

GLOSSARY OF ELECTRICITY TERMS

GENERAL INDEX

A B C H D E F G H I J K L M N O P Q R S T U V W X Y Z

Alternative sources of energy: Others sources of energy in their natural form such as wind, solar, biomass and tidal power.

Alternator: Electric generator of alternative current that functions under the principle of electromagnetic induction by mechanical movement. Such movement may come from turbines drive by steam, water, hot gases or any other mean.

Ampere (*): Standard unit for measuring an electric current. Its symbol is A. It defines as the unit of charge, the Coulomb, which is the amount of charge displaced by one ampere in a second ($1A= 1C / s$). It is named after André Marie Ampere, French physicist.

Automatic control of generation: It is the equipment that automatically adjusts the requirements of generation in a control area, keeping their programmed interchanges plus the natural response of the area before frequency variations.

Autotransformer: It is a transformer with its windings connected in series. Its connection has an effect in the reduction of its size.

Availability: Characteristic that the generating units of electric energy have to produce power to their full capacity at a given moment when the load dispatch demands it.

Available capacity (in a system): It is the sum of the effective capacities of the power stations on service of the system or the ones that have the possibility to bring into service during the considered period of time.

Available equipment: It is the one that is not under any license and that can be set on operation in any moment.

Available reserve: Capacity in excess after satisfying the maximum demand considering the generating units that are actually available, excluding the out of service units due to forced or planned shutdowns.

Average demand: Demand of an electric system or any of its parts, calculated dividing the energy consumption in kWh between the number of units of the time interval in which such consumption was measured.

Average load: Constant hypothetical load that in a fixed period will consume the same amount of energy than the real load in the same time.

Backbone network: Depending on the sector, it can be: A.- Primary physical media of the communication network. B.- A set of generating power stations, transmission line and electric stations whose function and location are considered vital for a system.

Black start: It is the start that a power station does with its own resources.

Blocking: It is the means that prevents the partial or total change of the operation condition of a device, equipment or installation of any kind.

Brute maximum demand: Maximum demand of an electric system including ancillary services of the power stations.

Brute needed energy: Energy required to satisfy the demand of a electric system, including the ancillary services of the power station.

Cable: It is a conductor made out a set of wires, braided or twisted.

Calorie: Unit equivalent to 4.18 joules.

Capacitor: Device that stores electric charge. It is made by two metallic plates separated for a non conductive sheet or dielectric. These devices are utilized to reduce voltage drops in the distribution system. Also, it is known as condensator.

Capacity factor: Also known as utilized factor of a power station, it is the relation between the electric energy produced by a generator or a group of generators during an interval of time and the electrical energy that would had been produced if this generator or group of generators would have been functioned during such interval of time at its maximum possible power in service. It is generally expressed in per cent.

Capacity: It is an aptitude measurement of a generator, transmission line, transformer bank or batteries or capacitors to generate, transmit or transform the electric power in a circuit. Generally, it express in MW or kW and it can be referred to one only element, to a power station or a local system or an interconnected system.

Channelling: Metallic and no metallic accessories designed specifically to contain and protect wires, cables and conducting rods against mechanical damages. Also, it protects the facilities against fires due electric arc produced by a short circuit.

Chemistry energy: It is the one obtained from the chemistry reaction derived from the electrons flow between two poles of different polarity placed within an electrolyte, for example, a pile.

Circuit: Path or route of electric current, formed by conductors, that transports electric energy between sources.

Cogeneration: It is the electric energy jointly produced with steam or another type of secondary thermal energy or both or when the thermal energy not used in the processes it is utilized for the direct or indirect production of electric energy or when fuels produced in their processes are utilized for the direct or indirect production of electric energy.

Coil: It is the winding of a conductor wire around a solid or hollow cylinder, this and due to the special geometry obtains important magnetic characteristics.

Cold reserve unit: It is all units not connected to the National Electric System that are available.

