

**ALL INDIA INSTITUTE OF MEDICAL SCIENCES,  
ANSARI NAGAR, NEW DELHI**

**Dated: 22.03.2016**

**AMENDMENT No. – I**

**Project Name:** Tender for “External Electrical Works for Hostel Block, Masjid Moth Campus at AIIMS, New Delhi”

**Tender No.** HSCC/AIIMS/HOSTEL/EXT\_ELECT/2016, dated: 01.03.2016

(i) The Last date of submission & opening of bids has been extended as follows:

Last date to fill/upload the tender : upto 15:00 hrs. on 08.04.2016  
through e-Tendering.

Date of Opening of bids : on 08.04.2016 at 15:30 hrs.

**Reply to Pre Bid Queries raised by bidders during pre -bid meeting held on 16.03.2016 at HSCC, Head Office, Noida**

S.No.	Points	Tender Provision/Description	Queries	Reply
1	Vol IV, Technical Specifications, Page 41, Clause 8.06	PERFORMANCE REQUIREMENT	As per manufacture standard simplex type fuel/lube oil filter shall be provided. After sale, service including maintenance shall be taken care by nearest Cummins authorized service dealer.	As per manufacturers standard practice.
2	Vol IV, Technical Specifications, Page 42,	DIESEL ENGINE CONSTRUCION	<b>Lube oil priming pump</b> As per manufacture standard & Design for Cummins engine there is no requirement of AC motor driven lube oil priming pump.	As per CPWD specifications/ manufacturers standard practice.

	<b>Clause 8.08</b>		<p><b>Governing system</b> As per manufacture standard &amp; Design electronic governor having automatic speed control. There is no provision for manual over speed sitting.</p>	
3	<b>Vol IV, Technical Specifications, Page 44, Clause 8.09</b>	<b>HEAT EXCHANGER</b>	<p>There is contradictory about cooling system. In Specification Heat exchanger cooling system mention where as in DG Set BOQ Radiator Cooling system mention. So we have considered Cooling system as per your BOQ that radiator cooled Engine.</p> <p>BOQ States that radiator cooled system is required . However, it is specified in Technical specification that requiremnet is of HE Cooled. <b>Kindly clarify system will be radiator cooled or HE Cooled.</b> It may please be noted that generally HE cooling is not available with manufacturer below 500KVA.</p>	<b>As per BOQ, Water cooled radiator type.</b>
4	<b>Vol IV, Technical Specifications, Page 44, Clause 8.14</b>	<b>ALTERNATOR</b>	As per manufacture standard & Design service life of alternator bearing shall be 20,000 hour	<b>As per manufacturers standard practice.</b>
5	<b>Vol IV, Technical Specifications, Page 46, Clause 8.16</b>	<b>TESTS AT MANUFACTURER'S WORK</b>	<p>Please clarify the number of hour of testing at works.</p> <p>We shall offer the assembled DG set at our works for load trials for 1 hour before dispatch. Testing beyond the given duration shall be charged extra.</p> <p>It is not possible to conduct Maximum motor starting capacity &amp; Endurance test at our manufacture work due to non availability of motor load at our works.</p> <p>We have not considered routine testing of</p>	<b>As per CPWD specifications/ manufacturers standard practice.</b>

			alternator at our manufacture work. However test certificate of similar machine shall be provided free of cost.	
6	Vol IV, Technical Specifications, Page 47, Clause 8.17	<b>INSPECTION AND TESTING AT SITE</b>	All Consumable required for testing at site like load bank, fuel etc shall be in purchaser scope	<b>As per CPWD specifications/ manufacturers standard practice.</b>
7	Vol IV, Technical Specifications, Page 48, Clause 8.20	<b>PERFORMANCE REQUIREMENT</b>  <b>GURANTEED TECHNICAL PARTICULARS OF DG</b>	<p><b>(1.1)(Diesel Engine)</b> As per actual site condition , AIIMS (Delhi) site having altitude of (230m above MSL) we have offered 380 kVA DG set which will provide required output rating 380 KVA at site without any deration.</p> <p><b>(2.1 &amp; 2.2) Alternator</b> As per manufacture standard &amp; Design 400KVA Alternator shall be provided which meet the Required output of 380KVA at site after deration. And minimum efficiency of alternator shall be 92%</p> <p><b>(5.0) Acoustic Enclosure</b> As per manufacture standard Acoustic enclosure shall be fabricated from 1.6mm thick CRCA Sheet.</p> <p><b>(5.2) Insualtion</b> As per manufacture design &amp; standard Acoustic Lining insulation shall be 75mm thick of 64KG/m<sup>3</sup> density</p> <p><b>(5.3)Air Circulation system</b> As per manufacture design &amp; standard for Cummins DG set there is no requirement of axial flow fan for air intake &amp; Exhaust system.</p> <p><b>(5.5) Protection CT</b></p>	<b>As per CPWD specifications/CPCB Norms/ manufacturers standard practice.</b>

