

***Economic Analysis of Ram Hydraulic Pump Engineering as a Substitute for
Conventional Electric Pumps in Rural Areas. Silo village case study***

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ABSTRACT

Water as the main source is an important factor needed by every living thing. In distributing the sustainability and availability of water needs in carrying out various activities ranging from agricultural activities, industry and even household needs currently still use the PDAM network and also electric pumps as a conventional means of distributing water needs to meet the needs of life. something. Activity. To support water needs in rural areas, the operation of hydraulic ram pumps is considered very efficient, especially from an economic point of view in rural areas. The purpose of this study is to determine the economic value of hydraulic ram pumps that can be used as a reference to replace conventional electric pumps and are more energy efficient by focusing on the economic analysis of hydraulic ram pumps as a means of replacing conventional pumps. The analytical methods used are HPP, BEP, NPV, BCR, PPB. Based on economic analysis and investment feasibility, hydraulic ram pumps as a substitute for conventional electric pumps in rural areas, silo village case studies are a worthy investment. The results of the economic analysis obtained BEP of 0,6753/unit of installation, with NPV and BCR on the results of the calculation of NPV and BCR getting a positive value or 1 which is a reference for a project feasible to be implemented. The total cost required is Rp. 10.799.000 / per unit including fixed costs Rp. 9.094.000 and variable costs of Rp1.750.000. results obtained Include overhead and OM. and PBP will return in the 2nd sale..