Cold reserve: It is the amount expressed in MW resulting from the available generating units that are not connected to the system.

Collecting bar (bus): Rigid electric conductor, found in a substation with the purpose to be used as a connector of two or more electric circuits.

Conductive greases: Grease compounds that allow a decrease in contact resistance. They are used in bar splices and in movable contacts that operate under tension.

Conductor: Any material that shows up minimum resistance to the current flow. The most common conductors are copper or aluminium and can be insulated or bare.

Consumption: Quantity of a fluid in movement, measured in function of the time. The fluid can be electricity.

Contingency: Abnormality in the control system of a power station, substation or alternative sectioning point installed in the distribution system of electric energy.

Continuity: It is the uninterrupted supply of energy service to the customers, according to applicable standards and rules.

Control Area: It is the entity who is in charge of the control and the operation of a group of power stations, substations and transmission lines within an geographic area determined by the board of directors of CENACE.

Control panel: Within a substation, it is a series of devices that their objective is to hold control, measurement and protection instruments, the mimic bus, the light indicators and the alarms.

Current: Movement of electricity through a conductor. It is a flow of electrons through a conductor. Its intensity is measured in Amperes (A).

Dead equipment: It is the one that is not energized.

Degradation: It is said that an unit is degraded when for some reason it can not generate the effective capacity.

Demand factor: Relation between the maximum recorded demand and the total load connected to the system. //Relation between the maximum absorbed power by a group of facilities during an interval of determined time and the installed power of such group.

Disconnect switch: It is a sectioning device that in the case of failure in the branch of the feeder where is installed, opens its contacts automatically: isolating the failure. Its operation is linked with the breaker or recloser depending on the case. It opens its contacts up to counting the absence of voltage for three times.

Disconnecter: It is the instrument composed by a mobile contact or blade and a fixed contact or receptacle. The function of the disconnecter is to section, connect or disconnect electric circuits without load by means of a stick or by means of a motor.

Dispatchability: Operative characteristic of a generating unit to modify its generation or to connect or disconnect under request of CENACE.

Distribution network: It is a set of feeders interconnected and in radial circuits that supply by means of such feeders, the energy to different users.

Distribution substation: Substation utilized to feed a distribution network of electric energy.

Distribution System: It is the set of substations and feeders of distribution, linked electrically, that are interconnected radially to supply the electric energy.

Distribution: It is the conduction of electric energy from the delivering points of the transmission to the supplying points to the users.

Disturbance: Action and effect of altering the steady state of the electric system.

Disturbance: It is the alteration of the normal conditions of the National Electric System due Act of God or *force majeure* event, generally, short and dangerous. It produces an interruption in the service of electric energy or diminishes the reliability of the operation.

Downstream effect: Damages or benefits that the transfer of water volumes to a section after the dam could cause, considering the flow direction of the river.

Earthing disconnectors: All those used to connect an equipment to ground.

Effective capacity: Maximum load that a power station can take within the prevailing conditions and it corresponds to the nameplate capacity corrected by the effect of permanent degradations in equipments that make up the power station and unable the generator to produce the nominal power.

Electric demand: Instantaneous requirement to an electric power system expressed normally in megawatts (MW) or kilowatts (kW).

Electric energy conversion: Change or transformation of parameters of electric energy by means of one or several devices.

Electric feeder: Circuit connected to a receiving station that supplies electricity directly to one or various services to various distribution substations.

Electric motor: A device that allows the electric energy to transform into mechanical, this can be done by rotation of a magnetic field around turns or winding.

Electric power generation: Production of electric power by means of consumption of a different type of energy.

Electric power: Production rate, transmission or usage of electric energy generally expressed in Watts.

Electric System: Generation, transmission and distribution facilities, physically interconnected, operating as an integral unit, under control, management and supervision.

Electrical interconnection point: It is the point where the deliverance of power is agreed between two entities.

