RENEWABLE ENERGY HARNESS TO UPLIFT THE PROSPERITY OF ROYAL BELUM FOREST

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Abstract: Renewable energy resources exist over wide geographical areas and its technologies are also suited to rural and remote areas where energy is often crucial in human development. As of this preliminary study, a source of renewable energy is in focus to bring benefits to the stake holders of Royal Belum Forest; hydropower. In order to sustain the prosperity of Royal Belum Forest, micro-generation method will be introduced. Micro-generation is defined as a small-scale generation of electric power by individuals or small communities to meet their own needs, as alternatives or supplements to traditional centralized grid-connected power. As one of micro-generation methods, micro-hydro power has been chosen as its importance for its environmental conscious approach that aspire zero or low-carbon footprints. Micro-hydro power can make a large amount of energy out of a small water flow with minimal impact on the environment. Based on obtained preliminary data, an on-grid configuration micro-hydro power electric systems would be able to generate a reliable of electricity supply. Kampung Sungai Tiang has been chosen as it has the suitable rivers to facilitate this study. The presence of a high ground (514 meters above sea level) within Kampung Sungai Tiang vicinity creates a necessity for an observation tower. In addition to wildlife observation and forest fire prevention, this tower can be further exploited by the government or private companies for scientific and commercial activities. The construction and utilization of this tower would encourage the implementation of best practices in order to minimize impact on the environment.

Key words: Renewable energy, Royal Belum, eco-tourism, micro-hydro power.