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GeM Tender Enquiry for Lighting Fixtures, Lamp and Misc. Items for 2x 210 MW Parichha ESP R&M

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2 X 210 MW PARICHHA ESP R&M

LIGHTING FIXTURES & MISC. ITEMS

(Annexure I) BOQ CUM UNPRICED SCHEDULE

Item No.	DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL PRICE
	MAIN SUPPLY ITEMS				
1.0	Lighting Luminaires (complete with accessories)				
1.1	Luminaire Type LED FC06	Nos.	170		
1.3	Luminaire Type LED FC30	Nos.	85		
1.2	Luminaire Type LED FC07	Nos.	10		
1.4	Luminaire Type LED FC33	Nos.	22		
1.5	Luminaire Type LED SW41	Nos.	515		
1.6	Luminaire Type LED SW42	Nos.	415		
1.0	Lighting LED DRIVERS				
1.1	Luminaire Type LED FC06	Nos.	3		
1.3	Luminaire Type LED FC30	Nos.	2		
1.2	Luminaire Type LED FC07	Nos.	1		
1.4	Luminaire Type LED FC33	Nos.	1		
1.5	Luminaire Type LED SW41	Nos.	10		
1.6	Luminaire Type LED SW42	Nos.	8		
2.0	Switch boxes for individual control of circuits (Switchboards consisting of switch boxes, switches, switch plates and fixing accessories.)				
2.1	Type SWB1= (Stairs +Toilets)	Nos.	40		
2.2	Type SWB2	Nos.	20		
2.3	Type SWB3	Nos.	10		
3.0	Junction boxes				
3.1	Type JB-F (equal to nos of light fixture)	Nos.	1220		
4.0	Receptacles				
4.1	Type RA (electrical room, pump house etc)	Nos.	17		
4.2	Type RB (Control room)	Nos.	65		
4.3	Type RC (welding receptacle)	Nos.	18		
5.0	Ceiling fans with electronic regulators				
5.1	1200 mm sweep	Nos.	5		
5.2	Pedestal Fan	Nos.	3		
6.0	Emergency lighting Units (With Ni-Cd battery, Charger and 2 CFL lamp)	Nos.	6		
7.0	Flexible TERNE coated conduit				
7.1	20 mm dia TERNE coated conduit (1-1.5 meter for every fixture)	mtrs.	1500		
8	EXIT SIGN	Nos.	10		
9.0	Structural steel	MT	5		

9.0	Supervision of E&C				
9.1	CHARGES PER VISIT	VISIT	2	20,000.00	40,000.00
9.2	MANDAYS CHARGES	DAYS	10	5,000.00	50,000.00
NOTES					
1	FOR SUPERVISION OF E&C 2 (TWO) VISIT AND 10 (TEN) MANDAYS TO BE CONSIDERED. THE PRICES SHALL BE INCLUSIVE OF CHARGES OF AIRFARE (TO & FRO), BOARDING, LODGING, VISA, MEDICAL, INSURANCE ETC & EXCLUSIVE OF TAXES.				
2	AMOUNT PAYABLE PER VISIT = VISIT CHARGES AS PER SL. NO. 9.1 ABOVE (+) UNIT PRICE FOR MANDAYS CHARGES AS PER SL. NO. 9.2 ABOVE (x) NO. OF MANDAYS AT SITE (TO BE CERTIFIED BY BHEL SITE).				
3	UNIT RATE FOR 9.1 AND 9.2 ARE INR 20000/- AND INR 5000/- RESPECTIVELY AND SAME IS FIRM.				
4	NOS. OF VISIT FOR SUPERVISION OF E&C MAY INCREASE BASED ON PROJECT REQUIREMENT.				
5	CONTAINERS AS PER SPECIFICATION ARE TO BE SUPPLIED ALONG WITH FIRST SUPPLIES. THE PRICE OF CONTAINER IS DEEMED TO BE INCLUDED IN PACKAGE PRICE. NO SEPARATE CHARGES SHALL BE PAYABLE.				
6	THE MATERIAL SHALL BE SUPPLIED IN LOTS. LOTS SHALL BE RELEASED PROGRESSIVELY BASED ON APPROVED CONDUIT LAYOUT OF DIFFERENT AREAS AND PROJECT REQUIREMENT.				
7	LIGHTING SYSTEM DESIGN CHARGES ARE DEEMED TO BE INCLUDED IN THE PRICE OF ABOVE ITEMS. NO SEPARATE CHARGES FOR DESIGN ACTIVITY WILL BE PAYABLE.				
8	MANDATORY SPARES QUANTITY HAS BEEN INCLUDED IN MAIN SUPPLY AND SAME SHALL BE PROVIDED AS SEPARATE LOT				

Annexure II

An undertaking regarding Model Clauses on company letter head only

(To be provided along with bid)

Reference: NIT No.-

Package: - Lighting Fixtures, Lamps and Misc. Items

Project: 2x210 MW ESP R&M Parichha

TO WHOM SO IT MAY CONCERN

This is with reference to Ministry of Finance circular dated 23.02.23 reg. restriction under rule 144 (xi) of GFR.

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I hereby certify that M/s (bidder name) is not from such a country and is eligible to be considered/participate in tender enquiry for against aforesaid tender enquiry.

Sign & Signature (Not below Director/owner of the company)

Date:

Place:

ANNEXURE III
2x210 MW ESP R&M Parichha
Lighting Fixtures, Lamps and Misc. Items
Letter head of Company

Ref.....

Date.....

To,
Bharat Heavy Electricals Limited
PEM, PPEI Building, Plot No 25,
Sector -16A, Noida (U.P) -201301

Subject: - Certification regarding local content

Reference: Tender Enquiry No-.....

Package: - Lighting Fixtures, Lamps and Misc. Items

Project: 2x210 MW ESP R&M Parichha

Dear Sir,

We hereby certify that items offered by us of Lighting Fixtures, Lamps and Misc. Items for 2x210 MW ESP R&M Parichha(minimum % of local content) meets the requirement of minimum local content in line with applicable clause of Make In India and the Public Procurement (Preference to Make in India), Order 2017 dated- 15.06.2017, 28.05.2018 & 29.05.2019, 04.06.20, 16.09.20 and subsequent order dated 16.11.21.

We further confirm that details of location at which the local value addition is made will be our registered works at(address of the works)

Yours very truly

..... (authorized signatory of company)

..... (firm name)

authorized signatory
of company

2 X 210 MW PARICHHA ESP R&M

TECHNICAL SPECIFICATION FOR
LIGHTING FIXTURES, LAMP & MISC. ITEMS
DOC. NO. PE-TS-503-558-E001

REVISION 0



BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA, INDIA

309592/2024/PS-PEM-EL



TECHNICAL SPECIFICATION FOR
LIGHTING FIXTURES, LAMPS AND
MISCELLANEOUS ITEMS

SPECIFICATION NO. PE-TS-503-558-E006

VOLUME II

CONTENTS SHEET

2 X 210 MW PARICHHA ESP R&M

REV. 0


DATE: 18.05.2024

SHEET 1 OF 1


CONTENTS

<u>S NO.</u>	<u>DESCRIPTION</u>	<u>NO. OF SHEETS</u>
01	SECTION - I	
	SCOPE	1
	COMPLIANCE CERTIFICATE	1
	DATA SHEET-A	7
	GENERAL NOTES	2
	ANNEXURE - A	1
	ANNEXURE - B	1
	ANNEXURE - C	1
	DATASHEET – B	1
	SUB VENDOR DIRECTORY	9
	ANNEXURE - E	1
	ANNEXURE – F (TYPICAL MOUNTING ARRANGEMENT	10
	STANDARD QUALITY PLAN	5

TOTAL NUMBER OF SHEETS (INCLUDING COVER & SEPARATOR SHEETS: 42

	TECHNICAL SPECIFICATION FOR LIGHTING FIXTURES, LAMPS AND MISCELLANEOUS ITEMS	SPECIFICATION NO. PE-TS-503-558-E006
	2 X 210 MW PARICHHA ESP R&M	VOLUME II DATE: 18.05.2024 SHEET 1 OF 1
SCOPE		
SCOPE OF THIS PACKAGE COVERS THE FOLLOWING:		
1	SUPPLY INCLUDING DESIGN, ENGINEERING & MANUFACTURING	YES
2	INSPECTION & TESTING AT MANUFACTURER WORKS (CALIBRATION/CV TEST)	YES
3	E&C	NO
4	SUPERVISION OF ERECTION & COMMISSIONING	YES
5	MANDATORY SPARE	YES
6	O & M SPARE	NO
7	COMMISSIONING SPARE	NO
8	PACKING	YES
9	PAINTING	NO
10	TRANSPORTATION & DELIVERY TO SITE	YES
11	LIGHTING SYSTEM DESIGN	YES


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	TECHNICAL SPECIFICATION FOR LIGHTING FIXTURES, LAMPS AND MISCELLANEOUS ITEMS	SPECIFICATION NO. PE-TS-503-558-E006	
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COMPLIANCE CERTIFICATE

The bidder shall confirm compliance to the following by signing/ stamping this compliance certificate and furnishing same with the offer.

1. The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusion/ deviation with regard to same.
2. There are no deviation with respect to specification.
3. Only those technical submittals which are specifically asked for in NIT to be submitted at tender stage shall be considered as part of offer. Any other submission, even if made, shall not be considered as part of offer.
4. Any comments/ clarifications on technical/ inspection requirements furnished as part of bidder's covering letter shall not be considered by BHEL, and bidder's offer shall be construed to be in conformance with the specification.
5. Any changes made by the bidder in the price schedule with respect to the description/ quantities from those given in BOQ-Cum-Price schedule of the specification shall not be considered (i.e. technical description & quantities as per specification shall prevail).

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DATA SHEET –A

S. No.	Description	Unit	Value
1.0	SYSTEM DESIGN DATA		
1.1	Design ambient	°C	50
1.2	AC Supply		
a)	Rated voltage	V	415
b)	Rated frequency	Hz	50
c)	Voltage variation (permissible)	%	+10% to -10%
d)	Frequency variation (permissible)	%	+3% to -5%
e)	Combined voltage & frequency variation (sum of absolutes permissible)	%	10%
f)	System fault level & duration	kA, sec.	50kA for 1 sec.
1.3	DC Supply		
a)	Rated voltage	V	220
b)	Voltage variation (permissible)	%	+10% to -15%
c)	System fault level & duration	kA, sec.	20kA for 1 sec.
B.	DESIGN CODES & STANDARDS		
1	APPLICABLE STANDARDS		a) IS 3646 Code of practice for interior illumination. b) IS 6665 Code of practice for industrial lighting. c) IS 1944 Code of practice for lighting of public thoroughfare. d) IS 10322 Luminaires. e) IS 16101 General Lighting. LEDs & LED Modules Terms and definitions. f) IS 16102-1 Self-Ballasted LED lamps for General Lighting Services: Safety requirement. g) IS 16102-2 Self-Ballasted LED lamps for General Lighting Services: Performance requirement h) IS 16103-1 LED modules for General lighting safety requirements. i) IS 15885-2 Lamp Control gear. j) IS 16104 A.C. or D.C. supplied Control gear for LED modules



**TECHNICAL SPECIFICATION FOR
LIGHTING FIXTURES, LAMPS AND
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2 X 210 MW PARICHHA ESP R&M

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			<p>k) IS 16105 Method of measurement of Lumen maintenance of solid state (LED) sources</p> <p>l) IS 16106 Method of electric and photometric measurement of solid state (LED) products</p> <p>m) IS 16107 Luminaires performance</p> <p>n) IS 1293 Plugs and socket outlets of rated voltage upto and including 250 volts and rated current upto and including 16 amperes</p> <p>o) IS 4160 Interlocking switch socket outlet</p> <p>p) IS 374 Electric ceiling type fans and regulators</p> <p>q) IS 2629 Recommended practice for hot dip galvanising of iron & steel</p> <p>r) IS 2603 Method of testing uniformity of coating on zinc coated articles</p> <p>s) IS 3480 Flexible steel conduits for electrical wiring</p> <p>t) IS: 3696 Scaffolds & ladders - Code of safety</p> <p>u) IS: 4571 Aluminium extension ladders</p>
2.0	SCOPE OF SYSTEM DESIGN ENGINEERING		Included in vendor's scope
3.0	Lighting Concept		
3.1	Types of supplies considered (other than AC Normal)		
a)	AC emergency		Yes
b)	DC emergency		Yes
4.0	LUMINAIRES, LAMPS & ACCESSORIES		
4.1	Type of false ceiling for recessed fluorescent luminaire		Grid False ceiling (600mm X 600mm) / Aluminium false ceiling (for Control Room).
4.2	Degree of protection for drip proof luminaires		Outdoor: Min IP65 and weather proof Indoor: Surface / pendant mounting: IP54 Recess mounting (false ceiling): IP20.
4.3	Type of LED Lamps		Cool Daylight
4.6	Emergency Lighting Unit		
a)	Lamp type		LED

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**TECHNICAL SPECIFICATION FOR
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b)	Nos. of Lamp		2
c)	Lamp wattage	W	6
d)	Lumen output of lamp at rated voltage	Lumen	To furnished by Vendor.
e)	Type of battery (Rechargeable type)		Ni-Cd
f)	AH capacity of battery	AH	To furnished by Vendor.
g)	Battery voltage	V	9
h)	Battery backup time	Hr	4
i)	In built charger		Yes
4.7	Exit Sign		
a)	Lamp type		LED
b)	Nos. of Lamp		1
c)	Lamp wattage	W	12
d)	Lumen output of lamp at rated voltage	Lumen	To furnished by Vendor.
e)	Type of battery		Ni-Cd
f)	AH capacity of battery	AH	To furnished by Vendor.
g)	Battery voltage	V	To furnished by Vendor.
h)	Battery backup time	Hr	4
5.0	Junction Box		Provided with four (4) way stud type terminals for terminating upto 2 nos. 1.5 mm ² copper wire on each terminal, suitable for outdoor Installations.
a)	Enclosure material		Thermoplastic / Thermosetting / FRP type.
b)	Enclosure thickness	mm	3
c)	Degree of protection		IP-55(indoor) & IPW-55 for outdoor area
6.0	Industrial/ Welding Receptacle		
a)	Enclosure material		MS sheet & hot dip galvanised / Die cast aluminium alloy / CRCA sheet steel with electrostatic powder coating
b)	Enclosure thickness	mm	2mm (min) / 2.5mm (min) / 2mm (min) respectively.
c)	Surface treatment		Galvanized


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d)	Process		Hot dip
	Weight of zinc	g/m ²	460 gm / mm ² (65 microns)
e)	Degree of protection		IP-55
f)	other details	<p>Industrial (20A) Receptacle:</p> <p>(i) 20A, 240V, 1-phase, 2 pole, 3-pin (third pin scrapping earth) porcelain, metal clad socket with a metallic cover tied to it.</p> <p>(ii) Rotary, heavy duty 20A switch conforming to applicable standard.</p> <p>(iii) Shrouded, die-cast aluminium plug.</p> <p>(iv) It shall be combined interlocked weather proof industrial unit.</p> <p>(v) Mechanical interlock shall be provided as follows :</p> <ul style="list-style-type: none"> • Switch can be put ON only when plug is fully engaged. • Plug can be withdrawn only when switch is in OFF position. • Cover can be opened only when switch is in OFF position. <p>(vi) The arrangement should ensure that water does not enter the plug when socket is ON.</p> <p>(vii) Loop-in loop-out terminals shall be provided inside the box suitable for 4 mm² Cu wire.</p> <p>Welding (63A) Receptacle:</p> <p>(i) 63A, 415V, 3-phase-neutral earth, metal clad socket with cover</p> <p>(ii) Rotary, heavy duty 63A switch conforming to applicable standard.</p> <p>(iii) Shrouded, die-cast aluminium plug</p> <p>(iv) It shall be combined, interlocked weather proof industrial unit.</p> <p>(v) Mechanical interlock shall be same as that are applicable for RA type receptacles</p> <p>(vi) The receptacle boxes shall be suitable for entry and exit of 3.5CX70 mm²</p> <p>(vii) Al conductor PVC cable and loop-in loop-out terminals for the same shall be provided such that not more than one core is terminated at one terminal. Removable,</p>	

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		undrilled cable gland plate shall be provided. Tinned copper lugs and double compression cable glands shall also be supplied by the bidder.	
7.0	Decorative Receptacle		
a)	Enclosure material		CRCA sheet steel
b)	Enclosure thickness	mm	2
c)	Surface treatment		Galvanized
d)	Process		Hot dip
	Weight of zinc	g/m ²	460 gm / mm ² (65 microns)
e)	Degree of protection		IP-20
f)	other details	<p>(i) Combination of 5A & 15A, 240V, 1-phase, 2 pole, 3-pin, third pin grounded socket with integral piano key type 15A switch, flush mounted on decorative bakelite (6 mm thick)/ perspex (3 mm thick) sheet as cover of the boxes.</p> <p>(ii) Loop-in loop-out terminals similar to type RA shall be provided. These will be located in office areas.</p>	
9.0	Switch Box		
a)	Enclosure material		Galvanized MS Sheet.
b)	Enclosure thickness	mm	1.6mm MS sheet with 3mm thick decorative, Perspex cover.
d)	Degree of protection		IP-20
	Switchboard types	<p>(i) Type SWB1 - Switch board with 1 no. 5A switch, JB type SW1.</p> <p>(ii) Type SWB2 - 4 nos. 5A switches, JB type SW2.</p> <p>(iii) Type SWB3 - 6 nos. 5A switches, 1 No. 6 A Socket, JB type SW3.</p> <p>(iv) Type SWB4 - 8 nos. 5A switches, 2 No. 6A Socket, JB type SW4.</p> <p>JB-SW1 Provided with four (4) way stud type terminals, each terminal suitable for terminating upto two nos. of 2.5 mm² copper wires.</p> <p>JB-SW2 Similar to the JB-SW1 but provided with ten (10) way terminals.</p> <p>JB-SW3 Similar to the JB-SW1 but provided with eighteen (18) way terminals.</p>	

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		JB-SW4 Similar to the JB-SW1 but provided with twenty four (24) way terminals.	
10.0	Conduit (Flexible)		
a)	Type		TERNE coated conduit
b)	Size	mm	20 mm dia
c)	Standard length	m	25 to 50
5.13	Cable Glands		By vendor for all incoming and outgoing cables
a)	Type		Double compression
b)	Material		Brass
c)	Nickel Plating provided		Yes
d)	Flameproof glands with flameproof equipment		Yes
5.14	Cable Lugs		By vendor for all incoming and outgoing cables
a)	Type		Crimping type/ ring type
b)	Material		Tinned copper
D.	PACKING		
1	PACKING	<p>a. The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.</p> <p>b. Lighting Fixtures, Lamps, Receptacles, Switchboards, 24V Supply modules, 24V sockets, Junction Boxes, Exit signs shall be clean and dry prior to packaging.</p> <p>c. All items specified at sl. No.2 above shall be supplied in packed cartons. The tapes used for packing shall not bleed, leave residue, or damage the item when removed.</p> <p>d. Fixtures & other lighting material shall be wrapped in weather proof material such as polythene sheets, air bubble sheets/ thermocol etc. The lighting fixtures shall be placed in a corrugated paperboard/ fibreboard container/ mono carton.</p> <p>e. The mono cartons shall be wrapped or bagged or tied in place in master cartons.</p>	


