

Contract | अनुबंध



Contract No | अनुबंध क्रमांक: GEMC-511687778566411

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Bid/RA/PBP No. | बोली/आरए/पीबीपी संख्या: [GEM/2023/B/3371301](#)

Schedule Name | अनुसूची नाम: Schedule 2, Schedule 1

Organisation Details संगठन विवरण	Buyer Details खरीदार विवरण
Type प्ररूप: Central PSU Ministry मंत्रालय: Ministry of Coal Department विभाग: MAHANADI COALFIELDS LIMITED Organisation Name संगठन का नाम: MAHANADI COALFIELDS LIMITED Office Zone कार्यालय क्षेत्र: MAHANADI COALFIELDS LIMITED	Designation पद: mmpur1c Contact No. संपर्क नंबर: - Email ID ईमेल आईडी: mmpur1c.mcl@coalindia.in GSTIN जीएसटीआईएन: - Address पता: MAHANADI COALFIELDS LIMITED, PO - JAGRUTI VIHAR, BURLA, SAMBALPUR, ODISHA-768020, India

Financial Approval Detail वित्तीय स्वीकृति विवरण	Paying Authority Details भुगतान प्राधिकरण विवरण
IFD Concurrence आईएफडी सहमति: No Designation of Administrative Approval प्रशासनिक अनुमोदन का पदनाम: GM(MM)/HOD Designation of Financial Approval वित्तीय अनुमोदन का पदनाम: AF(MM)	Role: PAO Payment Mode भुगतान का तरीका: Internet Banking Designation पद: DEEPAK KUMAR BURMA MGR FIN Email ID ईमेल आईडी: dkburma@coalindia.in GSTIN जीएसटीआईएन: 21AABCM5188P1Z3 Address पता: MAHANADI COALFIELDS LIMITED, AT /PO - JAGRUTI VIHAR, BURLA, SAMBALPUR, ODISHA-768020, India

Seller Details विक्रेता विवरण	
GeM Seller ID जेम विक्रेता आईडी: 6999180000123415 Company Name कंपनी का नाम: SHRI GEE ENTERPRISES Contact No. संपर्क नंबर: 09811130585 Email ID ईमेल आईडी: TRAFCOPELE@GMAIL.COM Address पता: 139,DASNA GATE SUKHIMAL, GHAZIABAD, UTTAR PRADESH-201001, - MSME Registration number एमएसएमई पंजीकरण संख्या: UDYAM-UP-29-0021521 MSE Social Category एमएसएमई सामाजिक श्रेणी: General MSE Gender एमएसएमई लिंग श्रेणी: Male GSTIN जीएसटीआईएन: 09AUSPS2096L1ZL	

*GST / Tax invoice to be raised in the name of | जिसके नाम के पक्ष में GST/TAX इनवॉइस पेश किया जाएगा - Consignee

Delivery Instructions | वितरण निर्देश: NA

#	Item Description आइटम विवरण	Ordered Quantity आइटम विवरण	Unit इकाई	Unit Price (INR) इकाई मूल्य (INR)	Tax Bifurcation (INR) कर विभाजन (INR)	Price (Inclusive of all Duties and Taxes in INR) मूल्य (INR में सभी शुल्क और कर सहित)
1	Product Name उत्पाद का नाम: Trafco 20 meters High Mast Lighting Tower for large area with LED Flood Lighting System with 12 LED FLOOD LIGHT LUMINAIRES Brand ब्रांड: Trafco Brand Type ब्रांड प्रकार: Registered Brand Catalogue Status कैटलॉग की स्थिति: Catalogue not verified by OEM Selling As कैसे बेचा जा रहा है: Reseller not verified by OEM Category Name & Quadrant श्रेणी का नाम और चतुर्थांश: High Mast Lighting Tower for large area with LED Flood Lighting System (Q3) Model मॉडल: TRHM-20 HSN Code एचएसएन कोड: HSN not specified by seller	10	pieces	300,000	NA	3,000,000
2	Product Name उत्पाद का नाम: Trafco 16 meters High Mast Lighting Tower for large area with LED Flood Lighting System with 12 LED FLOOD LIGHT LUMINAIRES Brand ब्रांड: Trafco Brand Type ब्रांड प्रकार: Registered Brand Catalogue Status कैटलॉग की स्थिति: Catalogue not verified by OEM Selling As कैसे बेचा जा रहा है: Reseller not verified by OEM Category Name & Quadrant श्रेणी का नाम और चतुर्थांश: High Mast Lighting Tower for large area with LED Flood Lighting System (Q3) Model मॉडल: TRHM-16 HSN Code एचएसएन कोड: HSN not specified by seller	26	pieces	279,500	NA	7,267,000

