

Hybrid renewable energy as power supply for shelter during natural disasters

ABSTRACT

People are very vulnerable in case of natural disasters. Power grid destruction is a common disaster in these situations. Numerous costumers might easily lose access to electric power and this condition can continue for a long time after the catastrophe. Emergency shelter after occurrence of disasters is usually offered by organizations or governmental emergency administration departments, as a comeback to natural disasters, such as an earthquake or flood. They tend to use tents or other temporary structures, or buildings. This paper focus on design of a Smart Hybrid power supply for shelter which is supported from three renewable energy source (wind, rain and solar) that is available in each condition in order to be used during emergency situation as a portable facility by analyzing the power generation ability and also the load demand characteristics during natural disaster for relief shelters.

Keyword: Natural disasters; Power supply; Renewable hybrid energy; Shelter