Industry Training – Electrical Distribution Glossary

Term:	Definition:
Alternating Current (AC)	An electric current that reverses its direction many times a second at regular intervals.
Circuit	A closed path in which individual electronic components can flow. Circuits can be in series, parallel, or in any combination of the two.
Circuit Breaker	An automatic device that stops the flow of current in an electric circuit as a safety measure. To restore service, the circuit breaker must be reset (closed) after correcting the cause of the overload or failure. Circuit breakers are used in conjunction with protective relays to protect circuits from faults.
Conductor	Any material where electric current can flow freely. The most common conductors are copper and aluminum.
Distribution Lines	Power lines that connect the electrical grid to individual consumers.
Conduit	Pipe or tube that protects and routs electrical wire.
Electrical Grid	Intricate systems that deliver electricity from electric companies to consumers. These systems range from smaller, local grids to nation-wide grids that stretch thousands of miles connecting millions of homes and businesses. They consist of complex interconnections, the most notable of which include: Generating Stations, Electrical Substations, High Voltage Transmission Lines, and Distribution Lines.
Electrical Substation	The part of the electrical grid that transforms voltage from high to low (or the reverse). They're situated between the generating station and the consumer, and electricity may flow through several substations before reaching the end consumer.
Electrical Wire	Metal drawn out into a thin flexible thread or rod, runs throughout a building, bringing electricity from the load center to outlets and lights.
Fuse	A circuit interrupting device consisting of a strip of wire that melts and breaks an electric circuit if the current exceeds a safe level. To restore service, the fuse must be replaced using a similar fuse with the same size and rating after correcting the cause of failure.
Generating Station	Also known as power plants, part of the electrical grid that create the electrical energy. They can use anything from coal or natural gas to wind and sunlight to generate power.
High Voltage Transmission Lines	Part of the electrical grid that carries electricity long distances, such as from a generating station to an electrical substation.
Load Centers	Also known as a fuse box or breaker box, attached outside for residential and light commercial structures, they are the point at which power enters a building, taking the electricity supplied by the electric company or utility and distributing it throughout a home. Load centers feed lights and outlets via branch circuits – typical by room or area. Load centers have circuit breakers that protect each individual branch or area.
Open Circuit	An open or open circuit occurs when a circuit is broken, such as by a broken wire or open switch, interrupting the flow of current through the circuit. It is analogous to a closed valve in a water system.
Reel	Round, drum-shaped objects used to hold and transport electrical wire.

Remnants	Small, remaining amounts of wire cut from a larger reel
Volt (V)	A unit measure of voltage. One volt is equal to the difference of potential that would drive one ampere of current against one ohm resistance.
Voltage	An electromotive force or "pressure" that causes electrons to flow and can be compared to water pressure which causes water to flow in a pipe. Measured in volts.
Watt (W)	A unit of electrical power. One watt is equivalent to one joule per second, corresponding to the power in an electric circuit in which the potential difference is one volt and the current one ampere.