

ABSTRACT

Sri Lanka Navy (SLN) being the premier technical organization in the military utilize her online systems to cater the operational & administrative activities such as sharing of real time information of operational matters such as signal communication , radar pictures & Data , ships movements etc.. Further to above the administrative activities such as daily orders & instructions , Human Resource Management system , Pay particulars of service personal , online budgeting , online procurement system , Stores management etc.. are also play a vital role in SLN. Communication plays a vital factor in the military.

Therefore it is paramount to maintain a healthy communication & Data network around the island. Therefore it is paramount to have a reliable & uninterrupted power supply system to energize the SLN communication & Data networks.

This research was aimed to analysed the techno economic feasibility for introducing an uninterrupted power supply system for selected 20 remotely operated radio stations of the Sri Lanka Navy giving priority to the renewable resources at each site.

Most of the locations either use grid connected power distribution system with stand by generator & other places use generators only to energized the location (off grid system).

It is observed that the renewable penetration of the all locations are more than 54% . The COE for most of the locations were nearly 1 \$ / kWh which is a reasonable value. Therefore it is feasible to implement the proposed hybrid systems for all selected locations.