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COST ESTIMATION OF A STANDALONE PHOTOVOLTAIC POWER SYSTEM IN REMOTE AREAS OF SARAWAK, MALAYSIA

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Abstract:
This paper aims to estimate the anticipated costs incurred from a standalone solar photovoltaic power system for the supply of electricity to the rural community in Sarawak, Malaysia. The life cycle cost analysis with net present value technique was employed for the evaluation of cost system. It was found that purchasing of solar photovoltaic components and the system installation cost will contribute 63% of the total investment and future anticipated costs will add to the remaining. Recurring cost will make 25% and components replacements 75% of future anticipated costs. It was discovered that the power generated from the solar photovoltaic system would be 38 times more expensive than electricity produced from the conventional sources. However, its installation in remote areas could be favourable where the grid-connected power supply is not accessible.

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