



# Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

An ISO 9001  
Company

<b>ENQUIRY</b>	Phone: +91 431 257 76 53 Fax : +91 431 252 00 31 Email : <a href="mailto:skaruna@bheltry.co.in">skaruna@bheltry.co.in</a> Web : <a href="http://www.bhel.com">www.bhel.com</a>
<b>NOTICE INVITING TENDER</b>	

<b>TWO PART BID</b> Tender to be submitted in two Parts	<b>Enquiry Number:</b> <b>2851400015</b>	<b>Enquiry Date:</b> <b>27.01.2014</b>	<b>Due date for submission of quotation:</b> <b>03.03.2014</b>
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You are requested to quote the Enquiry number date and due date in all your correspondence. This is only a request for quotation and not an order.

**Please note that under any circumstances both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of tender opening.**

Item	Description	Quantity
10	Electrification of Shop Floor – Supply and Erection/ Installation of Electrical and Lighting Materials (24 items) as per the technical specification & commercial conditions applicable (to be downloaded from web site <a href="http://www.bhel.com">www.bhel.com</a> or <a href="http://tenders.gov.in">http://tenders.gov.in</a> )	<b>01 Set</b>

**Important points to be taken care during submission of offer:-**

1. **Supply portion: Payment will be made as follows:**
  - a.80% against supply of respective line item
  - b.20% after completion of E&C of the total system & submission of 10% PBG for total order value (Supply + E&C).
2. **Service Portion: 100% Payment will be made on completion of each line item/works and against completion certificate and submission of 10% PBG for total order value (Supply + E&C).**
3. **The delivery requirement for the supply of the items for the tender is by 01.01.2015**
4. **In case of any quantity over & above the tolerance limit (of +10%) during the commissioning period (not exceeding 6 months), the vendor may confirm their willingness to supply the same at the original rate mentioned in the offer.**
5. **Compliance No. IND 02A as applicable to the vendor to be filled in and enclosed along with the offer failing which, their offer will not be considered for evaluation.**
6. **EMD for this Tender will be Rs. 2,00,000/-**

**BHEL's General guidelines / instructions (refer [MM/CE/GENL/001-EMD](#)) including bank guarantee formats and list of consortium banks, commercial terms check-list can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units > Bharat Heavy Electricals Limited page) under above Enquiry reference.**

Tenders should reach us before 14:00 hours on the due date  
Tenders will be opened at 14:30 hours on the due date  
Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present

Yours faithfully,  
For **BHARAT HEAVY ELECTRICALS LIMITED**

Engineer/ Capital Equipment / MM

**PART-A**  
**Pre-Qualification Criteria for the Electrification of Shop floor**  
**at PEFP Bhandara**

Sl. No.	Description	Vendor to confirm
1	Only those vendors, who have supplied, erected, tested and commissioned atleast one shop/ factory electrification project (lighting distribution) and other allied works as indicated in the tender in the past five years and such installation presently working satisfactorily more than one year after commissioning, should quote.	
2	List of the customers / companies on which similar / installations supplied & commissioned by the vendor.	
3	Performance certificate from minimum one customer / company (as per the suggestive format given in Annexure-VII) regarding satisfactory performance of the equipment/ electrification of shopfloor/ lighting projects for a minimum period of one year supplied to them in last five years.	
4	Vendor / Firm should submit the audited copy of last three years (2010-11, 2011-12 & 2012-13) balance sheet and Profit & Loss account.	
5	Vendors should quote for supply, erection, testing and commissioning of the installations and allied equipments as per the entire scope of items identified in the NIT.	
6	Vendor / Firm should have a valid Electrical ESB license – issued by the respective licensing board.	
7	Vendor should have the PAN, TIN and Service Tax Registration documents for the Firm and copies should be submitted along with the offer.	

Note: Vendor/bidder should conform all the above said points without which the offer will not be technically considered.