			As per our manufacture standard & design due to space constraints of acoustic it not possible for provide the Differential protection however we have consider REF protection in place of Differential protection.	
8	<b>Vol IV, Technical Specifications, Page 59, Clause 8.22.07</b>	Synchronizing component for DG Sets	<p><b>(t &amp; r)</b> 5 Nos. under/over voltage specified, please clear the quantity of Mains feeder</p> <p><b>(w)</b> We have not considered starter for oil priming pump same is not applicable for Cummins DG Sets.</p> <p><b>(x -ee)</b> We have considered Single multifunction meter in place of separate meter.</p>	<b>As per standard manufacturing practice.</b>
9	<b>Vol IV, Technical Specifications, Page 61, Clause 8.22.09</b>	<b>SYNCHRONISING PANEL</b>	<p>As per your BOQ only AMF Panel is mention in your BOQ. But as per your specification its mention as synchronizing panel. Please clarify. As per manufacture standard there is no provision for following alarms Engine pre glow/Fuel solenoid control/engine starter control.</p> <p>We have not considered Duplicity of protection that is inbuilt in DG Controller/ACB Please clarify that Mains Protection Df/Dt Required &amp; Manual Synchronization also required or not? We have considered only mini PLC for auto load management purpose.</p> <p>Please share the Synchronizing panel SLD for more clarity about its protection&amp; Signal.</p>	<b>As per BOQ</b>
10	<b>Vol IV, List of Approved Makes, Clause 1</b>	11 KV panels	Please approve authorized channel partners of OEMs to quote with.	<b>No Change, as per tender condition</b>
11	<b>Vol IV, List of</b>	Transformers	Please approve Voltamp and Kirloskar as	<b>No Change, as per tender condition</b>

	<b>Approved Makes, Clause 2</b>		additional makes.	
12	<b>Vol IV, List of Approved Makes, Clause 3</b>	Main LT panel (TTA)/ APFC Panels	Please approve authorized channel partners of OEMs to quote with.	<b>No Change, as per tender condition</b>
13	<b>Vol IV, List of Approved Makes, Clause 10</b>	Bus Duct	Please approve C&S and Godrej as additional makes.	<b>No Change, as per tender condition</b>
14	<b>Vol IV, List of Approved Makes, Clause 28</b>	HT/ LT-XLPE cables	Please approve KEI and Polycab as additional makes.	<b>No Change, as per tender condition</b>
15	<b>Vol V, BOQ, Item No. 1.04</b>	<b>BUSDUCTS</b>  Supply, Installation, testing and commissioning of 3200 phase and neutral, 415 V, 3 Phase, 4 Wire, sandwich construction Aluminium Bus Duct including bends, flexible joints, earth bus (2 runs of 32 x 6 aluminium strips), supports for installation, supporting arrangements, etc. indoor/ outdoor duty type complete as per technical specifications and as requirement. Note- for outdoor installation canopy will be mounted on bus duct for protection.	Please clarify whether bus ducts are indoor or outdoor type. Also, please provide technical specification & layout drawings for the same.	<b>Specification of bus duct attached. Partly indoor and partly outside bus duct has been considered.</b>  <b>For outdoor installation canopy will be mounted on bus duct for protection.</b>
16	<b>Vol V, BOQ, Item No. 2.01</b>	<b>SOUND PROOF DG SETS OF 380 KVA</b>	As per industry practice the first fill of lube oil & Coolant shall be in our scope. However the first fill of diesel including Diesel for site testing shall be in purchaser scope.  As per industry practice hand operated fuel transfer pump shall be provided with 3 meter hose pipe to filling of fuel tank.  Installation of DG set is indoor or outdoor, please clarify. Also provide site layout	<b>As per tender condition.</b>