Consignee Detail | परेषिती विवरण

S.No क्र.सं.	Consignee परेषिती	Item वस्तु	Lot No. लॉट नंबर	Quantity मात्रा	Delivery Start After दिनांक के बाद डिलीवरी शुरू करना है	Delivery To Be Completed By वितरण पूरा कब तक करना है
1	Designation पद : - Email ID ईमेल आईडी : depot-off-basa.mcl@coalindia.in Contact संपर्क : 94384-93690- GSTIN जीएसटीआईएन : 21AABCM5188P1Z3 Address पता : Mahanadi Coalfields Limited, At & Po- Basundhara, Sundargarh, Basundhara-770076, SUNDERGARH, ODISHA-770076, India	Trafco 16 meters High Mast Lighting Tower for large area with LED Flood Lighting System with 12 LED FLOOD LIGHT LUMINAIRES	-	14	30-Nov-2023	29-Mar-2024
2	Designation पद : - Email ID ईमेल आईडी : depot-off-ibva.mcl@coalindia.in Contact संपर्क : 99375-55915- GSTIN जीएसटीआईएन : 21AABCM5188P1Z3 Address पता : Office of the General Manager, Ib-Valley Area, MCL, Brajrajnagar, Dist: Jharsuguda, ODISHA-768216, Jharsuguda, ODISHA-768216, India	Trafco 16 meters High Mast Lighting Tower for large area with LED Flood Lighting System with 12 LED FLOOD LIGHT LUMINAIRES	-	6	30-Nov-2023	29-Mar-2024
3	Designation पद : - Email ID ईमेल आईडी : depot-off-lina.mcl@coalindia.in Contact संपर्क : 943-8494207- GSTIN जीएसटीआईएन : 21AABCM5188P1Z3 Address पता : LINGARAJ AREA, MAHANADI COALFIELDS LIMITED, AT/PO: Deulbera Colliery, ANGUL, ODISHA-759102, India	Trafco 20 meters High Mast Lighting Tower for large area with LED Flood Lighting System with 12 LED FLOOD LIGHT LUMINAIRES	-	9	30-Nov-2023	29-Mar-2024
4	Designation पद : - Email ID ईमेल आईडी : depot-off-bhra.mcl@nic.in Contact संपर्क : 06760-296236- GSTIN जीएसटीआईएन : 21AABCM5188P1Z3 Address पता : OFFICE OF THE GENERAL MANAGER, BHARATPUR AREA, AT PO N.S.Nagar, Bharatpur, Via Talcher, Dist Angul 759148, ANGUL, ODISHA-759148, India	Trafco 20 meters High Mast Lighting Tower for large area with LED Flood Lighting System with 12 LED FLOOD LIGHT LUMINAIRES	-	1	30-Nov-2023	29-Mar-2024
		Trafco 16 meters High Mast Lighting Tower for large area with LED Flood Lighting System with 12 LED FLOOD LIGHT LUMINAIRES	-	6	30-Nov-2023	29-Mar-2024

Product Specification for Trafco 20 meters High Mast Lighting Tower for large area with LED Flood Lighting System with 12 LED FLOOD LIGHT LUMINAIRES

Specification विनिर्देश	Sub-Spec उप-विनिर्देश	Value मूल्य
GENERIC	Height of High Mast Tower (in Meters)	20
	Installation and commissioning (Installation and commissioning work at multiple locations shall follow as per the guidelines of State/Central Govt rules and regulations as applicable)	Yes. Including civil work for mining sites (for mining sites all Electricals, winch mechanism, lamps control-gears, breakers, cables etc shall be suitable for 230 V (L-L), 50 Hz supply and with RCCB/ELCB based protection provided with suitable range to comply relevant CEA regulation 42
	Each pole shall be supply with suitable foundation bolts,nuts and washers, Instruction manuals	Yes
	Onsite warranty (in Years)	2
	Cross section of mast (no of sides)	20 sided polygon
	No of sections	2
	Effective length of each section (in m)	10
	Material construction: The mast shall be manufactured using special steel plates, conforming to	355 grade as per BSEN10 025
	Bottom diameter (in mm) - Minimum	540
	Top diameter (in mm) - Minimum	150
	Plate thickness for top (in mm) - Minimum	3
	Plate thickness for Middle (in mm) - Minimum	4
Plate thickness for Bottom (in mm) - Minimum	5	

High mast System	Length of overlap for Top (in mm) - Minimum	600
	Length of overlap for Bottom (in mm) - Minimum	800
	Type of joints	Stress fit
	No of longitudinal welds / section (in Nos)	1
	Metal protection treatment of fabricated mast section	Hot dip galvanised
	Thickness of galvanisation	Average: 86 Micron
	Provision for cable termination	MCB Isolator
	Diameter of base plate (in mm) - Minimum	740
	Thickness of base plate (in mm) - Minimum	25
	Lantern carriage shall be fabricated suitably and hot dip galvanized for fixing and holding required no of floodlight fixtures and their control gear boxes	Yes
	Test Report from Central Government lab/NABL/ILAC accredited lab and report shall furnish to buyer on demand	Yes
Lightning Finial	Heavy duty hot dip galvanized lightning finial shall be provided for each mast (in Nos)	1
	The lightning finial shall be provided at the center of the head frame (minimum length) in meters	1.2
	It shall be solidly bolted to the head frame to get a direct conducting path to the center of the earth through the mast	Yes
	The lightning finial shall not be provided on the lantern carriage under any circumstances in view of the safety of the system	Yes
Aviation Obstruction Lights	Aviation obstruction lights shall be provided on top of each mast(in Nos)	1
	Type	LED, Vertical stand
Earthing Terminals	Suitable length of earthing terminals shall be provided at a convenient location on the base of the mast, for lightning and electrical protection of the mast	Using 12 mm dia SS Bolts
Wind Load	Wind loadings as per	IS 875:1987 part 3latest
	Gust Factor	1.15
	Maximum Wind load	50 m/sec
	The design Life of the mast shall be (in Years)	25
	The Test Report from Central Government lab/NABL/ILAC accredited lab and report shall furnish to buyer on demand	Yes
Door Opening	An adequate door othapening shall be provided at the base of the mast and the opening shall be such t it permits clear access to equipment like winches, cables, etc and also facilitate easy removal of the winch	Yes
	Type of locking arrangement for door	Pad lock
	Size of opening and closing door at base compartment of high mast (in mm) - Minimum	1200 x 250
Lantern Carriage	A fabricated Lantern Carriage shall be provided for fixing and holding the flood light fitting and control gear boxes	Yes
	The Lantern Carriage shall be of steel tube construction, the tubes acting as conduits for wire, with holes fully protected by grommets	Yes
	The Lantern Carriage shall be so designed and fabricated to hold the required number of flood light fitting and control gear boxes, and also have a perfect self balance	Yes
	The Lantern Carriage shall be fabricated in two / three halves and joined by bolted flanges with steel nuts to enable easy installation or removal from the erected mast	Yes
	The entire lantern carriage shall be hot dip galvanized after fabrication	Yes
	The inner lining of the carriage shall be provided with protective PVC arrangement, so that no damage is caused to the surface of the mast during raising and lowering operation of the carriage	Yes
	Weather proof junction box shall be provided on the Carriage Assembly as required, from which the inter-connections to the designed number of the flood light luminaries and associated control gears fixed on the carriages shall be made	Yes
	Ingress protection for Junction Box i.e. IP Class (as per IS/IEC:60529:2001 latest) Test Report from Central Government lab/NABL/ILAC accredited lab and report shall furnish to buyer on demand	IP 65
	Junction Box material	Mild Steel

