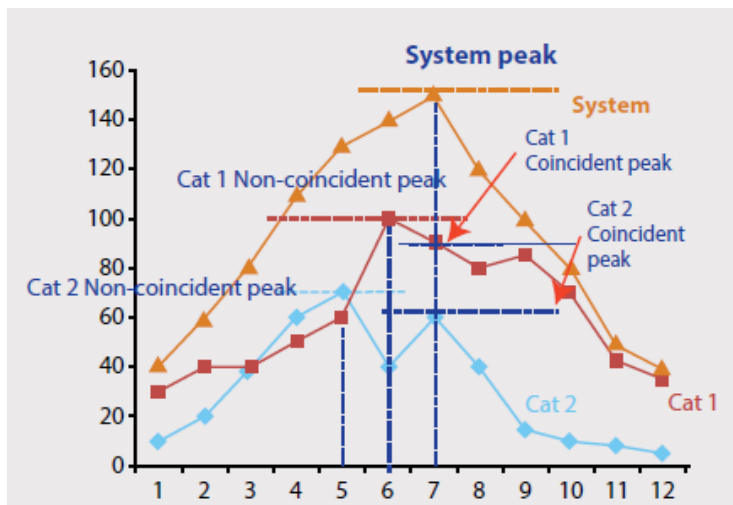


Note on Methodology for Estimating Category Cost of Service

- TGDISCOMs estimate the Category Cost of Service based on Embedded Cost Methodology approach which distributes total cost incurred by Discom and allocates it to different category of consumers based on each consumer category's contribution to the overall peak demand of the system.
- Contribution of a particular consumer category to peak demand is examined in two ways namely:
 - Contribution of the consumer category when the entire system is at peak (also known as Co-incident peak)
 - Standalone peak of each consumer category irrespective of whether or not the entire system is at peak (also known as Non Co-incidental peak)
- For illustration purpose (as shown in figure below). Let us understand it from the point of view of two consumer categories – Cat 1 (shown in red line) and Cat 2 (shown in blue line).
 - When the system is at peak demand (shown in orange line) at 150, the load of Cat 1 is at 90 and the load of Cat 2 is at 40. This is known as coincident peak of Cat 1 and Cat 2 respectively
 - The individual peak of Cat 1 is at 100 and Cat 2 is at 70 which occurs before the system peaks. This peak is known as Non-Coincident peak



- The contribution for coincident peak demand is estimated using class coincidence factor:

- Consumer category wise class coincidence factor is calculated by calculating the ratio of coincident demand for the respective consumer category during system peak time to the peak demand of the respective consumer category
- Further the total cost incurred by Discoms in providing power to the consumer comprises of power purchase cost, distribution cost, transmission cost (intrastate and interstate), SLDC charges, interest on consumer security deposit etc.
 - The total cost is apportioned among each consumer category basis the fundamental nature i.e demand(fixed) or energy(variable) charges.
 - Allocation of demand charges: The demand costs of all the three functions such as generation, transmission, and distribution are allocated to the consumer categories on the basis of the coincident peak demand or non-coincident peak demand.
 - Allocation of energy charges: The variable cost components are allocated basis ratio of energy input or sales of each category upon total energy input or sales.
- Finally, category cost of service is calculated by dividing total cost (energy + demand charges) by its sales.
