

ABSTRACT

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Judul : Geospatial Mapping of Distribution Networks in the Tasikmalaya Regency Central Government Building Complex Using QGIS Software Based on Geographic Information Systems

The distribution system has an important role as the final mandate in delivering electricity to consumers at lower voltages. Sudden blackout of electric power supply, aka causing losses for consumers. So it is necessary to have a geospatial mitigation plan for the distribution network for the development, analysis, repair and maintenance. This mapping uses QGIS software and is carried out in the Tasikmalaya District Government Center Building complex area because the Regent's Building is only supplied with one distribution substation and local residents are connected to that substation. Causing the distribution transformer to be overloaded and causing a voltage drop. From the results of manual calculations, it was found that the percentage value of the voltage drop in the buildings it reaches 16.56% and has exceeded the tolerance value for load usage. The results of manual calculations show that the percentage value of the voltage drop in the DPRD building is the largest with a decrease of 207.677 V if it is percentaged to 5.601%. When combined with other buildings it reaches 16.56% and has exceeded the tolerance value for load usage. After the addition of the transformer load which was originally supplied by 1 transformer, it is now separated and assisted, buildings 1-7 (7.49%) and buildings 8-15 (9.07%). From these results it can be seen that there is a need for geospatial for every agency or in every existing building.

Keyword : Mapping, Distribution, Drop voltage