Emergency: Operative condition of some element of an electric system, considered of high risk and that could degenerate into an accident of disturbance.

Energize: To allow that an equipment obtains electric voltage.

Energy consumption: Electric power utilized completely or partially by a facility during a fixed period of time.

Energy reserve: Amount of generation that might be supplied after the units satisfy the load demand curve for the considered period. It is obtained by subtracting the necessary power from the total possible power generation coming from the electric interconnected system in the period under review. It is expressed in percentage of the gross needed energy.

Energy use: Total consumption of energy in a fixed process.

Energy: Capacity of the bodies or a group of these ones to execute a work. All material body that pass from a state to another, produce physical phenomenons that are signs of some transformation of the energy. // Capacity of a body or System to carry out a work. The energy is measured in kilowatt-hour (kWh).

Equipment isolated for work: It is such equipment in which the action of isolating for work was executed.

Equipment: Device that performs a specific function utilized for the operation as a part or in connection to an electric facility.

Failure: || 1. It is an alteration or permanent or temporary damage in any part of the equipment that varies theirs normal conditions of operation and that generally causes a disturbance. || 2. Perturbation that prevents the normal operation.

Frequency: Number of times that the alternative signal repeats by itself in a second. Its measurement unit is the hertz (Hz).

Fuse: Protection apparatus against shortcircuits that, in the case of circulating a higher current than the nominal, interrupts the flow of such current.

Generation capacity: Maximum load that a generation system can feed, under established conditions for a fixed period of time.

Generator: It is an electromagnetic device by which the mechanic energy becomes in electric energy.

Generators: All those unit stations dedicated to produce electric energy.

Geothermal energy: It is the calorific energy coming from the nucleus of the earth, which displaces up on the magma that flows through the fissures in the solid and semisolid rocks within the earth, which is utilized to generate mechanical and electric energy.

Geothermal power station: It generates electric energy with turbines that utilize the calorific energy of the water steam produced in the bosom of the earth.

Giga Watt (*): Multiple of the active power that is equal to a thousand millions of watts and whose symbol is GW.

Hertz Hz (*): One hertz is the frequency unit used in alternating current and in the wave theory. It is equal to a single vibration or one cycle per second.

High tension: Nominal tension higher than 1 kV (1000 Volts)

Hot reserve unit: It is all units not connected to the National Electric System that are available and that keep equipment in service with the objective to reduce the time used to synchronize or considering its characteristics, they are fast in their synchronization.

Hydraulic energy: It is the potential energy of the water from the rivers and lakes that is used in a waterfall by height difference in a dam or by the flow of this one, which is transformed in mechanical energy by a water wheel or turbine coupled to a turbogenerator that transforms it in electric energy.

Hydroelectric power station: It generates electric energy with turbines that utilize the potential and Kinetic energy of the water.

Incandescence: System by which light is generated as a consequence of the electric current passing on through a conductor filament.

Independent power producer (IPP): It is the holder of a commitment contract on capacity for the generation of electric energy and for buying and selling electric energy, held with CFE according with what is established in The Public Service of Electrical Energy Law and its rules.

Independent producer: It is the holder of an official permit to produce electric energy in facilities other than CFE's.

Independent production: It is the generation of electric energy by legal or natural persons for its exclusive sale to the provider by means of long term contracts.

Induction: Electromagnetic induction is the generation of an electric power differential (or voltage) along a conductor positioned into an oscillating magnetic field. Is the essential cause by which generators and motors work, and so for the most of the electric machines.

Installation: It is the infrastructure developed by the electric sector for generation, transmission and distribution of electric energy, and also the one of the licensees that interconnects with the system.

Installed capacity: Nominal or nameplate power of a generation unit. It can be referred to a power station with several units, a local system or an interconnected system.

Installed electric power: The total of nominal power of the machines of the same type (generators, transformers, converters, motors), in an electrical installation.

Installed real power: See Effective Capacity.

