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Identification of Factors Determining the Value of a Site for A Photovoltaic Farm: Analysis of Key Aspects*

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Abstract

Site selection for a large-scale photovoltaic farm is a key investment decision made by development companies, significantly affecting the future success or failure of the project. Allocation of limited resources should be preceded by a multi-faceted analysis of pre-selected sites in order to select the optimal one. The evaluation should take into account all relevant economic, environmental, social, infrastructure and other criteria affecting the selection. Therefore, there is a need to develop a dedicated model for evaluating locations for their suitability and attractiveness for the construction of large-scale photovoltaic farms. The purpose of the article is to conduct a comprehensive analysis of the factors determining the value of the location of a photovoltaic (PV) farm in Poland, taking into account the main areas: economic, environmental, spatial planning, infrastructure and social. The result of the work is a set of criteria and their values, which serves as a key element of a future evaluation system using MCDC and GIS methods. The system would provide relevant information to investors, but also to landowners, administrations and planners. The paper contributes to the understanding of the elements that determine the success of photovoltaic projects, thus contributing to the sustainable development of photovoltaic farms in Poland.

Keywords: photovoltaic projects, projects development,

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