

SUBJECT	BILL OF QUANTITIES – AC SYSTEMS
Regular Check & Service all the AC Systems (Indoor & Outdoor) and indoor spiral grills in the Buildings Monthly	
Regular Provide a comprehensive AC service report to the client on Monthly Basis.	
Regular Source, Procure, Install, and Invoice the clients on all spare parts mutually agreed.	
Prepare a comprehensive report and submit to the client on a Monthly Basis.	

SERVICE	SYSTEMS / UNITS	LOCATIONS	PERIOD
Maintenance	Air Conditioning	Indoor Units (Cassette VRF 57; Split 10)	Monthly
		Outdoor Units (VRF 10; Split 10)	Quarterly
		Indoor Spiral Grills	Quarterly

SUBJECT	BILL OF QUANTITIES – FIRE PROTECTION SYSTEMS
Regular Check, Service & Obtain all the IP Addresses of Smoke Detectors, Heat Detectors, Manual Push Buttons and Sounders on every floor on a Quarterly Basis. Arrange a mock drill for fire safety equipment's.	
Regular Check the functionality and display of failures ability of Fire Panels on Quarterly Basis.	
Regular Check operation ability of Fire Hose Reels and Hose Reel Pump on every floor Monthly.	
Regular Check Maintained Pressure of Fire Hose Reels on every floor Monthly.	
Regular Check operation ability of all Sprinkler Pumps and heads, Electric, Diesel & Jockey Pumps, Sump Panel, Fire Hydrant and Pipe Work on Quarterly Basis. Check fire cylinders/extinguishers, expiry dates / arrange replacement, if required.	
Prepare a comprehensive report and submit to the client on a Monthly Basis.	

S/N	SERVICE	UNITS	PERIOD
1	Check, Service & Obtain all the IP Addresses	Smoke Detectors	Quarterly
2		Heat Detectors	
3		Manual Push Buttons	
4		Sounders	
5	Check the functionality and display of failures ability	Fire Panel	

S/N	SERVICE	UNITS	LOCATION	TIMELINE
1	Check operation ability	Sprinkler Pumps	Basement	Quarterly
2		Sprinkler Heads	All Floors	
3		Electric, Diesel & Jockey Pumps	Basement	
4		Sump Panel	Basement	
5		Fire Hydrant	External of Building	
6		Pipe Work	Basement and All Floors	

SUBJECT	BILL OF QUANTITIES – INFORMATION TECHNOLOGY SYSTEMS (IT)
	Regular Check & ensure all the Indoor and External CCTV Cameras are operational on day-to-day Basis.
	Regular Check & ensure all activities appear on the CCTV control room screens on day-to-day Basis.
	Regular Prepare laminated plans and display in the control room for ease of reference.
	Regular Check and test the operational ability & Proper installation of IT Installations and Server Room Equipment's like UPS, Switches, Power & Connections, CAT6 Cabling and Wiring on Monthly Basis.
	Regular Check and test the operational ability of Security Equipment's like Boom and Pop-up Barriers, Electronic Gate, Under vehicle scanning systems, Access Control Systems, Scanners on Monthly Basis. Electronic gates to be greased/ oiled/ Maintained on 3 days basis and serviced on monthly basis.
	Regular Check and test the operational ability of Telephone Systems like PABX, Wiring and Instruments on Monthly Basis.
	Prepare a comprehensive report and submit to the client on a Monthly Basis.

S/N	SERVICE	UNITS	TIMELINE
1	Check & ensure all activities appear on the control room screens	Door Cameras	Monthly
2		External Cameras	
3		Control Room	

S/N	SERVICE	UNITS	TIMELINE
1	Check and test the operational ability & Proper installation	UPS	Monthly
2		Switches	
3		Power & Connections	
4		CAT6 Cabling	
5		Wiring	

S/N	SERVICE	UNITS	TIMELINE
1	Check and test the operational ability	Boom Barriers	Monthly
2		Pop up Barriers	
3		Electronic Gate	
4		Under vehicle scanning systems	
5		Access Control Systems	
6		Scanners	

SUBJECT	BILL OF QUANTITIES – PLUMBING AND DRAINAGE SYSTEMS
	Check and test the operational ability of Plumbing and Drainage Systems Like Water Taps (clogging, leakage), Floor Traps, Wash Basins & Sinks, Showers & Toilets, External/ Internal Manholes, Water Heaters, Sanitary Wear, Transfer Pumps, RO Plant & Water Purification on

Monthly Basis
Check the water circulation in the Main and Fire Water Tanks on Monthly Basis, checking quality of water, Cleaning of tanks after informing concerned officer/ residents and plug them on the same day
Check for any blockages and leakage in Plumbing Pipe work and Floor Traps on Monthly Basis.
Check and test the operational ability of Float Switches and Bore Well on Monthly Basis.
Check for continuous supply of Water in Main Domestic Tank and Fire Water Tank on Monthly Basis.
Check and test the operational ability of Extraction Systems at the Kitchen, Cleaning of exhaust fans and WC, Main Extraction Fan on the Roof Top on Monthly Basis.
Check and test the operational ability of Basement Supply and Return Systems, Extractor & Supply Fans and Measure Air Flows on Monthly Basis.
Check and ensure the operational ability of Solar Panels and repair & maintenance of Heating Systems every Quarter.
Prepare a comprehensive report and submit to the client on a Monthly Basis.

