

ABSTRACT

Data centers are used as a method of communication between an institution or company. The data center has criteria for scalability, flexibility, security, and one of them is availability, where one is able to provide continuous and continuous operations for a company both in normal circumstances and in the event of a significant or no damage. PT. XYZ is a company that uses data center as one of its business media that helps its business partners in place and network settings. As for some aspects that can affect the performance of a data center such as location, supporting facilities and communication. At PT. XYZ, the power usage in the data center is too high, inefficient and does not meet the TIA-942 standard in this case referring to the Tier-2 TIA-942 standard. Therefore the design of power usage or Power Management is very important in managing the balance of the data center. Based on the above problems, a Power Management design was prepared using the PPDIOO method which refers to the TIA-942 standard where this method has the advantage of being very suitable for the type of infrastructure but requiring real-time supervision. The results of the study are that the power used in tier 1 has a total of 57200 watts requiring a 73 kVA generator, in tier 2 has a total of 111760 watts requiring a 145 kVA generator where the target of the company is tier 2.

Key Words : Data center, TIA-942, *Power Management*, Metode PPDIOO