MAKERERE  UNIVERSITY

ANALYSIS FOR IMPROVEMENT OF ENERGY EFFICIENCY FOR WATER TREATMENT PLANT IN RWANDA

CASE STUDY: NZOVE WATER TREATMENT PLANT

By

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ABSTRACT

The study was conducted on Analysis for Improvement of Energy Efficiency for Water Treatment Plant in Rwanda using a case study of Nzove Water Treatment Plant located in Nyarugenge District in Kigali Capital City of Rwanda. Three specific objectives guided this study and these include identifying the techniques and strategies for improving energy efficiency in Nzove Water Treatment Plant; to analyze the economic contribution of energy efficiency of Water Treatment Plant in Rwanda; and to identify the challenges of energy efficiency of Water Treatment Plant in Rwanda.

A case study of research design was used for this study in which a total of 381 respondents informed this study. These were reached through purposive and random sampling. Observation, questionnaires and interviews were used during the collection of primary data. Data was analysed quantitatively and qualitatively.

According to the findings of the study, the proper design, monitoring, operation and maintenance practices are very important for improvement of the energy efficiency for Water Treatment Plant and hence it implies the reduction of the cost per cubic meter produced in the water treatment plant.