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		<p>The master carton shall be taped and then wrapped with cushioning material.</p> <p>f. The dimensions of cartons shall be as per manufacturer's recommendations.</p> <p>g. For items like step ladder, wheel mounted ladder and flexible conduits, packing shall be as per manufacturer standard.</p> <p>h. Containers adequate for storing 70% of P.O. quantity material at site are to supplied. Vendor shall furnish suitable justification to purchaser during detailed engineering for the number and size of containers being supplied.</p>
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	TECHNICAL SPECIFICATION & DATA SHEET FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS	Specification No.: PE-TS-503-558-E006 Rev. No. 00 Date : 18.05.2024
GENERAL NOTES		
<p>1. Statutory and regulatory regulation shall be applicable as per Indian Electricity Rule, 1956 with amendment-3 Rule no. 35, 48, 49, 50, 61 & 64 for illumination & low voltage power services.</p>		
<p>2. Following sizes of 1100 V grade, PVC insulated, single core, stranded copper conductor wires will be used: Lighting Panel to Fixtures: 1.5 sq. mm (Cu) Lighting Panel to JBs/ Switches: 1.5 sq. mm (Cu) JBs/ switches to Fixtures: 1.5 sq. mm (Cu) Panel to First receptacles: 4.0 sq. mm (Cu) First receptacles to looping other receptacles: 4.0 sq. mm (Cu) In case of only one receptacles in ckt., Panel to receptacles: 4.0 sq. mm (Cu) Panel/ JBs to flood light fixtures: 2C x 1.5 sq. mm (Cu) Wiring in hazardous area if applicable, transformer yard, outdoor area (like Miscellaneous areas) will be done using 3C-2.5 sq. mm (Cu), PVC insulated, FRLS PVC sheathed armoured cable. Note: Wires & Cables are not in vendor's scope of supply, however vendor to show size & quantity in CLO drawings.</p>		
<p>3. Earthing of lighting system will be done by using of following sizes of wire / flat: Lighting Distribution Board: GS Flat 2x25x6 mm Lighting Panels: GS Flat 25x3 mm Lighting fixtures, receptacles, conduits, junction boxes & switch boxes: 16 SWG GI wire Welding receptacles: GS Flat 25x3 mm All the earthing to various equipment like LDB, lighting panels, poles (painted) , receptacles, junction boxes etc shall be provide at two point.</p>		
<p>4. Containers adequate for storing 70% of P.O. quantity material at site are to supplied. Vendor shall furnish suitable justification to purchaser du ring detailed engineering for the number and size of containers being supplied. Materials like Concrete Blocks of Paved surface required for installation and placing of container shall be made available by BHEL. Other supporting material like Rails etc. shall be part of Container only.</p>		
<p>5. Following items are excluded from the supply of this package: Poles, Mast, LDB, WDB, Lighting panels, Rigid conduit, and PVC Wires.</p>		
<p>6. Luminaires suitable for surface mounting shall also be suitable for pendant mounting. Knockouts of 20mm ET conduit fixation shall be provided for this purpose.</p>		
<p>7. Recessed type decorative luminaires shall be suitable for mounting with gypsum boards / luxalon / plaster of Paris/aluminium frame false ceiling of standard size as per Data Sheet A and "Luminaire details".</p>		
<p>8. Typical Mounting arrangmeent of Lightitng fixtures is shown in Annexure-F, all indicated accessories required for mounting of fixtures shall be supplied along with the respective lighting fixture.</p>		
<p>9. Vendor shall prepare and submit Lighting design calculation, lighting layout and conduit layout drawings considering the following requirements for purchaser's approval :</p>		
<p>9.1 Lighting calculations for indoor areas covering details such as room dimensions (length, width, height), illumination level, maintenance factor (Dust prone indoor/outdoor areas: 0.6, Control room and air conditioned areas : 0.8, Indoor areas (non-ac): 0.7), type of luminaire, mounting height of luminaire, room index, coefficient of utilisation, no. of luminaires (AC Normal & AC Emergency), lumen output of each luminaire, reference drawings and remarks.</p>		
<p>9.2 Lighting calculations for outdoor areas covering average illumination level, type of luminaire, chart for illumination level at various points in the area; location (coordinates), number and height of poles; type, number (normal + emergency) and orientation of luminaires etc. Calculated values of average and minimum illumination level as obtained through computer package shall also be furnished. Dot density plots for lux level shall be furnished if available in the computer package.</p>		

9.3 Single line diagrams of power distribution upto Lighting Panels. Separate drawing for complete lighting distribution shall also be prepared by vendor.
9.4 Loads on each phase of LP and LDB with consideration of diversity factor(50%) for sockets.
9.5 Layout drawings for each indoor area indicating location of luminaires, sockets, fan points, exhaust fans, LDBs and LPs. Details of type of luminaires, source of power supply (AC Normal, AC Emergency, DC Normal and DC Emergency). Bill of Material shall also be covered which shall include unit wise requirements of luminaires and other items.
9.6 Layout drawings for each outdoor area indicating location of poles / towers, orientation of luminaires, sockets and LPs. Details of pole height / mounting height, type of luminaires, source of power supply (AC Normal, AC Emergency, DC Emergency). Bill of Material shall also be covered for various types of luminaires.
9.7 Conduit layout drawings with wiring and load distribution details as superimposed on the area layout drawings indicated above. Drawings shall include Bill of Material for conduits, wires etc.
9.8 Wiring and load distribution details for outdoor areas.
9.9 Master Bill of Material (to be submitted at regular intervals of engineering progress) including all items required for the complete lighting system viz. lighting fixtures, lamps, Lighting DBs, Welding DBs, lighting panels, conduits, PVC wires etc.
10. The vendor shall guarantee satisfactory performance of the equipment supplied under all conditions and requirement as laid down by this specification.
11. Vendor shall ensure satisfactory performance for lighting system designed by them at site.
12. Bidder shall confirm compliance with the BHEL Standard Quality Plan (enclosed with the specificaiton) without any deviations.
13. LED modules and drivers shall be compatible to each other. The LED module driver's ratings and makes shall be as recommended by corresponding LED chip manufacturer

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			DATE: 18.05.2024
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ANNEXURE - A			
S.NO.	LOCATION	AVERAGE ILLUMINATION LEVEL (LUX)	TYPE OF FIXTURE
1	Switchgear rooms, Charger, Rectifier room	200	Industrial type LED Luminaire
2	Control room, computer room, control equipment room	350	LED luminaire equivalent to Mirror optics with anti-glare features or downlighter.
3	Offices, conference rooms, etc.	300	Decorative mirror optics Type LED luminaire or LED downlighter
4	Cable galleries/vault	50	Industrial type LED Luminaire
5	ESP Platforms	100	Well glass type, Vapour proff LED ficture suitable for platforms

	TECHNICAL SPECIFICATION FOR LIGHTING FIXTURES, LAMPS AND MISCELLANEOUS ITEMS			SPECIFICATION NO. PE-TS-503-558-E006		
				VOLUME II		
	2 X 210 MW PARICHHA ESP R&M			DATE: 18.05.2024		
			SHEET 1 OF 1			
ANNEXURE - B						
Sl.	Plant Areas	Normal AC Lighting System	Emergency AC Lighting System	220 V Lighting System	DC	Portable DC Fixtures
1	TG Building(turbine hall, switchgear room etc)	80%	20%	√		—
2.	Boiler Platform	80%	20%	√		
3	DG Area/ Room	80%	20%			
4	Compressor Room					√
5	ESP Control Room	80%	20%			√
6	Unit Control Room	70%	30%			
7	Switchyard Control Room	80%	20%			
8	Battery Room	80%	20%			
9	Cable Spreader Room/ Vault	80%	20%	√		
10	Make Up Water Pump House	100%				√

	TECHNICAL SPECIFICATION FOR LIGHTING FIXTURES, LAMPS AND MISCELLANEOUS ITEMS		SPECIFICATION NO. PE-TS-503-558-E006	
			VOLUME II	
	2 X 210 MW PARICHAH ESP R&M		DATE: 18.05.2024	
				SHEET 1 OF 1
ANNEXURE - C				
TECHNICAL DETAILS OF LIGHTING FIXTURES				
S.NO.	Type of Luminaire	Description	Total Luminous Flux (Lumen) of Luminaire – Min. Value	Measured Electrical Input Power (Watt) of Luminaire – Max. Value
1	FC06 (LED)	Industrial type LED fixture suitable for conduit/ surface/ suspended mounting with integral driver aesthetically designed for Switchgear/ Equipment room/ stair case/ corridors.	3780	42
2	FC30 (LED)	Panel 600mm x600mm decorative LED fixture suitable for recess mounting in false ceiling with integral driver aesthetically designed for Control Room/ Office.	3780	42
3	FC07 (LED)	Industrial type LED fixture suitable for conduit/ surface/ suspended/ column mounting, having integral driver. Fixture shall operate on 220V DC input supply.	1260	14
4	FC33 (LED)	Decorative, recessed type LED fixture having integral driver. Fixture shall operate on 220V DC input supply.	1260	14
5	SW41 (LED)	Well glass, Dust proof LED fixture with integral driver	4500	50
6	SW42 (LED)	Well glass, Dust proof LED fixture with integral driver	7200	80

	TECHNICAL SPECIFICATION FOR LIGHTING FIXTURES, LAMPS AND MISCELLANEOUS ITEMS		SPECIFICATION NO. PE-TS-503-558-E006	
	2 X 210 MW PARICHHA ESP R&M		VOLUME II	
			DATE: 18.05.2024	
				SHEET 1 OF 1
DATASHEET - B				
(Bidder to fill details of luminaires as per parameters mentioned below and furnish Data Sheet – B along with technical offer)				
S.NO.	DESCRIPTION	LUMINAIRE MAKE AND MODEL	MEASURED ELECTRICAL INPUT POWER	TOTAL LUMINOUS FLUX (LUMEN) OF LUMINAIRE
	MAIN SUPPLY ITEMS		(W) MAX. VALUE	MIN. VALUE
1	Luminaire Type FC06 (LED)			
2	Luminaire Type FC07 (LED)			
3	Luminaire Type FC30 (LED)			
4	Luminaire Type FC33 (LED)			
5	Luminaire Type SW41 (LED)			
6	Luminaire Type SW42 (LED)			

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	PHONE	REMARKS
ES11	CABLE GLANDS	1	E1201	ALLIED TRADERS & EXPORTERS	C-124 A, SECTOR-2, NOIDA -201 301, UTTAR PRADESH, INDIA	Mr. Vijay Mohan Sood +(91)-(120)-2525694 +(91)-(120)-3052594 +(91)-(11)-23287156 vijay_mohansood@yahoo.com	
	CABLE GLANDS	2	E1017	ARUP ENGG & FOUNDARY WORKS	391/119,PRINCE ANWAR SHAH ROAD, CALCUTTA-700068	033 2473 0850	
	CABLE GLANDS	3	E1206	BALIGA LIGHTING EQPT.PVT.LTD.	63A,CP RAMASWAMY ROAD, ALWARPET,P.B.No 6910, CHENNAI-600018	44-24995505,22680990-4	
	CABLE GLANDS	4	E1036	COMMET BRASS PRODUCTS	NUTAN CHEMICAL COMPOUND, WALBHAT ROAD, GOREGAON, MUMBAI-400063	91-022-26852961/62/63 comet@vsnl.net	
	CABLE GLANDS	5	DW08	DOWELLS	M/S. DOWELLS ELECTRICALS 47/47A, SATGURU INDUSTRIAL ESTATE. OFF AAREY ROAD, GOREGOAN (EAST). MUMBAI 400 063.	CEO : Mr. Jayantibhai S. Patel TEL: 022-32504770./022-29270876/ 022-29270878.	
	CABLE GLANDS	6	E1044	ELECTROMAC INDUSTRIES	27/28AF NEW EMPIRE IND.ESTT., R.KRISHNA MANDIR RD.JB NGR ,ANDHERI(E),MUMBAI-400059	91-22-28324829 / 66919034 devang@electromacglands.com	
	CABLE GLANDS	7	I01	INCAB	HARE STREET,KOLKATA,WEST BENGAL-700001	91-33-2480161/62/63/64 Fax : 91-33-2485766	
ES12	CABLE LUGS	1	E1040	DOWELLS	M/S. DOWELLS ELECTRICALS 47/47A, SATGURU INDUSTRIAL ESTATE. OFF AAREY ROAD, GOREGOAN (EAST).	CEO : Mr. Jayantibhai S. Patel TEL: 022-32504770./022-29270876/ 033 2282 2540	
	CABLE LUGS	2	E1149	UNIVERSAL MACHINES LTD.	4,B.B.D.BAG (EAST) 90,STEPHEN HOUSE,5TH FLR CALCUTTA-700001		
ES14	EARTH LEAKAGE CB	1	L01	L&T	32, SHIVAJI MARG, P.O. BOX- 6223, NEW DELHI-110015	011-41419554/59	
	EARTH LEAKAGE CB	2	S01	SIEMENS	RC-IN I S NR DEL AREA, JIL BUILDING, TOWER-B, PLOT NO. 78, SECTOR 18, GURGAON-122015, INDIA	0124-2842000, 9873424331 amit.bhadauria@siemens.com	
	EARTH LEAKAGE CB	3	A35	GE-POWER	KAMAK TOWER, 3RD FLOOR, PLOT NO. 12-A, TVK INDUSTRIAL ESTATE, EKKADUTHANGAL, GUINDY, CHENNAI-600032	044-49681447	
	EARTH LEAKAGE CB	4	S03	SCHNEIDER ELECTRIC INDIA PVT. LTD.	9TH FLOOR, BLDG. NO. 10, TOWER-C, DLF CYBER CITY, PH-II, GURGAON-122002	0124-3940400	
	EARTH LEAKAGE CB	5	C01	C&S ELECTRIC LTD.	222, OKHLA IND. ESTATE, PH-III, NEW DELHI-110020	011-3088 7520-29	
	EARTH LEAKAGE CB	6	A24	ABB	14, MATHURA ROAD, FARIDABAD, HARYANA-121003	0129-2567580, 09871799449	
	EARTH LEAKAGE CB	7	E1068	INDO ASIAN	B-24, PHASE - II, NOIDA - 201305, U.P.	120-3042222	
	EARTH LEAKAGE CB	8	E1088	MDS SWITCHGEAR LTD	314-317SHAH NAHAR ESTATE	011 - 25793021	
	EARTH LEAKAGE CB	9	E1120	S&S POWER SWITCHGEAR LTD,	NEW NO. 67, OLD NO. 19, DR. RANGA ROAD, MYLAPORE, CHENNAI - 600004	044 - 24988056, 044 - 24988057, 044 - 24988058	
ES21	CONTROL SWITCHES/ SELECTOR SWITCH	1	E1076	KAYCEE	KAYCEE INDUSTRIES LTD., C/O-CMS COMPUTERS LTD., 35A, REAR BLDG., KILOKARI, NEW DELHI-110014	Rajiv Sharma-9312004687	
	CONTROL SWITCHES/ SELECTOR SWITCH	2	A35	GE-POWER	KAMAK TOWER, 3RD FLOOR, PLOT NO. 12-A, TVK INDUSTRIAL ESTATE, EKKADUTHANGAL, GUINDY, CHENNAI-600032	044-49681447	
	CONTROL SWITCHES/ SELECTOR SWITCH	3	G01	ALSTOM LTD	A-7, SEC-65, NOIDA	0120-479000	
	CONTROL SWITCHES/ SELECTOR SWITCH	4	S03	SCHNEIDER ELECTRIC INDIA PVT. LTD.	9TH FLOOR, BLDG. NO. 10, TOWER-C, DLF CYBER CITY, PH-II, GURGAON-122002	0124-3940400	
	CONTROL SWITCHES/ SELECTOR SWITCH	5	SRC01	M/s Shrenik & Co.	39A/3, PANCHRATNA INDUSTRIAL ESTATE, SARKHEI-BAVLA ROAD, CHANGODAR,		
	CONTROL SWITCHES/ SELECTOR SWITCH	6	RE05	RECOM PVT. LTD.	M/S RECOM PVT. LTD.,16A , 2ND FLOOR A, WING RAJ INDUSTRIAL COMPLEX, MILITARY	Mr. Chandrashekar Kamath (MD) : 09820249503	
ES22	CONTROL TRANSFORMER/ WINDING HEATING TRANSFORMER	1	E1009	AUTOMATIC ELECTRIC LTD.	96 AB LONAVLA INDUSTRIAL ESTATE NANGARGAON, LONAVLA-410401	Phone : +91 2114323665 Fax : +91 2114273482	
	CONTROL TRANSFORMER/ WINDING HEATING TRANSFORMER	2	E1066	INDCOIL	PLOT NO. A- 150/ 151, 23RD U ROAD, WAGLE ESTATE, THANE WEST, CST RD, FRIENDS COLONY, HALLOW PUL, KURLA WEST, MUMBAI, MAHARASHTRA 400070	Phone:022 2583 8305	
	CONTROL TRANSFORMER/ WINDING HEATING TRANSFORMER	3	K18	KAPPA ELECTRICALS	KAPPA ELECTRICALS, KAPPA CONSOLIDATED PVT. LTD., 14, CART TRACK ROAD, MADUVANKARAI, CHENNAI - 600 042, INDIA.	PHONE: +91 - 44 - 22454709, 22454516, 22450794, 22450795 FAX: +91 - 44 - 22351662, 22451693 E-MAIL: mira@kappaelectricals.com sales@kappaelectricals.com	
	CONTROL TRANSFORMER/ WINDING HEATING TRANSFORMER	4	E1082	LOGICSTAT	B-160, INDUSTRIAL AREA, C BLOCK RD, OKHLA I, OKHLA INDUSTRIAL AREA, NEW DELHI, DL 110020	011 2681 0032	

SUB-VENDOR DIRECTORY

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	PHONE	REMARKS
	CONTROL TRANSFORMER/WINDING HEATING TRANSFORMER	5	E1106	PRECISE ELECTRICALS	47A-49A, CHAKALA ROAD ANDHERI(E), MUMBAI-99 MUMBAI, MAHARASHTRA, INDIA PIN-400 099	022-8323402 / 022-8216433	
	CONTROL TRANSFORMER/WINDING HEATING TRANSFORMER	6	E1128	UNILEC ENGINEERS PVT. LTD.	PLOT NO: R-247, T.T.C. INDUSTRIAL AREA, M.I.D.C., RABALE, NAVI MUMBAI- 400 701 INDIA	+91-22- 27607787 / 27607927 +91-22- 27607997	
	CONTROL TRANSFORMER/WINDING HEATING TRANSFORMER	7	NK09	M/s Newtek Electricals	M-90, M.I.D.C. Waluj, Aurangabad 431136, Maharashtra, India	Tel/Fax: +91 240 2551555 E-mail: mkt.north@newtekelectricals.com, sales@newtekelectricals.com Mr Sanjeev Aggarwal (9958897890)	FOR CONTROL TRANSFORMER ONLY
ES27	EMER. PORTABLE LTG. SET	1	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
	EMER. PORTABLE LTG. SET	2	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
ES28	FUSE BASE	1	E1068	INDO ASIAN	B-24, PHASE - II, NOIDA - 201305, U.P.	120-3042222	
	FUSE BASE	2	G01	GE-POWER	KAMAK TOWER, 3RD FLOOR, PLOT NO. 12-A, TVK INDUSTRIAL ESTATE, EKKADUTHANGAL, GUINDY, CHENNAI-600032	044-49681447	
	FUSE BASE	3	L01	L&T	32, SHIVAJI MARG, P.O. BOX- 6223, NEW DELHI-110015	011-41419554/59	
	FUSE BASE	4	C01	C&S ELECTRIC LTD.	222, OKHLA IND. ESTATE, PH-III, NEW DELHI-110020	011-3088 7520-29	
	FUSE BASE	5	S01	SIEMENS	RC-IN I S NR DEL AREA, JIL BUILDING, TOWER-B, PLOT NO. 78, SECTOR 18, GURGAON-122015, INDIA	0124-2842000, 9873424331 ;amit.bhadauria@siemens.com	
	FUSE BASE	6	A24	ABB	14, MATHURA ROAD, FARIDABAD, HARYANA-121003	0129-2567580, 09871799449	
	FUSE BASE	7	S02	SPACEAGE SWITCHGEARS LTD.	68 & 13-A INDUSTRIAL DEVELOPMENT COLONY, MEHRAULI ROAD GURGAON, HARYANA-122001	0124-2302711, 4085091	
	FUSE BASE	8	S03	SCHNEIDER ELECTRIC INDIA PVT. LTD.	9TH FLOOR, BLDG. NO. 10, TOWER-C, DLF CYBER CITY, PH-II, GURGAON-122002	0124-3940400	
	FUSE BASE	9	G01	ALSTOM LTD	A-7, SEC-65, NOIDA	0120-479 0000	
	FUSE BASE	10	E1050	ESSEN DEINKI	FLAT NO. 502, SKYLINE HOUSE 85, NEHRU PLACE NEW DELHI	011-26217060	
ES29	HRC FUSES	1	E1068	INDO ASIAN	B-24, PHASE - II, NOIDA - 201305, U.P.	120-3042222	
	HRC FUSES	2	G01	GE-POWER	KAMAK TOWER, 3RD FLOOR, PLOT NO. 12-A, TVK INDUSTRIAL ESTATE, EKKADUTHANGAL, GUINDY, CHENNAI-600032	044-49681447	
	HRC FUSES	3	L01	L&T	32, SHIVAJI MARG, P.O. BOX- 6223, NEW DELHI-110015	011-41419554/59	
	HRC FUSES	4	C01	C&S ELECTRIC LTD.	222, OKHLA IND. ESTATE, PH-III, NEW DELHI-110020	011-3088 7520-29	
	HRC FUSES	5	S01	SIEMENS	RC-IN I S NR DEL AREA, JIL BUILDING, TOWER-B, PLOT NO. 78, SECTOR 18, GURGAON-122015, INDIA	0124-2842000, 9873424331 ;amit.bhadauria@siemens.com	
	HRC FUSES	6	A24	ABB	14, MATHURA ROAD, FARIDABAD, HARYANA-121003	0129-2567580, 09871799449	
	HRC FUSES	7	S02	SPACEAGE SWITCHGEARS LTD.	68 & 13-A INDUSTRIAL DEVELOPMENT COLONY, MEHRAULI ROAD GURGAON, HARYANA-122001	0124-2302711, 4085091	
	HRC FUSES	8	S03	SCHNEIDER ELECTRIC INDIA PVT. LTD.	9TH FLOOR, BLDG. NO. 10, TOWER-C, DLF CYBER CITY, PH-II, GURGAON-122002	0124-3940400	
	HRC FUSES	9	G01	ALSTOM LTD	A-7, SEC-65, NOIDA	0120-479 0000	
	HRC FUSES	10	E1050	ESSEN DEINKI	FLAT NO. 502, SKYLINE HOUSE 85, NEHRU PLACE NEW DELHI	011-26217060	
	IND.POWER & WLDG SOCKETS	1	C02	CROMPTON GREAVES	3RD FLOOR, EXPRESS BUILDING, 9-10, BAHADUR SHAH ZAFAR MARG, NEAR ITO CROSSING, NEW DELHI-110002, INDIA	91 11 23460700 - 999 Sunil.Das@cgglobal.com	

