$J = W \cdot s \Rightarrow$

$W_{god} = 15\,935 \text{ MWh}$

$E = 0.3 \, W_{god}$

$y = 0.3$

$A = 2643 \text{ ha}$

$E_t \cdot y = E_e \Rightarrow \boxed{E_T = \dfrac{E_e}{y}}$

$O = 11 \dfrac{MJ}{kg}$

povrsina

masa

prinos

$P \cdot A = m \quad \Rightarrow$

$A + 0{,}1 A = 2643$

$1{,}1 A = 2643$

$A = \dfrac{2643}{1{,}1}$

ogrijevna moć

emisija

$m \cdot O = E_t = \dfrac{E_e}{y} \, W_{god}$

$P = A = 2402{,}727 \text{ ha}$

$m = \dfrac{E_e}{y \cdot O} = \dfrac{15935 \cdot 3600 \text{ MWs}}{0.3 \cdot 11 \dfrac{MJ}{kg}}$

$m = 17\,383\,636.363 \text{ t}$

$P = \dfrac{m}{A} = \dfrac{17383636.364 \frac{t}{}}{2402.727 \text{ ha}}$

$\boxed{P = 7234{,}960 \dfrac{t}{ha}}$

$[J]$ $N = P \cdot t \cdot [W_s]$

$P = 237 \text{ MW}_e$

$m = 0.62$

$\eta = 0.44$

$H = 36 \dfrac{MJ}{m^3}$

$W(CH_4) = 100\%$

$M_h = \dfrac{P}{P \cdot 8760}$

$E_{el} = P_{el} \cdot m \cdot \quad \cdot 24 \cdot 3600 \text{ M}[W_s]$

$E_{el} = 237 \cdot 0.62 \cdot ? \cdot 24 \cdot 3600$

$E_{el} = 12695616 \text{ MJ}$

$\eta \cdot E_t = E_{el}$

$E_t = \dfrac{E_{el}}{\eta} =$

$V_g = \dfrac{E_t}{H} = \dfrac{E_{el}}{H \cdot \eta} = 292 \cdot 10^{?} \ m^3$

$V_g = 801490.909 \ m^3$

3. $P_{max} = 719 \text{ kWe}$ $\qquad$ $\eta = 0.06$

$H_{god} = 1308 \dfrac{kWh}{m^2}$ $\qquad$ $G_{max} = 1 \dfrac{kW}{m^2}$

$H_{opt} = 1,13 H$ $\qquad$ $G \cdot \eta \cdot A = P_{max}$

$\qquad\qquad\qquad\qquad\qquad A = \dfrac{P_{max}}{\eta \cdot G} = 11983.33 m^2$

$H_{opt} = 1,13 \cdot 1308 \dfrac{kWh}{m^2}$

$\qquad = 1478.04 \dfrac{kWh}{m^2}$

$W_{god} = H_{opt} \cdot A \cdot \eta = 1478.04 \dfrac{kWh}{m^2} \cdot 11983.33 m^2 \cdot 0.06$

$W_{god} = 1062,710 \text{ MWh}$

4. $P_{max} = 629 \text{ kWe}$ $\qquad$ $\eta = 0.07$

$H_{god} = 1282 \dfrac{kWh}{m^2}$ $\qquad$ $G_{max} = 1 \dfrac{kW}{m^2}$

$H_{opt} = 1,13 \, H_{god}$

$\qquad\qquad\qquad\qquad\qquad G \cdot \eta \cdot A = P_{max}$

$A_z = 2,5 A$

$\qquad\qquad\qquad\qquad\qquad A = \dfrac{P_{max}}{G \cdot \eta} = \dfrac{629 k}{1 \cdot 0.07}$

$A_z = 2,5 \cdot 8585.71 m^2$

$\boxed{A_z = 22464.29 \, m^2}$ $\qquad$ $A = 8585.71 m^2$

$W_{god} = H_{opt} \cdot A \cdot \eta = 1448.66 \dfrac{kWh}{m^2} \cdot 8585.71 m^2 \cdot 0.07$

$W_{god} = 911.207 \text{ MWh}$ $\Longleftrightarrow$ $rj = \dfrac{22464.29 m^2}{911.207 \text{ MWh}} = 24,65$

5.

$P_n = 133 kW \cdot 10^3 W$

$\bar{V} = 7,1 \frac{m}{s}$

$V = 0.754 \bar{V}$

$\rho = 1,225 \frac{kg}{m^3}$

$c_{pe} = 0.51$

$D = ?$

$P_n = c_{pe} \cdot 0.5 \cdot \rho \cdot A \cdot V^3$

$P_n = c_{pe} \cdot 0.5 \cdot \rho \cdot \frac{D^2}{4} \pi \cdot (0.754 \bar{V})^3$

$D = \sqrt{\dfrac{4 P_n}{c_{pe} \cdot 0.5 \cdot \rho \cdot \pi \cdot (0.754 \bar{V})^3}}$

$\boxed{D = 59.443 m}$

6.