Junction Box	Cable connections from the top junction box to the individual luminaries and cable shall conforming to	IS: 694: 2010 latest
	No of core	3
	Cable category	FR
	Size of cable (in Sq mm)	2.5
	Conductor material shall be	Copper
Raising and lowering mechanism	For the installation and maintenance of the luminaries and lamps, it shall be necessary to lower and raise the Lantern Carriage Assembly	Yes
	To enable this, a suitable Winch Arrangement shall be provided, with the winch fixed at the base of the mast the specially designed head frame assembly at the top	Yes
Winch	The winch shall be of "Integral Power Tool" type with motor	Yes
	The winch shall have provision for manual operation in case of failure of the motor	Yes
	Minimum working load of winch (in Kg)	750
	Motor capacity - Minimum (in HP)	1.5
	Suitable rating and connecting copper cable also shall be provided for the motor	Yes
	The winch shall be type tested from a Central Govt Lab/NABL/ILAC accredited lab and the test certificate shall be furnished to buyer on demand. The test certificate shall include the maximum load operated by the winch	Yes
HEAD FRAME	The head frame is to be designed as a capping unit of the mast, shall be of welded steel construction, galvanized both internally and externally after assembly	Yes
	The top pulley shall be of appropriate diameter, large enough to accommodate the steel wire ropes and the multi-core electric cable	Yes
	The pulley block shall be made of non-corrodible material, and shall be of die-cast Aluminum Alloy (LM-6). Pulley made of synthetic materials such as plastic or PVC are not acceptable	Yes
	Self-lubricating bearings and steel shaft shall be provided to facilitate smooth and maintenance free operation for a long period	Yes
	The pulley assembly shall be fully protected by a canopy galvanized internally and externally. The head frame shall be provided with guides and stops with PVC buffer for docking the lantern carriage	Yes
Stainless Steel Wire Rope	The suspension system shall essentially be without any intermediate joint. The steel wire ropes shall be of suitable construction, the central core being of the same	Yes
	The overall diameter of the rope	>/=6 mm
	The breaking load of each rope shall be at full load as per the relevant standard	>/=2400 Kg
	Grade / construction	AISI 316, 7/19 construction
	Number of ropes	2
	Torque-limiting device with load adjustment facility to protect the wire ropes	Yes
Electrical System, Cable and Cable Connections	A suitable terminal box shall be provided as part of the supply at the base compartment of the high mast for terminating the incoming cable	Yes
	At the top there shall be weather proof junction box to terminate the trailing cable	Yes
	The system shall have in-built facilities for testing the luminaires while in lowered position	Yes
	Electric cables used in the high mast system shall be	ISI Marked
	The trailing cable (from base compartment to top of the mast system junction box) conforming to	IS:7098 (Part 1):1988 latest
	No. of cores	2
	Size of cable (in Sq.mm)	2.5
	Cable shall be	Armoured
	Conductor material shall be	Copper
	Cable Category	C1
Incoming power cable from feeder panel to base compartment of mast and cable shall conforming to	IS:7098 (Part 1):1988 latest	
Feeder pillar panel for each mast	Yes	

Feeder pillar Panel	Feeder panel shall be suitable for	415 V, 3 phase, 4 wire, 50 Hz, AC
	The control panels shall be	Stand mounted
	Ingress protection for feeder pillar panel i.e IP Class (as per IS/IEC:60529:2001 latest).Test Report shall furnish from Central Government lab/NABL/ILAC accredited lab to buyer on demand	IP 65
	It shall be fabricated out of	14 SWG CRCA sheet steel
	Thickness of sheet (in mm)	2
	The panels shall be given pre-treatment and powder coated and color shall be	Grey
	The stand shall be painted in	Black color
	Cable entry shall be at the	Bottom
	The panels shall have	knock outs of the required cable
	Laminated circuit diagram shall be pasted	inside of the door
	Feeder pillar shall have pad locking arrangement	Yes
	Earth terminal	12 mm dia. Bolts
	Panel shall have a sloping cover to avoid accumulation of dust	Yes
	Panel shall be provided with incoming & outgoing MCCB / MCB of appropriate rating and in desired quantity depending on total no of circuits in use	yes
	Timer for automatic ON & OFF of lights with pilot lamps shall be provided	Yes
	Toggle Switch for AUTO/OFF/MANUAL mode	Yes
	Bus bars material	Yes. Copper
	Cables used in the high mast system shall be	ISI Marked
	The incoming power cable (from feeder panel to base compartment) conforming to	IS:7098 (Part 1):1988 latest
	No of Cores	2
	Size of cable (in Sq.mm)	2.5
	Cable Shall be	Armoured
	The conductor material shall be	Copper
	cable category	C1
No. of Luminaires for each high mast lighting tower (in Nos)	12	
LED Luminaire conformity to IS:10322/Part5/Section5/2012latest and IS: 16107 (Part 2/Sec 1):2012 latest	Yes	
Photo biological safety of LEDs used shall be as per IS:16108/2012 (exempt group)	Yes	
Types of LED Luminaire as per the IS: 16107(Part-2/ Sec-1)/2012	Type B	
Types of LED Modules as per the IS: 16103(Part-2)/2012	Type 3	
LED Rating/System Wattage/Rated Power for each luminaire	350W	
Luminaire System Efficacy (Lumen/watt)	>/= 100 Lm/Watt	
Ingress Protection (IP Rating) as per IS:10322 (Part 1):1982 latest	IP65	
Mounting brackets (included)	Adjustable	
Input operating Voltage range and frequency	90 to 300 Volts AC at 50Hz+/-2Hz	
Automatic Higher Cut off voltage above 300 volt	Yes	
Rated voltage	230 V AC 50 Hz	
AC Power Factor at full load	≥ 0.95	
Driver Efficiency (in %age)	≥85	
Total Harmonics Distortion (in %age)	≤ 10	
The total circuit power shall not be more than 110 percent of the value declared by the manufacturer"	Yes	
LED chip Efficacy	≥130 Lm/Watt	
Colour temperature	6000K (+/- 500K)	
Working life for LED (Minimum 50,000 burning hours as per LM-80 report)	Yes	
Colour Rendering Index(CRI)	≥70	
Beam Angle	≥120	