SUB-VENDOR DIRECTORY

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	PHONE	REMARKS
ES33	IND.POWER & WLDG SOCKETS	2	E1207	CYCLE ELECTRIC DEVICE & SERV.CO.	: A-3, NEAR ANTHEM BIOSCIENCE, KSSIDC INDUSTRIAL AREA, BOMMASANDRA, BOMMASANDRA INDUSTRIAL AREA, BANGALORE, KARNATAKA 560099	Mr. H.Jaishanker +919845039081, 080 - 27833102, 080 - 27833103 ; +91 80 41460985 'cycloelectric@gmail.com	
	IND.POWER & WLDG SOCKETS	3	B04	BCH	20/4, MATHURA ROAD, FARIDABAD - 121006, HARYANA, INDIA	0(129)-4063000, 9015800189(Ramesh Giri) 'ramesh.giri@bchindia.com	
	IND.POWER & WLDG	4	B02	BEST & CROMPTON	Best & Crompton Engineering Ltd	Ph : +91 44 4551 4724 , MRKT	BEST &
	IND.POWER & WLDG SOCKETS	5	A03	AJMERA INDUSTRIES & ENGG. WORKS	AJMERA INDL. AND ENGG. WORKS. AJMERA HOUSE, A-61 / KHAIRANE MIDC., TTC INDL. AREA, NAVI MUMBAI - 400705.	Tel : 022 27620299 / 97 / 96 'mail@ajmerna.net	
ES34	INTERPOSING RELAY	1	A24	ABB	14, MATHURA ROAD, FARIDABAD, HARYANA-121003	0129-2567580, 09871799449	
	INTERPOSING RELAY	2	G01	ALSTOM LTD	A-7, SEC-65, NOIDA	0120-479 0000	
	INTERPOSING RELAY	3	E1075	JYOTI LTD.	JYOTI LIMITED, E&CS DIVISION,3/15, BIDC, GORWA,VADODARA - 390 016, E-MAIL ID: ECS@JYOTI.COM	Ph. No.:+91-265-2281214 , Fax No.:+91-265-2281214	
	INTERPOSING RELAY	4	E1099	OEN INDIA LTD	29/1479, VYTILLA, COCHIN - 682 019 KERALA, INDIA	Phone : +91 484 2301132, 2303709 Fax : +91 484 2302287, 2302221 sales@oenindia.com	
	INTERPOSING RELAY	5	S01	SIEMENS	RC-IN I S NR DEL AREA, JIL BUILDING, TOWER-B, PLOT NO. 78, SECTOR 18, GURGAON-122015, INDIA	0124-2842000, 9873424331 amit.bhadauria@siemens.com	
ES35	INDICATING LAMPS	1	B04	BCH	20/4, MATHURA ROAD, FARIDABAD, HARYANA-121006	0129-4293000	
	INDICATING LAMPS	2	C01	C&S ELECTRIC LTD.	222, OKHLA IND. ESTATE, PH-III, NEW DELHI-110020	6832259,6918834-37	
	INDICATING LAMPS	3	E1050	ESSEN DEINKI	FLAT NO. 502, SKYLINE HOUSE 85, NEHRU PLACE NEW DELHI	011-26217060	
	INDICATING LAMPS	4	E1153	VAISHNO(HOTLINE SWGR.& CONTROL)	G-19, SECTOR - 11, NOIDA - 201301, UTTAR PRADESH, INDIA	8377805157 9818338922	
	INDICATING LAMPS	5	A35	GE-POWER	KAMAK TOWER, 3RD FLOOR, PLOT NO. 12- A, TVK INDUSTRIAL ESTATE, EKKADUTHANGAL, GUINDY, CHENNAI-	9818338922	
	INDICATING LAMPS	6	S01	SIEMENS	RC-IN I S NR DEL AREA, JIL BUILDING, TOWER-B, PLOT NO. 78, SECTOR 18, GURGAON-122015, INDIA	0124-2842000, 9873424331 amit.bhadauria@siemens.com	
	INDICATING LAMPS	7	S03	SCHNEIDER ELECTRIC INDIA PVT. LTD.	9TH FLOOR, BLDG. NO. 10, TOWER-C, DLF CYBER CITY, PH-II, GURGAON-122002	0124-3940400	
	JUNCTION BOXES (NON FLAME PROOF)	1	J01	JASPER ENGINEERS PVT. LTD.	A-23, SECTOR - 8, NOIDA-201301	0120-4033520/533	
	JUNCTION BOXES (NON FLAME PROOF)	2	EC05	Electro Controls & Devices	M/S ELECTRO CONTROLS & DEVICES, F-41, SITE-C, SURAIPUR INDUSTRIAL AREA GREATER NOIDA, UTTAR PRADESH :201308	Mr. Sanjay Sharma (Chief Promoter) 0120-2569487, 2560100,2560300	
	JUNCTION BOXES (NON FLAME PROOF)	3	SRC01	M/s Shrenik & Co.	39A/3, PANCHRATNA INDUSTRIAL ESTATE, SARKHEJ-BAVLA ROAD, CHANGODAR, AHMEDABAD - 382 213	020-026708100	
	JUNCTION BOXES (NON FLAME PROOF)	4	PME-01	M/s PHOENIX MECANO LTD.,	388 BHARE, TALUKA MULSHI, POST GHOTAWADE, PIRANGOOT, INDUSTRIAL AREA, PUNE-412115	Awasthi(09971119006) Tel: ++91 20 6674 5103, Mobile: +91 90499 95985, Fax: ++91 20 6674 5126	
	JUNCTION BOXES (NON FLAME PROOF)	5	ACE01	Adroit Control Engineers Pvt.Ltd.	M/S ADROIT CONTROL ENGINEERS PVT.LTD. PLOT-3, KRISHNA INDL. AREA, SECTOR-25 FARIDABAD - 121004	011-47600700, 0129-4251400	
	JUNCTION BOXES (NON FLAME PROOF)	6	PME-01	M/s PHOENIX MECANO LTD.,	388 BHARE, TALUKA MULSHI, POST GHOTAWADE, PIRANGOOT, INDUSTRIAL AREA, PUNE-412115	Awasthi(09971119006) Tel: ++91 20 6674 5103, Mobile: +91 90499 95985, Fax: ++91 20 6674 5126 contact person : Vishwa bandhu E-mail:d.gupta@pmipl-online.com ;admin@pmipl-	
	JUNCTION BOXES (NON FLAME PROOF)	7	MK01	MIKA ENGINEERS	BRANCH OFFICE : 'D'-101, DHEERAJ HERITAGE RESIDENCY II, SHASTRI NAGAR, SANTACRUZ (W), MUMBAI 400 054.	Director : Mr. Asgar Karimi Email: asgar@mikaengineers.com E-mail : mika@mtnl.net.inTelfax : 022-26610081/82/83/84Tel : 02527-249066/70 Cell : 099230 74373	TYPE-S ONLY

SUB-VENDOR DIRECTORY

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	PHONE	REMARKS
ES36	JUNCTION BOXES (NON FLAME PROOF)	8	PME-01	M/s PHOENIX MECANO LTD.,	388 BHARE, TALUKA MULSHI, POST GHOTAWADE, PIRANGOOT, INDUSTRIAL AREA, PUNE-412115	TEL.- +912066745000 Awasthi(09971119006) Tel: ++91 20 6674 5103, Mobile: +91 90499 95985, Fax: ++91 20 6674 5126 contact person : Vishwa bandhu E-mail:d.gupta@pmipl-online.com ;admin@pmipl-online.com	
	JUNCTION BOXES (NON FLAME PROOF)	9	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
	JUNCTION BOXES (NON FLAME PROOF)	10	A03	AJMERA INDUSTRIES & ENGG. WORKS	AJMERA INDL. AND ENGG. WORKS. AJMERA HOUSE, A-61 / KHAIRANE MIDC., TTC INDL. AREA, NAVI MUMBAI – 400705.	Tel : 022 27620299 / 97 / 96 'mail@ajmerna.net	
	JUNCTION BOXES (NON FLAME PROOF)	11	S802	S.B. ELECTRICAL ENGINEERING CORPORATION	03, SARDAR GRIHA BUILDING, LOHAR CHAWAL, MUMBAI-400002	022- 22069831; 022-66637259	
	JUNCTION BOXES (NON FLAME PROOF)	12	RT13	RITTAL INDIA PVT. LTD.	Espire Building ,Level -1 A-41, Mohan Co-Operative Industrial Estate ,Mathura Road, New Delhi -110044	Amit Bansal Phone: 011-42004000, D: 011-42004033 - Mobile: +91 9717772245 - mailto:amit.b@rittal-india.com www.rittal-india.com	
	JUNCTION BOXES (NON FLAME PROOF)	13	HP08	HPL ELECTRIC AND POWER LTD.	Works Address: Village Shavella, PO:Jabli, Teh-Kasauli, Dist-Solan, Himachal Pradesh-173209	Mr. Ashwani Kumar mailto:'ashwani@hplindia.com' M:9971127370	
ES37	JUNCTION BOXES (FLAME PROOF)	1	SS01	SUDHIR SWITCHGEAR	305/6, APEEJAY HOUSE, 130, BOMBAY SAMACHAR MARG, MUMBAI - 400 023. INDIA	Telephone Nos. : 40460000 (100 lines) Fax Nos. : ++91-22-22049381 Email : md@sudhirschwitchgears.com ; works@sudhirschwitchgears.com ;scud@vsnl.com	
ES39	LIGHTING FIXTURES (NON LED)	2	E1206	BALIGA LIGHTING EQPT PVT LTD	63A,CP RAMASWAMY ROAD, PB NO 6910, CHENNAI-600018	44-24995505,22680990-4	
	LIGHTING FIXTURES (NON LED)	3	F04	ELEXPRO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI-396424	02637-265140, Mr. Jssk kumar	
	LIGHTING FIXTURES (NON LED)	4	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
	LIGHTING FIXTURES (NON LED)	5	C02	CROMPTON GREAVES	3RD FLOOR, EXPRESS BUILDING,9-10, BAHADUR SHAH ZAFAR MARG, NEAR ITO CROSSING,NEW DELHI-110002, INDIA	91 11 23460700 - 999 Sunil.Das@cgglobal.com, Mr. Prashant Wewhare 9930095703 (0250) 6458250	
	LIGHTING FIXTURES (NON LED)	6	E1051	EVERGREEN ENGG. CO.	EVERGREEN ENGG COMPANY WORKS-5, PLOT NO. 9,10,11,12, SURVEY NO. 242, CHINCH PADA, VASAI EAST-401208	01244606001, Sharad (+919871150447)	
	LIGHTING FIXTURES (NON LED)	7	P01	PHILIPS	9TH FLOOR,DLF 9B, DLF CYBER CITY, DLF PHASE-III,GURGAON-122002	020-66098700	
	LIGHTING FIXTURES (NON LED)	8	WP01	WIPRO LTD.	WIPRO CONSUMER CARE AND LIGHTING, 5TH FLOOR, GODREJ ETERNIA -C, OLD PUNE, MUMBAI ROAD, SHIVAJINAGAR, PUNE - 411005	mohitsharma@hplindia.com'	
	LIGHTING FIXTURES (NON LED)	9	HP01	M/S HPL ELECTRIC & POWER PVT. LTD	M/S HPL ELECTRIC & POWER PVT. LTD. PLOT NO. 76-B,PHASE-IV, SEC-57, HSIIDC, INDL. AREA , KUNDLI, DIST.- SONEPAT (HARYANA) - 131028	011-25810093 ; 9810071832 (Akhilesh Agrawal) aagrawal@sroshni.com	
	LIGHTING FIXTURES (NON LED)	10	SR01	SURYA ROSHNI LIMITED	PADMA TOWER, RAJENDRA PLACE, RAJENDRA PLACE NEW DELHI	GIRISH KUMAR SHRIVASTAVA +91-9810528922	
	LIGHTING FIXTURES (NON LED)	11	HI02	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA-201301	Mr. Mohit Gautam 'Tel: +919568152111 'mohit.gautam@halonix.co.in'; 'rahul.singh@halonix.co.in'	
	LIGHTING FIXTURES (NON LED)	12	HN13	M/s Halonix Technologies Limited	M/s Halonix Technologies Limited B-31, Phase -II, Noida Distt. Gautam Budh Nagar (U.P.) Pin- 201305		

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	PHONE	REMARKS
ES40	LIGHTING FIXTURES (LED)	1	NE01	Neev Luminaries	B-6/3 Okhla Industrial Area Phase-2 New Delhi 110020	Phone: 011 40604830-31, M:8826995888 Fax: +91 11 4060 4831 info@neeverenergy.in, Jitendra Sahu <jsahu@neeverenergy.com>	
	LIGHTING FIXTURES (LED)	2	HIO1	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA-201301	GIRISH KUMAR SHRIVASTAVA +91-9810528922, girish.srivastava@havells.com\	
	LIGHTING FIXTURES (LED)	3	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
	LIGHTING FIXTURES (LED)	4	SR01	SURYA ROSHNI LIMITED		1 011-25810093 ; 9810071832 (Akhilesh Agrawal) aagrawal@sroshni.com	
	LIGHTING FIXTURES (LED)	5	P01	PHILIPS	9TH FLOOR,DLF 9B, DLF CYBER CITY, DLF PHASE-III,GURGAON-122002	01244606001, Sharad (+919871150447), Mr. Guruseelan M 8939693949, Mr Ashish Sethi 9007077089	
	LIGHTING FIXTURES (LED)	6	HP01	M/S HPL ELECTRIC & POWER PVT. LTD	M/S HPL ELECTRIC & POWER PVT. LTD. PLOT NO. 76-B,PHASE-IV, SEC-57, HSIIDC, INDL. AREA , KUNDLI, DIST.- SONEPAT (HARYANA) - 131028	mohitsharma@hplindia.com, Mr. Nitesh Verma 8851036938, Mr Ajay lakra 9560045423	
	LIGHTING FIXTURES (LED)	7	INS1	INSTA POWER	PLOT NO. - 457 PHASE - V, UDYOG VIHAR, GURGAON - 122016	124-4124000, Mr amit Bhardwar: 8800508090	
	LIGHTING FIXTURES (LED)	8	PT13	Pyrotech Electronics Pvt. Ltd.	M/s Pyrotech Electronics Pvt. Ltd.(Unit -1) Led Light, Sensor Division F-16A, Road No.3 Mewar Industrial Area, Madri Udaipur -313003, Rajasthan,	Concern Person – Mr. Praveen sisodiya : 9314310042(phisodiya@pyrotechlighting.com) Ms Ritika 9509245814	
	LIGHTING FIXTURES (LED)	9	HN13	M/s Halonix Technologies Limited	M/s Halonix Technologies Limited B-31 , Phase -II, Noida Distt. Gautam Budh Nagar (U.P.) Pin- 201305	Mr. Mohit Gautam ' Tel: +919568152111 'mohit.gautam@halonix.co.in'; M: 9891868793'rahul.singh@halonix.co.in'	
	LIGHTING FIXTURES (LED)	10	JA13	M/s JAQUAR & COMPANY PVT. LTD.	M/s JAQUAR & COMPANY PVT. LTD. Plot No.3 , Sector M-11, IMT Manesar. Gurgaon- 122050 Haryana	Mr. Dhruv Kumar ' Tel: +919350043727 dhruv.kumar@jaquar.com ; gaurav.bhalla@jaquar.com : 9582950282	
	LIGHTING FIXTURES (LED)	11	CR13	M/s CROMPTON GREAVES CONSUMER ELECTRICALS LTD.	M/s CROMPTON GREAVES CONSUMER ELECTRICALS LTD.Tower-3, 1st Floor, East Wing Equinox Business Park LBS Marg, Kurla (West), Mumbai-400070	Mr S L Sivakumar 'Sivakumar L' <sivakumar.sl@crompton.co.in> M: 9176609363	
	LIGHTING FIXTURES (LED)	12	WI13	M/s WIPRO ENTERPRISES PRIVATE LTD.	M/s WIPRO ENTERPRISES PRIVATE LTD. L-8, MIDC Waluj, Aurangabad-431136, Maharashtra, India	Ms Dhanya K K 'dhanya.kk8@wipro.com' M 9891815476, Mr Puneet kalia 'puneet.kalia@wipro.com'	
	LIGHTING FIXTURES (LED)	13	NI13	M/s Nesa Illumination Technologies Pvt. Ltd.	M/s Nesa Illumination Technologies Pvt. Ltd 36/A Devraj Industrial Park, Opp. Sameep Fabrics, Pipalaj Pirana Road, Piplaj, Ahmedabad	Mr. Dhaval Shah <dhaval@nessa.in> M 9825650354, Mr. Akshat Khare <akshat@nessa.in> M: 9016111723	
	LIGHTING FIXTURES (LED)	14	FE13	M/s. Forus Electric Pvt. Ltd.	M/s. Forus Electric Pvt. Ltd. B-313, Okhla Industrial Area, Phase-1, New delhi-110020	Mr. Amit Bharadwaj <amit.bharadwaj@foruselectric.com> M 8800508090, Mr. Uttam Goyal <uttam@foruselectric.com> M:	
	LIGHTING FIXTURES (LED)	15	OE13	M/s. ORIENT ELECTRIC LIMITED.	C- 130, Sector-63, Noida-201301, Uttar Pradesh, D-209, Sector-63, Noida-201301, Uttar Pradesh	Birjendra Kumar Yadav <birjendra.yadav@orientelectric.com> P. +91-120-4894900 , +91-9599848491	
	LIGHTING FIXTURES (LED)	16	ME13	M/s Mika Engineers	Survey no. 47, shed no. 2, AGHAI, Shahpurwada road, AGHAI Thane, Maharashtra-421601	"deepak" <deepak@mikaengineers.com> MOB: 8976737543	

