

SUMMARY

Hadi Satria Setyono, Water Resources Engineering, Faculty of Engineering Brawijaya University, February 2018, Economic Feasibility Analysis for Water Pricing on Water Supply Network in Kertosari Village Purwosari Sub-district Pasuruan District, Supervisor : Dr. Eng Tri Budi Prayogo, ST.MT.

In this study discusses the pricing of water in the Kertosari village Purwosari District of Pasuruan. Seeing the frequent occurrence of the problem about clean water supply in the Kertosari village especially during the dry season due to the increasing number of people every year. It is necessary to have a good and sustainable distribution of clean water. One of them is by conducting an economic analysis to set a decent water price for the community of Kertosari village. So that the maintenance and distribution of clean water well preserved.

Based on calculation, the costs incurred for the planning of raw water supply system with construction prices Rp 1.502.551.662, Operational cost is Rp 141.600.000 and total of benefit Rp 584.518.635. In progress this last task method investment plan said worth it if $k \leq$ age of the construction. In the calculation obtained $K \leq$ age of the construction, is $K = 8$ year with construction age 15 year. So the project of water supply in Kertosari village can be said worthily.

Economic worthiness can be see with the indicator used, that is BCR, NPV, IRR, break point of investment, and sensitivity analysis. BCR if bank interests is 7%, value BCR is 1,047. That value is right if $BCR > 1$. NPV if bank interest 7%, value NPV is Rp 130.984.234. That value is right if NPV worth positif. IRR workly on 8,25% because the result of analysis IRR this project more than bank interest uses in (7%) from Bank Indonesia (BI), so this project can be sayed profitable. Break even investment at bank interest 7%, break even investment in year of 8. Sensitivity analysis when Cost raised by 10%, Benefit not changed value of B-C is Rp -150.375.071, B/C 0,951 and IRR 5,654. When Cost reduced by 10%, Benefit not changed value of B-C is Rp 412.343.539, B/C 1,163 and IRR 10,888. When Cost not changed, Benefit raised by 10% value of B-C is Rp 706.801.267, B/C 1,279 and IRR 12,906. When Cost not changed, Benefit reduces by 10% value of B-C is Rp 117.885.811, B/C 1,047 dan IRR 8,098. In year 2017-2021 water pricing value is Rp 1.987 for low price and Rp 3.176 for high price. In year 2021-2026 water pricing value is Rp 2.748 for low price and Rp 3.335 for high price. In year 2026-2031 water pricing value is Rp 2.666 for low price and Rp 3.263 for high price.

Keywords : Economic Analysis, Water Price, BCR BC IRR