Useful Electricity Terms

- An **ampere** is the unit of measurement of electric current produced in a circuit by 1 volt acting through a resistance of 1 ohm.
- A **Btu** or British Thermal Unit is a standard unit for measuring the quantity of heat energy equal to the quantity of heat required to raise the temperature of 1 pound (16 ounces) of water by 1 degree Fahrenheit.
- The **Capacity Factor** of a generating unit is the ratio of "the electrical energy produced by a generating unit for a given period of time" to "the electrical energy that could have been produced at continuous full-power operation during the same period."
- A **circuit** is a conductor or a system of conductors through which electric current flows.
- A **current** is a flow of electrons in an electrical conductor. The strength or rate of movement of the electricity is measured in amperes.
- **Efficiency** is derived by dividing the heat content of 1 kilowatthour of electricity (3,412 Btu per kilowatthour) by the number of Btu contained in the input used to produce 1 kilowatthour.
- **Energy** is the capacity for doing work--as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which can be converted into another form useful for work. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat thatis then used as a transfer medium to mechanical or other means in order accomplish tasks. ***Electrical* energy** is usually measured in watthours, while ***heat* energy** is usually measured in Btu.
- **Heat Rate** is a measure of generating station thermal efficiency--generally expressed in Btu per net kilowatthour. It is computed by dividing the total Btu content of fuel burned for electricity generation by the resulting net kilowatthour generation.
- An **ohm** is the unit of measurement of electrical resistance. It is the resistance of a circuit in which a potential difference of 1 volt produces a current of 1 ampere.
- A **watt** is the electrical unit of power: that is, the rate of energy transer equivalent to 1 ampere flowing under a pressure of 1 volt at unit power factor.

A **watthour** is an electric energy unit of measure equal to 1 watt of power supplied to (or taken from) an electric circuit steadily for 1 hour.