



MINUTES OF NON TECHNICAL LOSSES REDUCTION WORKING GROUP

Date: 18 October 2012

Venue: Emperors Palace Hotel, Johannesburg, South Africa

1) Attendance:

1.1) Present

| Name | Call Name | Company | Contact details |
|-----------|------------|-----------------------|--|
| Rens | Bindeman | SARPA(Secretary) | rens@mweb.co.za +27 82 850 5318 |
| Francis | Maze | TANESCO | francis.maze@tanESCO.co.tz +255 762 450 226 |
| Joshua | Mutua | KPLC | jmutua@kplc.co.ke +254 722 736 121 |
| Lawrence | Juku | Landis+Gyr | Lawrence.juku@landisgyr.com +27 72 065 1409 |
| Roy | Chideru | Escom | |
| Herman | Heunis | Enerweb | herman.heunis@enerweb.co.za +27 83 290 8796 |
| Lenny | Nweene | ZESCO | lmweene@zesco.co.zm +260 211 364 144 |
| Macvittie | Chiphwanya | ESCOM – (Convenor) | |
| Harold | Hayes | Landis+Gyr | harold.hayes@landisgyr.com +27 82 410 4676 |
| Claudia | Coetzer | ICS | claudia@intergritycontrol.co.za +27 82 77 88 699 |
| Samuel | Magezi | Umeme | samuel.magezi@umeme.co.ug +256 392 96 3115 |
| | | | |

1.2) Apologies

| Name | Call Name | Company | Contact Details |
|-----------|------------|------------------------|-----------------|
| MZ | Seitheko | LEC | |
| Douglas | Kamanga | Escom | |
| Mohapi | Khaile | LEC | |
| Leonard | Chisina | Zesa (Deputy Convener) | |
| Sandile | Maphumulo | Ethekwini Municipality | |
| Macvittie | Chiphwanya | ESCOM – (Convenor) | |

1.2) Absent

| Name | Call Name | Company |
|--------|-----------|---------|
| Ndambi | Ilunga | SNEL |
| Edison | Makwarela | Eskom |

2 Welcome

The Convener welcomed everyone to the workgroup meeting and explained that he would not be able to chair the meeting, as he had to stand in for his Utility member at the Board meeting. Mr Bindeman was to Chair the meeting in his absence. He mentioned that we as a Work Group we need to focus on the deliverables and action plans for this group. We need renewed focus on the way forward.

3 Apologies

Apologies were reported as on recorded as above.

4 Adoption of Agenda

The meeting adopted the agenda as presented.
Proposed by Claudia and seconded by Rens

5 Review of previous minutes

- Corrections on 1.1 Present: - Add members that was present at previous meeting and not on the list namely Claudia and Tony Coetzer as well as Lenny Mweene
- The losses in Zesco was confirmed as 14%

The minutes were adopted with minor corrections, proposed by Lawrence and seconded by Zandile

6 Matters arising

Matters arising from the previous minutes were: -

- 6.1) It was agreed to make the Revenue Loss Study point an Agenda point at future meetings
- 6.2) Feedback to the Board on the current scenario in the Region on Smart metering is still outstanding
- 6.3 Rens gave feedback on the training session that was held at Kafue Gorge in September 2012 and pointed out that the event was held as a combined effort between Kafue Gorge Regional Training Centre and SARPA, as PIESA did not have any funds in the budget to sponsor the event this time around. The project was conducted as a “pilot site” to determine if it would be effective to schedule such courses as a fixed event on the Training Centres yearly program and sponsorship was received from ICH Norway. The courses presented were as follows: -
 - a) Basic Revenue Protection course
 - b) Advance Revenue Protection Management course
 - c) Revenue Protection sensitizing course
 - d) Vandalism and Non-Ferrous metals course

It was decided by the training centres Management to schedule the next course for April 2013. It was further proposed that PIESA should organize and sponsor this event

- 6.4) It was decided that further prepayment training should also be worked into the workgroups program. It was said that training motivates people as well as giving them skills
- 6.5) Rens did send out the generic sealing policy NRS 096. He will provide the copy while in the meeting to those who did not receive it. Action completed.
- 6.6) Rens gave feedback regarding the issue of a paper on smart metering. He said that everyone that attended the AMEU Conference has obtained lots of information regarding smart metering; therefore this presentation is not necessary anymore. He suggested that he rather write a report on “Cyber Security” which deals with the protection of smart grid information, as it is currently a “burning issue” and he is busy with a study in this regard.
- 6.7) The training CD of the prepaid metering was still available to members. Lenny and Samuel indicated that they need copies. Mr Paul van Niekerk was approached regarding this and he asked them to send him an email at “paul@vdw.co.za” and he would forward it to them.

