

Abstract

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Operation, performance and economic analysis of low head micro-hydro turbines for rural and remote areas: A review

Electrical power is essential in commercial, economic and social investments especially in emergent countries. Hydro energy has become one of the most suitable and efficient sources of renewable energy, though it has taken more than a century of experience to actually generate efficient electricity for supply. Nowadays, most rural areas in developed and developing countries use cheap and effective micro-hydro plants for producing electricity. To achieve more efficiency, researchers are looking forward to using simple turbines for achieving good performance with minimum initial and running cost, for utilization especially in poor countries. This paper presents a review of low head microhydro turbines focusing on categories, performance, operation and cost.