .
13	ACL, TACACS and RADIUS	Advanced Access Control Lists (ACL), enhanced TACACS+ and RADIUS authentication.
14	Power	Dual internal redundant AC power supply, 100-240V.
15	Rack mounting	should be rack mountable and supplied with necessary mounting hardware & accessories.
16	Multidomain Authentication	The switch should support multidomain authentication (MDA) on the same port.
17	MAC Authentication Bypass	Support for MAC Authentication Bypass (MAB) or Equivalent.