7. Demand Side Management

- The members gave feedback in their “Utility reports” regarding progress in this regard.
- The Action item on DSM was revised by the Utility members, in order to ensure that the working group give attention to this issue.

8. Board Report

- A presentation was developed by the work group members and Mr Maze was elected to present it to the Board
- The Board was informed on the revised action plan and training goals
- Harold to forward the Board Presentation to the workgroup members

9. Reports from utilities

TANESCO.

- Still busy with AMR / Smart metering project – 100% of LPU covered, MPU whole current are next on the plan with 10.9k meters completed of the target of 15k for 2012. Using the same smart meters for stats metering in both grid, 600 meters for DX transformers in order to account fully for energy losses with 200 still to be done. Transformer meters 500 done already of 7.5k still to be done, (alarms, harmonics, load profiles, AMR etc)
- Contractor appointed for Transformer metering
- The project is still in progress

DSM

- Project not yet started
- Tanesco project team appointed and with budget to implement 850k normal CFL in 2013 financial year. NB: 900k domestic single phase meters with 50% being PPM and the remainder being legacy metering. Focus as per Energy Ministry directive is to replace all legacy with PPM split.
- All PPM with common base is no longer in use, the drive is towards split wireless metering, this will be done as part meter replacement and Revenue protection exercise.
- Meter sealing – new sealing procedure adopted in line with WG recommendations. New type of seals has now been sourced and there are no problems noted as yet.

ESCOM

- Time of use customers monitored – Max demand customers above 50kVa – 800 customers.

- CFL's – 2 million to be installed, already have installed close to 1 million – with target to reduce peak demand by 40 MW – 5-7MW saving with installations of about 225k with a further 700k bulbs targeted. Anticipated saving over of 2.5MW
- There are about 225k PPM meters mostly integrated BS with strategy to move to split metering going forward.
- Sealing procedures adopted and the project to seal all metering points will be undertaken during this financial year.
- No large customers on prepayment meters
- Use of scratch cards to buy prepaid, System was launched in remote areas to facilitate purchasing and customer convenience.
- Taurus meters used
- Focus on sealing and currently ordering tool less bar-coded seals
- Support from government – funding by World bank in progress
- 800 large customers – to go on AMR from world bank funding
- DSM - looking for project on switching geysers – sourcing still to be done. World Bank funding and currently sourcing a consultant
- Time of use also in place
- Incentive for customers to move to cheaper option
- Spare capacity available after hours
- Peak period is from 06h00 to 12h00 and also 17h00 to 20h00

KPLC

- Customer base 2.1 million
- Been growing at rate of 250 000 and in 2011 to be 350 000
- Busy with several meter installation projects
- Combined Losses 17.1%
- Transmission 4% / Distribution 15.1%
- Commercial 4500 AMR meters – Industrial and big commercial
- Industrial customers charged both on KVA and KWH and power factor for Large Power users
- Prepaid meters were altogether 150 000 (year ago) Itron and Conlog meters and will soon be getting Chinese meters for comparison purposes in Nairobi, installation done to date is 180k
- The target was to retrofit by 30 June'12. Had some meter challenges with Conlog meters. Target is still to install – 520 000 meters (domestic and small industrial) all over the country between July'12 – June'13. The meters had some Voltage regulator issues and all those meters replaced within KPLC, the issues were resolved. All meters are Din rail split wired type meters.
- Busy doing “Sweeping audit” and targeted audits on Low consumption reports– Forecast sweeping audits on meters, ongoing for street lights

- Inspection of the industrial meters by doing “tests” on the meters – Audits involving injections test with focus on CT ratios confirmation to ensure metering accuracy.
- Process to ring fence areas (energy balancing and stats metering), then do audits and repair teams will move in afterwards is ongoing at this stage
- Hourly consumption reports obtained from AMR meters
- Feeder metering – 95% done – Stats metering, currently changing the meters to AMR.
- Done 1.25m CFL’s and been registered for Carbon trading. The Government of Kenya financed this. Preparing for second phase to install 3m CFL’s with focus on qualifying for carbon credit. Planned installation program from Dec’12.
- Sealing procedure adopted, there are proper controls on sealing. Both industrial and prepaid meters use the same sealing procedures.

