The investment in the conductor will be

$$\$1.75(0.00302)x$$

The annual cost will be $\$1.75(0.00302)(0.163)x$. Let

$$\$1.75(0.00302)(0.163) = a = \$0.000861$$

The annual cost of power loss is

$$\frac{I^2R(4{,}200)(\$0.055)}{1{,}000}$$

but

$$R = 10{,}580/x$$

Therefore, the cost of power loss is

$$\frac{(50^2)(4{,}200)(\$0.055)(10{,}580)}{1{,}000x}$$