

(19.1) If the energy developed by a 20 Mt fusion weapon could be used for producing electricity at a value of 2 cents kWh⁻¹ what would the "electric value" of the device be? Such a weapon may be expected to cost \$ 10 million. One ton TNT releases 1 Gcal of energy in an explosion.

$$E_{TNT} := 1 \cdot 10^9 \cdot cal \qquad E_{TNT} = 4.187 \cdot 10^9 \cdot joule \qquad Price := \frac{0.02}{1000} \cdot watt^1 \cdot hr^{-1}$$

$$Value := 20 \cdot 10^6 \cdot E_{TNT} Price \qquad Value = 4.652 \cdot 10^8 \qquad = 465 \text{ million } \$$$