Generator in substation

Title: Generator in substation
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A step-up transmission substation receives electric power from a nearby generating facility and uses a large power transformer to increase the voltage for transmission to distant locations.

The turbine produces mechanical energy. The generator converts it into electrical energy. The substation adjusts the voltage and ...

Substations themselves do not usually have generators, although a power plant may have a substation nearby. Other devices such as capacitors, voltage regulators, and reactors may ...

Generating substations step up the voltage from the generator''s lower voltage to a higher voltage which is more suitable, and more economical for transmitting electric power ...

Only generators connected at MV level are considered in this chapter. When the installation needs a high level of power availability, one or several MV standby generator set ...

Electric power may flow through several substations between generating plant and consumer, and may be changed in voltage in several steps.

To better understand the importance of electrical substations, let''s start with a discussion about the structure of the power systems and their main components.

Transmission substations integrate transmission lines into a network with multiple parallel interconnections, so that power can flow freely over long distances from any generator ...

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