



Small scale hydro-power as a source of renewable energy in Malaysia: A review



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ABSTRACT

Small scale hydropower is one of the technology options to generate and supply electricity to grid off and rural applications with almost zero emission. Malaysia is blessed with abundance of water sources and receives high rain volume per year which can be used to generate power. This paper is carried out to present the potential of small scale hydropower in Malaysia and its current status at low head location and rural electrification. Moreover, the relevant research literatures for small scale hydropower technology and the challenges facing by small renewable energy power in Malaysia are also reviewed. The review of available works display that the estimated hydropower resources in Malaysia are registered to be 29,000 MW, of which 500 MW is from small (mini)-hydro power. For this, a total of 149 sites for small hydropower potential have been identified in the country and the expected potential by 2020 is 490 MW. Despite hydro-power technologies are preferable choices for energy generation in Malaysia, they have not been fully exploited yet due to some technical, economical, and institutional challenges. Therefore, this paper can provide information for further investigations on the application of small scale hydropower for rural electrification in Malaysia.

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