**PART B**  
**ELECTRIFICATION OF SHOP FLOOR AT PEFP BHANDARA**

Item No: 10 Electrification of Shop Floor- Supply of electrical & lighting installation material					
ITEM No.	ITEM TEXT	Unit	QTY	RATE	VALUE
1	Supply of 8 ways 16 A MCB Lighting distribution Boards with 100A, 4 pole MCB as incomer as per Annexure-I.	NO	32		
2	Supply of 400W, metal Halide High bay Industrial light fitting with lamp and luminaire as per Annexure-II.	NO	830		
3	Supply of 65W, CFL High performance high bay luminaries with prismatic reflector with lamp as per Annexure-III.	NO	70		
4	Supply of 2KVA UPS as per Annexure-IV.	NO	10		
5	Supply of roof light timer boxes as per Annexure-V.	NO	32		
6	Supply of single core,unsheathed,Flame retarant,Low smoke heat resistant (FRLS),bare high conductivity,Flexible multistrand Bright Annealed Electrolytic copper conductor,IS 8130/1984, insulated with PVC type A of IS 5831/84,650/1100 Volts grade, confirming to PVC insulated and rated upto 1100v as per IS 694/1990. Size. 2.5 sqmmm with 100 Mtr. per roll. Preferable makes: Elkay/ Delton/ Gloster/ Nicco/ L&T/ Havells/ Finolex/ Kundan/ Mardia/ Siechem/ RR .	Rolls	550		
7	Supply of 2.0mm thick, 20mm diameter Rigid Fire Retardent low Smoke PVC Conduits conforming to IS : 9537 : 2006 and embossed with ISI mark. Preferable makes: KUNDAN/AVONPLAST/FINOLUX	KM	14		
8	Supply of 16 SWG Copper Earth wire.	Kg	175		
9	Supply of 25x3mm size Hot dipped GI flat .MS flat shall conform to IS2062 &Galvanisation shall conform to IS4759.The thickness of the ZINC coating shall be min 80 microns with test certificate.	M	300		
10	Supply of 15A 2-way bakelite connector block.	NO	830		
11	Supply of 3.5 core 50 sq.mm XLPE cable as per Annexure-VI	M	2500		

Item No: 20 Erection of Electrical & Lighting materials for the Electrification of Shop Floor					
ITEM No.	ITEM TEXT	Unit	QTY	RATE	VALUE
1	Assembling, fixing and testing of 8 ways 16 A MCB Lighting distribution Boards. The MCB DB (DL) should be provided with necessary angle iron frame work on the wall / column. Necessary cable adopter boxes for both incoming & outgoing, support channels with required fasteners are to be supplied by the contractor.	NO	32		
2	Assembling, Fixing & Testing of 400W, metal Halide High bay Industrial light fitting with lamp & lid on the truss with the supply of necessary MS clamps, bolts and nuts secured by suitable size cotter pin and safety chain. Safety chain shall be GI of suitable dia and required length with 'D' Shackle at one end for connecting to the fitting hook and other end to be connected to the nearby truss member. Note: Clamp and GI Safety chain samples should be produced and get the approval from the Electrical Incharge before fixing the same at the site .Required mobile crane to a height of 20m is under contractor scope.	NO	830		
3	Assembling, fixing and testing of 65W, CFL High performance high bay luminaries with prismatic reflector with lamp & lid on the truss with the supply of necessary clamps and safety chains. Safety chain shall be GI of 4 mm dia. and required length with 'D' Shackle at one end for connecting to the fitting hook and other end to be connected to the nearby truss member. Note: - 1)Clamps shall be painted with one coat of red oxide and two coats of Aluminium paint.	NO	70		
4	Installation & commissioning of 2KVA UPS on the wall / column with suitable iron frame. Necessary support channels / iron frame works with required fasteners are to be supplied by the contractor.	NO	10		
5	Fixing of roof light timer boxes on column near by the MCB DL boards in the shop floors. The timer boxes should be fixed on the 25 mm x 6 mm MS flat with suitable bolts and nuts. <b>Note:</b> The materials required like 25 mm x 6 mm MS flat and fasteners are under contactor's scope.	NO	32		

