ELECTRICITY BILL COMPONENTS

FIXED CHARGE: This is a cost that goes towards making the service available, including installation and maintenance of poles, power lines and equipment, and 24-hour customer care.

CONSUMPTION CHARGE: This is your electricity consumption within the billing period. One unit is equivalent to one kilowatt hour hour. KPLC uses part of this money to procure bulk power from electricity generating companies, which it retails to its customers.

FUEL COST CHARGE (FCC): His is the added cost or rebates to the consumers as a result of fluctuations in world prices as well as fluctuations in the quantity of oil consumed by electricity generation. The fuel cost charge lags one month behind the actual the actual price of the fuel. This money is collected by KPLC and all of it is passed on directly to electricity generation companies, who in turn pay fuel suppliers.

FOREX ADJUSTMENT (FOREX): The foreign exchange component is related to the fluctuation of hard currencies against the Kenya Shilling for expenditure related to the power sector e.g projects loan repayments.

ERC LEVY: This is levy passed on to the Energy Regulatory Commssion (ERC), the regulatory arm of the energy sector. It is currently set at 3 cents per kilowatt hour.

REP LEVY: This is 5% levy on the cost of the units of power consumed by a customer. It is passed on to the Rural Electrfication Authority (REA) for implementation of the rural electrification projects.

VAT (12%): This statutory levy amounting to 12% of the total bill and is passed on to the Kenya Revenue Authority (KRA).

WARMA levy: For energy purchased from hydropower plants above 1MW.

COMMON TERMINOLOGIES FOR ELECTRICITY SECTOR

ENERGY SECTOR: This sector includes companies involved in the exploration and development of oil or gas reserves, oil and gas drilling, alternative energy sources, or integrated power firms.

FAULT: A failure or interruption in an electric circuit.

FEEDER: A distribution feeder is an underground or overhead line connected to a transmission system which carries power into the distribution network where it is delivered to end-use customers.

FLUORESCENT LAMP: A form of lighting which creates light by exposing a conductive vapor to electrical current.

FUEL COST ADJUSTMENT: Refers to a change made to the price of electricity based on changes in the market price of the fuel.

FUSE: A safety device that protects an electric circuit from becoming overloaded. Fuses contain a length of thin wire (usually of a metal alloy) that melts and breaks the circuit if too much current flows through it.

GENERATION OF ELECTRICITY: To make electricity. A generating station is a building where electricity is made. Generation is the act or process of transforming other forms of energy into electric energy. A generator transforms mechanical energy into electrical energy.

GENERATION RESOURCES: The various means available for generation of electricity. Electricity in Kenya is generated mainly from hydro, geothermal and thermal sources. There are efforts to generate electricity on a wide scale from wind and solar.

GEOTHERMAL ENERGY: Is energy generated by heat stored beneath the Earth's surface or the collection of absorbed heat in the atmosphere and oceans.

GIGAWATT: A watt is a unit of power, especially of heat or light. A Gigawatt is equal to a billion watts or one thousand megawatts.

GROUND: A conducting connection, intentional or accidental, between an electrical circuit or equipment and the earth providing a complete current path.

HYDROELECTRIC: The production of electrical power through the use of the gravitational force of falling or flowing water.

INCANDESCENT LAMP: A lighting device in which light is produced using electrical current to heat a thin filament (thread) or metal to a temperature where it gives off light.

INDEPENDENT POWER PRODUCER (IPP): Refers to a producer of electrical energy which is not a public utility but which makes electric energy available for sale to utilities or the general public.

INSULATOR: A material or an object that does not easily allow heat, electricity, light, or sound to pass through it.

INSTALLED CAPACITY: Describes the maximum capacity that a system is designed to run at.

INTERCONNECTED SYSTEM: A system consisting of one or more individual power systems, normally operating with the interconnecting transmission lines. The Kenyan power system and the Ugandan Power system form an interconnected system.

ISOLATED/SELF – CONTAINED SYSTEM: A stand - alone electricity generation, transmission and distribution network serving a confined part of a country or region. Kenya's more remote regions have isolated or off-grid power systems.

KENYA ELECTRICITY GENERATING COMPANY (KenGen): A company that generates electricity from all publicly owned generating plant and sells power in bulk to Kenya Power. It is also the single largest supplier of electrical energy in the country.

KENYA POWER: It is a limited liability company which transmits, distributes and retails electricity to customers throughout Kenya. The Company, quoted at the Nairobi Securities Exchange, buys power in bulk from power generators, which it then transmits, distributes and retails to consumers.

KILOVOLT (KV): 1 Kilovolt (Kv) =1,000 Volts

KILOWATT (KW): 1 Kilowatt (KW) = 1,000 Watts. A kilowatt – hour (KWH) is the basic unit of electrical energy equal to I Kilowatt or 1,000 Watts of power used for one hour. The amount of power the customer uses is measured in kilowatt hours (kWh).

POWER LINE: A system of high tension cables by which electrical power is distributed to electricity customers.

LINE CREWS: A team of trained, skilled maintenance and repair workers who service transmission and distribution lines, and equipment.

LOAD: A load is the amount of power delivered, as required, at any point or points in the system. A load is created by the power demands of customer equipment.

LOAD FACTOR: The average power divided by the peak power over a period of time.

LOAD SHEDDING: The act or practice of temporarily reducing the supply of electricity to an area to avoid overloading the generators. Load shedding is most often applied to ensure continuity to a smaller number of costumers when demand for electricity exceeds supply.

