Economical Size of an Electrical Conductor

Facts of the Case

The greater the diameter of an electrical conductor, the less the energy loss that will take place in it. (Power loss in watts is I^2R , where I = current in amperes and R = resistance in ohms. This may be converted to kilowatts by dividing by 1,000. Power loss in kw multiplied by the number of hours it occurs in a given period will give energy loss in kw-hr.) Thus, an increased investment in conductor metal will save an operating expense for electrical energy.