6	<p>Wiring with <b>6 runs of 2.5sqmm</b> stranded copper conductor unsheathed cable in the medium quality,1.5mm thick,20mm dia,pvc conduit pipe with continuous running of 16 SWG GI wire as earthing on the steel structural members of the roof with suitable clamping .</p> <p><b>Note:</b></p> <p>1.One running meter of wiring consist of 1m PVC conduit, 1m earth wire and 6 runs of 1m copper wire with suitable clamps.</p> <p>2. Necessary materials like Tees,L bends, Clamps,PVC flexible conduits required for the wiring are under contractor's scope.</p>	M	3500		
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7	<p>Wiring with <b>4 runs of 2.5sqmm</b> stranded copper conductor unsheathed cable in the medium quality,1.5mm thick,20mm dia,pvc conduit pipe with continuous running of 16 SWG GI wire as earthing on the steel structural members of the roof with suitable clamping .</p> <p><b>Note:</b>  1.One running meter of wiring consist of 1m PVC conduit, 1m earth wire and 4 runs of 1m copper wire with suitable clamps.  2. Necessary materials like Tees,L bends, Clamps,PVC flexible conduits required for the wiring are under contractor's scope.</p>	M	<b>4000</b>		
8	<p>Wiring with <b>2 runs of 2.5sqmm</b> stranded copper conductor unsheathed cable in the medium quality,1.5mm thick,20mm dia,pvc conduit pipe with continuous running of 16 SWG GI wire as earthing on the steel structural members of the roof with suitable clamping .</p> <p><b>Note:</b>  1.One running meter of wiring consist of 1m PVC conduit, 1m earth wire and 2 runs of 1m copper wire with suitable clamps.  2. Necessary materials like Tees,L bends, Clamps,PVC flexible conduits required for the wiring are under contractor's scope.</p> <p><b>Break up:</b>  1) Roof light wiring :1700m  2) Emergency light wiring : 3300m  <b>Total :4900m.</b></p>	M	<b>5000</b>		
9	<p>Running of 2 core 2.5 sq.mm stranded copper conductor PVC insulated unsheathed TRS flexible cable in the 20 mm dia flexible conduit with required connections at lamp and terminal box.</p> <p>Note: Flexible TRS conduit is in contractor's scope</p>	M	<b>830</b>		
10	<p>Laying of 25 X 3 mm GI earth flat for earthing the MCB DB's in the wall/column and terminating in the trench.</p>	M	<b>300</b>		
11	<p>Fixing of 15A 2-way bakelite connector block on the truss for facilitating power supply to high bay luminaire in a suitable polycarbonate junction box.</p>	NO	<b>830</b>		
12	<p>Laying of 3.5 core 50 sq.mm XLPE cable in the excavated/formed trench between:  1. ML and the roof light timer box  1. 16A MCB DB and roof light timer box.</p>	M	<b>2500</b>		
13	<p>Making of end termination for Medium voltage 3.5 core 50 sq.mm XLPE cable with suitable brass cable glands, copper lugs, gland earthing, cable clamping etc.</p> <p><b>Note: -</b>  1)Brass cable glands, copper lugs, gland earthing, cable clamping and PVC insulation tape etc. are contractor's scope.  2) Crimping tools and other materials required for carrying out the work will be in the scope of the contractor.  3) The cable Glands should be properly earthed by suitable copper earth plate with 16 SWG copper wire.</p>	NO	<b>150</b>		

14	<p><b>Special Instructions:</b></p> <p>1. The contractor should arrange the lifting tools like ladder/ hydraulic lift for fixing the lamps to the shop floor roof (Max. 18 meters).</p> <p>2. Cable tags should be provided for all power and control cables.</p> <p>3. Letter painting work in all breakers mentioning the cable size, bus bar arrangement identification of the breaker etc should be done by the contractor as per the instruction of Electrical in charge.</p> <p>4. Electric Power for welding and other erection purpose are to be arranged by contractor scope.</p> <p>5. Welding m/c, gas cutting set and regulator should be brought by the contractor.</p> <p>6. Any clarification &amp; modification of the work should be directly discussed with the Electrical In charge.</p>	SET`	1		
	<p>7. Minor paint touching shall be done in the panel for damages caused during transport are under contractors scope.</p> <p>9. The contractor should get proper clearance from the security personnel while taking their materials inside and outside the site. They should maintain an invoice register, which is liable for inspection by the Electrical Incharge.</p> <p>10. Crane facility required for the unloading/movement of the equipment are under the contractor scope.</p> <p>8. Pre dispatch inspection for all the equipment should be arranged at the supplier works.</p> <p>9. For the erection of the items, quantity on Pro-Rata basis to be considered.</p>				
		<b>TOTAL</b>			

