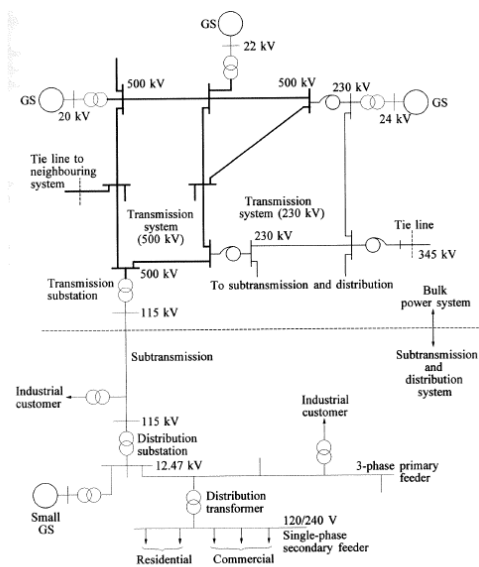
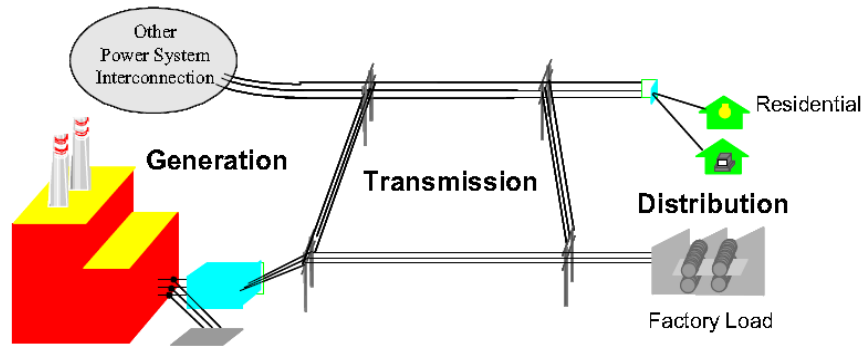


Introduction to Power Systems

Note Title

2/2/2014



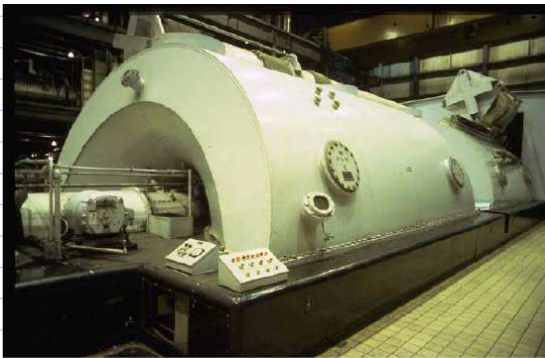
Source: Prabha Kundur, Power System Stability and Control, 1st Edition. McGraw Hill, Inc. 1994



Thermal power plant



Nuclear Power Plant



Steam-Turbine generator



Hydro-Turbine generator

× Transmission System

- Usually higher than 230kV.
- 230 kV ~ 765kV (Extra-high voltage).
- above 765 kV (Ultra-high voltage).



Substation



Transformer



Breakers - SF6



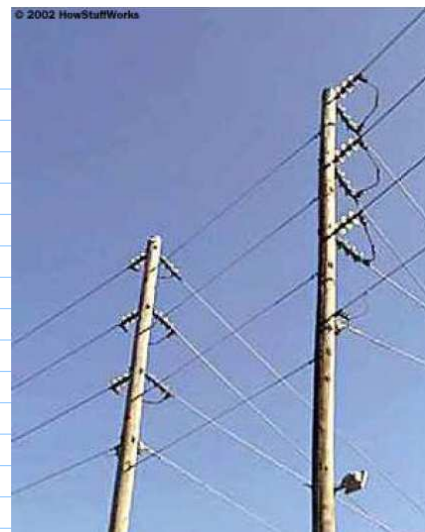
500 kV shunt Capacitor Banks

* Distribution System:

- Primary (4 kV ~ 34.5 kV)
- Secondary (110V ~ 360V)



Load substation



Feeders

* Power System Operating States:

