What’s on an Electric Power Pole?

This is an illustration of basic equipment found on a typical distribution pole and can vary by location.

- **Primary wires** are on top of the pole and usually carry 12,000 volts of electricity from a substation.
- **Insulators** prevent energized wires from coming in contact with each other or the utility pole.
- **A crossarm** holds the wires up on the pole.
- **Lightning arrestors** protect the pole and equipment from lightning strikes.
- **Transformers** convert higher voltage electricity carried by primary wires and lowers the voltage for use by customers.
- **A ground wire** runs the entire length of the pole. It directs any electricity on the pole safely into the earth.
- **Cutouts** act like a fuse and open when there is a problem with the line or a section of it.
- The neutral wire is below the transformer and acts as a line back to the substation and balances out the amount of electricity or load on the system.
- **The secondary wire** carries the lower voltage electricity after it passes through the transformer.
- **Telephone and cable wires** are typically the lowest wires.
- **Guy wires** help stabilize utility poles.

This is an illustration of basic equipment found on a typical distribution pole and can vary by location.