	<p><b>Note: In case of any quantity over &amp; above the tolerance limit (of +10%) during the commissioning period (not exceeding 6 months), the vendor may confirm their willingness to supply &amp; erection the same at the original rate mentioned in the offer.</b></p>	Vendor to confirm	
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**ANNEXURE-I**  
**Specification for 16A MCBDB Lighting Distribution Board**

Sl. No	Description/Specifications	Vendor to confirm	Deviations
	Supply of Medium Voltage, 8 Way MCB distribution boards with 16A, single pole MCB per way as outgoing, 3 nos. 63A DP MCB as phase controller, 100A, 4 pole MCB incomer, Metallic Double door. The DB should be Phase Segregated and Separated between incomer and outgoing, suitable for flush / surface mounting. The distribution boards conforming to the specification and features given below.		
1.0	<b>MCB Distribution Board</b>		
1.1	Current rating: 100A, 4 pole MCB for main incomer. 63A, 2 pole MCB in each phase for phase isolation. 16A, 1 pole MCB for each outgoing way.		
1.2	Configuration: Three poles and neutral DB with per phase isolation		
1.3	Type of enclosure: Fabricated Sheet steel		
1.4	Number of ways per phase: 8 Ways		
1.5	Busbar Rating: 100A		
1.6	Make of the MCB distribution Board should be Legrand/ Siemens /L&T/ Hager/ ABB makes only acceptable.		
2.0	<b>Miniature Circuit Breaker</b>		
2.1	Current rating: 16 A/ 100 A (as specified for outgoing/incomer)		
2.2	Number of MCB: 24 nos. 16A, 1P, MCB 3 nos. 63A, 2P, MCB 1 no. 100A, 4P. MCB		
2.3	Breaking capacity of the MCB: 10kA		
3.0	<b>General Features of the Lighting Distribution board:</b>		
3.1	The DBs shall be ready to use with neutral links, earth links, Busbar and interconnecting wires/links.		
3.2	DB shall be provided with gland plates at the top and bottom with knockouts.		
3.3	Earth bar for facilitating individual earth for each outgoing circuit with necessary terminallugs, bolts and nuts.		
3.4	Label to be permanently and securely fixed inside the case to mark the name, current rating of the circuit.		
3.5	Neoprene Gaskets shall be provided to ensure vermin proof condition.		
3.6	The DB shall be painted with one coat of red oxide primer and two coats of enamel paint.		
3.7	The DB should conform to IS:13032-1991 and Indian Electricity Rules.		
3.8	The MCB shall conform to IS:8828-1996		
3.9	Double earthing provision for the DB shall be provided with suitable i-bolts on both the sides.		

## ANNEXURE-II

### Specification for 400W Industrial Highbay Luminaire and MH lamp

Sl. No	Description/Specifications	Vendor to confirm	Deviations
	Supply of High Performance, Integral, Industrial, High Bay, closed version Luminaire with control gear box, reflector and lamp as specified below:		
1.0	Luminaire Suitability: Suitable for operation with <b>400 Watts</b> Metal Halide lamp		
1.1	Housing: Made out of die cast aluminium and powder coated in black/ grey and to ensure IP65 ingress protection.		
1.2	Reflector construction: Parabolic, anodized and electrochemically brightened and made of aluminium. To be provided with heat-resistant and toughened glass with gasket to ensure IP54 ingress protection.		
1.3	Reflector suitability: Reflector suitable for narrow beam application.		
1.4	Input Power supply: 1 phase, 230V, 50 Hz. A.C supply.		
1.5	Control Gear: Control gear shall comprise of Copper wound ballast, power factor improvement capacitor, mains connector and electronic ignitor all prewired upto terminal block and mounted on a gear tray/ base for ease of maintenance.		
1.6	Safety chain: Safety chain to be provided in the fitting		
1.7	Access for Maintenance: Access to gear compartment shall be provided to facilitate easy maintenance, replacement and connection		
1.8	Dimensional details and net weight		
1.9	Nominal Power factor, mains current for the lamp to be mentioned by the vendor.		
1.10	Technical catalogue/ drawing: Vendor to furnish with the offer		
2.0	Specification for lamp: Metal Halide 400 Watts, elliptical version, suitable for 230V, 50Hz, 1 phase supply with E40, screw cap to house the lamp.		
3.0	Preferable make of the luminaire/ lamp: Philips, GE, Crompton Greaves, Bajaj		
3.1	Type no. /Make offered		

