



## **Energy Management Centre**

(State Designated Agency to enforce Energy Conservation Act 2001) Department of Power, Government of Kerala

Sreekrishna Nagar, Sreekariyam P.O. Thiruvananthapuram 695 017

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No. EMC/362/2019-PE13(ETR)

09-12-2019

#### **QUOTATION - NOTICE**

Sub:- Electrical works in connection with providing remote control and battery charger installation to the DG set, demo hall wiring rearrangements – inviting quotation- reg.

Competitive offers are invited from reputed firms for Electrical works in connection with providing remote control and battery charger installation to the DG set, demo hall wiring rearrangements at EMC campus, sreekaryam, Thiruvananthapuram as per the attached schedule and following special conditions.

SI No	Name of Work	Time of completion	Eligibility criteria
1	Electrical works in connection with providing remote control and battery charger installation to the DG set, demo hall wiring rearrangements at EMC campus, sreekaryam, Thiruvananthapuram	30 days	Contractors who have executed similar electrical works with not less than 2 years experience and valid B grade electrical contractor license attached with valid electrical supervisor and wireman permits with minimum scope of 50kW

#### Terms and conditions

- 1. The rate shall be inclusive of all taxes, transportation, labour charges, loading and unloading charges, other incidental expenses and net for the work at site.
- Contractor shall make necessary arrangements for providing sufficient numbers of tools and tackles and all other auxiliary equipments needed for the satisfactory completion of work.
- 3. The contractor shall be responsible to rectify any faults/changes pointed out by the engineer-in-charge duly.
- 4. Additional quantities, if any shall be executed as directed at the same rates and terms.
- 5. The Contractor / firm quoting for the work shall satisfy with the eligibility criteria mentioned.
- The work has to be planned and should be carried out in consultation with the EMC officials.
- 7. The supplied battery charger in full shall be warranted for a minimum period of 1 year from the date of commissioning of the system.
- 8. The work shall be completed within 30 days from the date receipt of the work order.
- Payment Terms- 95% payment on satisfactory completion of works at site with 5% retention retained for performance guarantee period for 1 year from the date of commissioning.

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- 10. The final settlement of the bills will be made according to the actual measurements at site.
- 11. The firm shall inspect the site, ensure the site condition before submitting the offer.
- 12.All works are to be carried out as per the norms complying to the Kerala state Electrical inspectotrate.

The offer shall reach the office of the Director, Energy management Centre, Sreekrishna Nagar, Sreekaryam; Trivandrum -17 on or before **26-12-2019**, **3:00 PM**.

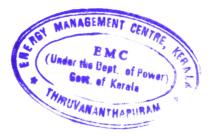
If the last date mentioned falls as a holiday or Harthal, the very next working day will be treated as the last date.

Thanking You,

Yours sincerely,

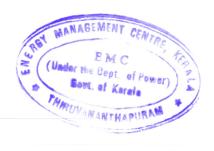
Director

Encl :- BOQ Schedule



# ELECTRICAL WORKS IN CONNECTION WITH PROVIDING REMOTE CONTROL AND BATTERY CHARGER INSTALLATION TO THE DG SET, DEMO HALL WIRING REARRANGEMENTS ( QUOTĀTION BOQ )

SI No	Qty	Description	Unit	Rate	Amount
1		Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with piano type switch, phenolic laminated sheet, suitable size M.S. box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. (Group A)			
1.1	3	One Point Controlled by One switch	Nos		
2		Supply & drawing the following size of FR Multi-core PVC Insulated and PVC sheathed Copper conductor round flexible wire manufactured with bright annealed bare copper conductor as per IS 8130/1984 Insulated and sheathed with electrical grade PVC compound as per IS 5831/1984 generally conforming to IS 694/1990 for working voltage up to and including 1100 V through existing PVC conduit / casing capping wall.			
2.1	2	3C x 0.5 Sqmm			
3		Supply and providing the following size of ISI Marked rigid PVC conduits with specials confirming to IS 9537/1983 on surface / concealed position making good the damages made etc.complete.		,	
3.1	10	20mm dia 1.5mm thick	m	ļ -	
4		Supply and wiring the following size of FRLS - PVC insulated copper wire manufactured with bright annealed bunched electrolytic copper conductor as per IS 8130/1984 insulated with di-electrical grade PVC compound per as IS 5831/1984 Generally Conforming to IS 694/1990 for working voltage up to and including 1100 V.through the existing PVC conduits / capping casing.			
4.1	15	3 run x 1.5 sqmm - SPN + E	m		
4.2	256		m		



