

Table No.-1

**ESTIMATE FOR MAINTENANCE OF EQUIPMENT / SERVICES OF E.S.I.C. ROHINI HOSPITAL
(including Dental College), COLONY (including Dental Hostel) & DATA CENTRE SECTOR-15 DELHI-89**

S.No	Description and particulars Substation/DG sets equipments installed in ESI Hospital, Rohini	Job per month	Total jobs per year	Qty.	Rates	Total amount
1	Annual routine maintenance of 11kv/440 volts power transformer and substation with its equipments panels capacitor ACB, MCB /MCCB, SFU etc. complete as required 24 hrs. Service and to keep the record of complaints in register who is having knowledge of HT/LT equipments installed in the sub station including supply and replacement of defective parts for hospital, Data centre, Dental college, Dental hostel & residential colony.	01	12	12		
2	Supplying, fixing and Replacement of defective shunt capacitor 25 kvar/5kvar installed in 200 kvar shunt capacitor bank suitable for every transformer and DG set.	01	12	12		
3	Dehydration and filtration of dirty transformer oil for 3x1000kva+2x630kva transformer (approximate 2640 liters transformer) with dehydration filter machine.	LS	01	01		
4	Supply and topping of transformer oil in conservator tank and including replacement of dirty silica gel in 5 transformers.	LS	LS	LS		
5	Annual repair, maintenance and testing including over hauling of 11kv HT Oil Circuit breaker 07 Nos. and replacement of its defective oil.	01	01	01		
6	Shifting of LT 440 volts cables in LT panel board one panel to another panel for load balancing as and when required as per requirement.	LS	LS	LS		
7	Comprehensive maintenance 2x750 kva and 1X200KVA DG set with its routine annual maintenance safety against overloading and to keep loading below rated power such as AMF panel and replacement of engine oil and filters etc.,auto start relay for emergency load transfer services round the clock and to keep pollution under control with repair of ducts and glucer pipe etc.And work after obtaining PUC certificate from the concerned department after necessary repair and replacement (Diesel will be paid as per actual).	01 jobs	12 jobs	12 jobs		
8	ARM comprehensive of AMF control panel for both DG set with COS relay Am meter frequency , energy meter with change over 1000 ampere switch .	01	03	03		

Condition of Table no.1

1. Making of suitable/alternative arrangement for portable / stand by diesel generator for emergency services in case of faulty cable / major break down failure of supply NDPL / ESI DG set to meet the emergency load requirement .
2. Existing 3x1000kva power transformer and 2x630 kva power transformer with HT / LT switch gear and shunt capacitor along with 2x750 kva kirloskar made DG set are installed to be kept proper routine operation and maintenance including replacement of battery and battery charger if required and all type of filter engine oil replacement of compressor oil, maintenance of AMF / CONTROL PANEL for proper functioning of both DG sets round the clock for emergency requirement on auto start.
3. To check the earth resistance and pouring of water in earth pits and keep the record of load flow of all the feeders to avoid the overloading.
4. The contractor have to maintain power factor of all transformer and DG sets above 0.97 by repair/servicing or replacement of shunt capacitor as per requirement throughout the year checked through NDPL bills, if power factor comes below 0.97 a penalty of 1 paisa per unit of kvah shall be deducted in descending orders that is 0.97 nil 0.96 One paisa and 0.95 two paisa, 0.94 three paisa per unit kvah decrease of power factor and so on.
 - a. To obtain NOC for pollution control from Delhi administrative after deposing necessary required fees/certificate after carrying out repair and maintenance before inspection by Delhi administrative staff.
 - b. All type of relay and load transfer and auto start switch contactor switch in AMF panel to keep fit and functional both DG round the clock.
 - c. To keep 180 AH lead acid battery fully charged and its charger functional for both DG set including replacement of battery if does not function on auto start.
5. Payment of Diesel will be made on the basis of actual original receipt from the reputed Petrol pump duly verified by the Engineer & making and entry in the log book maintained for D.G.sets.

