ABSTRACT

PT. Sinar Batu Sakti Lestari (PT. SBSL) is a company engaged in andesite mining that uses surface mining methods. PT. Sinar Batu Sakti Lestari (PT. SBSL) has an area of 14 Ha Mining Business Permit (IUP) located in Tanjung Ratu Village, Katibung District, South Lampung Regency. PT. SBSL plans to conduct economic evaluation on projects that will be carried out with an evaluation period of 5 years.

Economic feasibility analysis at PT. SBSL is a description of the amount of expenditure, the amount of income and other economic components that need to be done to determine the feasibility of the project. By calculating the cost component of the mining activity plan of PT. SBSL in a cash flow (cash flow), assesses economic feasibility by calculating Net Present Value (NPV), Discounted Cash Flow Rate Of Return (DCFROR), Pay Back Period (PBP) and analyzing sensitivity (sensitivity analysis).

Determination of production targets to estimate the production and consumption of andesite for the construction sector, especially infrastructure such as toll roads, railroad bearing stones and airstrips. Based on exploration data, the company is known to have reserves of 4,119,200 tons. The production target is 120 thousand tons / year. With an estimated mine life of 36 years.

The evaluation uses a capital structure of 100% own capital and 60% own 40% loan. The interest rate on bank loans used was 11.5%. While i * 100% of own capital is obtained 14.5%, while the capital structure is 60% own and 40% of the loan is obtained i * at 13.5%. Costs included in the cash flow calculation include total investment, fixed capital, equipment purchase costs, working capital, income, operating costs, fixed costs, variable costs, amortization, depreciation, taxes, and reclamation guarantee costs.

Based on the cash flow calculation of 100% of own capital, the NPV value is Rp. 8,214,262,898, PBP for 2.3 years, and DCFOR of 40%. As for the capital structure, 60% of own capital and 40% of loans obtained an NPV value of Rp. 8,869,017,613, PBP for 2.2 years, and DCFOR of 51%. Based on the results of these calculations, it is found that the capital structure of 60% own capital, 40% of the loan is more profitable to implement.

Meanwhile, the sensitivity analysis for an increase in operating costs has the lowest value when there is an increase in operating costs by 40% where the mining process is not feasible because the NPV value is negative, and DCFOR is below the minimum interest set by the company. Meanwhile, the sensitivity analysis with changes in income has a minimum value where there is a reduction in the income value of 22%, where the NPV value is negative and the DCFOR value is smaller than i *. Meanwhile, the change in total investment significantly affects the NPV, DCFOR, and PBP values, and does not significantly affect the value of the mine's feasibility. So it can be concluded that changes in operating costs are not sensitive to the PT.SBSL mining project.