LED FLOOD
LIGHT
LUMINAIRE

Optic lens material (UV stabilised) (Write NA for without optic lens supply)	Poly carbonate lens
Heat sink should be die-cast aluminium along with sufficient heat sink fins to dissipate heat effectively	Yes
Capacitor shall be rated for a temperature of 105 deg celsius or better	Yes
Junction temperature	< 85 degC
Operating temperature range	-20 deg C to +50 deg C
Operating Humidity Range	10 % to 95 % RH
Short circuit Protection	Yes
Over load protecton	Yes
Over Voltage protection	Yes
Reverse polarity	Yes
High voltage test (1.5 KV for one minute between supply terminals and body of the unit)	Yes
Insulation resistance between earth and current carrying part	>100 M ohm
The luminaire shall be protected against surges and transients(Internal)	>=5KV
The luminaire shall be protected against surges and transients of >=10KV (External)	Yes
The Luminaires casing/housing (single piece housing) shall be pressure die casted aluminium alloy with higher thermal conductivity	Yes
The luminaire body must be corrosion resistant epoxy powder coated	Yes
All fastners must be of stainless steel	Yes
The entire housing (both LED section and driver section) shall be dust and water proof protection as per IS:10322 (Part 1):1982latest	IP66
Extruded silicon loop gasket shall be provided in the lantern body to ensure a weather proof seal between the UV Glass cover and the metal housing to exclude the entry of the dust,water,insects etc	Yes
Luminaries light transparency should be of Toughened glass	Yes
Toughned transparent glass cover thickness	>=4 mm
Toughned Glass shall not get discoloured, shall not suffer degraation due to heat and ageing within warranty period	Yes
Number of electronic control gear per luminaire (power supplies)	1 No.
Driver components shall be industrial grade or above	Yes
PCB shall be FR4 grade minimum 0.8 to 1.0 mm thick or more	Yes
The Luminaires works on single phase three wires system (Phase, Neutral and Earth)	Yes
Suitable connector shall be provided for LED connection between driver output and LED	Yes
Length of ISI marked three core wire (shall be provided along with supply of material)	50 cm
Light Source	SMD LED Chip as per LM80/IS16106
Manufactures Name and and brand on the aluminium die cast body	Engraved / Embossed
Manufacturer's name, model number, serial number	Yes
Date of manufacture (month-year), and lot number as identification mark in side each unit and the out side of each packaging box	Yes
The operation characteristics voltage and power be marked inside of each LED luminaire unit	Yes
LED Make	OSRAM / NICHIA/CREE/SAMSUNG / SEOUL / LUMILED / PHILIPS/ EDISON/
System must have EMI/EMC compliance as applicable (Test reports shall be furnish on demand by buyer/consignee)	Yes
LM 79 (Photometry) (Ref IS:16106:2012) report from Central Government lab/NABL/ILAC accredited lab Reports shall be furnish on demand by buyer (LM-79 report shall have total lumen output, power, PF, Current in Amps, CRI & CCT etc	Yes
LM 80 & TM 21 (Part of LM 80) (Ref IS:16105:2012) Reports and Photo biological report for LED report from Central Government lab /NABL/ILAC accredited lab Reports shall be furnish on demand by buyer (LM-80 report shall have and the	Yes

CERTIFICATIONS	Pohoto Biological report of the LED Chip being used in the luminaire)	
	Availability of test Report from Central Government lab/NABL/ILAC accredited lab to Indian Standrad IS:10322/part5/sec-5/2012andIS16107 (Part 2/Sec 1):2012	Yes
	DC or AC supplied electronic control gear for LED Module shall comply as per IS:15885 (Part 2/Sec 13)	Yes
	LED Luminaire for Flood Light shall comply with Complusory Registration (CRS) of BIS for safety as per IS 10322 (Part5/Section5): 2012 as applicable on the date	Yes
	Marking: All the products shall have marking details as per relevant BIS standard	Yes
Seller shall furish all the test reports and certificates as per the technical specification to the purchase auhtority on demand	Yes	

Note | टिप्पणी: Seller has given an undertaking that it has made arrangements for getting the stores from an authorized distributor / dealer / channel partner of the OEM of the offered product. At the time of delivery of goods, Seller will provide necessary chain documents (in the form of GST Invoice) to prove that the supplied goods are genuine and are being sourced from an authorized distributor / dealer / channel partner of the OEM. In case of any complaint about genuineness of the supplied products, Seller shall be responsible for providing genuine replacement supplies.

