



Prepayment Metering Solution in Tanzania



Country: **Tanzania**

Segment: **Commercial and Industrial, Residential**

Started: **2009**

Project Background

Utility in Tanzania faces the constant challenge of unpaid bills, electricity theft and accuracy in meter readings. In 2009, an AMI project was initiated to reduce non-technical losses targeted for the commercial and industrial sectors and was later extended to the residential sector.

Solution and Benefit

At the start of the project, EDM was awarded by Tanzanian utility to supply three phase meters for the commercial and industrial sectors. These three phase smart electricity meters are connected to EDM's head end system, MultiDrive for automatic generation of billing data, power quality studies and meter management. Over 100,000 units of three phase smart prepayment meters were provided over the years including additional units deployed for residential use.

For the next project, over 290,000 units of EDM's single phase prepayment meters were installed for the residential sector. This is a breakthrough for this product which features a capacitive touch keypad and internal disconnect relay, allowing prepayment on electrical services. This trial has been very positive, with the company seeing continuous reduction in losses.

With its successful deployment, EDM supplied over 400,000 units of split-type keypad operated prepayment meters also for the residential customers. To prevent further meter tampering, the meters are installed on electrical posts unlike the previous set up in which the meters were inside the houses.

A unique solution provided by EDM is that a high power prepayment technology designed for the commercial and industrial sectors. Equipped with three phase CT smart meter, this solution enables the utility to prevent tampering by large energy consumer by collecting payment in advance and avoiding bad debt. These are all managed using EDM's head end system, MultiDrive.

Baobab Energy Systems Tanzania Limited is EDM's local assembly partner of smart metering devices for projects in Tanzania.

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After the EDMI solution was implemented, the following benefits were achieved:



Reduced energy theft compared to conventional metering



Improved accuracy in meter reading



Increased revenue collection



Reduced cost in disconnect/reconnect for non-payment of electricity bills

Products and Services Provided

Smart Meter	Mk6E, Mk10D, Mk10E, Mk10M
Keypad / Split-Type Prepayment Meter	Mk29D, Mk32
Network Equipment	Cellular 2G and 3G
Head End System	MultiDrive