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# ANALYZING THE EFFICIENCY OF USING THE ALTERNATIVE SOURCES OF ENERGY WITHIN THE TERRITORY OF THE RUSSIAN FEDERATION

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## Abstract

*The article considers the problem of using the alternative sources of energy within the framework of local use on the territory of the Russian Federation. The purpose of the research conducted is calculating the investments efficiency when creating the systems for providing people in small villages having an optimal infrastructure with the energy generated by the alternative sources of energy. In order to solve the set task we made calculations using two methods of estimating the number of windmills and solar power stations necessary for supplying the urban-type settlements and individual users with energy. We have conducted a comparative analysis of economical efficiency of the investments into the project with the solar power station and wind power generators as in the case of the urban-type settlement with the set number of users. During the comparative analysis of the alternative sources of energy the following factors were taken into account: operation conditions, starting investments, technical characteristics, power-to-weight ratio, energy output prime cost, pay-back time, area of application.*

## Keywords

*Solar power, wind power generator, economical efficiency of the investments, alternative sources of energy, net discount profit, investments*

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