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	PHONE	REMARKS
	LIGHTING FIXTURES (LED)	17	KI13	M/s Kalingia Illuminatn Pvt Ltd.	15/3/2 SITE-IV SAHIBABAD INDUSTRIAL AREA GHAZIABAD UP 201010	Bidyut Mandal' <bidyut.mandal@kalingialights.com> (M: 955367941 / 9315029882), 'Suresh Shiromani' <suresh.shiromani@kalingialigh	
ES41	LIGHTING FIXTURES (FLAME PROOF)	1	HI01	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA-201301	GIRISH KUMAR SHRIVASTAVA +91-9810528922	
	LIGHTING FIXTURES (FLAME PROOF)	2	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
	LIGHTING FIXTURES (FLAME PROOF)	3	E1206	BALIGA ELECTRICALS	63A,CP RAMASWAMY ROAD, PB NO 6910, CHENNAI-600018	44-24995505,22680990-4	
ES42	LIGHTING LAMP (NON LED)	1	WP01	WIPRO LTD.	WIPRO CONSUMER CARE AND LIGHTING, 5TH FLOOR, GODREJ ETERNIA -C, OLD PUNE	020-66098700	
	LIGHTING LAMP (NON LED)	2	E1050	ESSEN DEINKI	FLAT NO. 502, SKYLINE HOUSE 85, NEHRU PLACE NEW DELHI	9818338922	
	LIGHTING LAMP (NON LED)	3	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
	LIGHTING LAMP (NON LED)	4	INS1	INSTA POWER	PLOT NO. - 457 PHASE - V, UDYOG VIHAR, GURGAON - 122016	124-4124000	
	LIGHTING LAMP (NON LED)	5	P01	PHILIPS	9TH FLOOR,DLF 9B, DLF CYBER CITY, DLF PHASE-III,GURGAON-122002	01244606001, Sharad (+919871150447)	
	LIGHTING LAMP (NON LED)	6	HI01	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA-201301	GIRISH KUMAR SHRIVASTAVA +91-9810528922	
	LIGHTING LAMP (NON LED)	7	HP01	HPL	M/S HPL ELECTRIC & POWER PVT. LTD. PLOT NO. 76-B,PHASE-IV, SEC-57, HSIIDC, INDL. AREA , KUNDLI, DIST.- SONEPAT (HARYANA) - 131028	mohitsharma@hplindia.com'	
	LIGHTING LAMP (NON LED)	8	SR01	SURYA ROSHNI LIMITED	PADMA TOWER, RAJENDRA PLACE, RAJENDRA PLACE NEW DELHI	011-25810093 ; 9810071832 (Akhilesh Agrawal) aagrawal@sroshni.com	
	LIGHTING LAMP (NON LED)	9	HN13	M/s Halonix Technologies Limited	M/s Halonix Technologies Limited B-31 , Phase -II, Noida Distt. Gautam Budh Nagar (U.P.) Pin- 201305	Mr. Mohit Gautam 'Tel: +919568152111 'mohit.gautam@halonix.co.in'; 'rahul.singh@halonix.co.in'	
ES43	LIGHTING LAMP (LED)	1	NE01	Neev Luminaries	D-115 , OKHLA INDUSTRIAL AREA, PHASE-1 NEW DELHI – 110020	Phone: +91 11 4060 4830 Fax: +91 11 4060 4831 info@neevenergy.in	
	LIGHTING LAMP (LED)	2	HI01	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA-201301	GIRISH KUMAR SHRIVASTAVA +91-9810528922	
	LIGHTING LAMP (LED)	3	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI – 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
	LIGHTING LAMP (LED)	4	SR01	SURYA ROSHNI LIMITED	PADMA TOWER, RAJENDRA PLACE, RAJENDRA PLACE NEW DELHI	011-25810093 ; 9810071832 (Akhilesh Agrawal) aagrawal@sroshni.com	
	LIGHTING LAMP (LED)	5	P01	PHILIPS	9TH FLOOR,DLF 9B, DLF CYBER CITY, DLF PHASE-III,GURGAON-122002	01244606001, Sharad (+919871150447)	
	LIGHTING LAMP (LED)	6	HP01	M/S HPL ELECTRIC & POWER PVT. LTD	M/S HPL ELECTRIC & POWER PVT. LTD. PLOT NO. 76-B,PHASE-IV, SEC-57, HSIIDC, INDL. AREA , KUNDLI, DIST.- SONEPAT (HARYANA) - 131028	mohitsharma@hplindia.com	
	LIGHTING LAMP (LED)	7	INS1	INSTA POWER	PLOT NO. - 457 PHASE - V, UDYOG VIHAR, GURGAON - 122016	124-4124000	
	LIGHTING LAMP (LED)	8	PT13	Pyrotech Electronics Pvt. Ltd.	M/s Pyrotech Electronics Pvt. Ltd.(Unit -1) Led Light, Sensor Division F-16A, Road No.3 Mewar Industrial Area, Madri Udaipur -313003, Rajasthan,	Concern Person – Mr. Praveen sisodiya (psisodia@pyrotechlighting.com) Ankit Kumar Sr. Engineer(North Region -Sales & Marketing) # +91- 7340061769, 8287897309	

SUB-VENDOR DIRECTORY

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	PHONE	REMARKS
	LIGHTING LAMP (LED)	9	HN13	M/s Halonix Technologies Limited	M/s Halonix Technologies Limited B-31 , Phase -II, Noida Distt. Gautam Budh Nagar (U.P.) Pin- 201305	Mr. Mohit Gautam 'Tel: +919568152111 'mohit.gautam@halonix.co.in'; 'rahul.singh@halonix.co.in'	
ES45	LIGHTING SWITCH , SOCKET & S/F UNIT	1	F04	ELEXPRO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI- 396424	02637-265140, Mr. Jssk kumar	
	LIGHTING SWITCH , SOCKET & S/F UNIT	2	E1012	ANCHOR	STEEL HOUSE, B WING, PLOT NO. 24, MAHAL INDUSTRIAL ESTATE, MAHAKALI CAVES ROAD, NEAR PAPER BOX, ANDHERI (E), MUMBAI, MAHARASHTRA.- 400093	022-30418888.	
	LIGHTING SWITCH , SOCKET & S/F UNIT	3	E1076	KAYCEE	KAYCEE INDUSTRIES LTD., C/O-CMS COMPUTERS LTD., 35A, REAR BLDG., KILOKARI, NEW DELHI-110014	Rajiv Sharma-9312004687	
	LIGHTING SWITCH , SOCKET & S/F UNIT	4	L01	L&T	32, SHIVAJI MARG, P.O. BOX- 6223, NEW DELHI-110015	011-41419554/59	
	LIGHTING SWITCH , SOCKET & S/F UNIT	5	S01	SIEMENS	RC-IN I S NR DEL AREA, JIL BUILDING, TOWER-B, PLOT NO. 78, SECTOR 18, GURGAON-122015, INDIA	0124-2842000, 9873424331 amit.bhadauria@siemens.com	
	LIGHTING SWITCH , SOCKET & S/F UNIT	6	E1068	INDO ASIAN	B-24, PHASE - II , NOIDA - 201305, U.P.	120-3042222	
ES51	MCB	1	E1088	MDS SWITCHGEAR LTD	314-317SHAH NAHAR ESTATE	011 - 25793021	
	MCB	2	E1068	INDO ASIAN	B-24, PHASE - II , NOIDA - 201305, U.P.	120-3042222	
	MCB	3	S03	SCHNEIDER ELECTRIC INDIA PVT. LTD.	9TH FLOOR, BLDG. NO. 10, TOWER-C, DLF CYBER CITY, PH-II, GURGAON-122002	0124-3940400	
	MCB	4	E1120	S&S POWER SWITCHGEAR LTD.	NEW NO. 67, OLD NO. 19, DR. RANGA ROAD, MYLAPORE, CHENNAI - 600004	044 - 24988056, 044 - 24988057, 044 - 24988058	
ES55	MODULAR SWITCH BOARD	1	E1012	ANCHOR	STEEL HOUSE, B WING, PLOT NO. 24, MAHAL INDUSTRIAL ESTATE, MAHAKALI CAVES ROAD, NEAR PAPER BOX, ANDHERI (E), MUMBAI, MAHARASHTRA - 400093	022-30418888.	
	MODULAR SWITCH BOARD	2	F04	ELEXPRO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI- 396424	02637-265140, Mr. Jssk kumar	
	MODULAR SWITCH BOARD	3	HI01	HAVELLS INDIA LIMITED	QRG TOWERS , 2D SECTOR-126, NOIDA- 201301	GIRISH KUMAR SHRIVASTAVA +91-9810528922	
ES59	RECEPTACLES - DECORATIVE	1	E1012	ANCHOR	STEEL HOUSE, B WING, PLOT NO. 24, MAHAL INDUSTRIAL ESTATE, MAHAKALI CAVES ROAD, NEAR PAPER BOX, ANDHERI (E), MUMBAI, MAHARASHTRA.- 400093	022-30418888.	
	RECEPTACLES - DECORATIVE	2	F04	ELEXPRO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI- 396424	02637-265140, Mr. Jssk kumar	
	RECEPTACLES - DECORATIVE	3	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI - 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
	RECEPTACLES - DECORATIVE	4	A03	AJMERA INDUSTRIES & ENGG. WORKS	AJMERA INDL. AND ENGG. WORKS. AJMERA HOUSE, A-61 / KHAIRANE MIDC. , TTC INDL. AREA, NAVI MUMBAI - 400705.	Tel : 022 27620299 / 97 / 96 'mail@ajmera.net	
ES61	SWITCH BOX	1	E1012	ANCHOR	STEEL HOUSE, B WING, PLOT NO. 24, MAHAL INDUSTRIAL ESTATE, MAHAKALI CAVES ROAD, NEAR PAPER BOX, ANDHERI (E), MUMBAI, MAHARASHTRA - 400093	022-30418888.	
	SWITCH BOX	2	F04	ELEXPRO ELECTRICALS PVT/ LTD.	C 1/27 & 37 GIDC KABILPORE NAVSARI- 396424	02637-265140, Mr. Jssk kumar	
	SWITCH BOX	3	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI - 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com;	
	SWITCH BOX	4	A03	AJMERA INDUSTRIES & ENGG. WORKS	AJMERA INDL. AND ENGG. WORKS. AJMERA HOUSE, A-61 / KHAIRANE MIDC. , TTC INDL. AREA, NAVI MUMBAI - 400705.	Tel : 022 27620299 / 97 / 96 'mail@ajmera.net	
	SWITCH BOX	5	S802	S.B. ELECTRICAL ENGINEERING CORPORATION	03, SARDAR GRIHA BUILDING, LOHAR CHAWAL, MUMBAI-400002	022- 22069831; 022-66637259	
	TERMINAL BLOCKS	1	C01	WAGO-CONTROLS	C 27, GREATER NOIDA, SECTOR 58, C BLOCK, SECTOR 58, NOIDA, UTTAR PRADESH 201307	0120-2580409/10	
	TERMINAL BLOCKS	2	E1038	CONNECT WELL	309A/4, 3RD FLOOR, KALKAJI, OKHLA IND AREA PH-2, GOVINDPURI, NEW DELHI, DL 110019	9811881085 09871419996 011-65908877	


SUB-VENDOR DIRECTORY


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ES62	TERMINAL BLOCKS	3	E1047	ELMEX CONTROLS PVT. LTD.	12,G.I.D.C.ESTATE,MUKARPURA ROAD,VADODARA-390010	9374631074	
	TERMINAL BLOCKS	4	E1050	ESSEN DEINKI	FLAT NO. 502, SKYLINE HOUSE 85, NEHRU PLACE NEW DELHI	011-26217060	
	TERMINAL BLOCKS	5	E1142	TECHNOPLAST	OPP.I.M.INTER COLLEGE, BEGUM SARAI KHURD ROAD, AMROHA - 244221, U.P.	PH:- 05922 264006 CELL NO:- 9012676000, 9319520799, 9319582467	
	TERMINAL BLOCKS	6	PME-01	M/s PHOENIX MECANO LTD.,	388 BHARE, TALUKA MULSHI, POST GHOTAWADE, PIRANGOOT, INDUSTRIAL AREA, PUNE-412115	TEL. - +912066745000 Awasthi(09971119006) Tel: +91 20 6674 5103, Mobile: +91 90499 95985, Fax: +91 20 6674 5126 contact person : Vishwa bandhu E-mail:d.gupta@pmipl-online.com ;admin@pmipl-online.com	
	TERMINAL BLOCKS	7	E1050	ESSEN DEINKI	FLAT NO. 502, SKYLINE HOUSE 85, NEHRU PLACE NEW DELHI	011-26217060	
ES67	RECEPTACLE (FLAME PROOF)	1	E1206	BALIGA ELECTRICALS	63A,CP RAMASWAMY ROAD, PB NO 6910, CHENNAI-600018	44-24995505,22680990-4	
	RECEPTACLE (FLAME PROOF)	2	SS01	SUDHIR SWITCHGEAR	305/6, APEEJAY HOUSE, 130, BOMBAY SAMACHAR MARG, MUMBAI - 400 023. INDIA	Telephone Nos. : 40460000 (100 lines) Fax Nos. : ++91-22-22049381 Email : md@sudhirsitchgears.com ; works@sudhirsitchgears.com ; scud@vsnl.com	
	RECEPTACLE (FLAME PROOF)	3	FFP01	FCG FLAME PROOF CONTROL GEAR	A1/53, SHAH & NAHAR INDUSTRIAL ESTATE, SITARAM JADHAV ROAD, LOWER PAREL (W), MUMBAI-400 013	Mr. N. G. Patel CMD Office No: +91-22-43443200 Fax No: +91-22-24960313	
ES68	RECEPTACLE (NON FLAME PROOF)	1	A03	AJMERA INDUSTRIES & ENGG. WORKS	AJMERA INDL. AND ENGG. WORKS. AJMERA HOUSE, A-61 / KHAIRANE MIDC., TTC INDL. AREA, NAVI MUMBAI - 400705.	Tel : 022 27620299 / 97 / 96 'mail@ajmera.net	
	RECEPTACLE (NON FLAME PROOF)	2	C02	CROMPTON GREAVES	3RD FLOOR, EXPRESS BUILDING,9-10, BAHADUR SHAH ZAFAR MARG, NEAR ITO CROSSING,NEW DELHI-110002, INDIA	91 11 23460700 - 999 'Sunil.Das@cgglobal.com	
	RECEPTACLE (NON FLAME PROOF)	3	E1207	CYCLE ELECTRIC DEVICE & SERV.CO.	: A-3, NEAR ANTHEM BIOSCIENCE, KSSIDC INDUSTRIAL AREA, BOMMASANDRA, BOMMASANDRA INDUSTRIAL AREA, BANGALORE, KARNATAKA 560099	Mr. H.Jaishanker +919845039081, 080 - 27833102, 080 - 27833103 : +91 80 41460985 'cycleelectric@gmail.com	
	RECEPTACLE (NON FLAME PROOF)	4	B04	BCH	20/4, MATHURA ROAD, FARIDABAD - 121006, HARYANA, INDIA	0(129)-4063000, 9015800189(Ramesh Giri) 'ramesh.giri@bchindia.com	
	RECEPTACLE (NON FLAME PROOF)	5	B02	BEST & CROMPTON	BEST & CROMPTON ENGINEERING LTD 28C, AMBATTUR INDUSTRIAL ESTATE (NORTH) AMBATTUR, CHENNAI - 600 098	Ph : +91 44 4551 4724 , MRKT DGM Mr. Vi Raj:- 9840593411 'bestcromptonviraj@gmail.com	
ES69	EMERGENCY LIGHTING UNIT (FIXED & PORTABLE TYPE)- NON FLAME PROOF	1	B05	BAJAJ ELECTRICALS	BAJAJ ELECTRICALS LTD. ENGINEERING & PROJECTS BU (NORTH) 3rd FLOOR, GULMOHARHOUSE, COMMUNITY CENTRE 161/B-4, GAUTAM NAGAR, YUSUF SARAI NEW DELHI - 110049	CONTACT PERSON : Mr. S. SREEMANY. SR. MANAGER (PROJECTS) CONTACT DETAILS : (+91) 9871025705. MAIL ID : srabans@bajajelectricals.com	
	EMERGENCY LIGHTING UNIT (FIXED & PORTABLE TYPE)- NON FLAME PROOF	2	PEP05	PROLITE AUTOGLO LIMITED,	PROLITE AUTOGLO LTD 25 SINGH INDUSTRIAL ESTATE NO. 3, RAM MANDIR ROAD., GOREGAON (W), MUMBAI, MAHARASHTRA 400104, INDIA	022-67868100 sales@prolite.com	
ES70	EMERGENCY LIGHTING UNIT (FIXED & PORTABLE TYPE)- FLAME PROOF	1					
ES71	24V SUPPLY MODULE WITH COMPLETE ACCESSORIES	1	E1103	POWER PACK ENTERPRISES	POWER PACK ENTERPRISES MR. NEHAL SHAH / MR. SHARAD SHAH (PARTNER) NO. 3, JAYSHREE SADAN, 1ST FLOOR, OLD NAGARDAS ROAD, ANDHERI EAST MUMBAI - 400069, MAHARASHTRA, INDIA	Call Us:08447573761 Mobile: +(91)-9821787821 +(91)-9821035604	
	24V SUPPLY MODULE WITH COMPLETE ACCESSORIES	2	E1066	INDCOIL	ADDRESS: PLOT NO. A- 150/ 151, 23RD U ROAD, WAGLE ESTATE, THANE WEST, CST RD, FRIENDS COLONY, HALLOW PUL, KURLA WEST, MUMBAI, MAHARASHTRA 400070	Phone:022 2583 8305	
	24V SUPPLY MODULE WITH COMPLETE ACCESSORIES	3	AIE01	Ames Impex Electricals Pvt. Ltd	C-1B/1207, PHASE IV, GIDC NARODA, AHMEDABAD, GUJARAT 382330	Phone:079 2282 1648	
	RCCB	1	C01	C&S ELECTRIC LTD.	222, OKHLA IND. ESTATE, PH-III, NEW DELHI-110020	011-3088 7520-29	


SUB-VENDOR DIRECTORY

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	PHONE	REMARKS
ES79	RCCB	2	S03	SCHNEIDER ELECTRIC INDIA PVT. LTD.	9TH FLOOR, BLDG. NO. 10, TOWER-C, DLF CYBER CITY, PH-II, GURGAON-122002	0124-3940400	
	RCCB	3	S01	SIEMENS	RC-IN I S NR DEL AREA, JIL BUILDING, TOWER-B, PLOT NO. 78, SECTOR 18, GURGAON-122015, INDIA	0124-2842000, 9873424331 amit.bhadauria@siemens.com	
	RCCB	4	A35	GE-POWER	KAMAK TOWER, 3RD FLOOR, PLOT NO. 12-A, TVK INDUSTRIAL ESTATE, EKKADUTHANGAL, GUINDY, CHENNAI-600032	044-49681447	
	RCCB	5	L01	L&T	32, SHIVAJI MARG, P.O. BOX- 6223, NEW DELHI-110015	011-41419554/59	
	RCCB	6	C02	CROMPTON GREAVES	RAIL TRANSPORTATION SYSTEMS,VANDANA BUILDING, 11, TOLSTOY MARG, TOLSTOY MARG, NEW DELHI, DL 110001	011 3041 6300	
ES81	PEDESTAL FAN & CEILING FAN					REPUTED MAKE	
ES82	EXIT SIGN (FLAME PROOF)					REPUTED MAKE	
ES83	EXIT SIGN (NON FLAME PROOF)					REPUTED MAKE	
ES84	LADDER					REPUTED MAKE	
ES87	DICHORIC SPOT LIGHTING FIXTURE					REPUTED MAKE	
ES88	HAND LAMP UNIT					REPUTED MAKE	
ES89	LIGHTING DESIGNER	1	AT13	AVAIDS TECHNOVATORS PVT. LTD.	4A/58, SHANKAR ROAD, NEW DELHI-110060	Mr. Rajendra Panda M: 9910481854 (email: rajendra@avaids.com)	
	LIGHTING DESIGNER	2	BE13	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: srbans@bajajelectricals.com)	
	LIGHTING DESIGNER	3	KS13	KELSATEK SOLUTIONS PVT. LTD.	50/1 4TH FLOOR, CHURCH STREET, BANGALORE-560001	Mr. S S Mudaliar Sr. VP M: 6380471362 (email: mudaliar@kelsatek.com)	
	LIGHTING DESIGNER	4	SE13	M/s SUMANAM ENGINEERING SERVICES CONSULTANT	1, ADITHYA, KOWDIAR, TRIVANDRUM 695003	Mr. Anshad S Phone: 471-2437588, (email: shaw@sumanam.org)	
	LIGHTING DESIGNER	5	SM13	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)	System designer only for FGD, R&M and Hydro
	LIGHTING DESIGNER	6	CL13	CITELUM INDIA PVT. LTD	Y-14A, GREEN PARK MAIN, NEW DELHI-110016	Mr. Satyabrala Meher M: 8155001095. (email: smeher@citelum.in)	System designer only for FGD, R&M and Hydro
	LIGHTING DESIGNER	7	SR13	M/s SURYA ROSHNI LTD	Padma Tower 1, Rajendra Place, New Delhi-110008	Mr. Saurabh Gupta 9999433167. (email: saurabh.gupta@surya.in), AKHILESH AGRAWAL (aagrawal@surya.in)	
	LIGHTING DESIGNER	8	HP13	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	
	LIGHTING DESIGNER	9	ME13	M/s MIKA ENGINEERS.	Survey No.-47,Shed No.-2,Aghai,Shahapur-Wada Road, Village-Aghai, THANE , Pin 421601; MAHARASHTRA	Name : Mr. Deepak Kumar Nayak Email : deepak@mikaengineers.com Contact : 8976737543 Mr. Asgar B Karimi Mob-9820019739 Email: asgar@mikaengineers.com	
	LIGHTING DESIGNER	10	FED13	M/s. Forus Electric Pvt. Ltd.	M/s. Forus Electric Pvt. Ltd. B-313, Okhla Industrial Area, Phase-1, New delhi-110020	Mr. Amit Bharadwaj <amit.bharadwaj@foruselectric.com> M 8800508090, Mr. Uttam Goyal <uttam@foruselectric.com> M: 8527652687	

Makes of sub-vendor and equipment/components (excluding luminaires) mentioned in this list are indicative and shall be subject to NTPC/BHEL approval. The bidder may propose name of additional sub-vendors makes based on their experience, which will be subject to NTPC/BHEL approval.

