

COST ANALYSIS OF HYDROPOWER DEVELOPMENT IN PAPUA INDONESIA

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Abstract

Papua is a province with the largest land area in Indonesia with high natural resources. Availability of electrical energy is needed as a driver to process the natural resources available. Water content of the potential energy and support geography conditions allow construction of hydropower in various locations in Papua and West Papua. That requires an accurate cost analysis can facilitate planning for the construction of Hydro Papua region.

This analysis to determine the cost of providing the average hydro plants of Papua and West Papua. Value is calculated based on the cost of the existing power plants and hydro power potential of the survey. To determine this, the analysis used for multiple scenarios by finding the least amount of cost, NPV, and Break Even Point.

Based on the results of surveys and data processing, potential of hydro power in Papua region over of 200 MW. Current installed capacity of 179.2 MW only with almost 98% of them are still in the supply of diesel. The micro power plants by 2020 will be able to cover the electricity needs of 374 MW power plants in Papua and replace the supply of diesel with the relative costs cheaper.