HOMER:

HOMER (Hybrid Optimization Model for Multiple Energy Resources) is a computer model that simplifies the task of designing hybrid renewable microgrids, whether remote or attached to a larger grid. HOMER can be used for optimizing microgrid design in sectors like village power and island utilities, grid-connected campuses and even for military bases. HOMER is a simulation model and simulates a viable system for all possible combinations of the equipment. Its optimization and sensitivity analysis algorithms permit evaluation of the economic and technical feasibility of a large number of technology options, by accounting for variations in technology costs and energy resource availability.

Details are available on the following link -

https://www.homerenergy.com/products/pro/index.html