

Consumer Meter Testing at a Utility in India

The problem

A utility in India (located at a major industrial hub) was faced with serious revenue protection issues in its metering system. It was finding it difficult to stop revenue loss because of tampered, faulty and burnt-out meters. Consumers' satisfaction was low because of inaccurate accounting, billing and connection security. Above all, they had to meet the Central Electricity Authority (CEA) regulations which require utilities to get their consumer's meter tested once every 5 years.

Project

The utility decided to have meters in four of its divisions tested. This contract was awarded to us. There were over 200,000 consumers out of which, over 100,000 had single phase and 37,000 three phase connections. Meter testing for both electronic and electro-mechanical meters was to be done.

The process

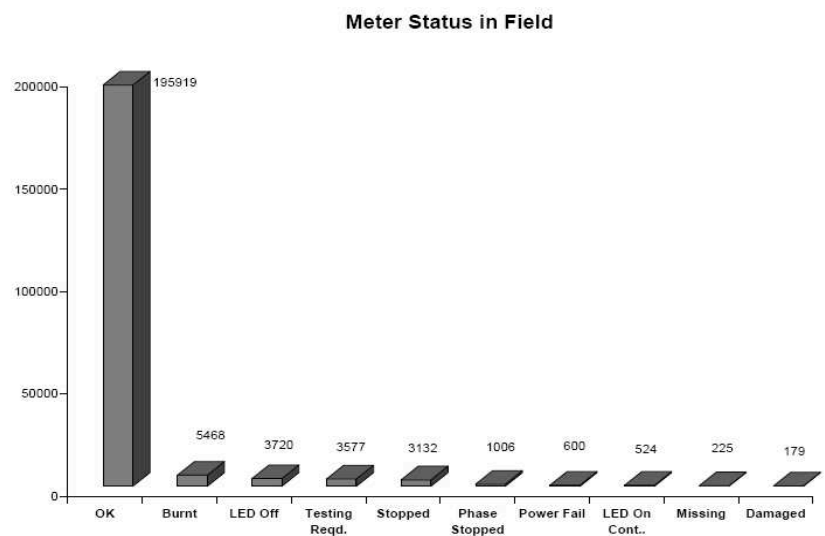
To deliver quality services, we are equipped with quality tools, software and other accessories. Our teams for the project started testing meters using the industry standard product "Accucheck". Meter Data entered in Accuchecks and was then processed using our software and reports were generated. The specialities of the service were:

- It was done under scientifically devised processes
- Portable test instruments were used to suit site conditions
- The processes were not dependent on utility power supply
- Less manual interventions
- Data directly uploaded to software from the testing equipments
- Detailed analysis of test results
- Actionable reports

There were power supply issues and on average power supply was available for four hours to do meter testing. Even then we managed to complete the task in time.

The findings

The results of this testing was an eye opener. 49% of the single phase and 46% of the three phase meters were inaccurate. For a number of meters, the terminal cover and box were not found and there were joints in the service cables. These were contributing to meter tamper. There were speed drifts (slow and fast) in a large number of meters.



Benefits achieved

At the time of writing this case study, the utility has assessed the amount owing to it. Based on our services and findings, the utility was able to update its database, details of inaccessible, burnt-out, damaged and non-functional meters is now available with them. They were able to reduce customer complaints and cases of theft. This is reflected in increased revenue.

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