Introduction

Electrical distribution systems for data centers are designed to power the center safely and reliably and this section will also address the power distribution and monitoring solutions that have been successful in meeting these demands, and how data centers can be designed to create sustainable IT environments that can satisfy evolving business, financial and regulatory goals.

The electrical system design should not have a single point of failure as it may lead to interruption in the service and business continuity.

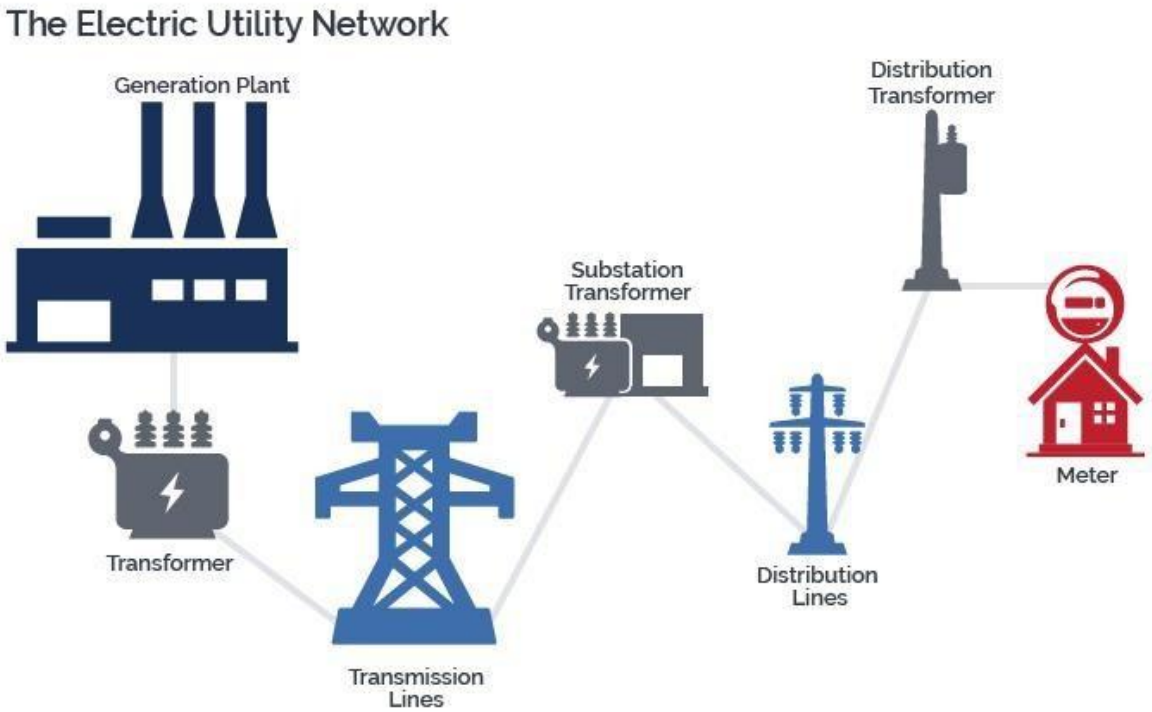
The site should be provided with enough electrical utility capacity to meet it is current and projected needs of the entire requirement of the datacenter.

The site should have multiple electrical source circuits with enough capacity to meet the entire site requirements.

The Datacenter should be in an area with easy sustainable circuit access to utility substations with a preference towards an area with utility circuits provided by two or more utility substations.

The site should have space for an electrical unit substation and its associated transformers and electrical utility circuit paths, and it should be located on the datacenter site in a secure way with accessibility.

Below Figure shows an overview of electrical transmission and distribution.



AC Electricity Distribution from Generation Stations to Data Centers

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