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Author(s) Name:	Abir Muhtadi, Ahmed Mortuza Saleque, Mohammad Abdul Mannan
Contact Email(s):	mdmannan@aiub.edu
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Abstract:

Due to sheer dependency upon fossil fuel sources, Bangladesh as a country is not free from numerous negative aspects. Country's requirement for a certain portion of power be generated from renewable energy sources is due and required renewable energy target (RET) needs to be fulfilled. In this study, potential of distinguished coastal sites for entirely renewable energy such as solar and wind sources based microgrid for chosen community is explored. Microgrid architecture is appropriate considering the coastal areas' geographical locations and due to the inconvenience in grid extension. Study suggests, potential of coastal sites are found to be feasible for such structures based on real case scenario data and modelled technical scheme.

Keywords: Renewable Energy, Microgrid, Coastal Areas, Hybrid Energy System, Green House gases