

# Assumptions

Requirements

Architecture  
(Gas or Solar)

Physics

Configuration

Parameters

## List of Constraints

$$\begin{aligned} V &\geq V_{\text{wind}} \\ (E/S)_{\text{sun}} &\geq \frac{E_{\text{batt}}}{\eta_{\text{charge}} \eta_{\text{solar}} S_{\text{solar}}} \\ (E/S)_{\text{day}} + \frac{E_{\text{batt}}}{\eta_{\text{charge}} \eta_{\text{solar}} S_{\text{solar}}} &\geq \frac{P_{\text{oper}} t_{\text{night}}}{\eta_{\text{discharge}}} + (E/S)_{\text{twilight}} \eta_{\text{solar}} S_{\text{solar}} \\ C_D &\geq C_{d0} + c_{dp} + \frac{C_L^2}{\pi e A} \\ \Delta W_i &\geq \rho_{\text{cfrp}} w_{\text{cap}_i} t_{\text{cap}_i} \frac{b/2}{n-1} g \\ V_h &= \frac{S_h l_h}{S_c} \\ V_v &= \frac{S_v l_v}{S} \frac{l_v}{b} \\ T &\geq \frac{1}{2} \rho V^2 C_D S \\ W &= \frac{1}{2} \rho V^2 C_L S \\ &\dots \end{aligned}$$

Solver (i.e mosek)

Result