

# SA2052: THE PROJECT AND LESSONS LEARNED



## The project aim was:

- To install a set number of Automatic Meter Readers (AMRs) – 55 were installed
- To use the installed meters to gain faster access to the electricity usage data.
- To use the real time data to engender better management and awareness of electricity use in the City's buildings.
- To save on electricity usage through better data access and management.

## Metering of City Operations

Initial Experience showed that:

The time period required to install the 55 meters was much longer than initially anticipated. This was due to making the installations through the City's Electricity Department, which had the advantage of lower cost (enabling the larger number of meters) but also meant that installation had to be accommodated within the larger operational requirements of the Department, resulting in a slower installation rate than would have been the case had a single vendor contractor been appointed. A caution here should be noted: meeting the requirements of the City's tendering process under the Supply Chain Policy may well have resulted in an equally long project timeline.

The information gleaned from the AMR installations was not immediately useful. This is in part due to the fact that electricity consumption was in the past not seen as very important within the City's operations given the historic cheapness of the resource and was largely dealt with as an accounting exercise. As a result, time was needed to build up a pattern of electricity usage, this being naturally seasonally affected, so that in the end anything less than a year of information was not very useful. As a result, the project timelines were much extended over those initially envisaged.

## Lessons learned:

- Meters were installed as replacements for existing electricity meters and many of these were reading the electricity usage of more than one building or facility. This means that responsibility for saving electricity would be shared by more than one building. This is an historic effect, where municipal facilities were located in close proximity on municipal land zoned for that purpose, and a single point of supply was sensible and economic. In these instances additional meters will have to be installed if fair accountability and motivation to save is to be achieved.
- Gaining access to the data proved to be a cumbersome process. The data was gathered by the Metering Section of the Electricity Services Department and this data base has strict access controls. This led to a complex process of accessing data and more work is still needed to establish user friendly and practical access to data without compromising the security.
- Managers of City operations and Building Supervisors have not in the past had specific responsibility for electricity usage so placing this responsibility on them is not an easy change. An Internal Energy Management Protocol (IEMP) is in the final stages of development which will place energy management on the scorecards of higher managers with devolution of responsibility for this aspect down the line.

## Need for behaviour change

While technologies such as these AMRs are important for data capturing, the real value lies in actual energy savings. The two main elements required to implement a successful energy efficiency strategy is the combination of suitable technology (e.g. lighting, HVAC, SWH, PV) and behaviour change. Four hubs were selected to participate in the staff behaviour change programme so that the energy consumption could be monitored over time. Staff in these hubs participated in an awareness programme over a period of a week, including an email campaign, training and exhibition for staff as well as incentives to encourage active training to gain feedback on the impact of the training.

## Lessons Learnt:

- Active engagement with staff, even over a short period of a week, can add value to raising awareness. The Smart Living Exhibition is a very effective way to demonstrate practical solutions.
- It is important to highlight the benefit to the individual, rather than focus on the needs to the business. If people can understand how they can save money in their own homes through switching off lights, then they will automatically also switch off the lights at the workplace.
- It is important to be flexible around the needs of the staff – the exhibition was held in a venue at their offices and they could pop around any time during the day. Small groups of two to ten people participated in a session and people could stay according to their interest and time constraints.
- Incentives encouraged participation – all the people that received a blanket or Wonderbag was very excited about it and therefore motivated to provide feedback through the survey.
- Special attention was given to the service staff (cleaning, tea ladies and security) as they are often the eyes and ears on the ground who are in a position to encourage saving. Staff were provided guidance around how they can also assist with energy efficiency within their own buildings, and received a Wonderbag as an incentive to be a "green champion".

## Next steps

- The smart living training has since been rolled out in an additional 14 buildings that had received lighting retrofits through other donor funds.
- Installation of AMRs has not stopped with this project, but is on-going, with 90 AMRs now installed, a further 104 AMRs planned to be installed within the next year and further in the future.

For more information please do not hesitate to contact

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