ESKOM

- No report

ZESCO

- Generation figures 10 320 615
- Total Accountable Energy (less exports) 10 208 070
- Total bulk sales 9 716 232
- Transmission Loss 504 640
- Transmission losses less than 5%
- Distribution losses 935 111
- Distribution losses 13.9%
- Bulk purchases - Distribution 5 032 648
- Bulk purchases - Retail 4 097 537
- Total Consumption 8 684 386
- Total system Losses 13.9%
- Total customers 460 000
- Prepaid meters 339 631 (72%)
 - 12k Three phase split wired
 - Mixture of common base and integrated and smartcard prepaid
- Geyser controls 161 352 installed already
- Regions ring-fencing with aim to conduct proper stats metering and energy balancing thereof
- Smart metering not yet rolled out but focus will be on stats metering sites
- All new customers connected will be on PPM only
- DSM
 - 1m procured CFL and 705,981 distributed to customers on a one-one exchange basis, anticipated saving of 50-55MW

- 1k solar geysers – and about 270 units installed, one-one exchange program
- Conducting audits on LPU main focus on process and billing matters
- TOU customers 290 mainly 16-300kVa mainly Agriculture customers

LEC

- LPU 500 meters
- Customer base divided into Industrial –161 / Commercial 221 / Special domestic 5 / Special general purpose 28
- Programmable meters are been used for large power users and bulk metering
- Smart metering pilot – on-going
- 151,939 prepaid meters in the field – wired and wireless split metering mostly on flats but there is policy review that will compel all new installations to be split
- Scratch card system bought and piloted by own staff
- All meters are sealed with the new “colour coded plastic seals” to verify between “audited” and “commissioned”
- All installations are metered e.g. streetlights
- Pilot project for one Trafo point for smart metering
- Total Revenue losses 12.00%
- Statistical meters on feeders and high risk areas
- Planning to install PLC split meters in high-risk areas. Request out for quotations
- Government promises to fund for CFL and budget was forwarded to them. All new installations are now supposed to be CFL and all retrofits are one-one exchange program.

10. Action Plan

- The work group decided to revise the Action Plan and to remove those actions that have been completed and those that are ongoing at present and needs no specific actions at this stage
- Altogether five action items were identified namely:-
 - 1) Training initiatives
 - 2) Demand side Management
 - 3) Impact of smart metering on loss reduction
 - 4) Tamper detection processes
 - 5) Sealing procedure
- Harold to forward the revised action plan to the members for comments.
- Rens to update the action plan and forward the completed version to the members and the Secretariat.
- Claudia to send the meter sealing policy in point form and sealing procedures to WG members.

- Harold to compile Smart meter pack and submit to the team
- Rens to compile and submit to the team the meter tampering management best practises document.

11. General

- Lawrence to compile a template on what issues Utility members should be reporting on at each meeting. As soon as the form is completed it will be sent to all the members.
- SARPA modified their name to the Southern African Revenue Protection Association. This will be encompassing to the rest of PIESA members. This has been successfully done but Rens has to conduct a notification notice to all stakeholders probably also send email to all African utilities with focus on the SADC and East Africa regions that they can now become members or start their own Branch. The Branches will be supported by the SARPA Secretariat and will have all the benefits of the current branches. Namibia has already established a branch
- Rens to prepare a presentation of the Smart metering data security protocol and present at the next meeting
- Rens to send out NRS 080 “Standard on the calculation of losses” which is currently under revision by the NRS work group. Francis, Lenny and Samuel should give regular feedback on their pilot sites to Rens, so that he can inform the NRS working group.
- Most of the WG utility partners have had reduction in losses although very small.
- Tanesco shared with WG, their experience on NTL strategy in that they discovered ghost vending machines that are vending to customers at a huge revenue loss to Tanesco. They have then decided to change SGC and this is still an on-going process. Tanesco has focus group on this matter.

12. Next meeting

In Cape Town during the Utility week in May 2013

13. Closure

The Convener thanked everyone for their participation and closed the meeting