

71. The power generation (assumed constant, so average power is the same as instantaneous power) is

$$P = \frac{mgh}{t} = \frac{(3/4) (1200 \text{ m}^3) (10^3 \text{ kg/m}^3) (9.8 \text{ m/s}^2) (100 \text{ m})}{1.0 \text{ s}}$$

which yields  $P = 8.8 \times 10^8 \text{ W}$ .