NETWORK EQUIPMENT CRIME THE ESKOM EXPERIENCE Presentation to SARPA Convention 2013

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STATING THE PROBLEM

When looking at Network Equipment Crime, one tend to see it in terms of financial loss to the organisation. One tend to forget other implications. Eskom places a very high premium on human life. We do not tolerate injuries and even worse, fatalities on plant.

The next slide demonstrates the danger of tampering with high voltage equipment. This poor guy probably tried to steal a piece of copper to support his family, or even worse was employed by a crime syndicate to steal and paid with his life whist the fat cats responsible walked away only to employ another victim.



STATISTIC???





ESKOM INCIDENTS / LOSSES 2002 T0 2012

During 2002 Eskom experienced losses of close to a R100 million as a result of 2500 incidents of Network Equipment Crime.

As a result of implementing certain strategies internally by the Eskom Network Equipment Crime Committee (ENECC) and externally by the Non Ferrous Metal Crime Combating Committee (NFMCCC), losses were reduced to an average of an average of R30 million and incidents to an average of 1500 over recent years.



CRIME TREND – 2011/12 to 2012/13 FINANCIAL YEARS

Eskom Total

A comparison of the conductor theft statistics from April 2011 to March 2012 and April 2012 to March 2013 indicates the following:

- A decrease of **24%** on the number of incidents reported (from 2140 to **1617**);
- 12% decrease in the value of material stolen (from R24 078 396 to R21 295 305)

Note: Implementation of the new Second Hand Goods Act on 30 April 2012, followed by aggressive policing of the scrap industry by law enforcement agencies supported by industry role-players, had a huge impact on the trading in stolen material. This directly contributed to the decrease in incidents and losses recorded during the past financial year.

However, indications are that organised crime syndicates are reorganising and are still very active. The decrease in incidents and losses are as a result of "bread and butter" thieves reverting to other crimes.



CRIME TREND – 2011/12 to 2012/13 ORGANISED CRIME

To demonstrate the impact of organised crime syndicate activity on the Eskom network, note the following example experienced by KZN province between 1 June and 2 August 2012:

- 20 theft incidents were perpetrated on overhead lines between New Castle and Hibberdene;
- a total of 20 860 meters of overhead copper cable (± 20 tons) was stolen;
- Replacement costs R1 847 130;
- 97 647 customers were affected;
- Total down time experienced by customers: 230 593 hours.



TARGET



395 419 KM overhead lines





OVERHEAD CONDUCTOR







UNDERGROUND CABLE



11 018 KM underground cable





THEFT FROM PYLONS





THEFT FROM PYLONS



Losses suffered as a result of one line that collapses as a result of theft of steal lattices could amount to more than what Eskom lose as a result of conductor theft in a year.



TRANSFORMER THEFT



351 297 installed transformers targeted for its copper content



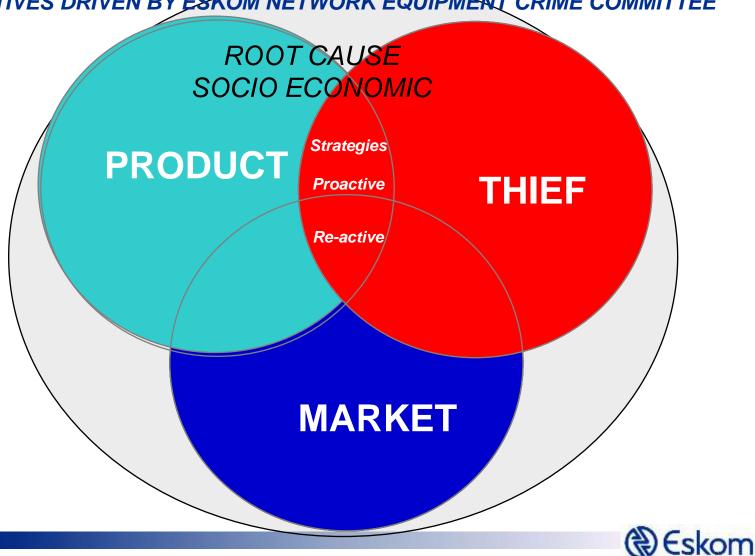


ESKOM'S NETWORK EQUIPMENT CRIME STRATEGY



MAIN FOCUS AREAS

INITIATIVES DRIVEN BY ESKOM NETWORK EQUIPMENT CRIME COMMITTEE



MODUS OPERANDI

Product

- ➤ Identifiable (unique) if possible
- Marking of material (visible)
- Physical security in "hotspots"
- ➤ Internal control stores, construction projects, contractors etc
- ➤ Technical solutions (alarm systems networks & sites. Alternative material)