Installed reserve: Capacity reserve planned to make up forced or planned shutdowns of generating units; it is calculated as the difference between the installed real power and the maximum demand in the period under review.

Insulation: A material that prevents the flow of electricity when a voltage differential is applied because of the fact that the electrons of their atoms are strongly linked to their nucleus, blocking practically their displacements.

Interconnection: It is the electric connection between two control areas or between the licensee and a control area.

Interruption: It is the suspension of the supply of electric energy by *force majeure* event, Act of God, or due to the execution of maintenance works, expansion or modification of facilities, defects in the user's installations, negligence or by his own fault, or for lack of timely payments, defects on usage of electric energy due to installations that impede the normal functioning of the control & measurement instruments, or the user's installations that do not comply with the technical standards and enforcement rules, or the use of electric energy in such a way that violates what is established in the respective agreement contract or when a contract has been not signed or when a service has been connected without authorization of the CFE.

Isolation for work: To leave an equipment without electric power, steam, pressure, pressurized water and risky fluids to personnel, by a complete isolation from the rest of equipment by means of switches, disconnectors, fuses, valves and other devices, so that can be prevented the possibility that for an accident or by mistake, the equipment remain energized or pressurized, by means of blockages and auxiliary cards posting.

Joule effect: Increase in heat on the conductor due the flow of electric current. The produced value in an electric resistance is directly proportional to the intensity, the voltage difference and the time.

Joule: It is a unit of energy that is used to move a mass of one kilogram through a distance of one meter when an acceleration of 1 m/sec^2 is applied. Its symbol is: J.

Kilowatt (*): It is s a multiple of the electric power unit, and represents 1,000 watts. Its symbol is kW.

Kilowatt-hour (*): Unit of energy used to measure electric consumption.

License: It is the special authorization that is granted to a worker in order that he and /or his personnel under his orders, protect themselves, observe or execute a work related with an equipment or part of it or in equipments nearby: In those cases it is said that equipment will be in license.

Limited unit: It is the condition of a generating unit that it has a generation limit value to operate, provided that this value however it will be below its nominal capacity. It participates partially in the primary and secondary regulation of National Electric System reducing its generation as frequency increases.

Live equipment: It is the one that is energized.

Load dispatch: It is the assignment of generation level of the generating units, owned as well as owned by the licensees and foreign companies that had celebrated agreements for the acquisition of electric energy, considering the power flows in transmission lines, substations and equipment.

Load factor: Relation between the consumption in a period of determined time and the consumption that will result considering the maximum demand in continuous form in such period.

Load trip: Procedure to disconnect, intentionally, load from the system as an answer to a loss of generation and with the purpose to maintain its frequency in its nominal value.

Load: Amount of power that must be delivered in a fixed point of an electric system.

Loose unit: It is the unit that is not tied or limited.

Low Tension Cabinet: Enclosure designed to protect and withstand in its interior, limit fuses of current and the rest of equipment of low tension.

Maintenance: A set of activities oriented to preserve equipment and installations in an appropriate working state.

Maneuver: It means what is done by an operator, directly or by remote control, for actuating an element that can make a change in the status or functioning of a system, being electrical, pneumatic, hydraulic or of a different type.

Mass: A set of metallic parts of a device that in normal conditions is isolated from the active parts.

Master terminal unit: It is the set of equipments and programs that process information from the remote terminal units, master unit and other means, that the operator utilizes to perform his functions and that are found in the operation centers of the heirarchical levels.

Maximum net demand: Brute maximum demand less ancillary services.

Maximum power: Maximum value of the load that can be maintained during a specified time.

Medium Tension Cabinet: Enclosure designed to protect and withstand equipment that feeds transformers or medium tension services. They are of modular type.

Megawatt (*): Multiple of the active power, is equivalent to one million watts. Its symbol is MW.

Metrology: It is an area of knowledge relative to measurement. It includes theoretical aspects as well as practical ones related with measuring, whatever be the precision level and in whatever the field of science and technology.

