

J

Jacket: The enclosure on a water heater, furnace, or boiler.

Jet fuel: A refined petroleum product used in jet aircraft engines. It includes kerosene-type jet fuel and naphtha-type jet fuel.

Joint Implementation (JI): Agreements made between two or more nations under the auspices of the Framework Convention on Climate Change (FCCC) whereby a developed country can receive "emissions reduction units" when it helps to finance projects that reduce net emissions in another developed country (including countries with economies in transition).

Joint-use facility: A multiple-purpose hydroelectric plant. An example is a dam that stores water for both flood control and power production.

Joule (J): The meter-kilogram-second unit of work or energy, equal to the work done by a force of one newton when its point of application moves through a distance of one meter in the direction of the force; equivalent to 10⁷ ergs and one watt-second.

Joule's Law: The rate of heat production by a steady current in any part of an electrical circuit that is proportional to the resistance and to the square of the current, or, the internal energy of an ideal gas depends only on its temperature.

Junction: A region of transition between semiconductor layers, such as a p/n junction, which goes from a region that has a high concentration of acceptors (p-type) to one that has a high concentration of donors (n-type).

Jurisdictional utilities: Utilities regulated by public laws.

K

Kaplan turbine: A type of turbine that has two blades whose pitch is adjustable. The turbine may have gates to control the angle of the fluid flow into the blades.

Kerosene: A light petroleum distillate that is used in space heaters, cook stoves, and water heaters and is suitable for use as a light source when burned in wick-fed lamps. Kerosene has a maximum distillation temperature of 400 degrees Fahrenheit at the 10-percent recovery point, a final boiling point of 572 degrees Fahrenheit, and a minimum flash point of 100 degrees Fahrenheit. Included are No. 1-K and No. 2-K, the two grades recognized by ASTM Specification D 3699 as well as all other grades of kerosene called range or stove oil, which have properties similar to those of No. 1 fuel oil. Also see Kerosene-type jet fuel.

Kerosene-type jet fuel: A kerosene-based product having a maximum distillation temperature of 400 degrees Fahrenheit at the 10-percent recovery point and a final maximum boiling point of 572 degrees Fahrenheit and meeting ASTM Specification D 1655 and Military Specifications MIL-T-5624P and MIL-T-83133D (Grades JP-5 and JP-8). It is used for commercial and military turbo jet and turbo prop aircraft engines.

- **Commercial:** Kerosene-type jet fuel intended for use in commercial aircraft.

- **Military:** Kerosene-type jet fuel intended for use in military aircraft.

Ketone-alcohol (cyclohexanol): An oily, colorless, hygroscopic liquid with a camphor-like odor. Used in soap making, dry cleaning, plasticizers, insecticides, and germicides.

Kilovolt-Ampere (kVa): A unit of apparent power, equal to 1,000 volt-amperes; the mathematical product of the volts and amperes in an electrical circuit.

Kilowatt (kW): One thousand watts.

Kilowatt-electric (kWe): One thousand watts of electric capacity.

Kilowatthour (kWh): A measure of electricity defined as a unit of work or energy, measured as 1 kilowatt (1,000watts) of power expended for 1 hour. One kWh is equivalent to 3,412 Btu.

Kinetic energy: Energy available as a result of motion that varies directly in proportion to an object's mass and the square of its velocity.

kVa: See [Kilovolt-Ampere](#)

kW: See [kilowatt](#)

kWe: See [kilowatt-electric](#)

kWh: See [kilowatthour](#)

Kyoto Protocol: The result of negotiations at the third Conference of the Parties (COP-3) in Kyoto, Japan, in December of 1997. The Kyoto Protocol sets binding greenhouse gas emissions targets for countries that sign and ratify the agreement. The gases covered under the Protocol include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons (HFCs), per fluorocarbons (PFCs) and sulfur hexafluoride.