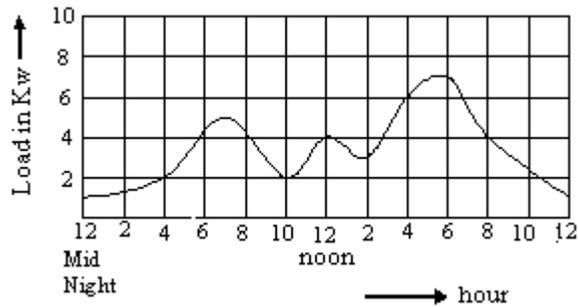


LOAD CURVES

Definition:

The curve showing the variation of load on the power station with respect to time.



Types of load curves:

Daily load curve—Load variations during the whole day

Monthly load curve—Load curve obtained from the daily load curve

Yearly load curve—Load curve obtained from the monthly load curve

Load Characteristics:

Connected load

Maximum demand

Average load

Load factor

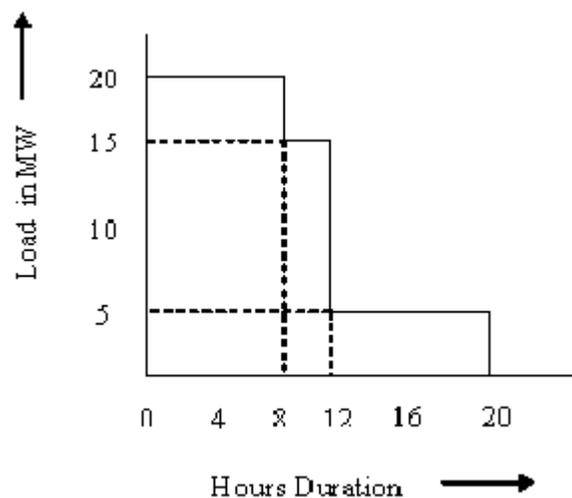
Diversity factor

Plant capacity factor

Plant use factor

Load duration curve:

When the elements of a load curve are arranged in the order of descending magnitudes.



Cost of electrical energy:

Electric Energy is the source of energy for electrical appliances. Your computer, the cooling, and the lighting at your home are all powered by electric energy. Can you imagine life without electric energy? Do you even know how much it costs? Electric Energy is measured in kWh (kilowatt-hour) or MWh (megawatt-hour). Power is equal to work done in respect to time, so work equals power multiplied by time. Since work equals energy, electric energy would be measured by a kilowatt-hour.

$$P = W/t$$

$$W = E = Pt$$

$$(1000W)(1h) = 1kWh$$

The cost of each kWh depends on your location and the company you use. In New York, the average kWh costs 14.31 cents, but it can cost as high as 16.73 cents in Hawaii or as low as 5.81 cents in Kentucky. You're probably thinking that's not so expensive, but when it all adds up, the number can become significant. Just look at your electric bill. An electric bill in New York can come out to be \$81.68, depending on which appliances are being used. But imagine your electric bill when you're blasting your air conditioner. It can cost you a few hundred dollars. But you can decrease that cost by using more of your fan in place of your air conditioner because a typical fan would cost you in the teens rather than in the hundreds. This is mainly due to the amount of watts used to power your electric appliances. An air conditioner can use up to a few thousand watts, while a fan would only use a few hundred watts. If you want to keep your electric bill low, substitute high watt appliances for low watt appliances.

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