### ANNEXURE III

#### Specification for 65 W Highbay Luminaire and CFL lamp

Sl. No	Description/Specifications	Vendor to confirm	Deviations
	Supply of High Performance, Integral, Industrial, High Bay, open version Luminaire with necessary accessories like lamp holder, eye bolt etc, reflector and lamp as specified below:		
1.0	Luminaire Suitability: Suitable for operation with 65 watts CFL lamp		
1.1	Housing: Made out of die cast aluminium and powder coated.		
1.2	Reflector construction: Special translucent poly carbonate prismatic refractor with more vertical lighting in the area		
1.3	Input Power supply: 1 phase, 230V, 50 Hz. A.C supply.		
1.40	Technical catalogue/ drawing: Vendor to furnish with the offer		
2.0	Specification for lamp: CFL 65 watts lamp suitable for 240V, 50Hz, 1 phase supply with E27 holder to house lamp .		
3.0	Make of the luminaire/ lamp: Philips, GE, Bajaj, Crompton Greaves makes makes only acceptable.		
3.1	Type no. /Make offered		

## ANNEXURE-IV

### Specification for the 2 kVA Emergency Power Supply Unit

Sl. No	Description/Specifications	Vendor to confirm	Deviations
	General purpose of 2KVA Emergency power supply unit for Emergency light with 4 hrs. backup. and suitable for operation on 1phase, 230V, 50Hz AC.supply.		
<b>1.0</b>	<b>Specification</b>		
1.1	Preferable Make: Powertronics, Hitachi Hirel, Emerson, Aplab, APS Model: Vendor to specify.		
1.2	AC input Voltage: 1 Phase, 170 - 270 VOLTS ,50 Hz, AC supply.		
1.3	Output Voltage: 1 Phase,Voltage: 230 Volt AC, Frequency: 50 + 0.1% Wave form: Pure sine wave.		
1.4	Efficiency: 90% and above on Resistive load. Vendor to specify.		
1.5	Time delay: The out put voltage should be switched OFF (OFF delay) after 5 minutes . Vendor to speify.		
1.6	Overload capacity: 110 % for 5 minutes.		
1.7	Metering: Output AC and DC metering (LED type) for voltage & current. Vendor to specify.		
1.8	Indication: Inverter ON, Mains On, Charger ON, Low battery, overload, Present battery full. Vendor to specify.		
1.9	Protection: Input under voltage and over voltage.Battery Low voltage, Output short circuit, Out put under / over voltage,Out put overload, Over temperature, DC over current protection,Output voltage regulation,Spike protection. Vendor to specify.		
<b>2.0</b>	<b>Control switches:</b> Input, out put, and inverter MCB'S HRC fuses for the above, Beep sound for tripping, Over/under/low voltage, Short circuit & inverter trip control. Vendor to specify.		
<b>3.0</b>	<b>Battery specification</b>		
3.1	Type: Maintenance Free Tubular Battery.		

3.2	Make: Exide Industries Ltd, HBL Power Systems Ltd, Hoppecke Batterien GMBH & CO.KG, Amara Raja batteries. Model: Vendor to specify		
3.3	Specification: 12Volts,Battery AH to be offered for the connected load of 1000 Watts for a barttery back up of 4 Hrs . Vendor to specify.		

