

ABSTRACT

Energy crisis has become a major concern in various parts of the world, including Indonesia. According to the Ministry of Energy and Mineral Resources (ESDM), the use of conventional energy derived from fossil fuel sources has seen a significant increase. The contribution of fossil fuels to the national energy composition has reached 94 percent, detailed as 47 percent from petroleum, 21 percent from natural gas, and 26 percent from coal. The current situation has a significant impact on the increasing potential for an energy crisis at the national level. The government is expected to provide stronger support in achieving national development goals in the energy sector, particularly through the development of new and renewable energy sources (NRE), to facilitate Indonesia's swift transition towards emission reduction and global environmental protection. According to the provisions of the Presidential Regulation of the Republic of Indonesia Number 5 of 2006 (Presidential Regulation No. 05/2006), one of the objectives and targets of the national energy policy is to enhance the role of energy derived from new and renewable sources, thereby achieving more than 5 percent (five percent) of the total national energy consumption. These energy sources include Biomass, Nuclear, Small-Scale Hydropower (Microhydro/Picohydro), Solar Power, and Wind Power. Therefore, it is crucial to develop the use of renewable energy systems that hold substantial development potential. Tangsijaya is one of the remote areas that relies on the existence of Micro Hydro Power Plants (PLTMH) to meet its electricity needs. PLTMH TangsiJaya faces several challenges in electricity sales, including income fluctuations and a lack of communication between the operator and customers at PLTMH Tangsi Jaya, hindering customer relations. Communication expansion is proposed to strengthen two-way relationships and replace conventional transactions. The addition of capacity to the 15-year-operational PLTMH needs to be carried out through the potential of a significant water flow in the TangsiJaya Village to enhance power production. Financial management challenges also need to be addressed, especially in the conventional recording of income and expenses. This study aims to understand and propose a new business model for PLTMH TangsiJaya through the Business Model Canvas, involving business model mapping, customer profile identification, business environment analysis, and development strategy planning. It is expected that this solution will overcome challenges and improve business performance. Through SWOT analysis, the Value Proposition Canvas, and the Business Model Canvas, improvements are generated. Proposed enhancements include adding a Value Proposition for electricity access in remote areas, utilizing WhatsApp as a communication channel, offering online customer relationship services, enabling online payments, collaborating with eco-tourism for additional revenue streams, incorporating additional micro hydro power generation as Key Resources, and establishing a partnership with PT. PLN as a Key Partnership. These initiatives are anticipated to boost revenue and benefit the community around PLTMH TangsiJaya. The Business Model Canvas serves as a tool to design a more competitive and adaptive business model within an ever-changing business environment.

Keywords: Business Model Canvas, Customer Profile, Business Model Environment, SWOT Analysis, Value Proposition Canvas, Micro Hydro Power Plants.