Table No.-2
ESTIMATE FOR MAINTENANCE OF EQUIPMENT / SERVICES OF E.S.I.C. ROHINI HOSPITAL
(including Dental College), COLONY (including Dental Hostel) & DATA CENTRE SECTOR-15 DELHI-
110089

S.No	Description and particulars of centrally air conditions 4x80 tons complete with 18 AHU etc. And one 500L steam boiler and two hot water generators heatex make with heat exchangers/equipments installed in ESI Hospital, Rohini	Job per month	Total jobs per year	Qty.	Rates	Total amount
1	Comprehensive ARM of 4x80 tons centrally air conditioners with chiller and condenser motors and 15 Nos. AHU, and cooling tower motor and fans. Six Nos.FCU and 4 Nos. Exhaust fan blowers and air cooling system whenever including repair / rewinding of all kind of motors of 80 T compressor slip ring type motor / chillers and condenser with oil immersed starter and control panel i.e. complete AC plant of the Hospital including Dental college Hostel & Data Centre.	01	12	12		
2	Descaling of condenser AHU/pipeline and tubes with chemicals including toppings of (22 no.gas)for proper functioning of plant during summer season .	1	8	8		
3	Annual repair and comprehensive maintenance /supply and cleaning of defective fire/smoke tubes and other parts including descaling of smoke tubes, valves and safety devices including annual special maintenance including all expenses etc. For steam boilers including testing and approval from chief boiler inspector for annual repair.	01	12	12		
4	Annual repair and comprehensive maintenance for supply and replacement of defective fire/smoke tubes, valves and safety devices, burners and other fittings and material required. For both hot water generators and heat exchanger and pumps including pipe line fittings etc.	01	04	04		
5	Annual comprehensive repair and maintenance of all window AC/split AC with stabilizers between March to November including replacement of required filters. 125 nos.	01	Per Unit	125		
6	Painting with aluminium/enamel paint, steam boiler and 2 Nos. hot boilers with both smoke chimneys for boiler and incinator with proper repair and replacement of supporting fittings etc.wire and clamps.	01	01	01		
7	Supply and fixing and replacement of damaged 12 mm area steel ropes for the safety and support of steam boiler and incinator chimneys with suitable clamps and fitting as requirement at site.	01	01	01		
8	Repair and replacement of all type of filters such as micro and other suitable for OT /wards including welding of frame , replacement of shaft etc. to keep all AHU operative and functional throughout the year.	01	12	12		

Condition of Table no.2

1. Rewinding and repair of burnt motors including bearings of room AC chillers and condenser plant motor along with AHU pump motors repair and welding as per requirement to maintain for proper functional of AHU. Including maintenance of oil level and replacement of compressor, cooling coil and topping and maintenance of gas and other lubricants.
2. Repair and replacement of pipe insulation at broken places on chilled and condenser pipeline with heat exchanger with insulation covering with cement plaster whenever noticed broken or swatting on chillers pipeline or even complete replacement of chillers tank.
3. Monthly and yearly maintenance and cleaning and replacement of damaged fire tube inside fire chamber and safety valve and other fittings for steam boiler and hot water generator for smooth functioning as per requirement.
4. Replacement and maintenance of fillers and other parts for AHU and air blowers as per requirement. Maintenance of window ACs and their stabilizers and air cooling systems etc. To procure and obtain yearly inspection from boiler inspector after repair the fire tubes and other equipments for steam boiler after depositing necessary required inspection fees with Delhi administration.

Table No.-3
ESTIMATE FOR MAINTENANCE OF EQUIPMENT / SERVICES OF E.S.I.C. ROHINI HOSPITAL
(including Dental College), COLONY (including Dental Hostel) & DATA CENTRE SECTOR-15 DELHI-
110089

S.No .	Description and particulars of lifts installed in ESI Hospital and residential colony, Rohini	Job per month	Total jobs per year	Qty.	Rates	Total amount
1	Routine and annual comprehensive maintenance including all types of parts such as cards/relay and control panel with motor, ropes/cage/cover and control panel with its safety devises/HRC fuse and electrical material to keep the four lifts operation smoothly and properly all ECE make lifts in hospital.	01	12	12		
2	Routine and annual comprehensive maintenance including all type of parts such as cards ropes/cage/cover and control panel with its safety devises and all electrical material to keep all lifts in operation smoothly and properly both OTIS make lifts in residential colony, Dental college Hostel & Data Centre.	01	12	12		
3	Depositing of annual inspection fee and obtaining operational license from Delhi administration for safety of four ECE make hospital lifts.	LS	01	01		
4	Depositing of annual inspection fee and obtaining operational license from Delhi administration for four OTIS make residential colony, Dental College Hostel & Data Centre.	LS	01	01		