Project: PARICHHA-II (2X210MW)		ELECTRICAL ITEMS			Doc No	
 Package : ESP RETROFIT PACKAGE		INDICATIVE VENDOR LIST FOR ITEMS REQUIRING QUALITY PLAN AND SUB-VENDOR APPROVAL			Rev No 0	
					Date 13.03.2019	
Contract No.:					Page 4 of 9	
SI No	ITEM	QP/ Insp. Cat.	Proposed sub-supplier	Place	Sub-Supplier approval status / category	Remark
10	Floor mounted Fixed type Indoor LT Switchgear Panel (ACDB / DCDB / Lighting DB/ Solenoid valve distribution Boards)	I	Switching Circuits	Kolkata	A	
			Tricolite	Sahibabad / Manesar	A	
			Hindustan Control & equipment Ltd	Kolkata	A	With fabrication & painting at unit II & MF Electrical Narendrapur
			Maktel	Vadodara	A	
			Jakson	Greater Noida	A	
			Vidyut Control	Gaziabad	A	
			Adlec Power	Rohad (Jhajjar)	A	
			Pyrotech	Udaipur	A	
			Anand Power Ltd.	Noida	A	
			L&T	Mumbai / Coimbatore	A	
			GE	Bangalore	A	
			Siemens	Mumbai	A	
			C&S Electric	Noida / Hardwar	A	
			Schneider	Nasik	A	ACB from Schneider, France
Unilec	Gurgaon	A	ACB from Owner aprvd soures			
11	Wall mounted fixed type indoor/ outdoor LT Switchgear non compartmentalized Panel (Lighting panels / AC / DC Fuse boards / MCB boxes)	I	Positronics	Vadodara	A	
			Pyrotech	Udaipur	A	
			Control Devices	Kolkata	A	
			Jasper	Noida	A	
			Conquerent Control Systems	Manesar	A	
			Havells	Faridabad	A	
			Novateur Electrical & distribution systems	Murthal	A	
			Avaid Technovator	Manesar	A	
Additionally all vendors identified in seriel no. 5 are also				A		
12	Insulators (Bushing, Support , Shaft)	II	BHEL EPD	Bangalore	A	
		II	XUANHUA XINDI INSULATOR CORP. LTD.	CHINA	A	
13	Disconnecting Switch	III	Win Power	Kolkata	A	Insulator make shall be BHEL/WSI/JSI/UCE/ Aditya Birla
		Main Contractor Approved Sources			A	
14	Panel Type Hopper Heater	II	HTD	USA	A	
		II	Hotfoil EHS	USA	A	
		I	HTD HEAT TRACE(I) Pvt Ltd	Hyderabad	A	
		II	Thermon	USA	A	
		I	Thermopads(Unit-II)	Jeeditmetla	A	
15	Tubular Type Heater	I	Thermon	Pune	A	
		II	Main Contractor Approved Sources			A

Project: PARICHHA-II (2X210MW)		ELECTRICAL ITEMS			Doc No	
 Package : ESP RETROFIT PACKAGE		INDICATIVE VENDOR LIST FOR ITEMS REQUIRING QUALITY PLAN AND SUB-VENDOR APPROVAL			Rev No 0	
					Date 13.03.2019	
Contract No.:					Page 7 of 9	
SI No	ITEM	QP/ Insp. Cat.	Proposed sub-supplier	Place	Sub-Supplier approval status / category	Remark
21	CABLE TRAY FLEXIBLE SUPPORT SYSTEM (Refer Note-3)	Refer Note: 3	Vatco	Mumbai	A	Galvanising at Sigma Mumbai
			Inar profiles	Enkapalli	A	
			Industrial perforations	Kolkata	A	
			Premier power products	Kolkata	A	Galvanising at Neha Galvaniser
			Steelite engg.	Mumbai	A	
			Indiana gratings	Pune	A	Galvanising at Poona Galvaniser
22	LT Busduct	I	Amtech	Pune	A	Galvanising at B.G. Shirke
			KGS Engg	Chennai	A	
			Spaceage	Gurgaon	A	
			C&S	Noida/Haridwar	A	RQP
			Unilec	Gurgaon	A	
23	Lighting Transformer (Epoxy Insulated)	II	REEP	Chennai	A	
			Gujarat Plug In	Vadodara	A	SQP
			Prayog	Pune	A	SQP
			Indcoil	Mumbai	A	SQP
			Pragati	Thane	A	SQP
			Southern Elect	Chennai	A	SQP
			Pactil	Thane	A	SQP
			AE	Mumbai	A	SQP
KPEL	Pune	A	SQP			
24	Lighting Fixtures & Luminaries	III	Wipro	Pune	A	
			Crompton	Mumbai	A	
			Philips	Pune	A	
			Bajaj	Mumbai	A	
25	Welding Recepticles	III	SCHIEINDER	Nasik	A	
			AJMERA	Mumbai	A	
			Best & Crompton	Chennai	A	
			BCH	Faridabad	A	
26	Lighting Wires / GI Conduit	III	BIS Licencee		A	Any make with VDE or CE or UL or CSA marking or BIS approved with valid CML number.
27	Cable Gland	III	Arup Engg	Kolkatta		Any other make with VDE or CE or UL or CSA marking or BIS approved with valid CML number.
			Sunil & Co	Kolkatta	A	
			Quality Preceision	Kolkatta	A	
			Comet	Mumbai	A	
28	Lugs	III	Dowells	Mumbai	A	Any other make with VDE or CE or UL or CSA marking or BIS approved with valid CML number.
			Chetna	Nasik	A	
			3D	Umbergaon	A	
29	Emergency Light, Trefoil Clamps, Ceiling Fans	III	Main Contractor Approved Sources		A	
30	M.S. ROD, G.I. Flat, G.I. Wire, Earth Wire	III	Main Contractor Approved Sources		A	GALVANISING AT Owner APPROVED SOURCES
31	Local Motor Starter Panels	III	SIEMENS	Mumbai	A	Any other make with VDE or CE or UL or CSA marking or BIS approved with valid
			L&T	Mumbai	A	

	TECHNICAL SPECIFICATION & DATA SHEET FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS	Specification No.: PE-TS-503-558-E006
		Rev. No. 00
		Date 18.05.24

ANNEXURE-E- LIST OF DOCUMENTS TO BE SUBMITTED AFTER AWARD OF CONTRACT

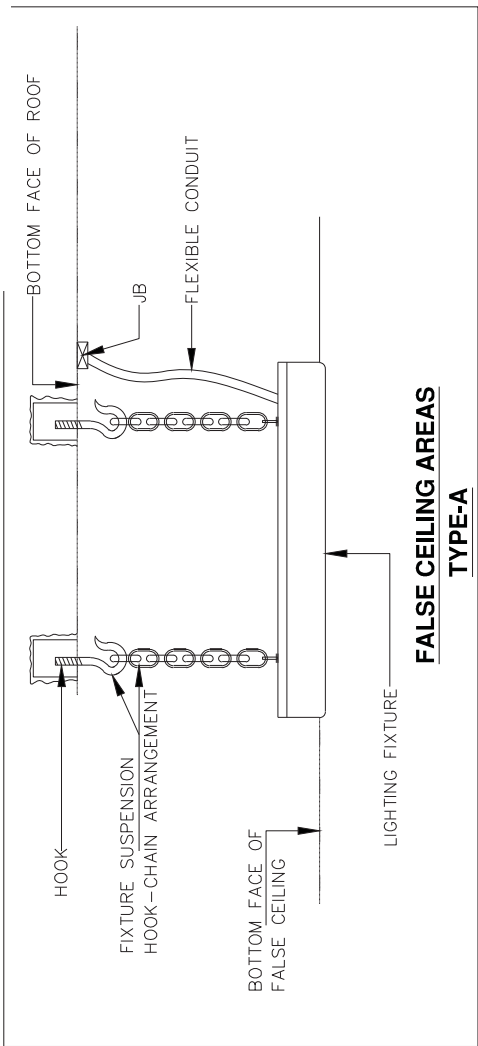
BHEL Drawing No.	Drawing Title	Vendor Sub (Days)*	BHEL comment (Days)	Vendor Sub (Days)#	BHEL and Customer comment/approval (Days)
Primary Documents					
PE-V0-XXX-558-E101	GA DRAWING AND DATA SHEET OF LIGHTING FIXTURES	21	8	8	18
PE-V0-XXX-558-E102	GA DRAWING AND DATA SHEET OF MISC. ITEMS	21	8	8	18
PE-V0-XXX-558-E901	MQP FOR LUMINARIES	21	8	8	18
PE-V0-XXX-558-E905	MQP FOR MISCELLANEOUS ITEMS	21	8	8	18
Secondary Documents					
Submission schedule shall be same as Primary documents (after receiving input drawing from BHEL)					
PE-V0-XXX-558-E201	Lighting design Calculation				
PE-V0-XXX-558-E301	Lighting Layout				
PE-V0-XXX-558-E401	Conduit Layout				
PE-V0-XXX-558-E103	MOUNTING ARRANGEMENT LIGHTING FIXTURES				
PE-V0-XXX-558-E104	TYPE TEST REPORTS FOR LIGHTING FIXTURES				
PE-V0-XXX-558-E105	FIELD QUALITY PLAN OF LIGHTING FIXTURES				
PE-V0-XXX-558-E106	MOUNTING ARRANGEMENT OF MISC. ITEMS				
PE-V0-XXX-558-E107	TYPE TEST REPORTS FOR MISC. ITEMS				

NOTES

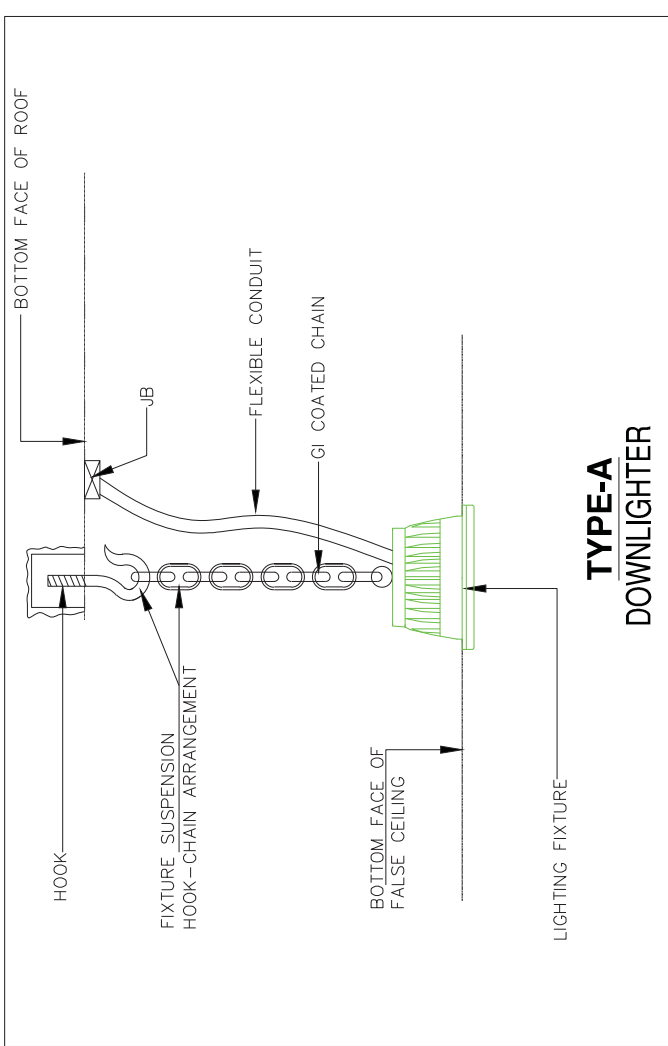
- * 1st submission within indicated days from date of purchase order
- # Submission (within indicated days) after incorporating all BHEL comments
- c) Primary documents shall be considered for Delay analysis

ANNEXURE-F TYPICAL MOUNTING ARRANGEMENT

This is a typical mounting arrangement dwgs/ details for guidance only. Final Mounting arrangement dwg shall be made by the successful bidder during detailed Engineering. It is to be noted that GI Conduit 20mm Dia and Flexible TERNE Coated Conduit, Structural Steel shall be provided by BHEL. Balance all other accessories clamps/ chains/ clips/ steel rope/ pins etc required for mounting as per typical mounting arrangement for their fixtures shall be part of fixtures only and shall be provided by the Bidders.



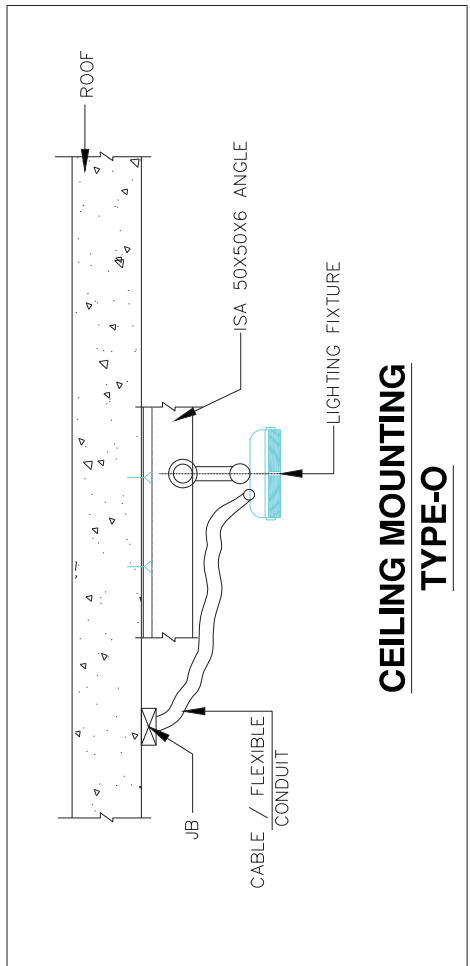
FALSE CEILING AREAS TYPE-A



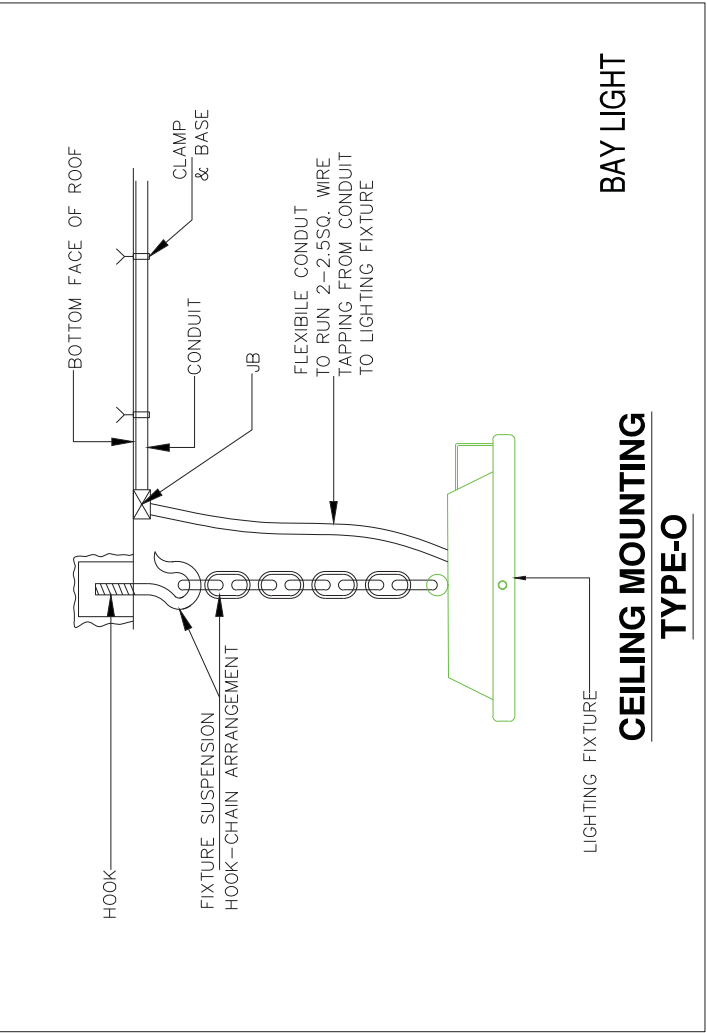
TYPE-A DOWNLIGHTER

2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents than Consult with Design incharge/Site incharge.
3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
4. If any new type of mounting required at site than we can optimized or change the arrangement with prior inform to BHEL site incharge.
5. All structural steel parts/supporting parts shall be hot dip galvanized as per B06/7S.

