

2P-6. 8. $\eta = 0.42$ Prošle
gádné

$$H_{CH_4} = 34 \frac{MJ}{m^3}$$

$$H_{CH_4} \cdot V_{CH_4} = W_f$$

$$W_{el} = 1 kWh$$

$$V_{CH_4} = \frac{W_f}{H_{CH_4}} = \frac{8571.43}{34 \cdot 10^3 \frac{MJ}{m^3}}$$

$$W_f \cdot \eta = W_{el}$$

$$m(CO_2) = ? \text{ po kWh}$$

$$V_{CH_4} = 0.252 \frac{m^3}{kWh}$$

$$W_f = \frac{W_{el}}{\eta} = \frac{1 kWh}{0.42}$$



$$W_f = 2.381 kWh$$

$$W_f = 8571.43 kJ$$

1 kmol jiná řší volumere bílo křeg pline
(za mře ovakne zndntke)

$$V_{CH_4} = V_{CO_2}$$

$$n = \frac{V}{V_m}$$

$$n = \frac{m}{M}$$

$$m_{CH_4} = 1 \text{ kmol}$$

$$n_{CO_2} = 1 \text{ kmol}$$

$$n_{CH_4} = n_{CO_2}$$

$$n_{CH_4} = n_{CO_2} = \frac{V_{CH_4}}{V_m} = \frac{0.252 \frac{m^3}{kWh}}{22.4 \frac{m^3}{kmol}} = 1.125 \cdot 10^{-2} \frac{kmol}{kWh}$$

$$m_{CO_2} = m_{CO_2} \cdot H_{CO_2} = 1.125 \cdot 10^{-2} \frac{kmol}{kWh} \cdot 44 \frac{kg}{kmol}$$

12 + 2.16

$$m_{CO_2} = 0.495 \frac{kg}{kWh}$$