Condition of Table no.3

1. Maintenance of all safety devises and equipments and precautions such as electric motors, light, fans, hooters, ropes and doors of lift cage cover including all type of consumable and non consumable items with replacement and repair of all type of electrical/electronic parts such as cards and PCB box and other electrical fittings and fixtures such as MCB, tube lights and proper cleaning etc.
2. Procurement of yearly safety operational and driving license from concerned department after getting inspection from concerned authority along with license fees guaranty of all safety devices and insurance of passengers and machinery risks etc. for proper operation and maintenance.
3. If the contractor has filled to do so ESI has the right get the comprehensive maintenance contract from a reputed concern at his risk and cost without assigning any reason and recover the expenditure from contractor.

Table No.-4
ESTIMATE FOR MAINTENANCE OF EQUIPMENT / SERVICES OF E.S.I.C.
ROHINI HOSPITAL (including Dental College), COLONY (including Dental Hostel) &
DATA CENTRE SECTOR-15 DELHI-110089

S.No	Description and Particulars of EPBAX system and intercom installed in ESI Hospital, Rohini.	Job per month	Total jobs per year	Qty.	Rates	Total amount (IN Figures)
1	Annual maintenance and comprehensive repair of EPBAX system four lines including replacement of defective XSC cards and its battery with battery charger and all kind of materials if required.	01	12	12		
2	Supply and installation of new telephone handset instruments make beetel / JK / TATA / MTNL for intercom ISI marked for further extension.	01no.	10	10		
3	Repair and Maintenance of internal intercom system including hand set instrument with extension and shifting of connections as and when required.	01	12	12		

1. Maintenance of existing internal intercom system with extension/ shifting and installation of new connection as per requirement with single pair 1.5 mm copper cable.

Table No.-5
ESTIMATE FOR MAINTENANCE OF EQUIPMENT / SERVICES OF E.S.I.C. ROHINI
HOSPITAL (including Dental College), COLONY (including Dental Hostel) & DATA
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S.No	Description and Particulars of fire fighting equipments and fire alarms systems installed in ESI Hospital, Rohini.	Job per month	Total jobs per year	Qty.	Rates	Total amount (IN Figures)
1	Refilling and topping of 144+40=184 Nos. fire extinguishers Co2 type 4.5 kg including supply and replacement of defective broken plastic horns and other requirement of parts for proper filling, operation and maintenance of fire extinguisher as per condition of extinguisher during filling and testing.	Unit	each	184		
2	Refilling and topping of 265+40=305 Nos. fire extinguisher water types including supply and replacement of gas cartridge and other required parts for proper filling operation and maintenance of fire extinguisher as per condition of extinguisher during filling and testing.	Unit	each	305		
3	Maintenance of fire hydrants pumps 55kw motor and jockey pump 10kw and emergency diesel engines 66.2kw with pump including repair and replacement of 180 AH lead acid battery/ charger amplifier 100 W and main control panel as and when required and also carry out demo drill every month for inspection / operation of fire hydrants motors.	01	12	12		
4	Maintenance of internal fire fighting and fire alarms system including testing and maintenance of battery, fire reels and fire hydrants equipments in operation conditions to keep the all equipments operative and also carry out demo drill quarterly h for inspection/annual inspection.	LS	12	12		
5	Supply and installation of all purpose A.B.C. portable hand carried 5kg fire extinguisher ISI marked as and where whenever required in hospital and colony.	Unit	each	40 NOs.		

Condition of Table no.5

1.Topping and refilling of empty fire extinguishers as per yearly requirement type co-2 (184 Nos.) and water type extinguishers 305 Nos. as and when required refilling during the year, including hydraulic pressure testing replacement of gas cartridge and defective walls broken plastic horns or any kind of repair/paint etc.