5	Supply & laying UG 2XFY,PVC insulated 1.1 kV grade aluminium conductor Control cable conforming IS:1554 (Part-I) in cable trenches/cable tray or on concrete wall or through pipes as per specifications, etc. Necessary clamping should be provided while burying cables in prepared trenches etc. as instructed by the Consultant				
5.1	100	4C x 2.5 Sqmm	m		
6		Providing cable glanding, gland earthing & end termination of UG cables of the following sizes using Siemens type Brass compression gland & Copper lugs etc. complete			
6.1	4	4C x 2.5 sqmm (19mm)	Nos		
6	6	Supply & providing Independent Light plug point using 6 A Modular plug socket controlled by 6A modular switch with indicator mounted in a suitable factory built MS box with earthing facilities as per standards. ( Circuit mains will be measured separately ). ( Modular switch accesories - Legrand - Myrius)			
7	1	Supply and providing single phase 240V AC, 50 Hz / 12 V DC Boost cum float solid state battery charger with auto / manual option, upto continous 20A load and trickle charging current including necessary indication, terminals to receive connections both incomming and outgoing, necessary over current protection, heat sinks etc. for Flooded Lead Acid battery applications. with necessary support / stand.	Set	5	
8	1	Supply and providing Remote Push button Unit with ON and OFF illuminated Push buttons with necessary NO/NC contacts in a suitable enclosure for remote operation of DG start and stop from inside the substation room including necessary mounting and control wiring etc. complete.	Nos		
9	2	Supply and providing Multifunction Digital Panel meter to read V, A, Hz, PF, kW, kVAR, kVA, kWh, kVARh, kVAh operating on 415V, 50 Hz, (0-250A), Class 1.0			
10	3	Supply and providing 100/5A CL 1.0, 15VA Metering CTs	Nos		



11	3	Supply and providing 4 Feet 20W LED Battern type fittings suitable for continuous operation with THD <10%, power factor >0.98, RoHS compliant, duly wired up for use on 240 V AC supply and all other accessories required for fixing etc. complete of good quality and approved make, mounted to wall / truss work with 2Cx1.5 sqmm FR PVC insulated copper conductor flexible cable etc. as required at site.			
12	2	Supply and providing 5 Kg. Dry Chemical Powder type Fire Extinguisher with hose and clamps including fixing it to wall as required.	Nos	Nos	
13	2	Supply and providing 9 Litre capacity GI Fire Bucket painted in post office red with primer coat of red oxide and written with white paint 'FIRE' mounted on MS angle frame work/ wall bracket filled with fine sand, painting the bracket/ floor stand including making good the damages, colour washing etc. as required.	Nos		
14	1	Supply and providing First Aid Chart duly framed and placed in a conspicuous location for clear vision.	Nos		
15	2	Supply & providing Aluminium anodised Danger Notice Board of size 200 x 150 mm. with inscriptions (both in English and Malayalam) and conventional Skull and Bone in Red colour at locations as directed by the Engineer in Charge	Nos		
16	30	Supply and wiring 23/38 super quality stereo pair tin coated oxygen free PVC insulated copper wire through the existing PVC conduits / capping casing.	m	,	
17	30	Supply & providing 20mm Capping / Casing of good quality.	m		
		Total			





LIST OF APPROVED MAKES OF MATERIALS				
SI No	Material	_ Make		
1	Junction Boxes	Syntex, Hensel		
2	Current Transformers & potential transformers  Indcoil, Kappa, AE, Indus Transformers, Interpretation Components			
3	Protection Relays	GE, Schneider, L&T, ABB, Siemens with IEC 61805		
4	Panel Meters L & T, Enercon, Rishabh, Krykard, Secure, Elmeast Schneider			
5	Contactors L&T, Schneider			
	MCB / MCCB / RCCB / RCBO Legrand, Schneider, L&T, Hager			
<del>_</del>	DC Fuse Unit Cooper Bussman, Ferraz			
8	Push Buttons	L&T, Rass, Teknik		
9	Pilot Indication Lamps (LED Only)	(LED Only) L&T, Altos, Rass, Teknik		
10	Selector Switches	L&T, Salzer, Kaycee, Teknik		
11	LT Cables (AC)	Gloster, Nicco, Havells, Finolex, V-Guard, Polycab		
12	LT Cable glands	Baliga lighting Ltd, Commex, Dowels, Hex, Finolex		
13	PVC Conduits	Avon plast, Balco, Circle ark, Precesion		
14	PVC Copper Wires	Finolex, Havells, V Guard, RR Kabel, Polycab		
	Light fittings	Philips, Wipro, CG, Havells, Syska, Luker		
15 16	Modular Switches/sockets	Legrand, Hager, Schneider, Elletys, GM		



