

"eBriefing on Resource Efficiency"

Reed Consulting Bangladesh Ltd.



March 2015

Smart Metering

Introduction:

Measurement of onsite energy and water use is important but accurate measurement is critical to recognize current use and to identify opportunities to reduce use of resources. Currently in textile and garment manufacturing, lack of meters is the first reason for poor measurement while correct positioning of the meters is another. However, going forward, the priority is to collect and process data generated by these meters.

The meters should be deployed strategically keeping in mind that there is no 'one-size-fits-all' solution. This strategic positioning of meters will deliver data and information in accordance with the factory water and energy management policy. SMART meters will help to benchmark performance of resource consumption.

What are SMART METERS?

SMART Meters are 'intelligent' electronic measurement devices which record consumption/generation of resources such as water, energy, gas and steam and automatically feeds back that information to a central location.

When SMART meters are configured they create a smart grid. This grid can communicate via telephone line, wireless radio frequency, 'Blue-tooth', Wi-Fi, modem or local area network.

Benefits of SMART METERS

There are many potential benefits of SMART Metering – the main ones are:

- Overview of water and energy use to evaluate energy efficiency;

- Identifying hot spots of water and energy use and making those areas strategically important;
- Providing a benchmark of water and energy consumption;
- Providing real time consumption and monitoring;
- Forming an integral part of a water and energy management system.



ENERGY and WATER DASHBOARDS

Data from the meters is communicated to a central location or server to be stored, analysed and presented in a format that delivers actionable information. Data is communicated at given intervals and it is further analysed to produce regular reports for factory management. SMART metering systems will collect data from all of the meters that are connected to the system. The performance of the system depends on regular monitoring of the meters and their connectivity as well as limitations of the meters used. Each user will make use of the dashboard produced reports according to their individual focus and this will facilitate better decisions on water and energy minimisation in production, domestic and other uses.

For further information about engineering consultancy and waste and energy and water minimisation please contact our Principal Textile Engineer Dr. Mohammad Abbas Uddin abbas.uddin@reedconsultingbd.org.

RCB provides consultancy in Energy Efficiency and Engineering Support, Process Improvement, Water and Waste Minimisation.

Reed Consulting Bangladesh Ltd.

Plot 1 (3rd Floor), Road 13/C, Shahjalal Avenue, Sector 6, Uttara, Dhaka 1230, Phone : +88 02 8956976, Fax : + 88 02 8956915

www.reedconsultingbd.com