MODUS OPERANDI

Market

- Identify the market (research)
 - Re-use? Contractors? Illegal projects?
 - Scrap Market?
 - Export market? To which Country? Export agents & transporters?
- Policing
 - Remove legal scrap from market (national contract)
 - Awareness: press & posters market & public (toll free number)
 - Monitor & police

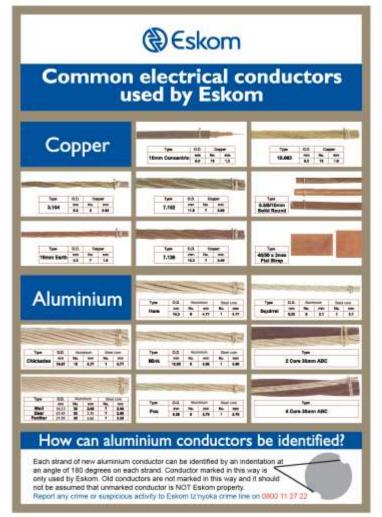


AWARENESS MATERIAL

Widely distributed to the scrap industry and community in general.

Each known scrap dealer in the country is in possession of the poster below,

with Eskom's crime hotline to any suspicious material presented for sale.





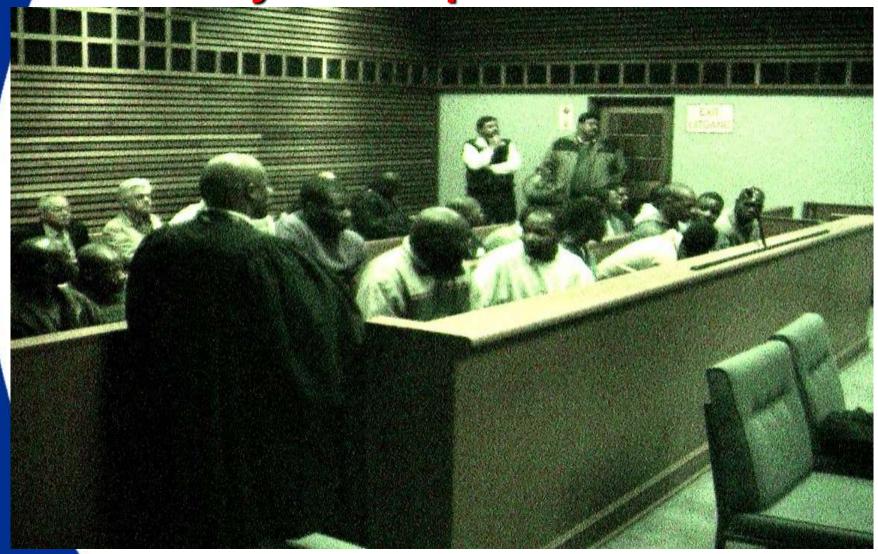
MODUS OPERANDI

Thief

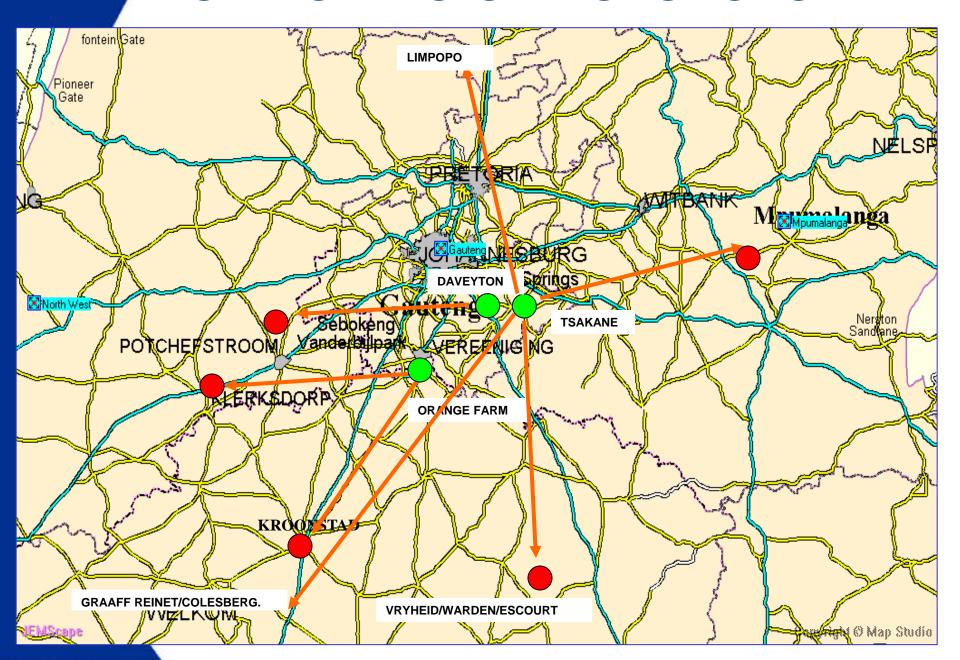
- Organised syndicates vs "bread & butter" thieves.
- Organised syndicates Reactive strategy
 - Intelligence driven operations (identify, infiltrate, investigate, apprehend)
- "Bread & butter" thieves Proactive strategy
 - Prevention dominate area by patrols (Security companies, SA Police Services)
 - Market Influence
 - Public participation information (advertise, toll free number & rewards)



24 SYNDCATE MEMBERS ON TRIAL 420 years imprisonment



MONITORING OF HOTSPOTS



EXPORT MARKET

Container confiscated in Durban harbour. Eskom Transnet and Telkom material

clearly visible. Exporter was convicted and sentenced.



AWARENESS