**ANNEXURE-V****Specification for the supply of Timer Controller Box**

Sl. No	Description	Vendor to Confirm	Deviations
1	Manufacturing and supply of weather proof outdoor type , street light Timer controller of approx size 750x400x250 mm using 1.6 mm thick CRCA sheet, with continuously hinged door & 10mm gasket to be provided in the door for protection from water and dust with locking arrangement. The timer box should contain the following components & suitable to mount on the columns.		
2	63 Amps three pole Siemens/L&T/Schneider/ABB make power contactor suitable for coil voltage 230 V AC-1no		
3	EAPL make timer 203B model digital timer suitable for coil voltage 230 V AC-1no		
4	63 Amps 4 pole MCB (make ; Siemens/L&T/Legrand/ABB)-1no		
5	32 Amps single pole MCB (make ; Siemens/L&T/Legrand/ABB)-6no		
6	6Amps single pole toggle switch-1 no		
7	63 Amps 6 way din rail mounting terminal strip elmex make -1no		
8	Steel Mounting clamps .		
9	One No. of punch hole of size 25mm dia to be provided in the back side of box.		
10	Three Nos. of punch hole of 25mm dia. to be provided for cable/ conduit entry at the bottom of the terminal box.		
11	32 X 6 mm GI flats 2 Nos. are to be provided as a mechanical support for clamping arrangement of the box with pole.		
12	Two Nos. of separate earth terminals duly welded to the box.		

13	All the above items should be mounted on a base plate duly wired with 6 sq.mm multi strand flexible insulated copper wires for the power wiring and with 1.5 sqmm single strand copper wire for control wiring for automatic controls of street lights . The sheet steel MS box should be undergone with Degreasing, De rusting, Phosphating and applied with 2 coat of primary enamel paint and powder coating of finishing paint –colour-Siemens Grey.		
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## ANNEXURE-VI

### Specification for Medium Voltage Power Cable

Sl. No	Description/Specifications	Vendor to confirm	Deviations
	Supply of Medium Voltage, 50 Sqmm XLPE insulated conductor, PVC inner & outersheathed insulation , armoured Power Cable conforming to the specification given below.		
1.0	<b>Medium Voltage Power Cable:</b>		
1.1	Nominal area of conductor: 50 sq.mm		
1.2	Number of cores: 3.5 cores specified in the scope of supply. Cores identified with different colours		
1.3	Conductor: Stranded, Circular/ shaped, Aluminium as specified in the scope of supply.		
1.4	Voltage rating: 1.1KV, 50Hz, AC		
1.5	Conductor Insulation: Insulation material XLPE as per IS -7098, Part-I		
1.6	Innersheath: PVC innersheath- Type ST2 as per IS-5831 -Black colour		
1.7	Armouring: Galvanized steel wire/ strip armouring as per IS-3975 & IS-7098		
1.8	Outersheath: XLPE insuation as per IS: 7098 Part-1		
1.9	Conformance to Indian Standard specification: IS:7098(Part 1)/IS-5831		
2.0	Technical leaflet of the cable indicating the approx. diameter, weight, thickness of insulation/ sheathing/ armour wire, current rating etc. to be enclosed with the offer.		
3.0	<b>General Features of the M.V.Cable:</b>		
3.1	Cable shall have the manufacturer name embossed/ printed/ indented on the outer sheath at regular intervals.		
3.2	Cable shall have Voltage grade, cable size embossed on the outer sheath.		
3.3	Routine tests shall be conducted on the cables as per IS and test certificate shall be produced		

4	The cable offered should have been 'Type Tested' as per relevant standards, in any one of the government approved laboratory like CPRI, ERDA. Copy of the 'Type Test Certificate' should be enclosed along with the offer for acceptance of the make of the cable offered.		
5	Preferable make of cable: RPG,KEI, Gloster, Universal, Mansfield, , APAR industries limited, Cable corporation of india ltd., Diamond power infrastructure ltd, Hindusthan vidyut products ltd., Havells india limited, kei industries ltd., Krishna electrical industries ltd., KEC International limited, Nicco corporation ltd., Paramount communications ltd., Polycab wires pvt. ltd., Ravin cables limited, Sriram cables pvt. ltd., Torrent cables ltd., Universal cables ltd.		

## ANNEXURE-VII

### Suggestive Format of Performance Certificate:

The Performance certificate should contain minimum of the below said data and it shall be produced on **Customer's Letter Head** and submitted along with the offer.

1.0	Equipment/Project Supplied to (Customer Details)	
2.0	Project Name	
3.0	Details of Equipment/installation supplied	
3.1	Roof Lights: Type/ Make	
3.2	MV Cable : Size/ Make	
4.0	Purchase Order/ Work order Number	
5.0	Scheduled date of completion	
6.0	Actual date of completion	
7.0	Reasons for delay (if any)	
8.0	Performance of the contractor during erection & commissioning on turnkey basis	
Date:		Signature & Seal of the Authority Issuing the Performance Certificate