ABSTRACT

Hydroelectric On-Grid system is an environmentally friendly renewable energy to generate electrical energy that is linked and synchronized with PLN. With the existence of this energy, the customer can use without thinking about the cost of electricity has been used. However, such use should still be in monitoring so that not too much energy is wasted and no customers who can commit fraud against the energy. Therefore we need a tool that can monitor the electricity consumption of each home. To make it easier to see the results of monitoring and storing the data of the monitoring results, then needed an information system that can display the data.

The data have been sent displayed graphically in the form Highstock dynamic and Speedometer Gauge. Such data can be viewed by the user or admin. However, not all monitoring data can be viewed by the user as the user can only see the data monitoring voltage and current in their respective homes. While admin can see the entire monitoring data, both user data and data on-grid system. Admin also have access rights to add and remove users.

After doing some testing on this information system, obtained several conclusions including the following. This information system must be renewed every six years. The server has an error rate of 0.01067%. The database can receive and store the data in accordance with the power delivered by the monitoring tool. And all the menus for user and admin are functioning in accordance with the activity diagram and use case is designed.

Keywords: On-Grid Systems, Information Systems, MySQL, Highstock, Gauge Speedometer