

## **ABSTRACT**

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*Title* : *Electrical Energy Audit and Electrical Energy Saving Opportunities at the Langensari Unit Water Treatment Plant Perumdam Tirta Anom Banjar City*

*This research discusses Electrical Energy Audit and Electrical Energy Saving Opportunities at Langensari Water Treatment Plant Perumdam Tirta Anom Banjar City. The purpose of this research is to estimate SEC (Specific Energy Consumption), estimate pump efficiency, and provide recommendations for electricity saving opportunities. The problem raised in this research is how the pump performs when running whether it is efficient or not. The method used in this research is exploration and literature study. The results obtained in this study are the amount of Specific Energy Consumption (SEC) for the last two years starting from July 2020-June 2022 is 0.22 kWh/m<sup>3</sup>, the efficiency of the intake and prased pumps is 71% and 60% and electrical energy saving opportunities in the form of controlling pump operating hours, checking piping networks, checking and cleaning the impeller, checking connections between cables on the control panel, checking PLN bill accounts regularly, installing capacitor banks, and installing inverters / Variable Speed Drivers (VSD). The output of this research is a study containing an electrical energy audit and electrical energy saving opportunities at the Langensari Water Treatment Plant of Perumdam Tirta Anom Banjar City.*

***Keywords: Energy Audit, Spesific Energy Consumption (SEC), Pump Efficiency, Electrical Energy Saving Opportunities***