Product Specification for Trafco 16 meters High Mast Lighting Tower for large area with LED Flood Lighting System with 12 LED FLOOD LIGHT LUMINAIRES

Specification विनिर्देश	Sub-Spec उप-विनिर्देश	Value मूल्य
GENERIC	Height of High Mast Tower (in Meters)	16
	Installation and commissioning (Installation and commissioning work at multiple locations shall follow as per the guidelines of State/Central Govt rules and regulations as applicable)	Yes. Including Civil work at site
	Each pole shall be supply with suitable foundation bolts,nuts and washers, Instruction manuals	Yes
	Onsite warranty (in Years)	2
High mast System	Cross section of mast (no of sides)	20 sided polygon
	No of sections	2
	Effective length of each section (in m)	8.5
	Material construction: The mast shall be manufactured using special steel plates, conforming to	355 gradeasper BSEN10 025
	Bottom diameter (in mm) - Minimum	540
	Top diameter (in mm) - Minimum	150
	Plate thickness for top (in mm) - Minimum	3
	Plate thickness for Middle (in mm) - Minimum	4
	Plate thickness for Bottom (in mm) - Minimum	5
	Length of overlap for Top (in mm) - Minimum	600
	Length of overlap for Bottom (in mm) - Minimum	800
	Type of joints	Stress fit
	No of longitudinal welds / section (in Nos)	1
	Metal protection treatment of fabircated mast section	Hot dip galvanised
	Thickness of galvanisation	Average: 86 Micron
	Provision for cable termination	MCB Isolator
	Diameter of base plate (in mm) - Minimum	740
Thickness of base plate (in mm) - Minimum	25	
Lantern carriage shall be fabricated suitably and hot dip galvanized for fixing and holding required no of floodlight fixtures and their control gear boxes	Yes	
Test Report from Central Government lab/NABL/ILAC accredited lab and report shall furnish to buyer on demand	Yes	
Lightning Finial	Heavy duty hot dip galvanized lightning finial shall be provided for each mast (in Nos)	1
	The lightning finial shall be provided at the center of the head frame (minimum length) in meters	1.2
	It shall be solidly bolted to the head frame to get a direct conducting path to the center of the earth through the mast	Yes
	The lightning finial shall not be provided on the lantern carriage under any circumstances in view of the safety of the system	Yes
Aviation Obstruction Lights	Aviation obstruction lights shall be provided on top of each mast(in Nos)	1
	Type	LED, Vertical stand
Earthing	Suitable length of earthing terminals shall be provided at a convenient location on the base of the mast, for lightning and	Using 12 mm dia SS Bolts

Terminals	electrical protection of the mast	
Wind Load	Wind loadings as per	IS 875:1987 part 3 latest
	Gust Factor	1.15
	Maximum Wind load	50 m/sec
	The design Life of the mast shall be (in Years)	25
	The Test Report from Central Government lab/NABL/ILAC accredited lab and report shall furnish to buyer on demand	Yes
Door Opening	An adequate door opening shall be provided at the base of the mast and the opening shall be such that it permits clear access to equipment like winches, cables, etc and also facilitate easy removal of the winch	Yes
	Type of locking arrangement for door	Pad lock
	Size of opening and closing door at base compartment of high mast (in mm) - Minimum	1200 x 250
Lantern Carriage	A fabricated Lantern Carriage shall be provided for fixing and holding the flood light fitting and control gear boxes	Yes
	The Lantern Carriage shall be of steel tube construction, the tubes acting as conduits for wire, with holes fully protected by grommets	Yes
	The Lantern Carriage shall be so designed and fabricated to hold the required number of flood light fitting and control gear boxes, and also have a perfect self balance	Yes
	The Lantern Carriage shall be fabricated in two / three halves and joined by bolted flanges with steel nuts to enable easy installation or removal from the erected mast	Yes
	The entire lantern carriage shall be hot dip galvanized after fabrication	Yes
	The inner lining of the carriage shall be provided with protective PVC arrangement, so that no damage is caused to the surface of the mast during raising and lowering operation of the carriage	Yes
Junction Box	Weather proof junction box shall be provided on the Carriage Assembly as required, from which the inter-connections to the designed number of the flood light luminaries and associated control gears fixed on the carriages shall be made	Yes
	Ingress protection for Junction Box i.e. IP Class (as per IS/IEC:60529:2001 latest) Test Report from Central Government lab/NABL/ILAC accredited lab and report shall furnish to buyer on demand	IP 55
	Junction Box material	Mild Steel
	Cable connections from the top junction box to the individual luminaries and cable shall conforming to	IS: 694: 2010 latest
	No of core	3
	Cable category	FR
	Size of cable (in Sq mm)	1.5
	Conductor material shall be	Copper
Raising and lowering mechanism	For the installation and maintenance of the luminaries and lamps, it shall be necessary to lower and raise the Lantern Carriage Assembly	Yes
	To enable this, a suitable Winch Arrangement shall be provided, with the winch fixed at the base of the mast the specially designed head frame assembly at the top	Yes
Winch	The winch shall be of "Integral Power Tool" type with motor	Yes
	The winch shall have provision for manual operation in case of failure of the motor	Yes
	Minimum working load of winch (in Kg)	750
	Motor capacity - Minimum (in HP)	1.5
	Suitable rating and connecting copper cable also shall be provided for the motor	Yes
	The winch shall be type tested from a Central Govt Lab/NABL/ILAC accredited lab and the test certificate shall be furnished to buyer on demand. The test certificate shall include the maximum load operated by the winch	Yes
HEAD FRAME	The head frame is to be designed as a capping unit of the mast, shall be of welded steel construction, galvanized both internally and externally after assembly	Yes
	The top pulley shall be of appropriate diameter, large enough to accommodate the steel wire ropes and the multi-core electric cable	Yes
	The pulley block shall be made of non-corrodible material, and shall be of die-cast Aluminum Alloy (LM-6). Pulley made of synthetic materials such as plastic or PVC are not acceptable	Yes
	Self-lubricating bearings and steel shaft shall be provided to facilitate smooth and maintenance free operation for a long period	Yes
	The pulley assembly shall be fully protected by a canopy galvanized internally and externally. The head frame shall be provided with guides and stops with PVC buffer for docking the lantern carriage	Yes
Stainless Steel	The suspension system shall essentially be without any intermediate joint. The steel wire ropes shall be of suitable construction, the central core being of the same	Yes
	The overall diameter of the rope	>/=6 mm
	The breaking load of each rope shall be at full load as per the relevant standard	>/=2400 Kg