2. Repair / replacement and fixing of 12 volts battery 12-20 AH for fire alarm for proper functioning.

3. To obtain and submit fire safety certificate after refilling and replacement of defective fire extinguisher.

Table No.-6
ESTIMATE FOR MAINTENANCE OF EQUIPMENT / SERVICES OF E.S.I.C. ROHINI
HOSPITAL (including Dental College), COLONY (including Dental Hostel) & DATA
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S.No	Description and Particulars of internal and external lightening including electrical singage system installed in ESI Hospital, Rohini.	Job per mont h	Total jobs per year	Qty.	Rates	Total amount
1	Comprehensive Annual repair and maintenance of electrcal signage glow sign board of hospital and colony complete with repairing of vinayal letter its electrical choke 40 watts,125 watts and miscellaneous items etc.	01 jobs	12 jobs	12 jobs		
2	Comprehensive maintenance of street light 9.1 meter single over hang steel tubler pole fittings/and 4.5 m GI pipe pole including replacement of the following. a) HPMV lamp 125 W (13 NOS) b) HPSC lamp 70 W (17 NOS) c) CFL 50/55 W (36 NOS) d) HALOGEN 500 W(06 NOS) e) Metal handle tortoise HPMV 125 W (2 NOS) including Aluminium/enamel Painting of steel tubler pole 9.1 meter with single over hang and 4.5 m GI PIPE pole and writing their pole no.	01 jobs	12 jobs	12 jobs		
3	Annual comprehensive maintenance & replacement of all internal wiring and external cables and wires with all electrical installation like tube light, ceiling fans, water coolers, wall plugs, internal wiring and shifting of boards repair of switches and sockets and repair and rewinding of burnt motors of ceiling fan damage capacitor all type of plug and socket etc. a) Bulb/FT point/wall plug 2260 nos. b) Ceiling fan/wall fan 560 nos. c) Room heaters/drinking water/room water cooler/electric geyser 25/50 L and other electrical installation of small size motor and fixers.	01 jobs	12 jobs	12 jobs		
4	Annual comprehensive maintenance and repair and replacement of damaged part for water room cooler/drinking water cooler ceiling fan/rewinding and replacement of bearing, room heater electric geyser 25/50 L and other electric items installed in hospital and colony Dental College & Data Centre.	01 jobs	12 jobs	12 jobs		
5	ARM comprehensive including identification of HT/LT cables and rectification energisation of faulty cables by fault locator or with the help of external agency with fault locating machine and making of straight through joint box and replacement of faulty cable with existing size including digging laying cable along with writing of letters/nos after identification of route of cables and feeders and marking on street lighting poles and AC plant as and where required throughout the hospital and colony.	01 jobs	12 jobs	12 jobs		

1.Trained and equipped with tools and Machinery electrician and plumber/ pump operator and sub station attendant / operator should always be available round the clock for trouble free service inside the hospital and colony.

Table No.-7
ESTIMATE FOR MAINTENANCE OF EQUIPMENT / SERVICES OF E.S.I.C. ROHINI
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S.No	Description and Particulars of hydro pneumatic softening and filter with complete pump house etc.installed in ESI Hospital, Rohini.	Job per month	Total jobs per year	Qty.	Rates	Total amount
1	Round the clock maintenance of pump house pumps and motors including rewinding of burnt motor and hardware motor fittings maintenance of electrical control panel installed in pump house for hospital, Data Centre and residential colony for MCD, Raw water and fire pumps etc. to keep hospital supply satisfactorily.	01	12	12		
2	Comprehensive maintenance of submersible pump for raw water and sewage disposal pump and motor for round the clock, moreover suitable and alternate arrangement to keep stand by pumps/motor for meeting the Emergency requirement and disposal of well sewage with external forcible/manual power system.	01	01	01		

- 6 Nos. Underground / reservoir tanks of capacity area of 1900 sq. Meter area of surrounding boundary walls floor and roof raw water MCD water and fire tanks are existing.
- Comprehensive maintenance and operation of emergency diesel engine with pump and motors and rewinding of burnt motors and its control panel etc supply of high speed diesel oil as per requirement in case of emergency use including replacement of its battery chargers and 180 AH battery to keep the fire services and equipments fit for operation with routine check and operation.
- Comprehensive maintenance for repair replacement and rewiring of burnt motors and replacement of unserviceable gate valve /bearing NRV / GI/CI pipe fittings and extension of pipeline and fittings whenever required for water supply and fire service in hospital and colony.