S/N	SERVICE	UNITS	TIMELINE
1	Check and test the operational ability	Water Taps	Monthly
2		Floor Traps	
3		Wash Basins & Sinks	
4		Showers & Toilets	
5		External Manholes	
6		Water Heaters	
7		Sanitary Wear	
8		Transfer Pumps	
9		RO Plant & Water Purification	
10	Check the water circulation	Water – Main Domestic Tank	
11		Water – Fire Water Tank	
12	Check for any blockages and leakage	Plumbing Pipe work	
13		Floor Traps	

S/N	SERVICE	UNITS	TIMELINE
1	Check and test the operational ability	Float Switches	Monthly
2		Bore Well	
3	Check continuous supply of Water	Water – Main Domestic Tank	
4		Water – Fire Water Tank	

S/N	SERVICE	SYSTEMS	TIMELINE
1	Check and test the operational ability	Extraction Systems at the Kitchen and WC	Monthly
2		Main Extraction Fan on the Roof Top	

S/N	SERVICE	SYSTEMS	TIMELINE
1	Check and test the operational ability	Basement Supply and Return Systems	Monthly
2		Extractor & Supply Fans	
3		Measure Air Flows	

S/N	SERVICE	SYSTEMS	TIMELINE
1	Check and ensure the operational ability	Solar Panels	Every Quarter
2		Heating Systems	

SUBJECT	BILL OF QUANTITIES – ELECTRICAL SYSTEMS
	Check, Test, Maintain and Record the Generators 2 x 400KVA. Check fuel consumption on hourly basis and when its running and check fuel in bulk tank.
	Check, Test, Record and Report the operational condition of the Outdoor Transformer 800KVA on Quarterly Basis.
	Physically check H.T Switchgear to L.V Main Sub Main Cables Continuously.
	L.V Switch Board complete service, check rating of circuit breakers and its breaking capacity on Monthly Basis.
	Check all Distribution Systems, Circuit Breakers on all floors are functioning satisfactorily. Correct breaking capacities. label all cables to distribution boards. Install blanking plates within distribution board. Display a laminated circuit diagrams within all distribution boards on Monthly Basis.
	Earthing: Check H.V Earthing of the Transformer, Check L.V Earthing of the Transformer, Check Earthing of the L.V Switchboard, Check Neutral Earthing for Generator set 1 & 2, Check Lighting Earthing of the Building, Display of all schematic drawing in the switchboard for reference. Done every six months.
	Check P.F correction check regulation of electricity and maintain P.F at 0.95 lagging on Monthly Basis.
	Check consumption of electricity on monthly basis against Tanesco electricity bill on Monthly Basis.
	Check performance and perform regular serving of Voltage Stabilizer on Monthly Basis.
	Small Power - Carry out earth loop tests to all the socket outlets, Check lighting laminations, Check if all lighting switches are functioning satisfactorily and polarity is correct, carry out continuity tests on the lighting and see all lighting is satisfactorily fit
	Prepare a comprehensive report and submit to the client on a Monthly Basis.

DESCRIPTION		TIMELINE
33 kV Ring MAIN Unit	Incoming Tanesco Supply	Quarterly

Outdoor Transformer	800KVA	
Generators	Tests on the 2 no generators (400KVA @)	Weekly
	Run on load for 1 hour and submit comprehensive report	Weekly (Saturdays)
	Check fuel consumption whenever generator is running	N/A
	Check fuel consumption on hourly basis and submit report to clients	Weekly
	check fuel in the bulk tank and report to client	
	check the generators are synchronized and operating satisfactorily	
H.T Switchgear to L.V Main	Physically check Sub Main Cables	Continuously
L.V Switch Board	Complete Service	Monthly
	check rating of circuit breakers and its breaking capacity	
Distribution systems	Check all Distribution Boards on the floors	Monthly
	Check all circuits breakers are functioning satisfactorily	
	Correct breaking capacities	
	label all cables to distribution boards	
	Install blanking plates within distribution board	
	Display a laminated circuit diagrams within all distribution boards	
Earthing	Check H.V Earthing of the Transformer	Every Six (6) Months