Wire Rope	Grade / construction	AISI 316, 7/19 construction
	Number of ropes	2
	Torque- limiting device with load adjustment facility to protect the wire ropes	Yes
Electrical System, Cable and Cable Connections	A suitable terminal box shall be provided as part of the supply at the base compartment of the high mast for terminating the incoming cable	Yes
	At the top there shall be weather proof junction box to terminate the trailing cable	Yes
	The system shall have in - built facilities for testing the luminaires while in lowered position	Yes
	Electric cables shall used in the high mast system shall be	ISI Marked
	The trailing cable (from base compartment to top of the mast system junction box) conforming to	IS:7098 (Part 1):1988 latest
	No. of cores	5
	Size of cable (in Sq.mm)	2.5
	Cable shall be	Armoured
	Conductor material shall be	Copper
	Cable Category	1
	Incoming power cable from feeder panel to base compartment of mast and cable shall conforming to	IS:7098 (Part 1):1988 latest
Feeder pillar Panel	Feeder pillar panel for each mast	Yes
	Feeder panel shall be suitable for	415 V, 3 phase, 4 wire, 50 Hz, AC
	The control panels shall be	Stand mounted
	Ingress protection for feeder pillar panel i.e IP Class (as per IS/IEC:60529:2001 latest).Test Report shall furnish from Central Government lab/NABL/ILAC accredited lab to buyer on demand	IP 55
	It shall be fabricated out of	14 SWG CRCA sheet steel
	Thickness of sheet (in mm)	2
	The panels shall be given pre-treatment and powder coated and color shall be	Grey
	The stand shall be painted in	Black color
	Cable entry shall be at the	Bottom
	The panels shall have	knock outs of the required cable
	Laminated circuit diagram shall be pasted	inside of the door
	Feeder pillar shall have pad locking arrangement	Yes
	Earth terminal	12 mm dia. Bolts
	Panel shall have a sloping cover to avoid accumulation of dust	Yes
	Panel shall be provided with incoming & outgoing MCCB / MCB of appropriate rating and in desired quantity depending on total no of circuits in use	yes
	Timer for automatic ON & OFF of lights with pilot lamps shall be provided	Yes
	Toggle Switch for AUTO/OFF/MANUAL mode	Yes
	Bus bars material	Yes. Copper
	Cables used in the high mast system shall be	ISI Marked
	The incoming power cable (from feeder panel to base compartment) conforming to	IS:7098 (Part 1):1988 latest
	No of Cores	3
	Size of cable (in Sq.mm)	1.5
	Cable Shall be	Armoured
The conductor material shall be	Copper	
cable category	1	
	No. of Luminaires for each high mast lighting tower (in Nos)	12
	LED Luminaire conformity to IS:10322/Part5/Section5/2012latest and IS: 16107 (Part 2/Sec 1):2012 latest	Yes
	Photo biological safety of LEDs used shall be as per IS:16108/2012 (exempt group)	Yes
	Types of LED Luminaire as per the IS: 16107(Part-2/ Sec-1)/2012	Type B
	Types of LED Modules as per the IS: 16103(Part-2)/2012	Type 3
	LED Rating/System Wattage/Rated Power for each luminaire	250W

LED FLOOD LIGHT
LUMINAIRE

Luminaire System Efficacy (Lumen/watt)	>= 100 Lm/Watt
Ingress Protection (IP Rating) as per IS:10322 (Part 1):1982 latest	IP66
Mounting brackets (included)	Adjustable
Input operating Voltage range and frequency	90 to 300 Volts AC at 50Hz+/- 2Hz
Automatic Higher Cut off voltage above 300 volt	Yes
Rated voltage	230 V AC 50 Hz
AC Power Factor at full load	≥ 0.95
Driver Efficiency (in %age)	≥85
Total Harmonics Distortion (in %age)	≤ 10
The total circuit power shall not be more than 110 percent of the value declared by the manufacturer"	Yes
LED chip Efficacy	≥130 Lm/Watt
Colour temperature	6000K (+/- 500K)
Working life for LED (Minimum 50,000 burning hours as per LM-80 report)	Yes
Colour Rendering Index(CRI)	≥70
Beam Angle	≥120
Optic lense material (UV stabilised) (Write NA for without optic lense supply)	Poly carbonate lense
Heat sink should be die-cast aluminium along with sufficient heat sink fins to dissipate heat effectively	Yes
Capacitor shall be rated for a temperature of 105 deg celsius or better	Yes
Junction temperature	< 85 degC
Operating temperature range	-10 deg C to +50 deg C
Operating Humidity Range	10 % to 95 % RH
Short circuit Protection	Yes
Over load protecton	Yes
Over Voltage protection	Yes
Reverse polarity	Yes
High voltage test (1.5 KV for one minute between supply terminals and body of the unit)	Yes
Insulation resistance between earth and current carrying part	>100 M ohm
The luminaire shall be protected against surges and transients(Internal)	>/=5KV
The luminaire shall be protected against surges and transients of >/=10KV (External)	Yes
The Luminaires casing/housing (single piece housing) shall be pressure die casted aluminium alloy with higher thermal conductivity	Yes
The luminaire body must be corrosion resistant epoxy powder coated	Yes
All fastners must be of stainless steel	Yes
The entire housing (both LED section and driver section) shall be dust and water proof protection as per IS:10322 (Part 1):1982latest	IP66
Extruded silicon loop gasket shall be provided in the lantern body to ensure a weather proof seal between the UV Glass cover and the metal housing to exclude the entry of the dust,water,insects etc	Yes
Luminaries light transparency should be of Toughened glass	Yes
Toughned transparent glass cover thickness	>/=4 mm
Toughned Glass shall not get discoloured, shall not suffer degradation due to heat and ageing within warranty period	Yes
Number of electronic control gear per luminaire (power supplies)	4 Nos.
Driver components shall be industrial grade or above	Yes
PCB shall be FR4 grade minimum 0.8 to 1.0 mm thick or more	Yes
The Luminaires works on single phase three wires system (Phase, Neutral and Earth)	Yes
Suitable connector shall be provided for LED connection between driver output and LED	Yes
Length of ISI marked three core wire (shall be provided along with supply of material)	100 cm
Light Source	SMD LED Chip as per LM80/IS16106
Manufactures Name and and brand on the aluminium die cast body	Engraved / Embossed
Manufacturer's name, model number, serial number	Yes

