

ABSTRACT

Energy deficit is a common issue in remote areas, such as Parang, Genting, and Nyamuk Islands, requiring optimal solutions to address the existing problems. Therefore, the best decisions from management are necessary. Decision-making is the process of selecting options to achieve the best results. This process includes identifying the problem or capacity, gathering relevant information, assessing options, and selecting the most effective solution. Effective decision-making is important in organizational settings to ensure efficiency, problem-solving, and the achievement of objectives.

A qualitative case study design was used to develop cases. Semi-structured interviews were conducted with four informants selected through purposive sampling to gather research data. The results of the interviews were analyzed and processed using the triangulation technique, and member checking was carried out to ensure credibility and trustworthiness in this study.

The purpose of this study is to determine the best decision-making process to solve the problem of energy deficit. The results show that the criteria considered include effective management systems that adapt to energy independence, economic effectiveness, and geographical conditions to create a stable and reliable power supply for the community. Solar Power Plants is identified as the most appropriate choice for utilizing new and renewable energy sources through efficient and environmentally friendly management. Optimal decision-making requires effective collaboration among stakeholders at regional and central levels, as well as the involvement of the community and experts, to ensure success in overcoming the electricity deficit problem in Parang, Genting, and Nyamuk Islands.

Keywords: *Energy deficit, electricity, decision-making, solar power plants*