

ABSTRACT

Disaster is something that cannot be avoided. Efforts that can be done are by making predictions to reduce the impact of losses caused by the disaster itself. Therefore, a good response system is provided by the government.

One form of disaster management is the presence of Public Protection and Disaster Relief (PPDR). In the process of providing the PPDR system in Indonesia there are still several obstacles, including the appropriate implementation model. To determine this, a feasibility analysis is needed as a parameter for the scenario of implementing the PPDR system in Indonesia. The way to do this is to analyze the techno-economic model. With this analysis model, we will get the results of the analysis in the form of technical discussion in terms of engineers and economic discussion which is also one of the important factors in determining the appropriate system.

The results of this study use the feasibility analysis of the PPDR network using parameters such as NPV and IRR. The frequency used is 700 MHz based on two types of services with the use of bandwidth 5 and 10 MHz scenarios. NPV values in all scenarios are positive, whereas based on IRR values, the scenario of using bandwidth 10 MHz in type 2 service has the best results with an IRR value of 12 %. In its application, type 2 service will be used because bandwidth request is adjusted to the disaster condition.

Keywords: PPDR, hybrid network, techno economic model