	Date of manufacture (month-year), and lot number as identification mark in side each unit and the out side of each packaging box	Yes
	The operation characteristics voltage and power be marked inside of each LED luminaire unit	Yes
	LED Make	OSRAM / NICHIA/CREE/SAMSUNG / SEOUL / LUMILED / PHILIPS/ EDISON/
CERTIFICATIONS	System must have EMI/EMC compliance as applicable (Test reports shall be furnish on demand by buyer/consignee)	Yes
	LM 79 (Photometry) (Ref IS:16106:2012) report from Central Government lab/NABL/ILAC accredited lab Reports shall be furnish on demand by buyer (LM-79 report shall have total lumen output, power, PF, Current in Amps, CRI & CCT etc	Yes
	LM 80 & TM 21 (Part of LM 80) (Ref IS:16105:2012) Reports and Photo biological report for LED report from Central Government lab /NABL/ILAC accredited lab Reports shall be furnish on demand by buyer (LM-80 report shall have and the Pohoto Biological report of the LED Chip being used in the luminaire)	Yes
	Availability of test Report from Central Government lab/NABL/ILAC accredited lab to Indian Standrad IS:10322/part5/sec-5/2012andIS16107 (Part 2/Sec 1):2012	Yes
	DC or AC supplied electronic control gear for LED Module shall complpy as per IS:15885 (Part 2/Sec 13)	Yes
	LED Luminaire for Flood Light shall comply with Complusory Registration (CRS) of BIS for safety as per IS 10322 (Part5/Section5): 2012 as applicable on the date	Yes
	Marking: All the products shall have marking details as per relevant BIS standard	Yes
	Seller shall furish all the test reports and certificates as per the technical specification to the purchase auhtority on demand	Yes

Note | टिप्पणी: Seller has given an undertaking that it has made arrangements for getting the stores from an authorized distributor / dealer / channel partner of the OEM of the offered product. At the time of delivery of goods, Seller will provide necessary chain documents (in the form of GST Invoice) to prove that the supplied goods are genuine and are being sourced from an authorized distributor / dealer / channel partner of the OEM. In case of any complaint about genuineness of the supplied products, Seller shall be responsible for providing genuine replacement supplies.

Corrigendum | शुद्धिपत्र

1. Extended Upto | तक बढ़ाया गया : 2023-05-25 13:00:00

ePBG Detail | ईपीबीजी विवरण

Advisory Bank सलाहकार बैंक :	State Bank of India
ePBG Percentage(%) ईपीबीजी प्रतिशत (%) :	10.00

The bidder shall furnish ePBG as applicable as per bid's terms and conditions | बोली लगाने वाले को बोली के नियमों और शर्तों के अनुसार लागू ईपीबीजी प्रस्तुत करना होगा

Terms and Conditions | नियम और शर्तें

1. General Terms and Conditions-

1.1 This contract is governed by the [General Terms and Conditions](#), conditions stipulated to this Product/Service as provided in the Marketplace.
1.2 This Contract between the Seller and the Buyer, is for the supply of the Goods and/ or Services, detailed in the schedule above, in accordance with the General Terms and Conditions (GTC) unless otherwise superseded by Goods / Services specific Special Terms and Conditions (STC) and/ or BID/Reverse Auction Additional Terms and Conditions (ATC), as applicable

2. Buyer Added Bid Specific Terms and Conditions-

2.1 Generic

OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity by up to 25% of the contracted quantity during the currency of the contract at the contracted rates. Bidders are bound to accept the orders accordingly.

2.2 Scope of Supply:

Scope of supply (Bid price to include all cost components) : Supply Installation Testing and Commissioning of Goods

2.3 Certificates:

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

2.4 Buyer Added Bid Specific ATC:

Buyer uploaded ATC document [Click here to view the file](#).

2.5 Buyer Added Bid Specific ATC:

Buyer Added text based ATC clauses

Additional Technical and Commercial Terms and Condition of the GEM Bid Document,

A. For 16 Mtr and 20 Mtr, Ground Mounted High Mast Lighting Tower

a) Additional Technical Parameters:- ((i) Supply voltage : 220-250 Volts A.C between two phase, midpoint earthed type as per rule 116 of IER 1956.

(ii) Electric Power Source: Power supply will be supplied by MCL up to High Mast Tower only.

(ii) Electric Power Source: Power supply will be arranged by MCL up to high mast tower only.

(iii) Trailing cable shall be from MLCP(Mast Lighting Control Panel) / Feeder Panel up to top of High Mast Lantern carriage, with multi-core flexible copper conductor (as per IS: 8130-latest) and with heat resisting insulation & heat resisting sheath (as per IS:6380-latest).

(iv) Lightning Protection: Suitable Lightning protection is to be provided in each high mast lighting tower to protect against lightning as per IS: 62305 (Amended up to date).

(v) Earthing System: Separate earthing system for each high mast lighting tower shall be carried out as per IE rules and confirming to as per IS: 3043 (latest)

(vi) One Complete Set of Toolkit, separate for each lighting tower (required for maintenance and repair) shall be supplied at the time of supply.