			Please clarify the Size & Length of exhaust piping required/DG Sets.	
17	<b>Vol V, BOQ, Item No. 7.01(a)</b>	90 watts LED street light fixture in die cast aluminum body with 90 watts LED lamp complete with control gear, cover etc. similar to Compton Greeves LSTO45-90/CDL or approved equivalent including its wiring with 2X2.5 sq.mm. PVC insulated, FRLS copper conductor and 1.5 sqmm PVC insulated, FRLS copper earth wire from control box complete as required.	We presume that pole is comprising of light fixtures also. Please confirm.	<b>Yes, Light fixture included.</b>
18	<b>Vol I, NIT &amp; PQ, Page 22, Clause 2.3.7(i)</b>	These prices should include all costs associated with the Project including any out of pocket / mobilization expenses, taxes, charges, levies, cess, VAT etc. and <b>excluding Service tax</b> as applicable till the date of NIT.	Please clarify about the applicability of labour cess.	Rates/ Price to be quoted without service tax. Service tax as applicable, shall be reimbursed separately on submission of proof of deposition.  Labour cess is inclusive in rates.
19	<b>Vol II, GCC, Section 1, Conditions of Contract, Clause 8.1, Page 13</b>	order of preference shall be observed: a) Description of Schedule of Quantities b) Particular specifications and Special Condition, if any. c) Drawings d) CPWD Specifications e) Indian Standard Specifications of B.I.S.	We presume that addendum / pre-bid response shall get preference over other documents. Please confirm.	(Amendment) Shall be part of contract
20	<b>Vol II, GCC, Section 2, Clauses of Contract, Clause 2</b>	<b>(i) COMPENSATION FOR DELAY OF WORK</b>  @ 1.5 % of tendered value per month of delay to be computed on per day basis  Provided always that the total amount of compensation for delay to be paid under this Condition shall not exceed 10% of the Tendered Value of work or of the Tendered Value of the	We request you to amend the upper limit as 5% of total contract value.	<b>As per tender condition.</b>

		item or group of items of work for which a separate period of completion is originally given.		
21	<b>Vol II, GCC, Section 2, Clauses of Contract, Clause 10 B (ii)</b>	<b>MOBILISATION ADVANCE</b>  Mobilization advance not exceeding 10% of the tendered value...., The mobilization advance will bear simple interest at the rate of 10 per cent per annum...	We request you to provide interest free advance.	No mobilization advance is payable. Refer Schedule' F of Vol.-II (GCC).
22	<b>Vol II, GCC, Section 2, Clauses of Contract, Clause 25</b>	<b>SETTLEMENT OF DISPUTES &amp; ARBITRATION</b>	We request you to amend this clause as "Arbitration process shall be by three Arbitrators. First Arbitrator shall be appointed by client, second by contractor and third will be jointly appointed by first and second Arbitrator. Arbitration proceedings will be governed by the provisions of the "The Indian Arbitration and Conciliation Act", 1996 and any re-enactments or statutory modifications thereof for the time being in force".	<b>No change, AS per tender condition.</b>
23	<b>Vol III, SCC, Clause 9(d)</b>	<b>INITIAL AND FINAL CLEARANCE OF SITE FOR TEMPORARY WORKS</b>  The Contractor shall be responsible for the clearance of the site of all scrub, debris, rubbish, etc. to be removed off site to a location to be provided by the contractor and approved by the Engineer-in-charge	We understand that referred clause is not relevant to our scope of work and hence, same shall not be applicable.	<b>As per tender condition</b>
24	<b>Vol III, SCC, Clause 9(e)</b>	<b>STORAGE, CLEANING &amp; DEWATERING</b>  Contractor shall be responsible to keep entire site free from water due to water coming from any source at any level...	We presume that space shall be provide within site premises for store & site office of contractor. Please confirm.  We presume that cleaning of site will be pertaining to our scope of work only. Please confirm.	Contractor has to maintain cleanness at their site work.
25	<b>Vol III, SCC,</b>	<b>RETENTION MONEY</b>	Please clarify which option to follow.	<b>No change, as per tender condition</b>