Eskom's anti crime t-shirts and caps distributed to informal traders and scrap dealer employees.









INDUSTRY COOPERATION

NFMCCC & SACCI

National Committee & Regional Committees **Targets**Support

Eskom

Telkom

Transnet

Mine Groups

Manufacturing Industry

Recycling industry

Metros/Municipalities

SAPS

NPA

DTI

o Customs & Excise

BAC

SARS



SADC PICTURE

SAPP HARARE CONFERENCE on Equipment Theft 19 June 07 – Theft and Prevention Work Group formed:

RSA Malawi

Lesotho Mozambique

Swaziland Tanzania

Botswana

Namibia

Zambia

Zimbabwe

Angola

DRC



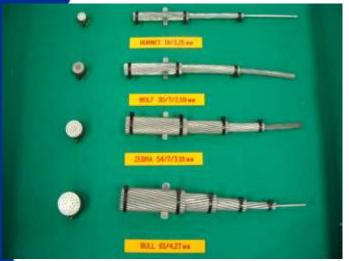
Technology solutions



ALUMINIUM CONDUCTOR IDENTIFICATION MARK

DSC05765









This is aluminium conductor. Below is the unique marking found on Eskom aluminium conductor – to the naked eye it simply looks as if the conductor is scratched.

DSC05742

identifier



unique

CABLE MARKING SOLUTIONS







DSC01414

This diagram depicts 4-core copper cable. This cable varies in diameter from 1.5mm up to as much as 400mm. This is an insulated cable – covered with a PVC coating – and can be re-enforced with armour wiring, composed of either steel wire or aluminium wire, to make it stronger. There are four strands / cores, individually insulated, within the outer sheath.



STEEL PYLONS

Personnel replacing normal bolts on pylons with anti-theft bolts.