(vii) High Mast Lighting tower shall have suitable capacity electric motor (working voltage 230V+/-5% AC Supply) operated winch mechanism for raising and lowering of the complete bracket/luminaire carriage, along with provision for manual operation in case of emergency.

(viii) Suitable arrangement shall be provided to prevent free-fall during operation, raising and lowering of bracket/luminaire carriage.

(ix) Steel Wire Rope supplied for the winch system termination in the winch shall be such that at least 5 to 6 turns of rope remains on the drum even after using the winch fully for raising/lowering of Cradle.

(x) Installation and commissioning including civil work shall be carried out at the mining sites and mine areas.

b) Documents to be submitted by supplier at the time of Pre Dispatch Inspection and Supply of material:-

(i) Test certificates / reports from the Government Lab / Institution or NABL accredited Lab for offered ground mounted high mast lighting tower.

(ii) Test certificate / report from the Government Lab / Institution or NABL accredited Lab for offered motorized winch.

(iii) Photometry, LM 79, LM 80 test reports for offered LED light fittings from the Government Lab / Institution or NABL accredited Lab.

(iv) Civil foundation design drawing of lighting tower approved by Government Lab / Institution or NABL accredited Lab.

B. Documents to be submitted by bidder during bid submission:-

a. Bid specific authorization containing bid no. from manufacturer of offered items .

b. Documents related to Micro-Small enterprise status of firm for tendered items.

c. Documents in support of Experience Criteria (Contract copies of same or similar products and self-certificate)

d. Completely filled up copy of PROFORMA FOR EQUIPMENT AND QUALITY CONTROL for MSEs and Start-ups, if availing relaxation in experience criteria.

C. Experience Criteria : The Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Products to any Private / Central / State Govt Organization / PSU / Public Listed Company. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity. Contract copies should be at least 01 year older and it should not be older than 05 years as on bid opening date.

D. All bidders is required to submit self-certificate in the given format in support of Experience Criteria "The items covered in the contract copies enclosed with our offer have been fully executed and have performed satisfactorily as per the provisions of respective contract and all the complaints/claims lodged by the purchaser, if any, have been attended to and no complaints/ claims are pending."

E. Definition of similar Product: High mast lighting tower having height of tower equals to or greater than the tendered item will be considered as similar product.

F. Payment and Commissioning terms: 80 % payment after supply and 20 % payment after commissioning of goods.

G. Warranty: Warranty shall remain valid for eighteen (18) months from the date of receipt and acceptance of material at consignee's end or twelve (12) months from the date of its use/fitment/commissioning, whichever is earlier. All cases of warranty replacement of failed item will be decided on the basis of joint inspection of the failed item held between the user and the manufacturer's representative. The supplier will have to depute representative for joint inspection within 10 days of intimation of warranty failure. In case if he fails to come for joint inspection within 10 days of intimation, the warranty claim raised by the consignee shall be treated as final and supplier will be liable to make warranty replacement of the failed item.

H. Pre-dispatch inspection at Seller premises: Pre-dispatch inspection at Seller premises: Before dispatch, the goods will be inspected by our Inspection Agency (CMPDIL) at Seller premises (or at designated place for inspection as declared / communicated by the seller) for their compliance to the contract specifications. Inspection charges @ 1% + applicable GST of order value shall be paid to CMPDIL by the seller. Seller will provide all facilities to carry out necessary Tests as required. Seller shall pay the Pre-dispatch inspection charge through e-mode through State Bank Collect. Visit CMPDI site www.cmpdi.co.in & click on the link of State Bank Collect to pay Inspection Fee & follow the steps therein. Seller shall notify CMPDI through e-mail about readiness of goods for pre-dispatch inspection, with a copy to the Buyer. The goods would be dispatched to consignee only after clearance in pre-dispatch inspection. Consignee's right of rejection as per GTC in respect of the goods finally received at his location shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by Buyer/ Consignee or its Nominated External Inspection Agency prior to the goods' shipment.

*(Note: CMPDI charges @ 1% + applicable GST are to be included in the price quoted against the bid. Sellers are requested to be attentive while quoting your rate. No additional claims/ separate bills/invoice for CMPDI Charges shall be entertained.)

I. The successful L-1 bidder shall submit Security deposit for 10% for a period of 6 months (i.e., 3 months delivery period + 3 months additional) which is opted in place of e-PBG, and 10% PBG to be submitted which shall be valid up to 3 months post completion of the stipulated warranty period, which has been incorporated in the bid document.

J. Product / Product delivery should comply with, ensuring the quality of service, protection of the environment and health & safety du

ring and after their activities, as per Company / Govt. norms.

K. Mahanadi Coalfields Limited (MCL) has on boarded the TReDS platform through Receivables Exchange of India Limited (RXIL). TReDS is an online discounting platform primarily meant for MSME vendor to get their trade receivables financed through auction mechanism where multiple financiers can participate in a very transparent manner. MSME vendors of MCL are requested to register themselves on RXIL TReDS platform to avail the above benefits. For more details, visit: <https://www.rxil.in/>.

L. Performance Bank Guarantee: The successful bidder shall be required to furnish a Performance Guarantee equivalent to 10% value of the total landed value of the contract for the period of 18 months. Format of PBG is enclosed in Buyer added ATC.

M. FORMAT OF PROFORMA FOR EQUIPMENT AND QUALITY CONTROL-enclosed in Buyer added ATC.

Note: This is system generated file. No signature is required. Print out of this document is not valid for payment/ transaction purpose.

नोट: यह सिस्टम जनरेटेड फाइल है। कोई हस्ताक्षर की आवश्यकता नहीं है। इस दस्तावेज़ का प्रिंट आउट भुगतान/लेनदेन उद्देश्य के लिए मान्य नहीं है।