SUMMARY OF SARPA 2019 CONVENTION

WELCOME BY THE PRESIDENT – GREG STOPFORD

WELCOME FROM HOST CITY – MICHAEL RHODE (BITOU MUNICIPALITY)

KEY NOTE ADDRESS – BRIAN SECHOTLHO (NERSA)

- Presented a historical review of the prepaid meter and explained the different phases
- Highlighted the current revenue loss picture with Eskom at 9.7% and Non-technical losses relating to R 1.7 billion
- Pointed out that the NERSA Benchmark is 12 %
- Currently Municipalities average losses is 18.5%
- Breakdown is - 125 Municipalities above average and of that 11 M are above 40 % and 5 are above 50%
- Controls have been set in place to enhance resources for revenue protection, critical skills development and checking of meters
- Cost of supply studies are being done, but this effort is not sustainable at this stage
- Customers getting smarter – right staff / technology
- Guidelines have been provided on how to identify losses on a monthly basis
- The following processes are been targeted - Data base integrity, infrastructure development and maintenance, smart metering systems, engagement with communities' report systems, long time planning, investment relationships, improving systems and people skills
- Need to be sustainable in electricity service provision
- Municipalities must not just increase rates as losses go up, but must rather manage the system more effectively in order to bring the losses down

DEPUTY EXECUTIVE MAYOR– Welcomed everyone in Bitou

JEMAINE CUPIDO (BITOU MUNICIPALITY)

- Presented a Case Study on how to convert knowledge into practice in Bitou Municipality
- Highlighted the challenges the Municipality faced when they realized their losses was 13.16% (R 13 million)
- Called the reaction to this as a "Chaotic approach"
- Approached SARPA for revenue protection training
- Identified the need for a specialized revenue protection team
- Identified they needed to do separate planning in order to deal with revenue loss challenges
- Standing Operational Procedures developed on Meter Management
- Manage to identify and prevent bypasses on meters
- Steps taken to remove illegal connections and issue penalties

- These actions not only created dangers for the community but also losses to the Municipality
- Sweeping audits were carried out and meters were found meters that was not registered
- They replaced all proprietary meters to split meters
- Found internal staff involved and this was addressed
- They decided to form a Task Team formed and training is planned to provide more skills
- Further actions planned is: - AMI systems, reports on LPU installations, AMR, establishing a hotline and identifying rogue meters.

Mr QUENTIN LOUW (NTAMO TECHNOLOGIES)

- Explained that electricity theft is the largest contributor to non-technical losses (NTL)
- Highlighted the comparison between South Africa and global trends where NTL is approx. $80 – 100bn per year
- Out of 20TWh altogether produced annually 1.4TWh is lost due to NTL
- Highlighted losses in Africa (Nigeria only 25% payment) and Botswana (BEC) best at 10%
- Losses in in 2009 was 15% and in 2018 it was 9.15%
- World bank identified in 2016 that only 19 of 39 countries electricity income was above operating costs
- Worldwide 88% access to electricity but in Sub Saharan Africa only 1 out of 3 people have electricity
- Global trends are to counter environmental impact and impact of Non-Technical Losses (1886 first elect theft identified)
- Most losses come from electricity theft in the business environment and issues like "non-payment culture" and "free electricity" leads to more losses
- Contributing factors are also corrupt officials, electricity theft syndicates, poor service delivery and inefficient enforcement of legislation causes losses
- The challenge is to sustain revenue streams

DOUGH BASHFORD (ESKOM)

- Highlighted how to mitigate meter tampering practices
- Explained that a culture shift should be done and pointed out the importance a metering device
- Highlighted issues like the billed vs. the unbilled losses, how much we are losing and revenue assurance concept
- Explained that Eskom has 6 million prepaid meters
- Industry losses approx. R16 – R20 billion per annum
- Difference billed vs non billed
- Explained the fundamentals of Revenue Recovery processes
- Highlighted the mitigating factors
- Discussed issues like seals, multiple accounts and tampering
- Showed different examples of types of tampers
- Discussed recent Syndicate activity
- Highlighted criminal prosecution processes, evidence gathering best practises and other challenges

HANNES ROOS (COMBINED PRIVATE INVESTIGATIONS)

- Gave an overview of infrastructure theft and damages and highlighted the impact, modus operandi and legal framework
- Gave a criminal evaluation of infrastructure theft and damage
- Gave an overview of the company and the most effective court proceedings
- Explained the nature of infrastructure crime in South Africa
- Highlighted the new Criminal Matters Amendment Act (CMA) and how it is used to counter essential infrastructure crimes
- Highlighted the challenges relating to the scrap metal market
- Explained about successes and best practices

