## Types of Tariff in the Power System:

The tariff is the rate at which the electrical energy is sold. There are various types of tariffs followed in the market. This post will give the brief idea about different tariff types.

## Tariff – Introduction:

Electrical energy produced by the power system is delivered to a large no customers. The tariff becomes the attention for the electric supply company. The company has to ensured that the tariff such that it not only recovers total cost of producing electrical energy but also earns profit on the capital investment.

## Tariff types:

1.Simple tariff
2.Flat rate tariff
3.Block rate tariff
4.Two part tariff
5.Maximum demand tariff
6.power factor tariff
7.Three part tariff

## Simple Tariff:

Definition: When there is a fixed rate per unit of energy consumed, it is known as simple tariff (Uniform Rate Tariff).

- This is the most simplest of all tariff.
- In this type, the price charged per unit is constant.
- It means, the price will not vary with increase or decrease in number of units used.

## Disadvantages:

- The cost per unit delivered is high.
- There is no discrimination among various types of consumers.

## Flat Rate Tariff:

Definition: When different types of consumers are charged at different uniform per unit rates, it is said to be Flat rate Tariff.

- In this type, the consumers are grouped into different classes.
- Each class is charged at different uniform rate.
- the different classes of consumers may be taken into account of their diversity and load factors.
- Since this type of tariff varies according to the way of supply used, separate meters are required for lighting load, power load etc.

## Block rate tariff:

When a given block of energy is charged at a specified rate and the succeeding blocks of energy are charged at progressively reduced rates is called as block rate tariff.

•In this type, the energy consumption is divided into many blocks and price per unit is fixed in each block.

## Maximum demand tariff:

It is similar to two-part tariff. The only difference is the maximum demand of the consumer is calculated by installing a maximum demand meter at his premises. This type of tariff is mostly applied to the bulk consumers.

## Two Part tariff:

When the rate of electrical energy is charged on the basis of maximum demand of the consumer and the units consumed it is called two-part tariff.

•In this type, the total charge to be made from the consumer is split into two components.

•ie, fixed charges and running charges.

•The fixed charges depend upon the number of units consumed by the customer. Thus the consumer is charged at a certain amount per kW of maximum demand + a certain amount per kWh of energy consumed.

•Total charges = Rs (X x kW + Y x kWh)

•It is easily understood by the consumer.

•It recovers fixed charges which depend upon the maximum demand of the consumer independent of the units consumed.

Disadvantages:

•Consumer has to pay the fixed charges irrespective of the fact whether he has consumed or not the electrical energy.

•There is always error in assessing the maximum demand of the consumer.

## Power factor tariff:

The tariff in which the power factor of the consumers is taken into account is known as power factor tariff.

Power factor tariff are of the following three types:

1.KVL max. demand tariff
2.Sliding scale tafiff
3.kW and kVAR tafiff

## Three part Tariff:

When the total charges to be made from the consumer is split into three parts, fixed charge, semifixed charge and running charge, it is known as three-part tariff. This type of tariff is applied to big consumers. The principle objection of this type of tariff is the charges are split into three components ( fixed charge, charge per kW of maximum demand, charge per kWh of energy consumed)

# LT (Low Tension) vs HT (High Tension):

Tension is a French word for Voltage. A low-tension line is a low voltage line and a high-tension line is a high voltage line. In India LT supply is of 400 Volts for three-phase connection and 230 Volts for single-phase connection. High tension or HT supply is applicable for bulk power purchasers who need 11 kilo-Volts or above. Most small consumers of electricity like individual houses, shops, small offices and smaller manufacturing units get their electricity on LT connection. HT is applicable for bulk purchasers of electricity like industries (big manufacturing units), big offices, Universities, hostels and even residential colonies (if the apartment complexes purchase together in bulk). The tariff structures of most state distribution companies are different for LT and HT.

In some states a residential complex can benefit with lower rates if electricity is taken at bulk HT tariff. Internally the complex can provide electricity to its residents through the common supply.

## Categories of LT & HT consumers:

- Domestic-LT: for most individual residential connections.
- Commercial-LT: for small shops and offices. Also for hotels, guest houses, theaters, etc.
- Industrial-LT: for very small manufacturing units (like bakery, stone cutting, poha mills, etc).
- Domestic-HT: Bulk supply for residential colonies.
- Commercial-HT: for bigger offices, film studios, etc.
- Industrial-HT: for most heavy industries.

## TOD tariff::

Time of Day (or TOD) tariff is a tariff structure in which different rates are applicable for use of electricity at different time of the day. It means that cost of using 1 unit of electricity will be different in mornings, noon, evenings and nights. This means that using appliances during certain time of the day will be cheaper than using them during other times.

# THANK YOU