

CE/Testing/HT/AB Switch/ **22973**

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CIRCULAR

Sub: Providing AB switches at 11/22/33kV HT consumers Installation for isolation .

Earlier in erstwhile MSEB, while releasing the new service connection (NSC) of HT consumer, AB switch or isolator used to be provided before the Metering installation of the HT consumers. This provision of Isolator/Air Break (AB) switch was helpful to isolate the specific HT consumer in case of any fault in the consumer's installation like CT, PT failure or meter failure. Further, while testing the metering installation, all components of the metering system i.e. CTs, PTs, Control cables were tested for ensuring their healthiness. However, at that time the energy meters used were electromechanical meters. There was no event recording facility available in that meter. These energy meters were recording only fundamental energies (i) Active Energy (ii) Reactive Energy (iii) Apparent energy along with the KVA demand.

However, later it was observed that, some HT consumers were doing malpractice by operating this isolator/AB Switch for pilferage / tampering the CT/PT/ meters. As the event recording facility was not available, it was very difficult to establish the tampering in the metering system. Hence, a decision was taken to remove the AB switch and directly connect the CT/PT to the line so that, HT consumer can't do any tampering in the metering system.

Due to removal of AB switch, in case if any fault occurred in the CT/PT or in metering cubicle of HT consumer, that particular general supply feeder emanating from MSEDCL substation gets trip. The tripping of the feeder results in interruption of power supply to all HT /LTIP consumers connected on that feeder. The power supply on this feeder remains off till the fault is identified and the faulty section / consumer is isolated from the feeder. Further, outage on same feeder is again required at the time of restoration of supply after rectification of the fault. Due to this arrangement, numbers of interruptions on the feeder are increasing resulting into inconvenience and financial loss to the consumers and MSEDCL as well.

Nowadays, all the old Electro-mechanical meters have been replaced with digital Electronics Meters. The measurement of parameters other than energy such as reactive power, power factor, maximum demand etc can be possible with the help of this electronic meter. In these digital electronic meters, all tamper events get recorded. Similarly, load survey data for every half

an hour is available in these meters for last 45 days. From load survey data, it is easy to analyze various events occurred during last 45 days. Also we have installed AMRs to all HT consumers and its half hourly billing data as well as load survey data along with tamper events is available in MDAS. Therefore, it is easy to identify the pilferage of energy if any with the help of these electronics meters.

In view of above it is to inform that the competent authority in the matter has accorded approval to allow all HT consumers to provide AB switch / Isolator/ RMU as the case may be, on the electrical structure of the consumer switchyard before the metering installation, for isolation of consumer's installation in fault condition. Further, sealing or locking arrangement to these switches shall be provided so that it will be operated only by authorized person. In case of prospective HT consumers provision for the above shall be done while estimation.

Further, in case of consumers where there are two sources of supply, AB Switch/Isolators with interlocking arrangement shall be provided to both the switches so that at a time only one AB switch/Isolator can be made ON. (The second AB switch can be made ON only after opening of first AB switch).

This is for your information and immediate implementation please.

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