	Check L.V Earthing of the Transformer	
	Check Earthing of the L.V Switchboard	
	Check Neutral Earthing for Generator set 1 & 2	
	Check Lighting Earthing of the Building	
	Take readings and submit to clients for information	
	Display of all schematic drawing in the switchboard for reference	
P.F Correction Equipment	Check P.F correction check regulation of electricity and maintain P.F at 0.95 lagging	Monthly
Energy Saving	Check consumption of electricity on monthly basis against Tanesco electricity bill	Monthly
800kVA Voltage Stabilizer	Check performance of voltage stabilizer	Monthly
	Regular service of the voltage stabilizer	Quarterly
Small power	Carry out earth loop tests to all the socket outlets and submit reports to the clients	Monthly
	Lighting: Carry out continuity tests on the lighting and see all lighting is satisfactorily fit.	Quarterly
	Check lighting laminations in all offices and submit a report.	Monthly
	Check if all lighting switches are functioning satisfactorily and polarity is correct	
Lifts	Check all systems, controllers of the lift and its operation is satisfactory with the supplier	Every Two (2) Weeks
	Check lifts on power failure and check if rescue devices are functioning satisfactorily	Monthly
	Check steady power output of the voltage stabilizers of the lifts	
	Check lift alarms in case of failure of lifts	

SUBJECT	BILL OF QUANTITIES – ELECTRONIC SYSTEMS
Check and ensure the operational ability of Microwaves, Cooking Range, Gas Fittings, Exhaust fan above Cooking Range, Pipe for any blockage/ cleaning, Refrigerators, Television Sets and CTV on Monthly Basis.	
Prepare a comprehensive report and submit to the client on a Monthly Basis.	

SUBJECT	BILL OF QUANTITIES – LIFTS
Check all systems, controllers of the lift and its operation is satisfactory with the supplier on Monthly Basis.	
Check lifts on power failure and check if rescue devices are functioning satisfactorily on Monthly Basis.	
Check steady power output of the voltage stabilizers of the lifts on Monthly Basis.	
Check lift alarms in case of failure of lifts on Monthly Basis and to rectify all lift related issues immediately without any delay.	
Prepare a comprehensive report and submit to the client on a Monthly Basis.	

S/N	SERVICE	SYSTEMS	TIMELINE
1	Check, Inspect and Repair	Office Lifts	Monthly & Repair in case of failure same day.
2		Residence Lifts	

SUBJECT	BILL OF QUANTITIES – CIVIL WORKS
Check, inspect and repair, if necessary, all external civil works on Monthly Basis.	
Check, inspect and repair, if necessary, all wood works on Monthly Basis.	
Check, inspect and repair, if necessary, all painting works on Monthly Basis.	
Prepare a comprehensive report and submit to the client on a Monthly Basis.	

S/N	SERVICE	SYSTEMS	TIMELINE
1	Check, Inspect and Repair	Civil Works	Monthly
2		Wood Works	
3		Painting Works	

MAINTENANCE TEAM REQUIREMENTS (CV Employment Contract must be shared)			
QTY	SERVICE	Quality	Experience
3	Electrical Team (Monday to Friday – 8 Hour Shift) - Stationed	Education: B.Eng Electrical or VETA Highest Class	One of the Electrical Team Leader must have 10+ years of experience + Ewura license highest class and has permit to work on Tanesco poles.
3	Electrical Team (Saturday to Sunday – 8 Hour Shift) - Stationed	Certificate: Ewura Class A/B/C Certificate: Tanesco Works	
1	AC Technician (Stationed)	Education: B.Eng Mechanical or VETA Highest Class	
1	Plumber On Call (No Sub-contract)	Education: B.Eng Mechanical or VETA Highest Class	
1	Carpenter On Call (No Sub-	Education: B.Eng Mechanical or	All others must

	contract)	VETA Highest Class	have 5+ Years
1	Generator Specialist – On Call (No Sub-contract)	Education: B.Eng Mechanical or VETA Highest Class Works on gensets service, maintenance, and repairs.	
1	Lift Specialist – On Call (No Sub-contract)	Education: B.Eng Mechanical or VETA Highest Class Works on Lift maintenance, service, and repairs.	
1	RO Plant Specialist - On Call (No Sub-contract)	Education: B.Eng Mechanical or VETA Highest Class Works on RO plant service, maintenance, and repairs	
1	Pump Specialist – On Call (No Sub-Contract)	Education: B.Eng Mechanical or VETA Highest Class Work on Fire Pumps, Submersible Pumps, Normal Pumps, Well Pumps.	
RESERVE MAINTENANCE TEAM REQUIREMENTS			
1	Painter – In house personnel	Education: B.Eng Mechanical or VETA Highest Class	5+ Years
1	Mason – In house personnel	Education: B.Eng Mechanical or VETA Highest Class	
1	Fabricator – In house personnel	Education: B.Eng Mechanical or VETA Highest Class	

SUBJECT	BILL OF QUANTITIES – CIVIL WORKS
MONDAY – SUNDAY: 24HRS 365DAYS NO HOLIDAYS	