National Center for energy control (CENACE): It is the entity created by Comisión federal de Electricidad for planning, directing, coordinating, supervising, dispatch control and operation of National Electric System.

National Electric System (NES): It is the set of facilities used to the generation, transmission, distribution and sale of electric energy for public service within the country, whether they are interconnected or not.

National Interconnected System (NIS): It is the part of the National Electric System that remains tied electrically.

Net energy: Brute needed energy excluding the ancillary energy of the power station.

Nuclear or atomic energy: It is the energy that maintains the particles bonded in the nucleus of each atom. When two or more light atoms join together in order to form one bigger it is called fusion; when an atom break in two or more fragments it is called fission. When any of these processes are carried out calorific and radiant energy is liberated.

Nucleoelectric power station: It generates electric energy with turbines that utilize the liberated energy of the water steam. This is produced by the heating of water that went in contact with nuclear fission process in a reactor.

Ohm: Measurement unit of ohmic resistance. It is equivalent to the resistance that produces a material against the electric current when a current flow of one ampere circulates, when it is subjected to a voltage of one volt. Its symbol is Ω .

On-load opening disconnectors: All those designed to interrupt load currents up to nominal values.

Open: To disconnect, in manual or remote mode, a part of an equipment in order to prevent the flow of electric current.

Operating reserve: It is the spinning reserve of an area plus the generation that can be connected in a certain period of time (normally 10 minutes), plus the load that can be interrupted within the same period of time.

Operation factor: Relation between the number of operation hours of a generating unit or station and the total number of hours in the reference period.

Operation management: To plan, conduct, supervise and control according rules, standards, methodologies, policies and guidelines in order to get the correct functioning of the National Electric System.

Operation modes of the National Electric System: NORMAL. It is the one that it operates without violating operative limits and with the sufficient reserve margins in order that the system can withstand the simple more severe eventuality without violating the operative limits in post disturbance. WARNING. It is the one that it operates without violating operative limits and with reserve margin so the occurrence of a simple eventuality can cause the violation of the operative limits in post disturbance without load segregation and with the system integrated. EMERGENCY. It is the one that it operates violating operative limits and with a reserve margin so the occurrence of a simple eventuality can cause load segregation and/or disintegration of the system. EXTREME EMERGENCY. It is the one in which operatives, load modification, islands formation or some combination of them. This operation mode is typically post disturbance. RESTORATION. It is the one where the electric islands remain active, they supply a part of the demand and it is where the efforts of the operators group of the National Electric System are oriented to obtain a status of normal operation which can be reached gradually depending of the available resources.

Operation: It is the application of a organized set of techniques and procedures with the purpose of providing an appropriate function of the elements to comply with an objective.

Operator: It is the worker whose main function is to operate the equipment or system under his responsibility and pay attention effectively and constantly for its functioning.

Photocell: Device built out of silicon that permits the transformation of solar energy in electric energy.

Plant: Synonymous of an electric power station, whose function is the generation of electric energy.

Power factor: Cosine of an angle formed by the present out of phase between the voltage and the current in an alternative electric circuit. It represents the utilized factor of the electric power between the apparent or plate power and the real power.

Power station: Place and group of facilities utilized for the generation of electric energy. It receives its denomination according to the means used for generating such energy.

Power: It is the work or the energy conversion made in a certain unit of time. It is measured in Watts (W).

Primary regulation margin: It is the available generation rating in the unit for primary regulation.

Primary regulation: It is the automatic response, measured in MW, of the generating unit when its governing system activates in the presence of an electric frequency shift of the electric interconnected system with respect to the nominal value.

Production power station: Electric energy which is effectively generated during a certain period of time.

Protection: It is a set of relays and associated devices that trip the necessary switches to isolate the faulty equipment, or to make other devices to operate, such as valves, extinguishers and alarms, to prevent damage to propagate or increase its effects.