	<b>Clause 31(e)</b>	BG of 2.5%, valid till completion & deduction of 5% from RA bills amounting to 2.5% of contract price, to be released on completion. OR: deduction of 10% from RA bills amounting to 5% of contract price, 50% to be released on completion & remaining 50% after DLP.	Also, we request you to allow to submit BG of 5% of contract price valid till DLP so that no deduction shall be made towards retention money.	<b>only.</b>
26	<b>Vol III, SCC, Clause 45</b>	<b>OPERATION &amp; MAINTENANCE WORK DURING DLP</b>  The contractor shall carry operation & maintenance of the entire system for <b>one (01) year</b> after satisfactory completion of entire work.	Please clarify the scope whether it is inclusive of comprehensive annual maintenance contract or labour based operation contract. If it is labour based the please clarify no. of manpower required.  Please specify manpower deputation plan for O&M Work.	The entire system is to be maintained during defect liability period of one year after completion and handing over of the work. Operation work has been deleted.
27	<b>Drawings</b>		Please provide layout drawings & SLDs.	<b>SLD/drawings will be provided to successful bidder.</b>
28	<b>Equipment foundation</b>		Please clarify whether equipment foundation is our scope of work or it is pertaining to civil contractor.	<b>As per tender condition.</b>
29	<b>Submission date</b>		Kindly extend the submission date till 14.04.2016.	The last of fill/upload the tender through e-tendering has been extended up to 15:00 hrs. on 08.04.2016.

All other terms & conditions of the tender shall remain unchanged.

Prospective bidders are advised to regularly scan through HSCC e-tender portal <http://www.tenderwizard.com/HSCC> as corrigendum/amendments etc., if any, will be notified on this portal only and separate advertisement will not be made for this.

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**DGM (Electrical), HSCC (India) Ltd.  
For & on behalf of Director, AIIMS, New Delhi**

## TECHNICAL SPECIFICATIONS

### 1.00 BUS TRUNKING/ RISING MAINS

#### 1.1 SCOPE

This section covers manufacture, supply, installation, resting and commissioning of sandwich insulated bus trunking, & rising mains, indoor/ outdoor type.

#### 1.2 Supply voltage

415/ 440 Volt, 3 phase, 4 wire, 50 Hz AC supply.

#### 1.3 Standards for compliance:

IS: 8623/ 1993 I & II and IEC 60439/ I & II.

#### 1.4 Construction:

The enclosure will be made from 16 SWG GI/ CRCA sheet steel powder coated of approved shade. Bus bars would be of high conductivity aluminium in “Sandwich” construction and the conductors will be individually insulated with halogen free, fire retardant class-B or better insulation. No drilling of Bus bar is permitted. Length of the section will be limited to maximum three metre. Bus bar of one section will be connected to bus bar of adjacent section by uni-block joint system removable as separate sub-assembly, so that it can be inserted or removed without disturbing the adjacent sections.

##### 1.4.1 Technical Parameters:

Bus trunking shall be designed to withstand short circuit current of 50 KA for one second.

Bus bar system should be designed for high temperatures withstand capability.

Insulation voltage      1.1 KV/1.0 KV or as per manufacturer Standard Practices

Bus trunking will be suitably chosen to give permissible voltage drop.

##### Plug in boxes

Plug in boxes will be of draw out type. Contacts will be of silver plated copper and spring loaded. Earth connection will be the first to make and last to break during insertion and with drawl. Plug in boxes will be made from 1.6 mm CRCA sheet steel powder coated. Inside the plug in Boxes MCCB with the fuses will be located as per requirements. The operating handle will be interlocked with plug in box cover so that MCCB can be operated only with the suitable cover in closed position. The plug in box will be interlocked with bus bar trunking so that it can not be inserted or removed with the plug in box lid open. MCCB will be of 4 pole

type unless otherwise specified in BOQ. Short circuit breaking capacity of MCCB in PIB should be same as that of bus trunking i.e. 50 KA.

1.5 List of test to be carried out:

1.5.1 Routine tests:

- i. Verification of insulation resistance.
- ii. Inspection of assembly, interlocks, locks etc.
- iii. Dielectric test.

Copies of the following certificate should be submitted:

- i. Verification of temperature rise limits
- ii. Verification of di-electric properties.
- iii. Verification of short circuit strength.
- iv. Verification of degree of protection.
- v. Insulation resistance test with 500 volt megger. The insulation resistance shall be not less than 100 mega ohm.