LONG RUN MARGINAL COSTS: The nature of the power industry is long term in nature due to the nature of investments that support power supply. Hence, there is need to plan for the future in a consistent manner in order to safeguard security of supplies efficiently. Kenya's power tariff is based on long run marginal costs, which deal with future costs over a long period of e.g. five to ten years, so that the resulting tariff prices in constant terms tend to be quite stable over time.

MEGAWATT: One million Watts or 1,000 Kilowatts.

METER BOARD: The board on which the meter and main switch, and associated equipment are mounted.

METER INSPECTION: The examination of the meter for various reasons including verifying, readings, determining accuracy and checking for malfunction.

METER TAMPERING: Deliberate interference with the power measuring device in premises, usually for purpose of showing lower or no consumption.

MINISTRY OF ENERGY (MOE): is mainly responsible for policy formulation and granting and revoking generation and distribution licenses upon recommendation of the Energy Regulatory Commission (ERC); and settlement of disputes arising from parties aggrieved by ERC's decision(s).

NATIONAL ENERGY POLICY: This broadly articulates the Government's strategies for the energy sector generally and the power sub–sector specifically.

NATIONAL GRID: The network of electricity transmission and distribution cables used in the conveyance of electricity.

NATIONAL POWER DEVELOPMENT PLAN: Outlines the Government plans for the electricity sub–sector.

NETWORK: A system of transmission and distribution lines cross–connected and operated to permit multiple power supply to any principal point on it. A network is usually installed in urban areas. It makes it possible to restore power quickly to customers by switching them to another circuit.

OFF – PEAK ENERGY: Power supplied during hours when power demand is usually low.

ON – PEAK ENERGY: Power supplied during periods of relatively high system demands.

OVERLOAD: To put too much electricity through an electrical system or piece of equipment. .

PEAK DEMAND: The maximum amount of power necessary to supply all customers at peak time.

PHASE: One of the characteristics of electric services supplied or the equipment used. Most residential customers have single–phase service.

Large commercial and industrial customers have either two-phase or three–phase service.

PLANNED ELECTRIC OUTAGE: An interruption of service to electric lines to permit work that cannot be performed while the lines are live with electric current. Whenever possible, affected customers are notified beforehand.

POWER: The time rate of using electric energy, usually expressed in kilowatts.

POWER GRID: A network of power lines and associated equipment used to transmit and distribute electricity over a geographic area.

POWER POOL: Power pool consists of two or more utilities who combine their resources to better meet their individual needs.

POWER PURCHASE AGREEMENT: The negotiated bulk power tariff between Kenya Power and the power generating companies, including other related contractual agreements between Kenya Power and those entities.

POWER RATIONING: A deliberate action to allocate different hours of electric service to customers in respective locations in response to a power shortage.

POWER SUB–SECTOR: The part of the energy sector concerned with the electricity business.

PREPAYMENT METERS: Devices used to access electricity that has been paid for in advance.

RURAL ELECTRIFICATION AUTHORITY (REA)

Rural Electrification Authority (REA) was established to speed up the implementation pace of the rural electrification programme. The government's policy objectives are to expand access to electricity as a means of promoting sustainable socio–economic development for rural communities.

SOUTHERN AFRICA POWER POOL (SAPP): An integrated network of electricity transmission lines linking several Eastern and Southern Africa countries.

SUBSTATION: A small building or fenced – in yard containing switches, transformers, and other equipment and structures for the purpose of adjusting voltage, monitoring circuits and other service functions. As electricity gets closer to where it is to be used, it goes through a substation where the voltage is lowered so it can be used by homes, schools and factories.

SYSTEM LOSSES: The proportion of electricity lost in the process of transmission and distribution.

TARIFF: The charge levied by Kenya's Power sector for development, operations and maintenance of the power system. The entire power sector is financed from the total revenue collected by Kenya Power from its retail tariff which is set and approved by the ERC.

THERMAL ENERGY: Thermal electricity is generated from the heat produced by the burning of fossil and renewable fuels.

TRANSFORMER: A transformer is a device used to change the voltage level of electric current. Transformers can either increase or decrease voltage.

TRANSIENT FAULT: A temporary introduction of a foreign element that causes a momentary interruption of services to electric lines such as a tree branch touching a line during a wind storm.

TRANSMISSION LINES: Heavy wires that carry large amounts of electricity over long distances from a generating station to places where electricity is needed. Transmission lines are held high above the ground on tall towers called transmission towers.

TRIP: The switching "off" of a circuit breaker due to a fault in the electric circuit or power equipment.

TURBINE: An enclosed rotary wheel turned by water or steam. It then turns a generator to make electricity.

UNDERGROUND: An electrical facility installed below the surface of the earth.

UNPLANNED ELECTRIC OUTAGE: Any interruption in the generation, transmission, or distribution of energy which is not scheduled.

UTILITY: A company that performs a public service; subject to government regulation. Telephone, water and electric companies are utilities.

VOLT: The unit used in measuring the force driving electricity through a circuit, or the strength of an electric current.

VOLTAGE: The rate at which energy is drawn from a source that produces a flow of electricity in a circuit. It is measured in volts.

WATT: A measure of how much electric power an appliance needs. This term is commonly used to rate appliances using relatively small amounts of electricity.

WAYLEAVES: Right of way granted to a utility to erect equipment in the course of service delivery. Way leaves may be granted by individuals, the government or its institutions.