Quality: It is the condition of voltage, frequency and waveform of the electric energy service, supplied to the clients according to applicable standards and rules.

Radiant energy: It is the energy obtained by the vibratory movement that produces the magnetic, light and sound waves like gamma rays, X rays, ultraviolet, visible light, infrared and hertzian waves.

Reactive Volt-ampere (*): Unit of reactive electric power. It abbreviates VAR.

Real power: Part of the apparent power that renders work. Commercially it is measured in kW.

Recloser: It is a device utilized to interrupt failure currents. It has the characteristic to discriminate the permanent failures out of the instantaneous through the opening and reclosures in an automatic manner under a fixed sequence without the need of the feeder breaker.

Reliability: It is the competence of the Electric System to maintain integrated by itself in order that it supplies the requirements of electric energy in quantity and with quality standards taking into account the occurrence probability of the simplest contingency more severe.

Remote control: Distant control by means of electric signal, mechanic, pneumatic or a combination.

Remote terminal unit: It is the set of electronic devices that receive, transmit and execute the requested commands by the master units and that are found in the facilities of the National Electric System.

Repowering: Increase of the effective production capacity in an existing generating unit.

Resistance: Property of a material to oppose to the passage of an electric current. The resistance depends of the conductor length, its material, its section and its temperature. The resistance units are Ω .

Scheduled Maintenance: A set of activities that are required annually to inspect and to keep the equipments that are part of a generating unit. It is scheduled with proper anticipation, generally early in the year and can be delayed or modified in accordance with the operating conditions.

Secondary regulation margin: It is the available spinning reserve for the generation automatic control.

Secondary regulation: It is the contribution in MW from the generating unit, in manual or automatic mode, in order to establish the electric frequency back to its nominal value of 60 Hz.

Self sufficiency: It is the electricity utilized for the satisfaction of the own needs of legal or natural persons.

Shorcircuit: Accidental or voluntary connection of two terminals to different voltages, which causes an increase on the intensity of the current that flows for that point, could being possible to generate a fire or a damage to the electric installation.

Silicon greases: Grease compounds used for increasing thermal conductivity between two elements.

Small Production: It is the generation of electric energy from particulars or companies destined totally for selling to the CFE, whose total capacity of the project, in a determined area, does not exceed 30 MW. Alternatively to the above and as a mode of self supply to which the fraction IV of the article 36 of the Public Service of Electrical Energy Law is referring in which the licensees deliver the whole production of electricity to rural small communities or isolated areas with electricity scarcity, and utilized for self-consumption, in the cases that licensees constitutes consumption cooperatives, communitarian properties, associations, civil entities, or companies that celebrate cooperation agreements for such purpose,

only for projects whose capacities do not exceed 1 MW.

Solar energy: It is the energy produced by heat effect or sun radiation. This radiation is utilized to excite a photovoltaic cell that produces electricity.

Spinning capacity: It is the maximum power that can be obtained from the generation units synchronized to the National Electric System.

Spinning reserve: It is the amount expressed in MW out of the difference between the spinning reserve and the demand of electric system in any instant.

Stability: It is the condition in which the National Electric System or a part of it, remains electrically tied before the occurrence of disturbances.

Standard comparison: A contrast of the higher precision standards against the working standards.

Start: Operations set, manual or automatic, to bring into service an equipment.

Station: It is the facility that is found within a determined space that it has one or several of the following functions: to generate, transform, receive, transmit and distribute electric energy.

Stop: It is a set of operations performed manually or automatically, by means of it, an equipment is taken to a state of standstill.

Substation: Set of electric apparatus located in a same place, plus the needed buildings for the conversion or transformation of electric energy or for the linkage among two or more circuits.

Supplier: It is the Comisión Federal de Electricidad or the Compañía de Luz y Fuerza del Centro.

Supply: It is the set of actions and tasks to provide electric energy to each user.

