

CONSUMER GUIDE TO ELECTRICITY TERMS

Ampere	A unit of electric current
Apparatus	Electrical apparatus and includes all machines fittings, accessories and appliances in which conductors are used
Area of Supply	The geographic area within which alone a Licensee is authorised for the time being to supply energy by his licence.
Battery	A single unit of 2 volt cells
Battery Cell	The basic structural unit of a battery. Several 2 volt units are connected in series or parallel to create a battery. For example a 6 volt battery is made up of three 2 volt cells
BESCOM	Bangalore Electricity Supply Company
Billing Period	The period between two consecutive Meter reading dates
Circuit	A continuous loop of electrical current flowing in wires and cables
Circuit breaker	A safety device that interrupts an electrical circuit in the event of an overload or short circuit
Cogeneration	The production of electrical energy and another form of useful energy through the sequential use of energy
Conductor	Any material that allows electrical current to flow through it easily. Water and most metals are examples of conductors
Conncted Load	The sum total of the installed (connected) capacities in Kilowatts of all the energy consuming devices on the consumer's premises, This shall be expressed in KW or KVA.
Consumer	Any person who is supplied with electricity for his own use by a licensee or the Government or by any other person engaged in the business of supplying electricity to the public under the Electricity Act 2003 or any other law for the time being in force and includes any person whose premises are for the time being connected for the purpose of receiving electricity with the works of the licensee, the Government or such other person, as the case may be
Contracted Demand	The load in kilovolt amperes (KVA) mutually agreed to between the Licensee and Consumer as entered in the Agreement
Contractor	Means a qualified licensed electrical contractor having a valid licence issued/recognised by the Government and such other persons who are authorised to carry out electrical installation works under relevant Act and Rules.

Current	An uninterrupted electrical pathway through a circuit or electrical fixture
Cut Out (Fuse)	Any appliance for automatically interrupting the flow of energy through any conductor when the current rises above a predetermined amount, and shall also include fusible cutout
Demand Charge	Charge levied to a consumer, which is based on the contracted demand or maximum demand recorded whichever is higher
Deregulation	The elimination of regulation from previously regulated industry or sector of an industry
Direct Access	The ability of a retail customer to purchase electricity directly from the wholesale market rather than through a local distribution utility
Direct Current	Current that flows continuously in one direction such as that from batteries, photovoltaics, charges and DC generators. The type of electricity stores in batteries that flows in one direction
Distribution	The delivery of electricity to retail customers (homes, businesses etc.)
Distribution System	Any system consisting mainly of cables, service lines and overhead lines, electrical plant and meters having design voltage of 33 KV and below. The distribution system shall not include any part of a transmission system except the terminal equipment used for the supply of electricity to extra high voltage (66 KV and above) consumers
EHT	Extra High Tension (EHT) means supply voltages above 33000 volts
Electricity	Means electrical energy (a) generated, transmitted, supplied or traded for any purpose or (b) used for any purpose except the transmission of a message
Electric current	The flow of electric charge. The preferred unit of measure is the ampere
Electricity energy	The ability of an electric current to produce work, heat, light or other form of energy. It is measured in Kilowatthours
Electric Generator	A machine that converts mechanical energy into electrical energy commonly expressed in kilowatthours (kWhr) or Megawatthours (mWhrs). It also includes an electricity generating company It also refers to electrical utilities and Independent Power Producers (IPP)
Electric Utility	Any person or agency which has authority to generate, transmit, supply or distribute electric energy to consumers
Energy	The capacity for doing work as measured by the capability of doing work or the conversion of this capability to motion.
Extra High Tension	EHT means supply voltages above 33000 volts

