



Technical Bulletin

TB 0275 – Removal of manual Maximum Demand Indicator (MDI) read task

Purpose

The purpose of this Technical Bulletin is to outline changes to the requirements of manual Maximum Demand Indicator (MDI) reads for pole, padmount, indoor, ground and kiosk substations as outlined in SMI 101 – Minimum requirements for maintenance of distribution equipment.

Background

Manual MDI readings are currently taken annually or as part of the 3-yearly distribution substation inspections in accordance with SMI 101. One of the purposes of the results is to identify and manage overloaded transformers which is currently carried out as per the process detailed in SMI 116 am4 – MDI readings and identification of overloaded transformers. Following a recent review of SMI 116, new processes have been established and a software solution called the 'Load Estimator' has been chosen to replace manual MDI readings. The **Load Estimator** program uses data from smart meters along with an algorithm to estimate the loading of individual distribution transformers and stores the associated data in **Historian**.

Changes

Manual MDI reads and collection of maximum demand data will be replaced by an automated process comprising of a software program called the Load Estimator and where required, DSUB monitors. This new process is outlined in detail in SMI 116 am5 – Identification of overloaded distribution transformers and includes instructions on how to use the Load Estimator tool in determining distribution transformer load estimates.

As a result of the removal of manual MDI readings, MDI units on LV switchgear and current transformers (CTs) on distribution transformers are no longer required and as such will be removed from new on-contract equipment supplied from June 2019.

Defective MDI units on existing equipment that do not present an immediate network, environment or safety risk no longer require replacement.

Actions

The following actions are effective immediately:

- Manual MDI reading tasks outlined in SMI 101 are **no longer required** to be carried out for pole, padmount, indoor, ground and kiosk substations
- Regions must familiarise themselves with the new process of identifying and managing overloaded transformers detailed in SMI 116 am5.

Impacted Standard

The contents of this technical bulletin will be included in the next update of the following standards:

- SMI 101 – Minimum requirements for maintenance of distribution equipment
 - o Section 2.10.1 Overloaded distribution substations
 - o Section 5 Pole Substations
 - o Section 6 Padmount, indoor, ground and kiosk substations