LEON VERMAAK (UTILITY MANAGEMENT SERVICES)

- Highlighted the link between outstanding debt and metering infrastructure
- Explained the concept of pre-billing and post billing
- Showed examples of bad infrastructure - water and electricity - shocking state – water biggest problems
- Highlighted the causes namely bad maintenance, budget constraints and metering issues and meter reading inefficiencies
- Showed examples of restored infrastructure
- Highlighted credit control and collection best practices – use of technology
- Explained why it is difficult to take action due to state of installation
- Presented some solutions to all the challenges

NOKUTHULA MAGWAZA (STS ASSOCIATION)

- Explained the Unique Token Identifier and the challenge of the TID roll-over event in 2024
- Explained limited range of STS prepaid meters as 31.9 years
- On 24 November 2024 the TID will reset and clear the meters memory
- Utilities need to upgrade to clear the memory and upgrade the cryptographic strength to 160 bit
- Key Management system also need to be upgraded to STS600-4-2
- Risk of some meters not accepting this process (STA offer to test meters to determine how they will react to this process)
- Utilities do not have to replace the meters but only need to enter two tokens
- Helpline TID@STS.org.za initiated to answer any issues

PANEL DISCUSSION

- Panel discussion held regarding the new threat of Rogue meters in the electricity distribution industry. Challenges, best practices and the way forward was discussed. An update on this matter will be posted on the SARPA webpage in the future a sensitization process will follow once all the challenges have been addressed.

FRANCLYN SAMUEL (BITOU MUNICIPALITY)

- Overview of water Losses in Bitou Municipality
- Overview of water services and desalination plant
- Explained the "non-revenue water concept"
- Water losses real/apparent – minimum losses 5%
- Real water losses 28.5% (losses coming down)
- 1971 –Water restrictions biggest problem
- 50 000 people in town and bursting pipes biggest problem
- Explained the Policy and planning structures and further studies – building a new dam
- Highlighted their operational focus and drive to reduce real water losses
- Retrofitting bulk meters and introduction of smart meters explained
- The Strategic Focus is to review policy and planning processes
- Alternative water – Resilience studies done
- Also busy checking data bases vs properties

MARTIN KUHLMAN (SIEMENS)

- Security of revenue - multi type & Multi-vendor compatibility principle explained
- Highlighted the difference between the Revenue protection and the Revenue Security concepts
- Explained the introduction of Smart metering and the expected impact on losses
- Eskom overall debt R21 billon / Munics R 144 billion
- Transform how to collect monies
- Explained AT&C concept
- Stressed the importance of Revenue Protection
- Asked why there is not more focus on water losses?
- "Water and electricity don't mix" causes issues
- Highlighted need to integrate water and electricity Departments
- Need to Share systems between different Service Depts.
- Meter Data Management System explained

CLIFFORD NTSHUDISANE (PCMA)

- Overview of Smart grid AMI enhancement project in Thabazimbi - collection increase to 90%
- Revenue Enhancement / full vendor financed project
- Empowering customers very important
- Smart meter App – activating alerts and updating system
- Loss analysis – addressing offenders issue
- Explained need for effective rapid response
- End to end turn-key solutions very important
- Enforcement unit sends alerts re abnormalities
- Overview of other projects in Jerusalem 65% losses brought down to 8%
- Resistance troublesome – explained need for pre-project Community Education Program
- Stressed need for service model approach – partnership and sharing of knowledge

HAROLD HAYES (LANDYS&GYR)

- Smart metering pilot project in Lesotho
- Explained the challenges of such a system and difference between electricity and water
- Basic requirements key elements relating meter role out
- Data Concentrator installation explained
  Highlighted the inspection processes, reticulation and metering types of installations
- Highlighted the need for pre-audits
- Roll out at meters first in post-paid mode and later converted to pre-paid
- Emphasized the need to do data analysis on post-paid mode to profile customer

PREETI VAISH (WEBILL)

- Cloud based data operations management
- Highlighted key challenges (external and internal)
- Explained what a data operation management strategy is
- Important to know "what data" and how long do you want to store it?
- Need for data architecture to fit the time span
- Explained where to focus our attention
- Emphasized that there is a need to identify and focus
- Highlighted that there should be a win / win approach
- Case studies of solutions shown

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