

1. EMPLOYER'S SCOPE

1.1 Background

Measurement and Verification (M&V) is the independent analysis of energy efficiency, load management and related type savings realised by Energy Efficiency, Demand Side Management (EEDSM) or related initiatives. In order to increase the independence and credibility of the M&V function, the site work is outsourced to suitable external consultants/universities.

1.2 The scope of work is as follows

1.2.1 M&V Scope of Work

The provision of independent M&V of all DSM and Energy efficient projects and assistance in development and improvement of policies, guidelines, and procedures for the measurement and verification.

- **For New Project** -To do all quantification work as per "M&V Guideline document"

(Version 10, Revision 3 or latest available) with due consideration of any approved/accepted national standards relevant to M&V, which may also include:

1. Do/issue costing schedules and/or quotes on interested projects before work continue
2. Do/issue scoping study and scoping report
3. Develop/issue an agreed upon M&V plan
4. Develop/issue an agreed upon M&V baseline and M&V baseline report
5. Do/issue post implementation and report
6. Do/issue performance assessment(s) and report(s) as agreed upfront within M&V plan and within agreed upon time lines
7. Develop/issue a final performance assessment certificate
8. Do monthly/quarterly/bi-annually savings reports (As agreed upfront within M&V plan and/or Eskom)
9. Do annual savings report (As agreed upfront within M&V plan and/or Eskom)
10. Do appropriate research to establish or test calibration variables or information to improve credible reporting

- **Maintenance** - To do all quantification work as per "M&V Guideline document"

(Version 10, Revision 3 or latest available) with due consideration of any approved/accepted national standards relevant to M&V, which may also include:

1. Do/issue costing schedules and/or quotes on interested projects before work continue
2. Do monthly, quarterly, half-yearly or yearly savings reports as per Eskom request.
3. Do maintenance and calibration of M&V equipment as required.
4. Do inspection of project sites based on the frequencies stipulated in the M&V plan and as per Eskom request.
5. Do M&V wrap-up reports when the project is stopped for any reason.
6. Do continued research to ensure credibility of M&V results

- **General**

1. Consultant to ensure no possible, or perceived, conflicts of interest to arise.
2. Consultant to ensure the highest possible credibility of M&V reported figures including considerations for double counting with any other initiative within or external to Eskom.
3. All M&V work to be done in accordance to approved and accepted national standards and requirements as agreed upon with Eskom.
4. M&V activities and reporting to be aligned to any and all decisions agreed upon in M&V Steering Committee or any other M&V related meeting meetings.
5. All project reporting will be done using a national system, e.g. the National Monitoring and Evaluation Centre (NMEC) and deliverables need to be on this system before payments are effected.
6. M&V project activities will be aligned to the overall project management schedule, with M&V expected project time lines to be included in all reporting.
7. It should be noted that Eskom adheres to the ISO for quality. M&V Process Improvements (To be done only on Eskom request or with Eskom approval):
 - Developing and improving the process and overall framework of the M&V process on behalf of National Electricity Regulator of South Africa (NERSA), including the interaction between the primary and secondary stakeholders. The primary stakeholders are Eskom, the NERSA and the Department of Energy (DoE). The secondary stakeholders are the Clients, ESCOs, Eskom's Management and DSM Group (or group representing DSM).
 - Development and use of National Monitoring Evaluation Centre (NMEC) process including liaison with stakeholders and other M&V teams.
 - Improvement and/or development of new procedures, protocols and guidelines to M&V the impact of DSM or any related projects. This will also include the development of specific, standardised and generic procedures and methodologies to M&V the EEDSM projects.
 - The M&V procedures will focus on the different types of EEDSM technologies and take into account the international or National standards which may apply to M&V and Energy Efficiency and Demand Side Management (EEDSM). The EEDSM projects in this case are not limited to the traditional interventions like energy efficiency and load management but may also include projects and programmes on renewable energy, CDM, water, new installations, fuel switching, public awareness campaigns, etc.
 - Develop and or improve the necessary standardised frameworks for M&V plans, pre-implementation baseline reports, post-implementation reports, and monthly, annual savings reports and wrap-up reports or as agreed.
8. Provide progress reports covering performance, challenges, highlights and lessons learnt on own problematic projects.
9. Attendance of meetings and preparation of special reports and presentations as and when required. Any other work requested by Eskom or required as per the Scope of work will have to be sanctioned before continuing therewith, by Eskom for payment purposes.
10. Evaluation of special programs (e.g. extensive CFL roll-outs, Power Alerts, Self Generation, Top-down, Solar Water Heaters, etc) on request.
11. Only the consultants will ultimately be responsible for the savings figures being reported.

