

## ABSTRACT

Electric power is one kind of secondary energy that transmitted and distributed for many kind of people needs, but not electricity that used for communication or signs. Many activities need electric power, as such as official activities, business activities, education, and others. Because of that reasons, it is very important to effectively manage the electric power and PLN as the government company that take the responsibility. PT. PLN as the government company that in charge on distributing the electric power to customers, need to increase its services to the customers. One of many way that can be done is to give the new customers certainty about their status while they doing the new installation process. Because, at this time new customers need to wait about a couple of days just to wait the answer about their status, is it can be installed right away or have to listed on the waiting list first. This thing can decrease the customers satisfaction about PT. PLN services.

GIS is one of many kind of tools that can be used for this problem. GIS is Geographic Information System, computer based system that used for entering data, processing data, manipulating data, analyzing data, and visualizing data, such as database, table, photo, satellite image, sound, video, graphic and data from windows applications. GIS helps the management teams on making fast decisions, precise decisions, based on some geographical locations. This management includes the electric networks monitoring, customers location monitoring. The management needs a precise dan effective planning to give benefit for PLN and customers. This management includes the electric networks monitoring, customers location monitoring. The management needs a precise dan effective planning to give benefit for PLN and customers.

This final assignment identified the system that exist today to know how it works, and to know it weaknesses. Next is to identify what is needed to make a better system, starts from system modeling, determine the hardware and software needed, also doing some test on the new system that have been staked. This new system results will be :

1. The potential oh electric network on the customer location.
2. Calculate the installation cost and subscription guarantee cost for the new customer.
3. Visualize the customer location to make the new installation and capacity changes easier.
4. Visualize thematicly the location of waiting list customer to analyzed the potential location for new installation.
5. Transaction report for new installationand capacity changes in a month.
6. Visualize the potential area to arrange any special events.

After the system have been tested, then we analyze the result. From this result, concluded that this system can reduce the survey process before setting the electric network of new customers. This system also can give new customers exact status so it will gives add point for PLN on its services.

Keyword : new installation, electric network, customers, new customers