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Photovoltaic Technical Potential in Republic of Moldova

Abstract:

Nowadays, in the world and especially in European Union, the main concern is sustainable development linked to the use of Renewable Energy Sources (RES) and climate change mitigation. At the same time, in many countries there are being raised the idea of transition to 100% RES. The purpose of this paper is to evaluate the technical potential of the photovoltaic renewable energy sources available in Republic of Moldova with scope to contribute to achievement the goals of the Energy Strategy until 2030, the main state document in the field of energy. The Republic of Moldova is an Associate Membership of the EU and a Membership of Energy Community. These facts determines the country's development direction and policies of its energy sector. The goals of this Strategy include diversification of energy sources, inclusively RES, ensuring the share of annual electricity production from RES at least 15% (about 1,274 TWh) in 2030 and reducing greenhouse gases emissions by 25% in 2020. Republic of Moldova has an insignificant amount of fossil energy resources (coal, natural gas and oil). At the same time, the renewable electricity production is insignificant and the economy entirely depends on imports of fossil energy resources from neighbor countries. Thus, there is considerable delay in achieving Strategy's goals.