Switch: Electromagnetic device whose contacts open or close electric circuits and has the rating for doing so in normal current conditions or in case of short circuit. Closing and opening the switch can be either manual or automatic.

Synchronize: It is the set of actions that must be carry out to connect to the Electric National System in any instant.

Thermal energy: It is the energy that is obtained from the calorific value of the combustion of different fuels, which converts water on steam that is conducted to a turbine coupled to a generator that produces electric energy. These generating units use as fuel natural gas, coal, fuel oil, diesel and sugar cane bagasse.

Thermoelectric power station: It generates electric energy with turbines that utilize the calorific energy of the water steam produced in boilers.

Tidal energy: It is the one that uses the ebb and the flow of the tide in a proper place, for example, a bay. It permits to utilize the kinetic energy of the water to transform it in mechanic and electric energy.

Tidal power station: It generates electric energy with turbines that utilize the potential energy of the tides.

Tied unit: It is the condition of a generating unit that operates in a fixed generation steam, it can the generation varies manually but it does not participate in the secondary regulation.

Transformation substation: Substation that includes transformers.

Transformation: It is the modification of the voltage and electric current characteristics to meet the needs of transmission and distribution of electric energy.

Transformer bank: Set of three transformers or autotransformers, connected between them in order that operate in the same way that a transformer or three phase autotransformer.

Transformer: Device that it is used to convert the value of an electric flow to a different value. According with its use it classifies in different manners.

Transmission capacity: Maximum power that can be transmitted through a transmission line, taking into account technical restrictions of operation like: thermal limit, voltage drop, stability limit in steady state, etc.

Transmission line: It is the physical conductor by which the electric energy is transported, at high and medium tension, primarily from generating centers to distribution and consumption centers. // Element for transporting energy between two electric system installations.

Transmission: It is the conduction of electric energy from the power stations or interconnection points to the points of deliverance for its distribution.

Trip: Automatic opening of a device due the functioning of the protection to disconnect one or several circuit elements, substation or system.

Turbine: Primary engine driven by steam, gas or water, that converts the kinetic energy to rotary movement.

Uninterruptible load: It is the load that can be interrupted, total or partially, according to what was established in the current tariffs.

Unit of automatic generation control: It is when the generation is controlled and is supervised from a control center, as it corresponds, through equipments and/or programs of automatic generation control, within the limits and conditions established.

Unit: It is the rotary engine, made up of a primary motor, whether it is a hydraulic turbine, steam, gas or diesel, coupled to a electric generator. It includes additionally, the boiler and the power transformer.

User: Legal or natural person that uses the electric energy provided by the supplier, prior a contract signed by the parties.

Volt (*): It is defined as the potential difference along the conductor when a current on one ampere utilize one watt of power. Unit of the International System of Units.

Voltage differential: Voltage between two points. It is responsible that current flows through the conductor in order the receivers to which the line is connected, function.

Voltage drop: It is the difference between the transmission and reception voltage.

Voltage: Electric potential of a body. The difference of voltage between two points produces a current flow when exist a conductor that connects them. It is measured in Volts (V). The household voltage in México is 110 V.

Volt-ampere (*): Unit of apparent electric power. It abbreviates VA.

Watt (*): It is the unit that measures power. It abbreviates W and its named after James Watt, English physicist.

Wind energy: The kinetic energy derived out of the air movement that drives mobile or fixed blades, which is transformed in mechanic energy, coupled to a turbogenerator, then, it is transformed in electric energy. Its use is in function of the wind speed and the technology of the aerogenerator.

Wind power station: It generates electric energy with turbines that utilize the kinetic energy of the wind.

Wiring: Permanently interconnected circuits to carry out a specific function. Often related to the set of wires utilized to create a local area network.

Zone: Minimum unit of the National Electric System considered in regards the study of electric market.

Explanatory note (*):

All the units that are defined in this glossary are the ones that are utilized in the field of electric engineering, however, the correct definition corresponds to the academy.