

18. Correct. The answer is true.

The turbine will generate:

$$400 \times 24 \times 365 \times 0.25 = 876,000 \text{ kW per year}$$

Total costs are:

$$\$300,000 + \$100,00 = \$400,000$$

The real capital cost per kilowatt hour $\$_k$ is:

$$400,000 = \sum_{i=0}^{20} [\$_k (876,000 / (1+0.10)^i)]$$

$$\$_k = 400,000 / \{ \sum_{i=0}^{20} [876,000 / (1+0.10)^i] \}$$

$$\$_k = \$0.048 \text{ per kwh}$$