Rehabilitation/Renovation/Augmentation of HT Distribution Network

Selection Criteria / Guidelines for HT Network to be rehabilitated

i) The feeders selected for rehabilitation/renovation should be based on their peak load, length, technical/geographical aspects and keeping in view the particular problems of the area to achieve the maximum benefits not only in term of reducing losses and improving in voltage drop but also to provide stable/uninterrupted power supply to the customer. It means that higher priority should be given to those 11 kV feeders, which are heavily loaded and contribute high technical losses to the system and high voltage drop at the customers end.

ii) No doubt, the load and the loss on a particular feeder are the main criteria for bifurcation of a feeder but in some cases a lightly loaded but lengthy feeder also requires bifurcation to reduce the line losses, improve the voltage drop and reliability of supply.

iii) In some cases bifurcation of a feeder is required, where technical parameters i.e. %AEL and % VD are almost within limits but the feeder is running over loaded (e.g. Near 400 A.) Here, bifurcation of the feeder is necessary in order to avoid unnecessary trippings due to overloading.

iv) Bifurcation of a feeder in some cases is also required at the time of creation of a new sub division to avoid sharing of load between sub divisions or for inter-adjustment of feeders of different divisions/sub divisions.

v) Each and every feeder involved in the particular proposal should be evaluated technically on the basis of latest data collected from field formation, and only those feeders should be selected which contribute high energy loss and voltage drop. Thus as per existing condition of the network, only those proposals should be executed which give maximum technical as well as financial benefits.

The required Benefit/Cost ratio for HT proposals for ELR Head is as under:
For Reconductoring, Bifurcation & Area Planning Proposals > = 2.0

In certain cases where a feeder needs to be rehabilitated/renovated due to some particular problems but it does not fulfill the above criteria of selection, then proposal may be developed subject to the condition that benefit cost ratio as given above is achieved, and in those cases where benefit cost ratio is not achieved, the same may be carried out under DOP head, if at all considered essential /inevitable requirement of the field.