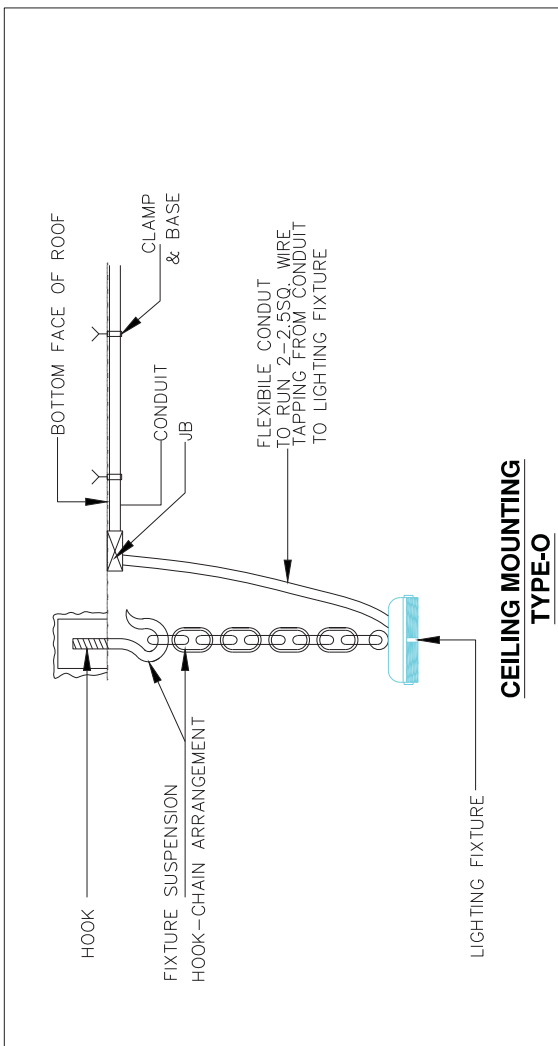
SIZE-A4



**CEILING MOUNTING
TYPE-O**

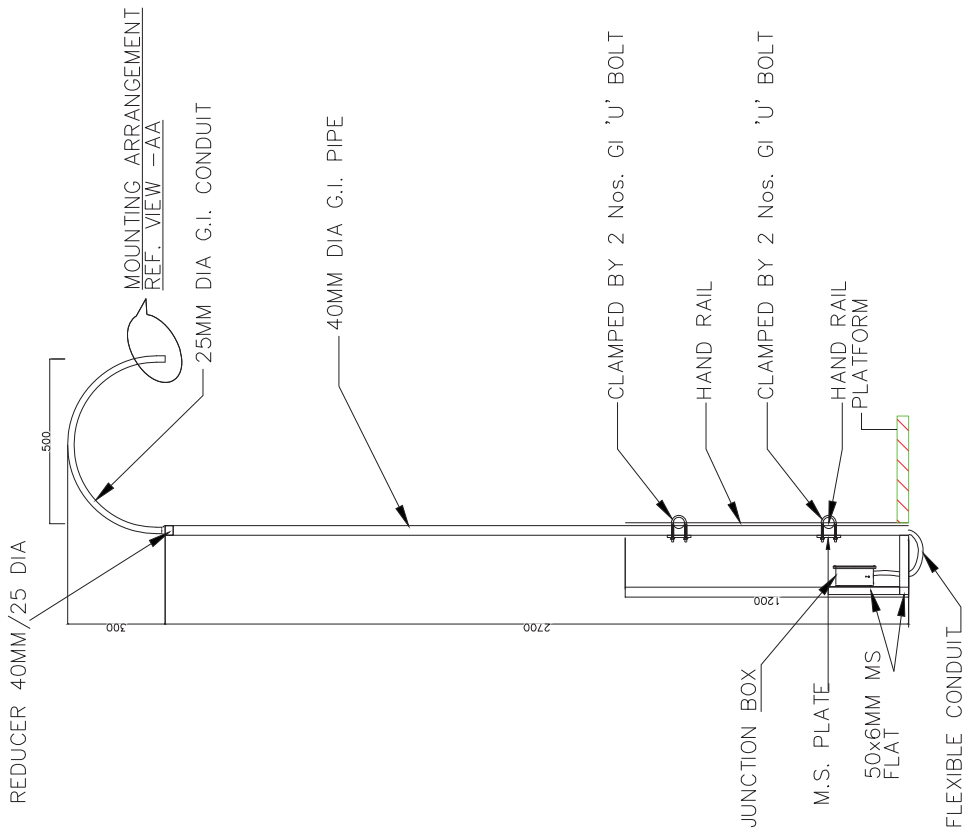


**CEILING MOUNTING
TYPE-O**



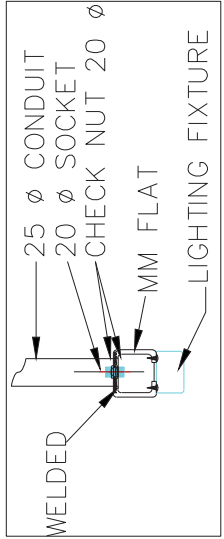
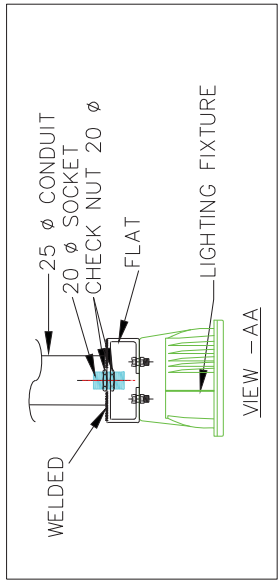
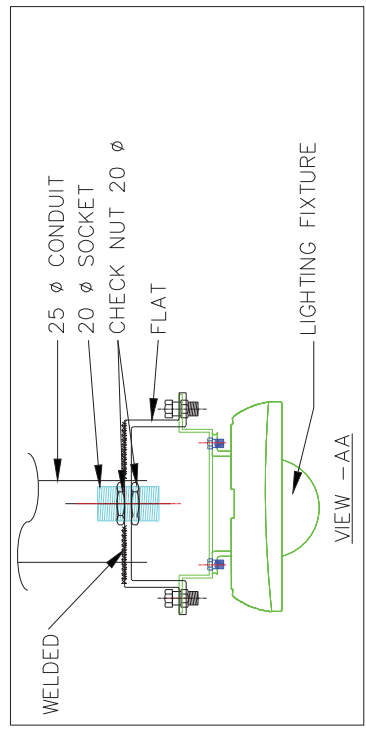
**CEILING MOUNTING
TYPE-O**

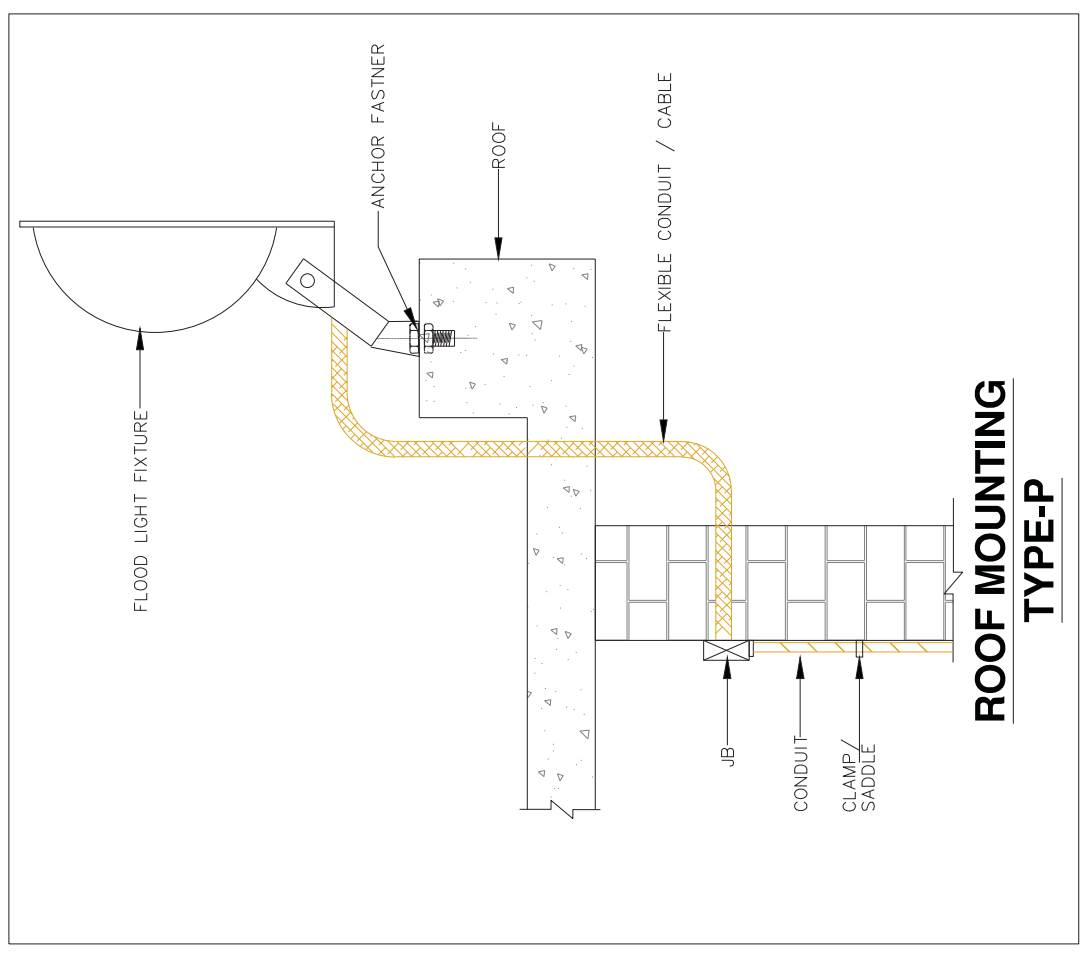
- General Notes:
1. Mounting arrangement can be changed/ modified on site as per site requirements.
 2. In Lighting layout, Mounting arrangement also show if any discrepancy found on both documents, then Consult with Design incharge/Site incharge.
 3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
 4. If any new type of mounting required at site then we can optimized or change the arrangement with prior inform to BHEL site incharge.
 5. All structural steel parts/supporting parts shall be hot dip galvanized as per BOQ/IS.



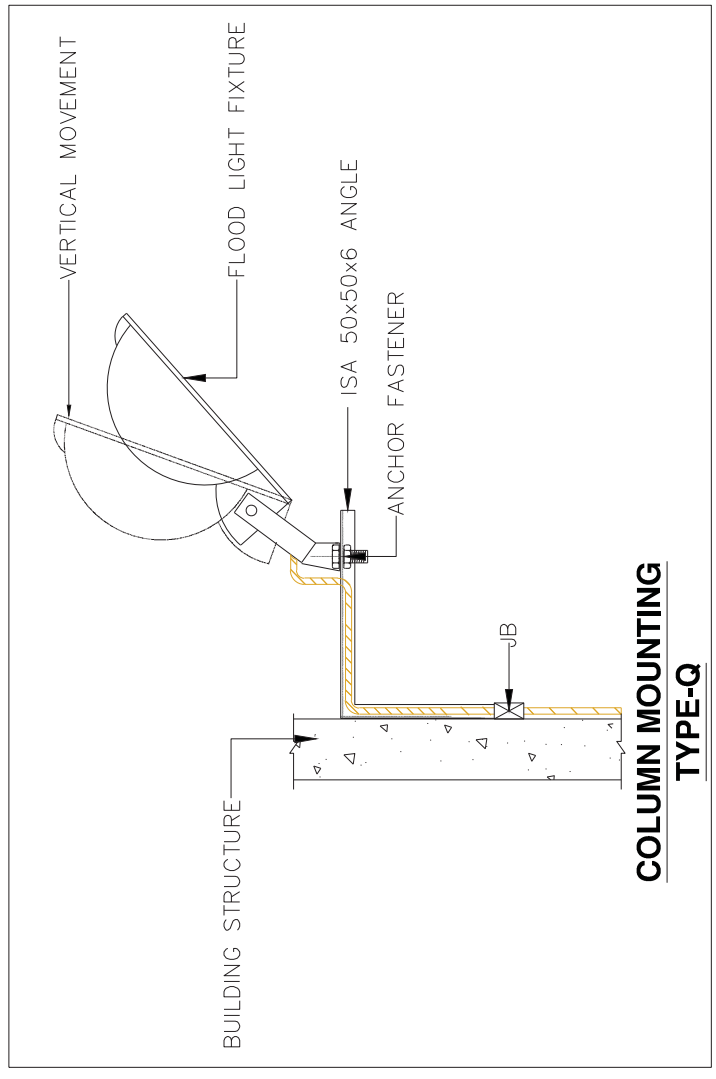
HAND RAIL MOUNTING TYPE-I

- General Notes:
1. Mounting arrangement can be changed/ modified on site as per site requirements.
 2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents than Consult with Design incharge/Site incharge.
 3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
 4. If any new type of mounting required at site than we can't optimized or change the arrangement with prior inform to BHEL site incharge.
 5. All structural steel parts/supporting parts shall be hot dip galvanized as per B06/75.



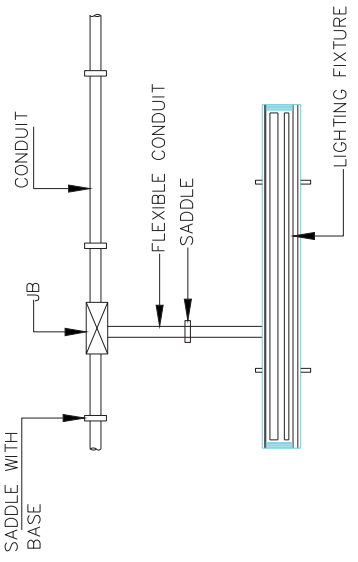


**ROOF MOUNTING
TYPE-P**

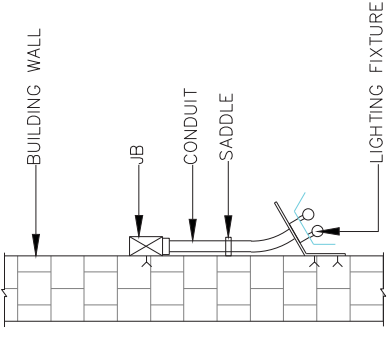


**COLUMN MOUNTING
TYPE-Q**

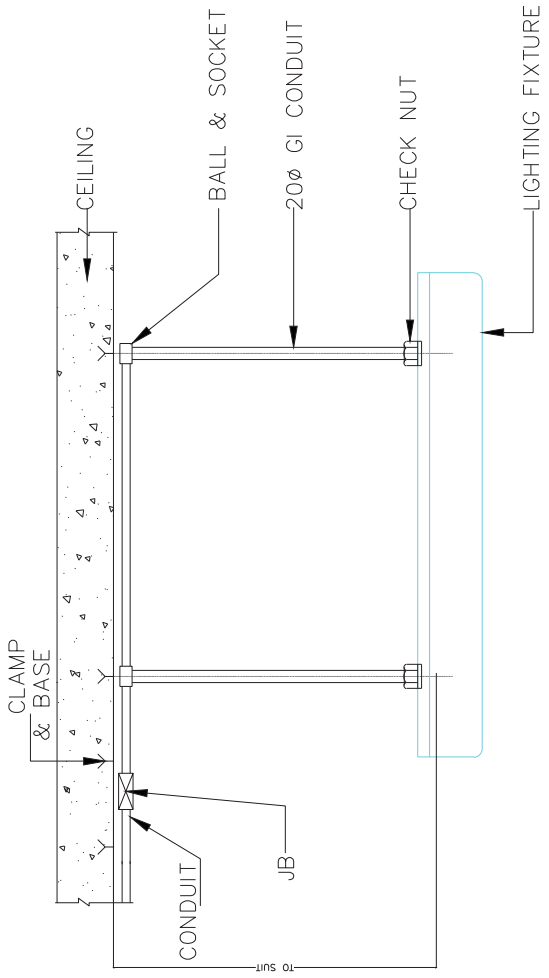
- General Notes:
1. Mounting arrangement can be changed/ modified on site as per site requirements.
 2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents then Consult with Design incharge/Site incharge.
 3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
 4. If any new type of mounting required at site then we can't optimized or change the arrangement with prior inform to BHEL site incharge.
 5. All structural steel parts/supporting parts shall be hot dip galvanized as per B06/7S.



TYPICAL MOUNTING DETAIL OF WALL MOUNTED, TYPE-D



END VIEW



TYPICAL MOUNTING DETAIL OF SUSPENDED, TYPE C

- General Notes:
1. Mounting arrangement can be changed/ modified on site as per site requirements.
 2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents then Consult with Design incharge/Site incharge.
 3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
 4. If any new type of mounting required at site then we can't optimized or change the arrangement with prior inform to BHEL site incharge.
 5. All structural steel parts/supporting parts shall be hot dip galvanized as per B06/75.

BALL & SOCKET

CEILING

CONDUIT

CLAMP

20ø GI CONDUIT

CHECK NUT 20 ø

NIPPLE 20 ø

CLAMP FOR MOUNTING LIGHTING FIXTURE

LIGHTING FIXTURE

SUPPORTED FROM CEILING/ TYPE-F

MS ANGLE
25X25X3
35X35X6
50X50X6

UB

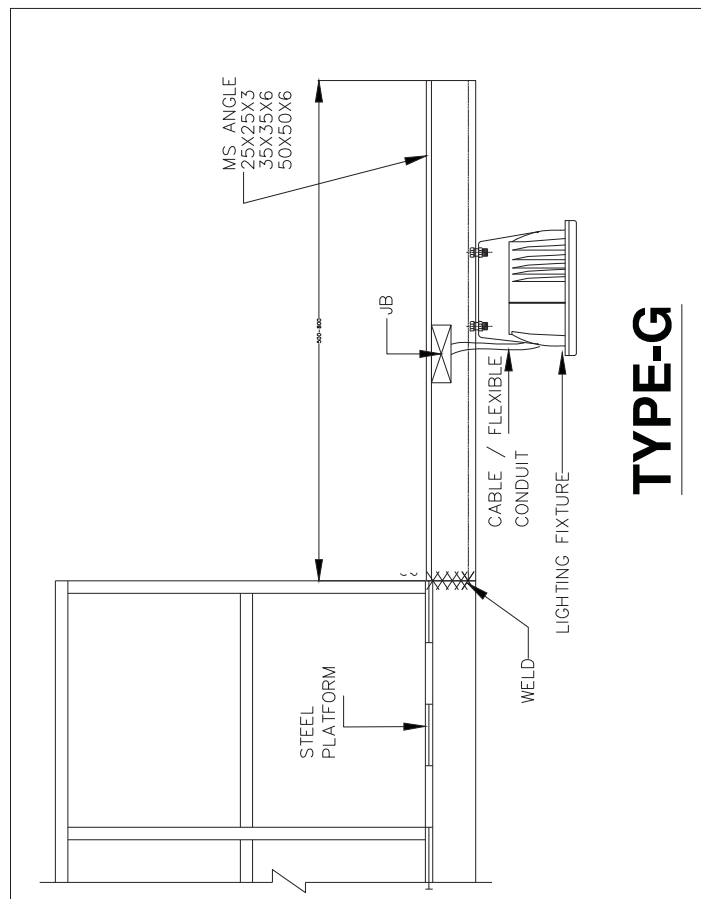
CABLE / FLEXIBLE
CONDUIT

LIGHTING FIXTURE

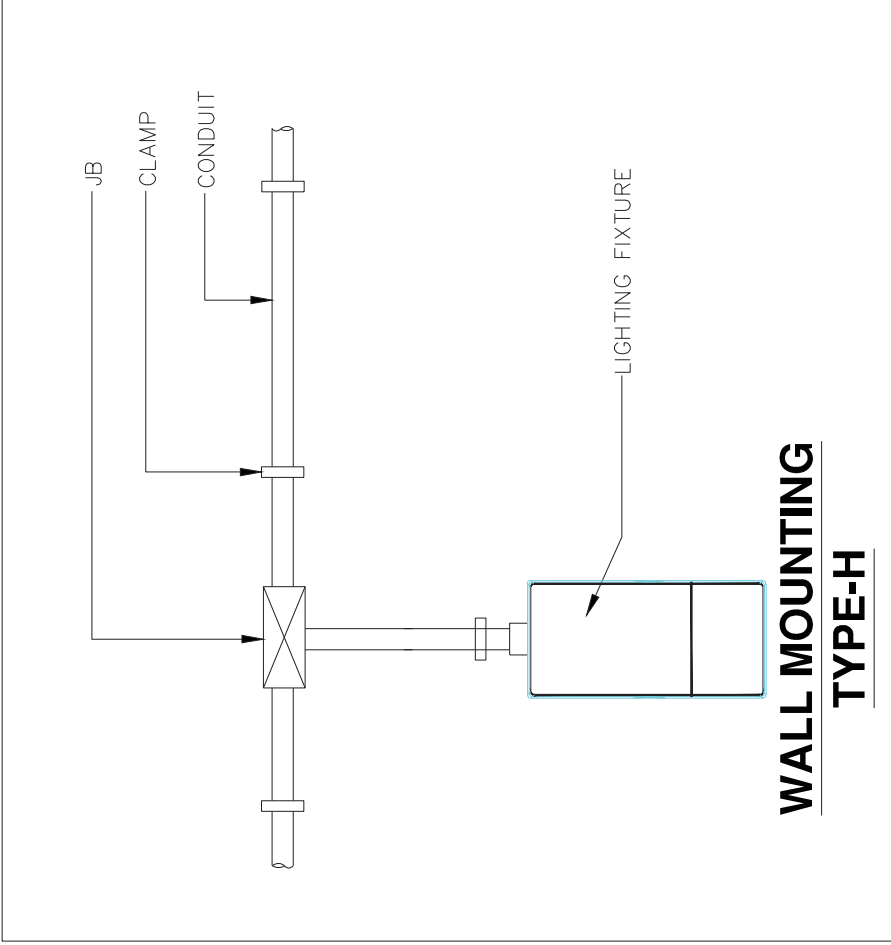
SUPPORTED FROM CHANNEL/ STRUCTURAL STEEL TYPE-G

General Notes:
1. Mounting arrangement can be changed/ modified on site as per site requirements.
2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents then Consult with Design incharge/Site incharge.
3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
4. If any new type of mounting required at site then we can't optimized or change the arrangement with prior inform to BHEL site incharge.
5. All structural steel parts/supporting parts shall be hot dip galvanized as per B06/75.

