

Financial Feasibility Study of Installing Solar Cells in The Household

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Abstract

Most carbon emissions in Thailand originate from electricity generation. Development of alternative energy sources is necessary to address this problem and prevent energy shortages. Solar energy is one of the alternative energy forms. It is suitable for Thailand and solar cells can be installed to generate sufficient electricity for households. A financial feasibility study found that solar cell installation is a cost-effective investment. If the monthly electricity consumption exceeds 400 units, the recommended option is an 11-kW installation, which yields the highest return, approximately 17%, with a 5.4-year payback period.

Keywords: financial feasibility, household, payback period, solar cells, Thailand