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Technical Feasibility and Econometrics of a Small Hydro Power Plant for a Farm Settlement in Nigeria

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Abstract

The farm settlement comprises of large hectares of crop plantation and a community of less than a hundred number of people living in low-cost buildings. The farm settlement project is a pilot public-private project majorly to facilitate crop production and encourage urban-rural settlement for the purpose of boosting crop exportation capacity of the country. There had been a difficulty in electrifying the farm settlement using the existing national grid. The nearest power station is about 1000 km from the farmland and the energy capacity available from the power booster station has already been chocked up by some closer and bigger communities. This study explored a sustainable energy source for a regular and dependable power supply for the farm settlement. The authors investigated the feasibility of having an electric power generation from a local river close to the farm settlement. Also, the econometrics for the Small Hydro Power Scheme was carried out to determine the viability of the proposed project.

Keywords

Econometrics Feasibility Hydro Power Plant Settlement

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