SIZE-A4

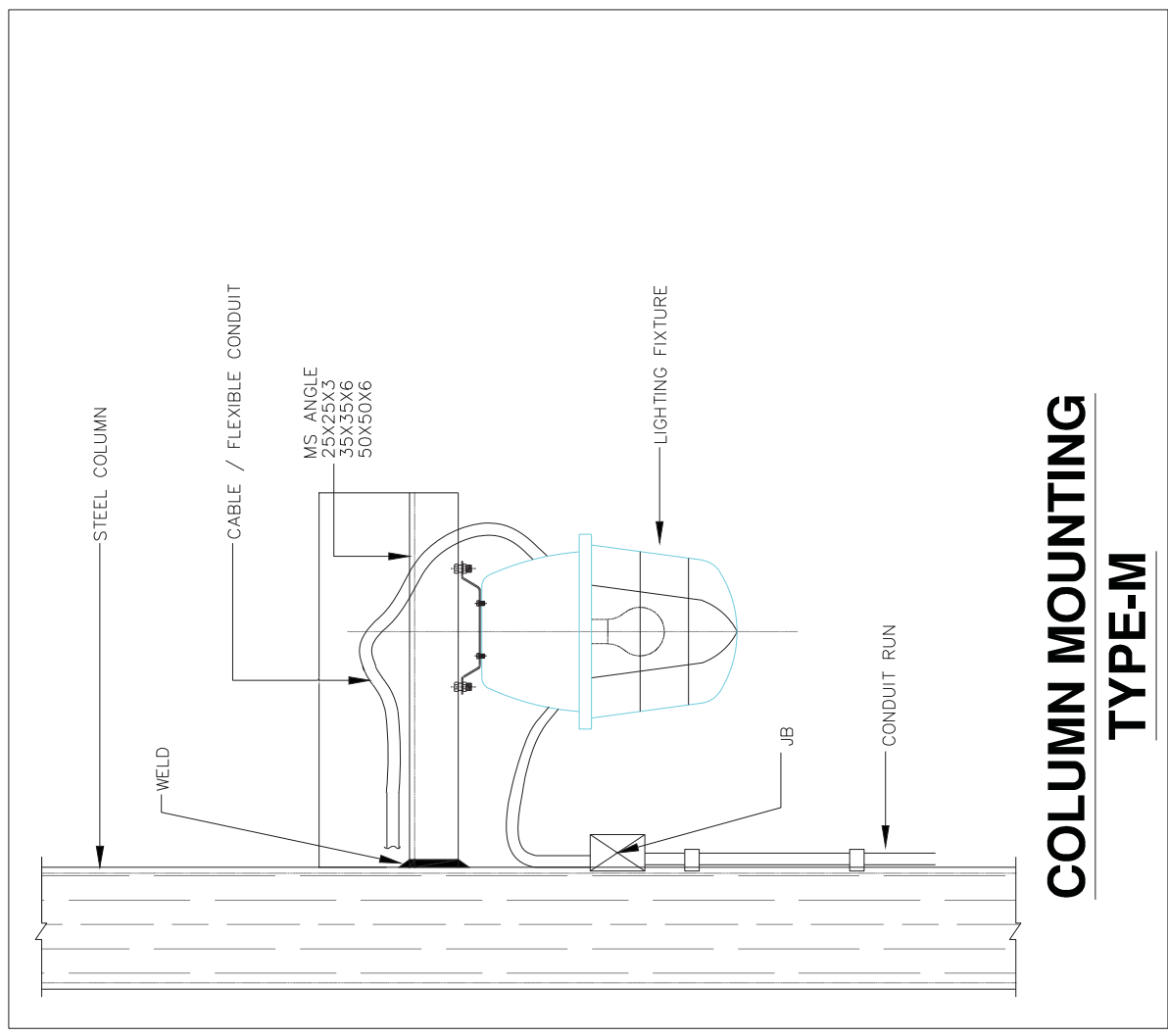


TYPE-G

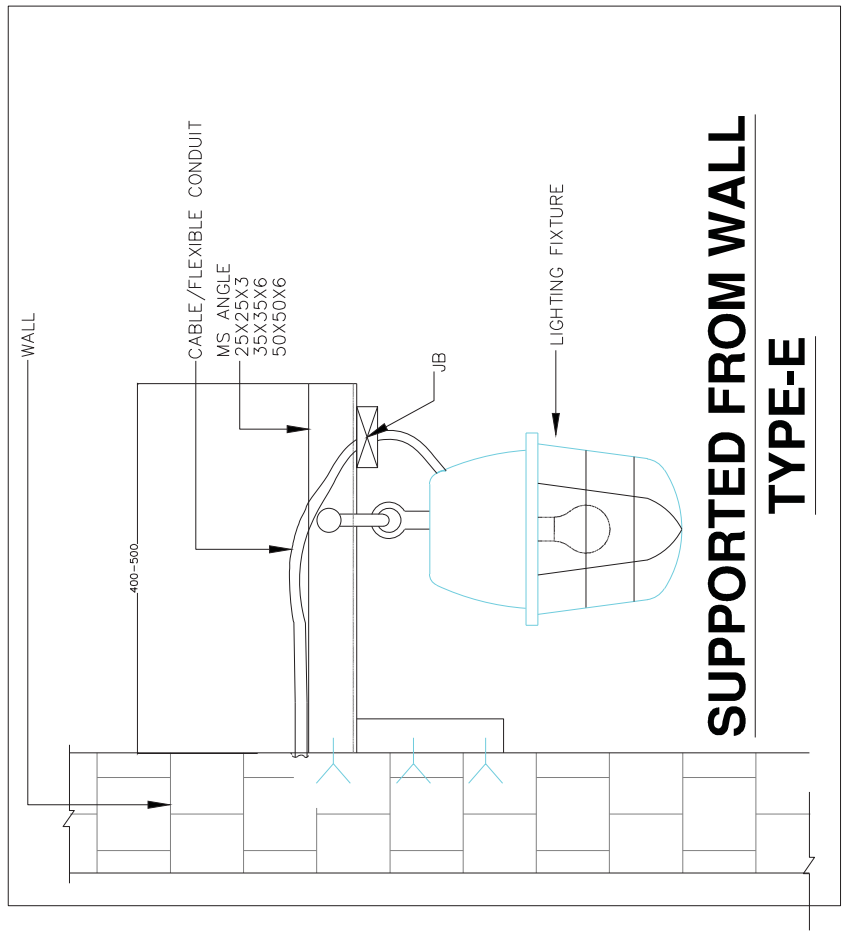


WALL MOUNTING TYPE-H

- General Notes:
1. Mounting arrangement can be changed/ modified on site as per site requirements.
 2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents then Consult with Design incharge/Site incharge.
 3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
 4. If any new type of mounting required at site then we can't optimized or change the arrangement with prior inform to BHEL site incharge.
 5. All structural steel parts/supporting parts shall be hot dip galvanized as per B06/75.



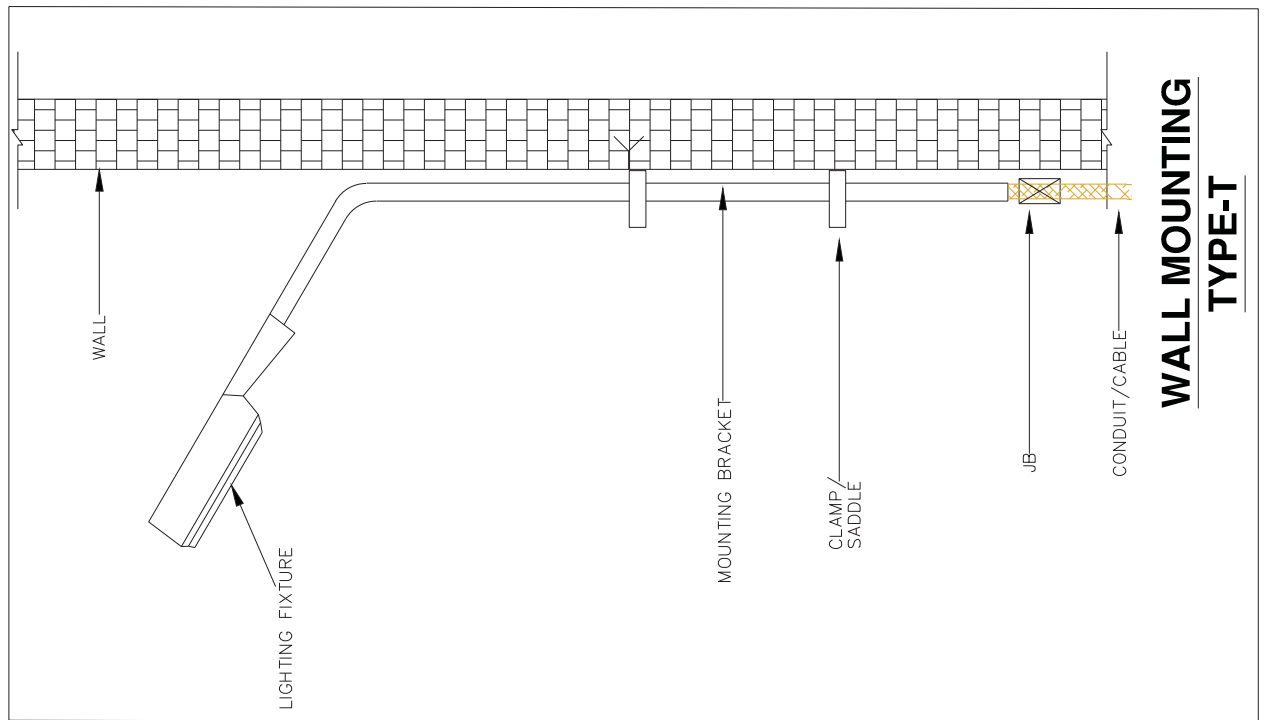
COLUMN MOUNTING TYPE-M



SUPPORTED FROM WALL TYPE-E

General Notes:

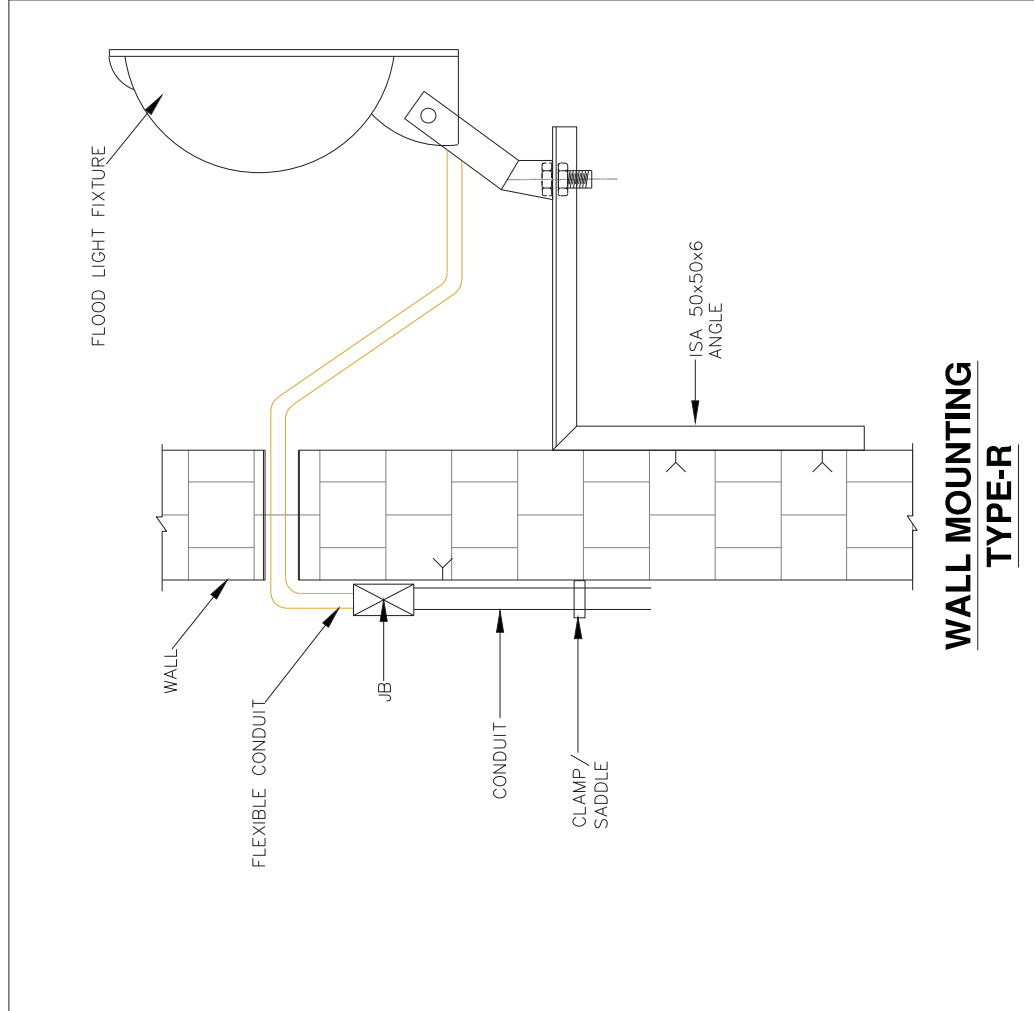
1. Mounting arrangement can be changed/ modified on site as per site requirements.
2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents than Consult with Design incharge/Site Incharge.
3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
4. If any new type of mounting required at site than we can optimized or change the arrangement with prior inform to BHEL site incharge.
5. All structural steel parts/supporting parts shall be hot dip galvanized as per B00/TS.



WALL MOUNTING
TYPE-T

- General Notes:
1. Mounting arrangement can be changed/ modified on site as per site requirements.
 2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents than Consult with Design incharge/Site Incharge.
 3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
 4. If any new type of mounting required at site than we can optimized or change the arrangement with prior inform to BHEL site incharge.
 5. All structural steel parts/supporting parts shall be hot dip galvanized as per B00/TS.

SIZE-A4




**WALL MOUNTING
TYPE-R**

- General Notes:
1. Mounting arrangement can be changed/ modified on site as per site requirements.
 2. In Lighting layout, Mounting arrangement also shown. If any Discrepancy found on both documents than Consult with Design incharge/Site Incharge.
 3. Quantity and Material shown in drawings are indicative only and may be change or vary as per site requirement.
 4. If any new type of mounting required at site than we can optimized or change the arrangement with prior inform to BHEL site incharge.
 5. All structural steel parts/supporting parts shall be hot dip galvanized as per B0Q/TS.

NTPC		ITEM : LIGHTING FIXTURES (Conventional and LED type)		STANDARD QUALITY PLAN			Q.P.NO:0000-999-QOE-S-02		REVIEWED BY		APPROVED BY		
				CONFORMING TO CODE : As applicable			Rev No: 01		SWAPNESWAR MISHEA		K.N.Jain		
							Date: 02/11/18		VIKRAM TALWAR		SUNIL MALANI		
							VALID UPTO: 01/11/18				REMARKS		
Sl No	COMPONENT & OPERATIONS	CHARACTERISTICS / INSTRUMENTS	CLASS OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE CRITERIA	FORMAT OF RECORD	D*	M	C	N
					GM	GN							
Note: 1) Lighting fixtures supplier to ensure that constructional features of the lighting fixture (conventional & LED type) are as per NTPC specification requirements 2) Lighting fixture supplier to maintain all quality control records identified in this QP whether it is identified for NTPC verification or witness or no.													
Conventional type Lighting Fixture													
A	Bought out items / in-process checks												
1	Lamps	Make, rating & type	Major	Visual	1 sample per type	1 sample per type	NTPC specification requirements for rating & type, Make to be BIS approved with CML number	NTPC specification requirements for rating & type, Make to be BIS approved with CML number		V	-	-	
1.1	Electronic Ballast (if applicable)	a Certificate of compliance	Major	Visual	-	-	NTPC specification requirements	Certificate of compliance by ballast manufacturer / lighting fixture supplier that ballast meets all NTPC specification requirements	Certificate of compliance	V	-	-	
		b THD and pf check	Major	Electrical	Mn r std.	-	NTPC specification requirements	THD <=10% , pf >= 0.9 for FH type and pf >= 0.95 for other type of fluorescent lighting fixtures	Inspection report	P/V *	-	-	P/V * - means test will be performed either by lighting fixture supplier or their sub-vendor as Verified by lighting fixture supplier
1.2	Castings	Freedom from defects	Major	Visual	Mn r std.	-	NTPC specification requirements	Castings shall be free from any defects such as blow holes, surface blisters, cracks and cavities etc.	Inspection report	P/V *	-	-	P/V * - means test will be performed either by lighting fixture supplier or their sub-vendor as Verified by lighting fixture supplier
1.3	Sheet metal forming and fabrication	Freedom from defects	Major	Visual	Mn r std.	-	NTPC specification requirements	sheet metal fabrication / forming etc should be as per manufacturer drgs	Inspection report	P/V *	-	-	P/V * - means test will be performed either by lighting fixture supplier or their sub-vendor as Verified by lighting fixture supplier
1.4	Pre-treatment and powder coating	Pre-treatment process checks, Powder coating finish, thickness, uniformity of coating and adhesion	major	Visual, chemical & mech	Mn r std.	-	Mnfr standard, NTPC specification requirements	Nominal coating thickness 50 microns or more	Inspection report	P/V *	-	-	P/V * - means test will be performed either by lighting fixture supplier or their sub-vendor as Verified by lighting fixture supplier

LEGEND: * RECORDS, IDENTIFIED WITH "TICK" (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION. * M: MANUFACTURER/ SUB-SUPPLIER; C: MAIN SUPPLIER, N: NTPC; P: PERFORM W: WITNESS AND V: VERIFICATION. CHP: CUSTOMER HOLD POINT BY NTPC SHALL BE IDENTIFIED UNDER AGENCY COLUMN "N" AS 'W'.
 Format No.: QS-01-QAI-1-10/F3-R0 Engg. Div./CA&I

		ITEM: LIGHTING FIXTURES (Conventional and LED type)		STANDARD QUALITY PLAN				Q.P.NO:000-999-Q0 5-S-062		REVIEWED BY		APPROVED BY		
		CONFORMING TO CODE : As applicable		Rev No: 00		Date: 02/1/15		VALID UPTO: 01/1/15		SWAPNESWAR MSHRA		VIKRAM TALWAR		SUNIL MALANI
Sl No	COMPONENT & OPERATIONS	CHARACTERISTICS / INSTRUMENTS	CLASS OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	P	M	C	N	REMARKS
					6 M	6 CN								
3	Acceptance Tests on conventional Lighting fixture	a Details of lot offered and Certificate of compliance that lighting fixture supplier has inspected the offered lot as per their own standard	Major	Visual	-	-	lighting fixture supplier to submit the details of lot offered for NTPC inspection (Type of lighting fixtures, their batch number, sub-vendor name, quantity)	COC	List		P	V	V	The list may be used by NTPC for sample selection
		b Lamp make	Major	Visual	100%	00%	Make to be BIS approved with CML number	Make to be BIS approved with CML number	Certificate of compliance		V	V	V	
		c Constructional features including: Internal wiring, terminal block, earthing terminal, safety chain (if applicable)	Major	Visual	1 sample per type	1 sample per type	NTPC specification and NTPC approved data sheet/drg	NTPC specification and approved data sheet/drg.	Inspection report		P	W	W	
		d Electronic Ballast (if applicable for offered lighting fixtures) THD and pf check	Major	Electrical	1 sample per type	1 sample per type	NTPC specification	THD <=10% , pf >= 0.9 for FH type and pf >= 0.95 for other type of fluorescent lighting fixtures	Inspection report		P	W	W	At lighting fixture supplier test lab
		e Resistance to moisture test in case of lighting fixtures having IP 24 and above rating	Major	Mechanical	1 sample per type	1 sample per type	NTPC approved data Sheet	IS 10322 Part 1	Inspection report		P	W	W	
		f Resistance to dust (applicable if IP5X and above)	Major	optical	Mnfr std.	Mnfr std	NTPC approved Data sheet and accepted type test report	Certificate of compliance	Certificate of compliance		P/V	V	V	P/V *- means tes will be performed either by lighting fixture supplier or their sub-vendor and Verified by lighting fixture supplier
		f Photometry check	Major	optical	Mnfr std.	Mnfr std	NTPC accepted type test reports	Certificate of compliance for the batch : not offered lighting fixture LOR should be less than 90% (refer IS 16100) with reference to type test reports	Certificate of compliance		P/V	V	V	P/V *- means tes will be performed either by lighting fixture supplier or their sub-vendor and Verified by lighting fixture supplier
		g Dimensions	Major	Visual	1 sample per type	1 sample per type	NTPC specification and approved data sheet/drg.	NTPC specification and approved data sheet/drg.	Inspection report		P	W	W	
		h HV & IR test	Major	Visual	1	1	IS 10322 part 1	IS 10322 part 1	Inspection report		P	W	W	# As per Table 1 (Inspection Level S2) and Table 2 CAQL 2.5 of IS 2500

LEGEND: * RECORDS, IDENTIFIED WITH "TICK" (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION. ** M: MANUFACTURER/ SUB-SUPPLIER; C: MAINSUPPLIER, N: NTPC
 P: PERFORM W: WITNESS AND V: VERIFICATION. CHP: CUSTOMER HOLD POINT BY NTPC SHALL BE IDENTIFIED UNDER AGENCY COLUMN "N" AS "W".