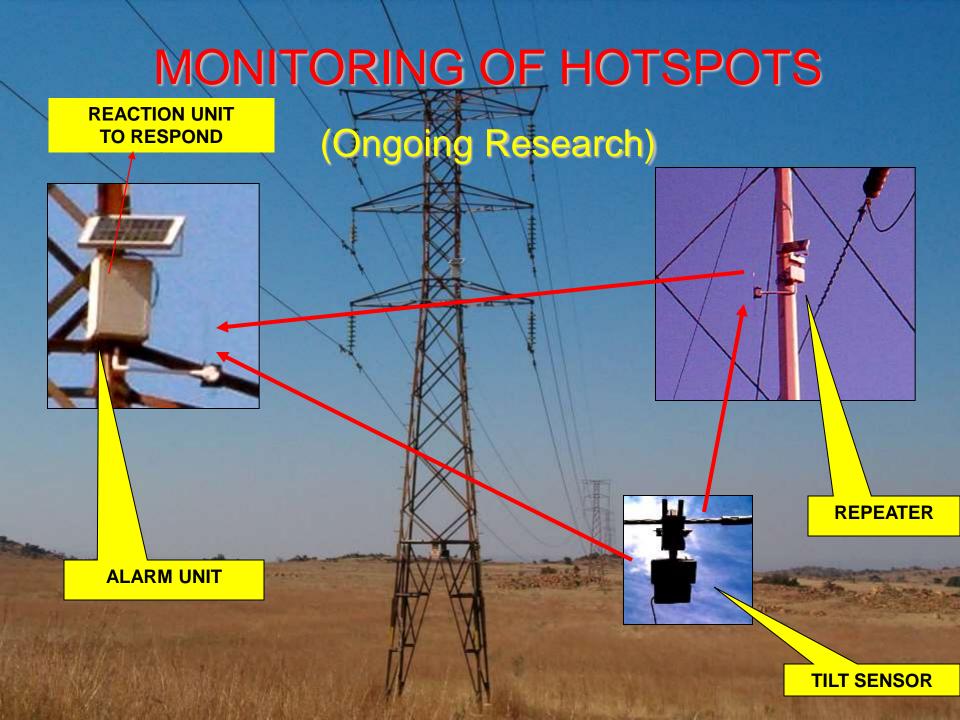




STEEL PYLONS

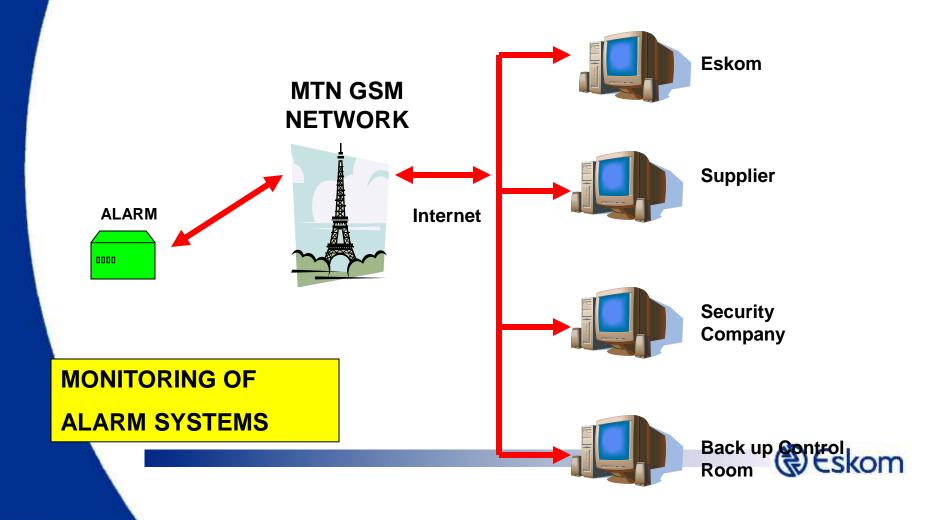
Marking of installed support lattices on frequently targeted lines.





MONITORING OF HOTSPOTS

GPRS is real data "Live all the Time" data across the GSM data network





CONCLUSION

Theft of network equipment is a reality in Africa and much more than subsistence thieving. The focus should be to continuously address all aspects of the phenomenon aggressively and keep updating the implemented pro-active and reactive measures through strategic thinking. It is essential that all possible expertise be utilized to prevent a serious negative impact on the economy at large as well as on essential services to the public of South Africa.



THANK YOU

