

Effectiveness of Minor Overhaul Elimination on Decreasing Cost of Production in Hydroelectric Power Plant

Pengaruh Eliminasi Minor Overhaul Terhadap Penurunan Biaya Pokok Penyediaan Pada PLTA Dengan Metode Markov Chain Melalui Laravel

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The projection of the renewable energy target in 2025 is 23%. The high production cost makes it difficult to compete with fossil plants. The strategy chosen to reduce the risk is to eliminate minor overhauls in power plants to increase production. To prove its effectiveness, hydropower was chosen by using markov chain method. It took samples for 26 months and divided plant into 3 states based on the operating performance. The test was between implementation of overhauls on schedule and eliminating minor overhauls when the status was good. The results of data processing obtained that the best decision is not to do minor overhaul elimination because of the potential to reduce 29.77% good conditions, 30.69% improvement in moderate conditions. Comparison between the 2017-2019 data show there's no production cost reduction even though potential production increase. Calculation can be implemented into a web form using the PHP on the Laravel Framework

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