$P_n = 1621 kW$

$V = 6 \frac{m}{s}$

0.149

$c_{pe} = 0.46$

$\rho = 1,225 \frac{kg}{m^3}$

$P_6 = 0.24 P_n$

$P_6 = c_{pe} \cdot 0.5 \cdot \rho \cdot A \cdot V^3$

$P_6 = c_{pe} \cdot 0.5 \cdot \rho \cdot \frac{D^2}{4} \pi V^3$

$D = \sqrt{\dfrac{4 P_6}{c_{pe} \cdot 0.5 \cdot \rho \cdot \pi \cdot V^3}}$

$\boxed{D = 90.218 \ m}$

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2. pokusaj

①

$P_n = 377\ kWe$

$m = 0.86$

$\eta = 0.25$

$p = 5\ \dfrac{t}{ha}$

$O_g = 16\ \dfrac{MJ}{kg}$

$P \cdot A = m$

$A = \dfrac{2556.150\ t}{5\ \dfrac{t}{ha}}$

$$\boxed{A = 511.23\ ha}$$

$A_{uk} = 562.353\ ha$

$W_{god} = 377\ kWe \cdot 365 \cdot 24 \cdot 3600s \cdot 0.86$

$W_{god\ el} = 10224601,920\ MJ$

$E_t \cdot \eta = E_{el} \Rightarrow E_t = 40898407.6\ MJ$

$M = \dfrac{E_t}{O_g} = \dfrac{40898407.6\ MJ}{16\ \dfrac{MJ}{kg}}$

$$\boxed{M = 2556,150\ t}$$

$P_j \Rightarrow \dfrac{5623531,056\ m^2}{2840,1672\ MWh}$

$= 1980\ \dfrac{m^2}{MWh}$

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2. pokusaj

②

1. Računaj masu sadrža po kWh

$O_g = 25 \dfrac{MJ}{kg}$

$O_g \cdot m = E_+$

$\omega(S) = 0.03$

$E_+ \cdot \eta = Ee$

$\eta = 0.36$

$E_+ = \dfrac{Ee}{\eta} = \dfrac{1kWh}{0.36} = 2,777 \, kWh$

$(S) = 32 \dfrac{g}{mol}$

$(O) = 16 \dfrac{g}{mol}$

$m = \dfrac{E_+}{O_g} = \dfrac{2,777 \, kWh}{25 \cdot 10^3 \dfrac{1}{3600} \dfrac{kWh}{kg}}$

$E_e = 1 kWh$

$\boxed{m = 0.4 \, kg}$

1 kmol S + 1 kmol O_2 = 1 kmol SO_2

32 kg S + 32 kg O_2 = 64 kg SO_2 / : 32

1 kg S + 1 kg O_2 = 2 kg SO_2

$0.03 \cdot m_g = \boxed{0.012 \, kg}$

$\underline{\underline{0.024}}$

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2. pokusaj
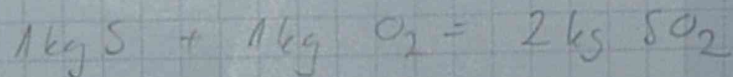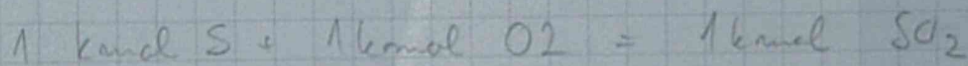
3. $P_m = 643 \text{ kWe}$

$H_g = 1177 \dfrac{kWh}{m^2}$

$H_{opt} = 1.17 \, H_g$

$\eta = 0.09$

$G = 1 \dfrac{kW}{m^2}$

$W_{god} = ?$

$G \cdot A \cdot \eta = P_m$

$A = \dfrac{P_m}{G \, \eta} = 7144.44 \ m^2$

$W_g = H_g \cdot 1.17 \cdot A \cdot 0.09$

$W_g = 885468.870 \ \text{kWh}$

$\boxed{W_g = 885.469 \ MWh}$

4. $P_m = 751 \text{ kWe}$

$H_{HOR} = 1532 \dfrac{kWh}{m^2}$

$H_{opt} = 1.16 \, H_{HOR}$

$\eta = 0.06$

$A_e = 2.23 \, A_{AKT}$

$G = 1 \dfrac{kW}{m^2}$

$A_e = 2.23 \, A_{AKT}$

$A_e = 27912 \ m^2$

$A_{AKT} \cdot G \cdot \eta = P_m$

$A_{AKT} = 12516.667 \ m^2$

$W_{god} = H_{opt} \cdot \eta \cdot A = 1334617.12 \ kWh$

$W_{god} = 1334.617 \ MWh$

$\boxed{z_i = \dfrac{A_e}{W_g} = 20.914 \ \dfrac{m^2}{MWh}}$

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2. pokusaj

5. $P_n = 1438 \text{ kW}$

$P_6 = 0.18 \, P_n$

$c_{pe} = 0.48$

$\rho = 1.225 \, \dfrac{kg}{m^3}$

$P_6 = c_{pe} \cdot 0.5 \cdot A \cdot v^3 \cdot \rho$

$P_6 = c_{pe} \cdot 0.5 \cdot \dfrac{D^2}{4} \pi \cdot v^3 \cdot \rho$

$D = \sqrt{\dfrac{4 \, P_6}{c_{pe} \cdot 0.5 \cdot \pi \cdot v^3 \cdot \rho}}$

$$\boxed{D = 72.039 \, m}$$

6. $D = 64.7 \, m$

$P_n = 1001 \text{ kW}$

$t_6 = 0.11$ $P_6 = 0.21 \, P_n$

$t_9 = 0.25$ $P_9 = 0.64 \, P_n$

$t_{12} = 0.112$ $P_{12} = 0.92 \, P_n$

$\left. \begin{array}{l} t_{15} = 0.087 \\ t_{18} = 0.065 \\ t_{21} = 0.015 \\ t_{24} = 0.001 \end{array} \right\} P_n$

$W_{god} = 8760 \cdot P_n \left[0.11 \cdot 0.21 + 0.25 \cdot 0.64 + 0.112 \cdot 0.92 + 0.087 + 0.065 + \right.$

$\left. 0.015 + 0.001 \right]$

$W_{god} = 3982.245 \text{ MWh}$