

ABSTRACT

Energy has a very important role in people's lives because it is an important parameter for development and economic growth. Almost all life sectors, such as industry, transportation, household, services, and other sectors cannot be separated from energy. In cities in Indonesia, energy is a very important issue, because of the high level of energy consumption and the existence of fossil fuels as the main source of energy so far has been depleting and also has a negative impact on the environment. To deal with the problem of limited energy sources and their impact on the environment, a concept of environmentally friendly energy is needed, especially in urban areas.

Bandung as one of the most populous cities and the one that consumes the most energy has a role and responsibility in maintaining the continuity of the green city by observe to every dimension, one of which is green energy. The concept of green energy is expected to be a solution to the problem of environmental energy pollution, the creation of a clean environment, and to realize efficiency in energy use. The green energy concept is considered capable of dealing with issues surrounding energy and the environment faced by a city. Until now, there are still no standard variables and indicators that can be used to measure green energy, especially in urban areas. So this study aims to find variables and indicators to measure green energy in the city of Bandung. This study used qualitative methods. This study aims to explore and learn about the variables and indicators that can be used to measure green energy derived from the literature and interviews of 16 narasumberts with quadruple helix concept who come from various backgrounds such as business player, government, experts / researchers and civil society.

This study uses an explorative qualitative method. The steps taken to answer the research objectives are, first, by conducting literature studies, then interviewing 16 narasumberts with quadruple helix concepts from various backgrounds such as business people, government, experts / researchers and civil society.

Based on literature studies, this study found 6 variables and 19 indicators to measure green energy. From the results of interviews and analytical sentiments there were 2 indicators that had an agreed average value of narasumberts of less than 60%, namely Demographic Transition and Availability and Technology Limitation. So that the indicator is not used in this study. This study also found 3 new indicators with an agreed average value of more than 65% of narasumberts, namely the Price Regulation indicator, Affordability to Access and Incentive-Disincentive. Thus this study proposes a model for measuring green energy with 6 variables and 20 indicators.

This study proposed a model containing green energy variables and indicators as part of the green city in the city of Bandung. However, this study has not tested and measured green energy index. Thus further research is recommended to test and measure the green energy index using the model produced in this study.

Keywords: City Sustainability, Renewable Energy, Green City, Green Energy, Environmental Issues