

One of the oldest substations in Bangalore.
37 years old

Conventional systems are present here

Current or voltage cant be seen, it can only be measured. Hence electricity must not be neglected.

Necessity of substation:

Generation : 66kV or 11kV

Transmission: Voltages will be stepped up or stepped down.

Explain why

Distribution. 240 V

All machines in a substation are are well

protected with protection equipments.

Substation automation system

Important parameter of a substation is safety

All safety measures are taken

Earthing plays an important role

Importance of earthing:

If there is any breakage in the phase or neutral lines, the body of the machine will shock us

To avoid this earthing is done

The entire substation is built on an earth mat

Below 0.5 m

This earth mat takes care of minimizing touch and step potential

It equalizes the potential of all equipments.

Earth mat is not connected to the fencing

It is 1.5 m away from the fencing to avoid shocks from the other side due to potential difference

Entire substation is represented by a Single Line diagram SLD

Incoming transmission lines are called bus .

Note :Gas insulated substations require less area.

A small interruption of power supply in this substation will effect the city's power supply at a much larger rate.

All parameters in the substation are monitored by computers.

Electricity is imported from Kolar, ramakundam

Bus is a conductor...steel reinforced aluminium material
It is tubular

Gos group operating switches

Circuit breaker can be operated at all conditions.gas USED SF6
GOS can be operated at no load.

CT current transformenr- measurement protection

PT potential transformer