Energy Charge	The portion of the charge for electric service based upon the electric energy is billed
Fixed Cost	Cost that must be paid regardless of the amount of energy produced/used. Such costs normally include capital costs, interest, insurance and taxes
Flat Rate	Electricity rates which charge the same price on the load connected
Frequency	The number of alternating current cycle per second (expressed in Hertz) at which the system is operating
Fuse	A safety device that interrupts electrical circuits during an overload or short circuit
Gas Turbine Plant	A plant in which the prime mover is a gas turbine.
Generation	The process of producing electric energy by transforming other forms of energy. It is also the amount of electric energy produced, expressed in watt-hours (Whr)
Generator	A machine that converts mechanical energy into electrical energy
Generating Capacity	The amount of electric power a power plant can produce
GESCOM	Gulbarga Electricity Supply Company
Grid	Means the high voltage backbone system of inter-connected transmission lines, sub-station and generating plants
Gridco	At some times used to identify an independent company responsible for the operation of the grid
Grounding Wire	A wire used in an electrical circuit to conduct current to the earth in the event of a short circuit. The wire is often a bare copper wire
Hertz (Hz)	A unit of measuring frequency of electricity
HESCOM	Hubli Electricity Supply Company
High Tension (HT)	Supply voltages of more than 650 volts and upto and inclusive of 33000 volts
Hot Wire	Also called as Live Wire. Any wire that carries current/voltage in an electrical circuit.
Hydroelectric plant	A plant in which the turbine generators are driven by falling water
IPP	Independent Power Producer-a corporation, person, agency, authority or other legal entity or instrumentality that owns or operates facilities for the generation of electricity for use primarily by the public, and that is not an electric utility
Installation	The whole of electric wires, fittings, motors and apparatus installed and wired by or on behalf of the consumer on one and the same premises starting from the point of commencement of supply

Insulator	A nonconducting material that resists the flow of electricity. Insulating materials protect wires & cables. It protects from electric shock
Invertor	A power conversion device used to change DC energy to AC energy
KERC	Karnataka Electricity Regulatory Commission
Kilowatt (KW)	One kilo watt is equal to 1000 Watts. A measure of the amount of electricity used by large appliances and households
Kilowatt-Hour (Kwhr)	The unit of electricity for which most customers are charged on their monthly bill. One kilowatt hour equals to one hour of using electricity at a rate of 1000 watts. (2 Lamps of 40 Watts consume approximately 1 Kwhr (one unit) if they are used for 12 hours.)
KPCL	Karnataka Power Corporation Limited. This is a generating company
KPTCL	Karnataka Power Transmission Company Limited. This is a transmission company
Licensee	Holder of a licence for distribution or for retail supply or for both under relevant law
Line Loss	The loss of electrical energy due to the resistance and the length of wire in a circuit
Load	Refers to any device consuming energy. Usually expressed in terms of watts (KW)or amps or KVA or HP
Load Factor	The ratio of the average load over a period (usually a year) of time to the peak load in that period
Load Limiter	Also called Current Limiter. A device that will allow the rated current and trips the circuit if the load exceeds the rated current (Amps)
Low Tenstion (LT)	Supply voltages of 650 V and below
Maximum Demand	Means the average amount of kilowatts or kilovolt amperes, delivered at the point of supply of the consumer and recorded during a thirty minute period of maximum use in the month. However,subject to the Licensee reserving the right to shorten this period in special classes of consumers if necessary, with the approval of the KERC
Meter	A device used to measure the amount of electricity being used
MESCOM	Mangalore Electricity Supply Company
Minimum Charges	Electricity charges including fixed and energy charges payable under the Tariff schedule in force from time to time as per the terms of the Agreement and the Code

Neutral Wire	A wire that returns current at zero voltage to the source of electrical power. Usually covered with white or light grey insulation
O & M Office	The local office of the licensee in charge of distribution and retail supply of electricity (Operation and Maintenance Office)
Ohm	The unit of measurement of electrical resistance. The Ohm is that resistance in which a current of 1 Ampere flowing for one second generates 1 Joule of heat energy
Open Access	The non-discriminatory provision for the use of transmission lines or distribution system or associated facilities with such lines or system by any licensee or consumer or a person engaged in generation in accordance with the regulations specified by the Commission
Outage	The period during which a generating unit, transmission line, or other facility is out of service
Outlet	A point in any electrical installation to which an electrical appliance is or is intended to be connected
Overhead Line	An electric supply line which is placed above ground and in the open air but does not include live rails of a traction system
Overload	A demand for more current than the circuit wires or electrical device was designed to carry. Usually causes a fuse to blow or a circuit breaker to trip
Peak Demand	The maximum load during a specified period of time
Photovoltaic	The conversion of solar energy directly to electrical energy
Power	The result of current flowing for a period of time. Use of power makes heat, motion or light
Power Factor	The ratio of watts to Volt-amperes, or the ratio of KWh to KVAh, as applicable
Regulation	The governmental function of controlling or directing economic entities through the process of rulemaking and adjudication
Renewable Energy	Energy produced from virtually inexhaustible sources such as solar, wind, hydro etc.
Resistance	The opposition to flow of direct current
RR Number	Revenue Register Number or the number assigned to the Consumer's installation
Sanctioned Load	The mutually agreed load in kilowatts (KW)/, Horse power (HP) between the licensee and the Low Tension Consumer as entered in the Agreement
Service Line	Any electric supply line through which energy is, or is intended to be supplied by the Licensee from a distributing main to a single or group of consumers from the same point of the distributing main

Service Main	The part of service line from terminal pole up to the point of commencement of supply whether overhead or underground
Service Panel	A metal box usually near the site where electrical power enters the house. In the service panel electrical current is split into individual circuits. The service panel has circuit breakers or fuses to protect each circuit
Short Circuit	An accidental and improper contact between two current carrying wires, or between a current carrying wire and the earth
Shorting	It is caused by active material falling on the poles carrying wire and ground conductor
Span	The horizontal distance between two adjacent supporting points of an overhead conductor
Sub-Station	Facility equipment that switches, changes or regulates electricity and transforms higher voltage to lower voltage
Surge	A rapid increase or spike in voltage that may cause damage to a customers' appliances
Switch	A device that controls electrical current passing through hot circuit wires. Used to turn lights and appliances on and off
Tariff	A document, approved by the responsible regulatory agency, listing the terms and conditions including a schedule of prices, under which utility services will be provided
Transformer	An electrical device used to transform the voltage of one circuit to a different value for another circuit. Transformers can transform AC voltage to high values necessary for transmission and can lower voltage as required for usage in homes and industries etc.
Transmission	The process of transporting high-voltage electricity from the points of generation to the location of groups of electricity users and low-voltage distribution wires
Transmission System	The system consisting mainly of extra high voltage electric lines having design voltage of 66 KV and higher and shall include all plant and equipment in connection with Transmission owned or controlled by the Licensee
Turbine	A machine for generating rotary mechanical power from the energy of a stream of fluid (such as water, steam or hot gas). Turbines convert the kinetic energy of fluids to mechanical energy through the principles of impulse and reaction or a mixture of the two
Unbundling	The separating of the total process of electric power service from generation to metering into its component parts for the purpose of separate pricing or service offerings
Utility	A regulated entity which exhibits the characteristics of a natural monopoly. For the purpose of electric industry restructuring, 'utility' refers to the regulated, vertically-integrated electric

company. Transmission utility refers to the regulated owner/operator of the transmission system only. Distribution utility refers to the regulated owner/operator of the distribution system which serves retail customers

Voltage The difference of electric potential measured in volts between any two conductors or between any part of either conductor and the earth as measured by a suitable voltmeter

Volt A unit of measurement of voltage.

Wattage (Watts) A measurement of electrical power in terms of total energy consumed. Watts can be calculated by multiplying the voltage and the amps

Wheeling Charge The transmission of electricity by an entity that does not own or directly use the power it is transmitting. Wholesale wheeling is used to indicate bulk transactions in the wholesale market, whereas retail wheeling allows power producers direct access to retail customers. This term is often used colloquially as meaning transmission

Wheeling Charge An amount charged by one electrical system to transmit the energy of, and for, another system or systems