Format No.: QS-01-QAI-P-10/F3-R0

engg. Div/QA&I

COMPONENT & OPERATIONS		ITEM : LIGHTING FIXTURES (Conventional and LED type)		STANDARD QUALITY PLAN				Q.P.No:0000999-QOE-S-#62		REVIEWED BY		APPROVED BY	
		CHARACTERISTICS / INSTRUMENTS	CLASS OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMA OF RECORD	D*	C	N	REMARKS
CONFORMING TO CODE : As applicable				FM	GCN								
1	2	3	4	5	6	7	8	9	10	11	12	13	
LED type Lighting fixture													
Bought out items / in-process checks													
LED Chip	LED chip efficacy	Major	Visual	Mnfr Std	Mnfr Std	NTPC Spec. Appd. Data sheet/ LM 80 report	NTPC Spec/ Appd Data sheet	LM 80 report	V	V	V	At the time of final inspection	
	LED chip CRI and CCT	Major	Visual	Mnfr Std	Mnfr Std	NTPC Spec. Appd. Data sheet/ LM 80 report	NTPC Spec/ Appd Data sheet	LM 80 report	V	V	V	At the time of final inspection	
	Reported TM21 (L80) lifetime of LED chip	Major	Visual	Mnfr Std	Mnfr Std	NTPC Spec. Appd. Data sheet/ LM 80 report	NTPC Spec/ Appd Data sheet	LM 80 report	V	V	V	At the time of final inspection	
LED Driver	a Compatibility with LED module/chip, controls & protection features as per NTPC spec	Major	Visual	-	-	NTPC spec requirements	Certificates of compliance by LED driver manufacturer / lighting fixture supplier that driver meets all NTPC specification requirements	Certificate of compliance	V	V	V		
	b THD and pf check	Major	Electrical	Mnfr std.	-	NTPC specification	THD < 1% and pf >= 0.9	Inspect on report	P/	-	-	P/V * - means test will be performed either by lighting fixture supplier or their sub-vendor and Verified by lighting fixture supplier	
Castings	Freedom from defects	Major	Visual	Mnfr std.	-	NTPC specification requirement	Castings shall be free from any defects such as blow holes, surface blisters, cracks and cavities etc.	Inspect on report	P/	-	-	P/V * - means test will be performed either by lighting fixture supplier or their sub-vendor and Verified by lighting fixture supplier	
Sheet metal forming and fabrication	Freedom from defects	Major	Visual	Mnfr std.	-	NTPC specification requirement	sheet metal fabrication / forming etc should be as per manufacturer standards and good engg practices	Inspect on report	P/	-	-	P/V * - means test will be performed either by lighting fixture supplier or their sub-vendor and Verified by lighting fixture supplier	
Pre-treatment and powder coating	Pre-treatment process checks, Powder coating finish, thickness, uniformity of coating and adhesion	major	Visual, chemical & mech	Mnfr std.	-	Mnfr standard , NTPC specification requirements	Nominal coating thickness 30 microns or more	Inspect on report	P/	-	-	P/V * - means test will be performed either by lighting fixture supplier or their sub-vendor and Verified by lighting fixture supplier	

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LEGEND: * RECORDS, IDENTIFIED WITH "TICK" (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION. ** M: MANUFACTURER/SUB-SUPPLIER; C: MAIN SUPPLIER, N: NTPC; P: PERFORM W: WITNESS AND V: VERIFICATION. CHP: CUSTOMER HOLDPOINT BY NTPC SHALL BE IDENTIFIED UNDER AGENCY COLUMN "N" AS "W".

Format No.: QS-01-QAIP-10/F3-R0


Engg. Div./QA&I

ITEM : LIGHTING FIXTURES (Conventional and LED type)		STANDARD QUALITY PLAN					QFNO:000-999-QCE-S-062		REVIEWED BY		APPROVED BY			
		CONFORMING TO CODE : As applicable					Rev No.: 00	Date: 02/10/15	VALID UPTO: 01/11/18	SWA: NISHWAR MISHRA	VIKRAM TALWAR	SUNI MALANI	REMARKS	
S/N	COMPONENT & OPERATIONS	CHARACTERISTICS / INSTRUMENTS	CLASS OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD				REMARKS	
					6M	6ON				M	C	N		
1	2	3	4	5	6	7	8	9	10	11	12	13		
B	Acceptance Tests on LED Lighting fixture	a	Details of lot offered and Certificate of compliance that lighting fixture supplier has inspected the offered lot as per their own standard	Major	Visual	-	-	lighting fixture supplier to submit the details of lot offered for NTPC inspection (Type of lighting fixtures, their batch number, sub-vendor name, quantity)	-	List	P	V	V	The list may be used by NTPC for sample selection
		b	LED chip make	Major	Visual	-	-	NTPC accepted type test reports (LM80/LM79) report	Certificate of compliance	Certificate of compliance	V	V	V	
		c	Constructional features including: Internal wiring, terminal block, earthing terminal, safety chain (if applicable)	Major	Visual	1 sample per type	1 sample per type	NTPC specification and NTPC approved data sheet/drg.	NTPC specification and approved data sheet/drg.	Inspection report	P	W	W	
		e	Resistance to moisture test in case of lighting fixtures having IP X4 and above rating	Major	Mechanical	1 sample per type	1 sample per type	NTPC approved data Sheet	IS 10/22 Part I	Inspection report	P	W	W	
		f	Resistance to dust (applicable if IP5X and above)	Major	optical	Mnfr std.	Mnfr std	NTPC accepted type test reports	Certificate of compliance	Certificate of compliance	P/V*	V	V	P/V* - means test will be performed either by lighting fixture supplier or their sub-vendor and Verified by lighting fixture supplier
		f	Photometry check	Major	optical	Mnfr std.	Mnfr std	NTPC accepted type test reports, LM 79, IS 16106, IS 16107	Certificate of compliance for the batch that offered lighting fixture LOR and lighting fixture efficacy is not be less than 90% (refer IS 16107) with reference to type test reports	Certificate of compliance	P/V*	V	V	P/V* - mean test will be performed either by lighting fixture supplier or their sub-vendor and Verified by lighting fixture supplier

LEGEND: * RECORDS, IDENTIFIED WITH "TICK" (/) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION. ** M: MANUFACTURER / SUB-SUPPLIER C: MAIN SUPPLIER, N: NTPC
 P: PERFORM W: WITNESS AND V: VERIFICATION. CHP: CUSTOMER HOLD POINT BY NTPC SHALL BE IDENTIFIED UNDER AGENCY COLUMN "N" AS "W".
 Format No.: QS-01-QAI-P-10/13-R0 Engg. Div./QA&I

		ITEM : LIGHTING FIXTURES (Conventional and LED type)		STANDARD QUALITY PLAN				Q.P.No:000-999-QQE-S-062		REVIEWED BY		APPROVED BY	
				CONFORMING TO CODE : As applicable				Rev No.: 00		Date: 02/10/15		SWANESWAR MSHRA	
Sl No	COMPONENT & OPERATIONS	CHARACTERISTICS/ INSTRUMENT	CLASS OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NDRMS	FORMAT OF RECORD		APPROVED		
					6M	6CN			6	7	8	9	10
		g	Dimensions	Major	Visual	1 sample per type	1 sample per type	NTPC specification and approved data sheet/drg.	NTPC specification and approved data sheet/drg.	Inspection report	P	W	W
		i	LED driver: THD and pf check	Major	Electrical	1 sample per type	1 sample per type	NTPC specification	THD < 10% and pf >= 0.9	Inspection report	P	W	W
		j	LED driver: Precision current control check	Major	Electrical	1 sample per type	1 sample per type	NTPC specification	NTPC specification and NTPC approved data sheet	Inspection report	P	W	W
		k	LED driver: Open circuit protection simulation check	Major	Electrical	1 sample per type	1 sample per type	NTPC specification	NTPC specification and NTPC approved data sheet	Inspection report	P	W	W
		l	LED driver: Short circuit protection simulation check	Major	Electrical	1 sample per type	1 sample per type	NTPC specification	NTPC specification and NTPC approved data sheet	Inspection report	P	W	W
		m	LED driver: Over temperature protection simulation check	Major	Electrical	1 sample per type	1 sample per type	NTPC specification	NTPC specification and NTPC approved data sheet	Inspection report	P	W	W
		n	LED driver: Overload protection simulation check	Major	Electrical	1 sample per type	1 sample per type	NTPC specification	NTPC specification and NTPC approved data sheet	Inspection report	P	W	W
		o	LED driver: Surge protection compliance check	Major	Electrical	-	-	NTPC specification	Certificate of compliance that surge protection is provided	Certificate of compliance	V	V	V

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 P: PERFORM W: WITNESS AND V: VERIFICATION. CHP: CUSTOMER HOLD POINT BY NTPC SHALL BE IDENTIFIED UNDER AGENCY COLUMN "N" AS "W".
 Format No.: QS-01-QAI-P-10/F3-R0 Engg. Dir./QA&I

	2 X 210 MW PARICHHA ESP R&M	PE-PQ-503-558-E006
	PRE-QUALIFICATION REQUIRMENTS FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS	REVISION NO. 00 DATE 17/05/2024
		SHEET NO. 1 of 2

ITEMS : Lighting Fixtures, Lamps, Receptacles, Junction boxes and Miscellaneous Items.

SCOPE:

Supply (Including Design) : YES


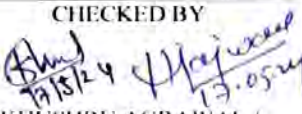
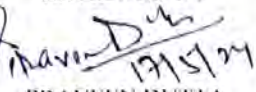

Erection & Commissioning : No


Services : YES (Supervision of E&C)

1.0	<p><u>Manufacturing Capability</u> LED Lighting fixture manufacturer as per sub-vendor list (refer technical specification)</p> <p style="text-align: center;">or</p> <p>i) Vendor should be a Manufacturer of LED lighting fixture. ii) Availability of type test reports conducted at independent Lab or witnessed by third party of LED fixture as per relevant standard. iii) Availability of routine & acceptance test reports of LED lighting fixture to establish in-house capability at manufacturer's works to carry out routine & acceptance tests as per relevant standard. iv) Vendor should have supplied LED lighting fixtures to power plant/ industrial installations.</p>
2.0	<p><u>Lighting System Design Capability</u> Lighting designer as per sub-vendor list (refer technical specification).</p> <p style="text-align: center;">or</p> <p>The vendor / agency should have engineered / prepared Minimum 33 number drawings including Lighting Design calculations (Minimum 10 No.), Lighting layout Drawings (Min. 10 No.), Conduit layout drawings (Minimum 10 No.), Power distribution schemes (Minimum 2 no.) and lighting single line diagrams (Minimum 1 No.) for power stations or refineries and Petro-Chemical plants/process plants/ other industrial installations. Drawings should be customer approved.</p>

Notes:

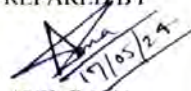
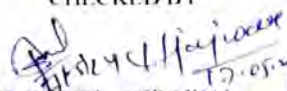
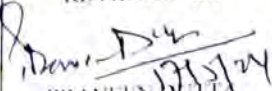

1. In case vendor is able to meet criteria at Sl. No. 1 only and not Sl. No. 2 above, vendor can tie-up with any lighting designer (herein termed associate) who is meeting all criteria mentioned in S. No. 2 & submit the credentials of associate if required. Vendor to submit MOU on non-judicial stamp paper of Rs. 100 /- with associate at bidding stage.
2. In case vendor is able to meet criteria at Sl. No. 2 only and not Sl. No. 1 above, vendor can tie-up with any lighting manufacturer (herein termed associate) who is meeting all criteria mentioned in S. No. 1 & submit the credentials of associate. Vendor to submit MOU on non-judicial stamp paper of Rs. 100 /- with associate at bidding stage.
3. Bidder to note that MOU on non-judicial stamp paper once offered to BHEL cannot be changed till the execution of the project.

PREPARED BY  ANIL RANA (ENGINEER)	CHECKED BY  KHUSHBU AGRAWAL / NN JAIWARE (SR.MANAGER)	REVIEWED BY  PRAVEEN DUTTA (AGM)	APPROVED BY  DEBASIS RATHI (GM. DH-ELECTRICAL)
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	2 X 210 MW PARICHHA ESP R&M	PE-PQ-503-558-E006
	PRE-QUALIFICATION REQUIREMENTS FOR LIGHTING FIXTURES, LAMPS & MISC. ITEMS	REVISION NO. 00 DATE 17/05/2024
		SHEET NO. 2 of 2

General Points of PQR:

1. Cut-off date for credentials shall be considered same as date of techno-commercial bid opening.
2. **Consideration of offer shall be subject to customer's approval of bidders.**
3. Bidder to submit all supporting documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated document should also be submitted.
4. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
5. After satisfactory fulfilment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all other terms of the tender.

PREPARED BY  ANIL RANA (ENGINEER)	CHECKED BY  KHUSHBU AGRAWAL / NN JAJWARE (SR.MANAGER)	REVIEWED BY  PRAVEEN DUTTA (AGM)	APPROVED BY  DEBASIS RATHI (GM, DIE-ELECTRICAL)
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2 X 210 MW PARICHHA ESP R&M

LIGHTING FIXTURES & MISC. ITEMS

BOQ CUM UNPRICED SCHEDULE

Item No.	DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL PRICE
	MAIN SUPPLY ITEMS				
1.0	Lighting Luminaires (complete with accessories)				
1.1	Luminaire Type LED FC06	Nos.	170		
1.3	Luminaire Type LED FC30	Nos.	85		
1.2	Luminaire Type LED FC07	Nos.	10		
1.4	Luminaire Type LED FC33	Nos.	22		
1.5	Luminaire Type LED SW41	Nos.	515		
1.6	Luminaire Type LED SW42	Nos.	415		
1.0	Lighting LED DRIVERS				
1.1	Luminaire Type LED FC06	Nos.	3		
1.3	Luminaire Type LED FC30	Nos.	2		
1.2	Luminaire Type LED FC07	Nos.	1		
1.4	Luminaire Type LED FC33	Nos.	1		
1.5	Luminaire Type LED SW41	Nos.	10		
1.6	Luminaire Type LED SW42	Nos.	8		
2.0	Switch boxes for individual control of circuits (Switchboards consisting of switch boxes, switches, switch plates and fixing accessories.)				
2.1	Type SWB1= (Stairs +Toilets)	Nos.	40		
2.2	Type SWB2	Nos.	20		
2.3	Type SWB3	Nos.	10		
3.0	Junction boxes				
3.1	Type JB-F (equal to nos of light fixture)	Nos.	1220		
4.0	Receptacles				
4.1	Type RA (electrical room, pump house etc)	Nos.	17		
4.2	Type RB (Control room)	Nos.	65		
4.3	Type RC (welding receptacle)	Nos.	18		
5.0	Ceiling fans with electronic regulators				
5.1	1200 mm sweep	Nos.	5		
5.2	Pedestal Fan	Nos.	3		
6.0	Emergency lighting Units (With Ni-Cd battery, Charger and 2 CFL lamp)	Nos.	6		
7.0	Flexible TERNE coated conduit				
7.1	20 mm dia TERNE coated conduit (1-1.5 meter for every fixture)	mtrs.	1500		
8	EXIT SIGN	Nos.	10		
9.0	Structural steel	MT	5		

9.0	Supervision of E&C				
9.1	CHARGES PER VISIT	VISIT	2	20,000.00	40,000.00
9.2	MANDAYS CHARGES	DAYS	10	5,000.00	50,000.00
NOTES					
1	FOR SUPERVISION OF E&C 2 (TWO) VISIT AND 10 (TEN) MANDAYS TO BE CONSIDERED. THE PRICES SHALL BE INCLUSIVE OF CHARGES OF AIRFARE (TO & FRO), BOARDING, LODGING, VISA, MEDICAL, INSURANCE ETC & EXCLUSIVE OF TAXES.				
2	AMOUNT PAYABLE PER VISIT = VISIT CHARGES AS PER SL. NO. 9.1 ABOVE (+) UNIT PRICE FOR MANDAYS CHARGES AS PER SL. NO. 9.2 ABOVE (x) NO. OF MANDAYS AT SITE (TO BE CERTIFIED BY BHEL SITE).				
3	UNIT RATE FOR 9.1 AND 9.2 ARE INR 20000/- AND INR 5000/- RESPECTIVELY AND SAME IS FIRM.				
4	NOS. OF VISIT FOR SUPERVISION OF E&C MAY INCREASE BASED ON PROJECT REQUIREMENT.				
5	CONTAINERS AS PER SPECIFICATION ARE TO BE SUPPLIED ALONG WITH FIRST SUPPLIES. THE PRICE OF CONTAINER IS DEEMED TO BE INCLUDED IN PACKAGE PRICE. NO SEPARATE CHARGES SHALL BE PAYABLE.				
6	THE MATERIAL SHALL BE SUPPLIED IN LOTS. LOTS SHALL BE RELEASED PROGRESSIVELY BASED ON APPROVED CONDUIT LAYOUT OF DIFFERENT AREAS AND PROJECT REQUIREMENT.				
7	LIGHTING SYSTEM DESIGN CHARGES ARE DEEMED TO BE INCLUDED IN THE PRICE OF ABOVE ITEMS. NO SEPARATE CHARGES FOR DESIGN ACTIVITY WILL BE PAYABLE.				
8	MANDATORY SPARES QUANTITY HAS BEEN INCLUDED IN MAIN SUPPLY AND SAME SHALL BE PROVIDED AS SEPARATE LOT				