

Junior Seminar on Energy and Its Impacts

Transformer Upgrade

A distribution utility is considering replacing a large substation transformer. The new unit would cost \$1 million. It would be installed in year 0 and would operate for the next 25 years (years 1-25). It would be more efficient than the existing transformer and would save the utility \$150,000 a year in maintenance and electrical costs.

Please draw an appropriate cash flow diagram and calculate the net present value of replacing the transformer. The firm uses a 10% interest rate in present value calculations.