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THE ECO-IMPACT OF SMALL HYDRO IMPLEMENTATION

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Abstract

The development of energy from renewable resources is a very important action in the reduction of CO₂ emissions. Hydropower is a renewable source able to reduce the CO₂ emissions by more than 67 million tons / year. The paper analyzes a small hydropower plant to be implemented in Brasov region, from the environmental point of view. The reduction in the CO₂ emissions brought by the small hydro is estimated by taking into account an ex-ante emission factor, based on validated and registered parameters. Firstly, the energy produced by the small hydro is calculated and, then, by using the emission factor, it is obtained the CO₂ emission, which can be delivered by a fossil fuel based thermoelectric station producing the same amount of energy. The conclusions highlight the fact that small hydropower stations offer a feasible solution for reducing greenhouse gas emissions by the power sector, in comparative terms.

Key words: carbon emission factor, environment, greenhouse gas emissions, small hydropower station.

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