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Current state of Distributed Solar Power System Development and Challenges in Mongolia

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Abstract The energy consumption of Mongolia is increasing by an average of 6 percent per year, and now the installed capacity of the nationwide plants and the importing capacity from neighbouring countries are reaching potential limitations. In order to make energy secure, we need to install new energy plants urgently.
The government has planned a number of projects in order to overcome the problems and meet the increasing consumption, some of them have already started implementation, but most of them are solutions for combined heat power plants. However, the fact that most of the investing countries have abandoned the traditional brown technology that emits greenhouse gases has become a risk factor in the implementation of these projects.
Since Mongolia has a vast territory and a scattered population, distributed energy generation is more optimal. This research paper will determine the current situation regarding the current legal environment, policy and financial support for distributed solar power generation. In addition, the problems faced in the development of distributed solar power generation and their solutions will be determined. The technical and economic feasibility and optimization of the solar power system for residential and commercial will be analyzed based on the actual project.

Keyword(s)
Distributed solar power generation, Renewable supporting mechanisms, Techno-economic feasibility assessment

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