31.16. **Solve:** Making use of the conversions $1\ \text{J}/1\ \text{s} = 1\ \text{W}$ and $1\ \text{kW} = 1000\ \text{J/s}$, we can write

$$1\ \text{kWh} = (1000\ \text{J/s})(3600\ \text{s}) = 3.6 \times 10^6\ \text{J}$$