



CITY OF CAPE TOWN  
ISIXEKO SASEKAPA  
STAD KAAPSTAD

## REVENUE PROTECTION INITIATIVES

Electricity, Revenue Protection, 2014-11-13

Making progress possible. **Together.**

# Alarm Bells !!!!

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- At a recent management meeting an announcement was made that CoCT experience
  - % Losses = 10.6 %

Let's not forget that the Total Losses are made up of Technical Losses and Non Technical Losses

- **Technical losses are possible to compute and control.**
- **Non-technical losses are due to human manipulation or errors and are therefore external to the power systems**

Technical Losses 6.5 % –

Transformer losses and PLC losses

Non Technical Losses 4.1% –

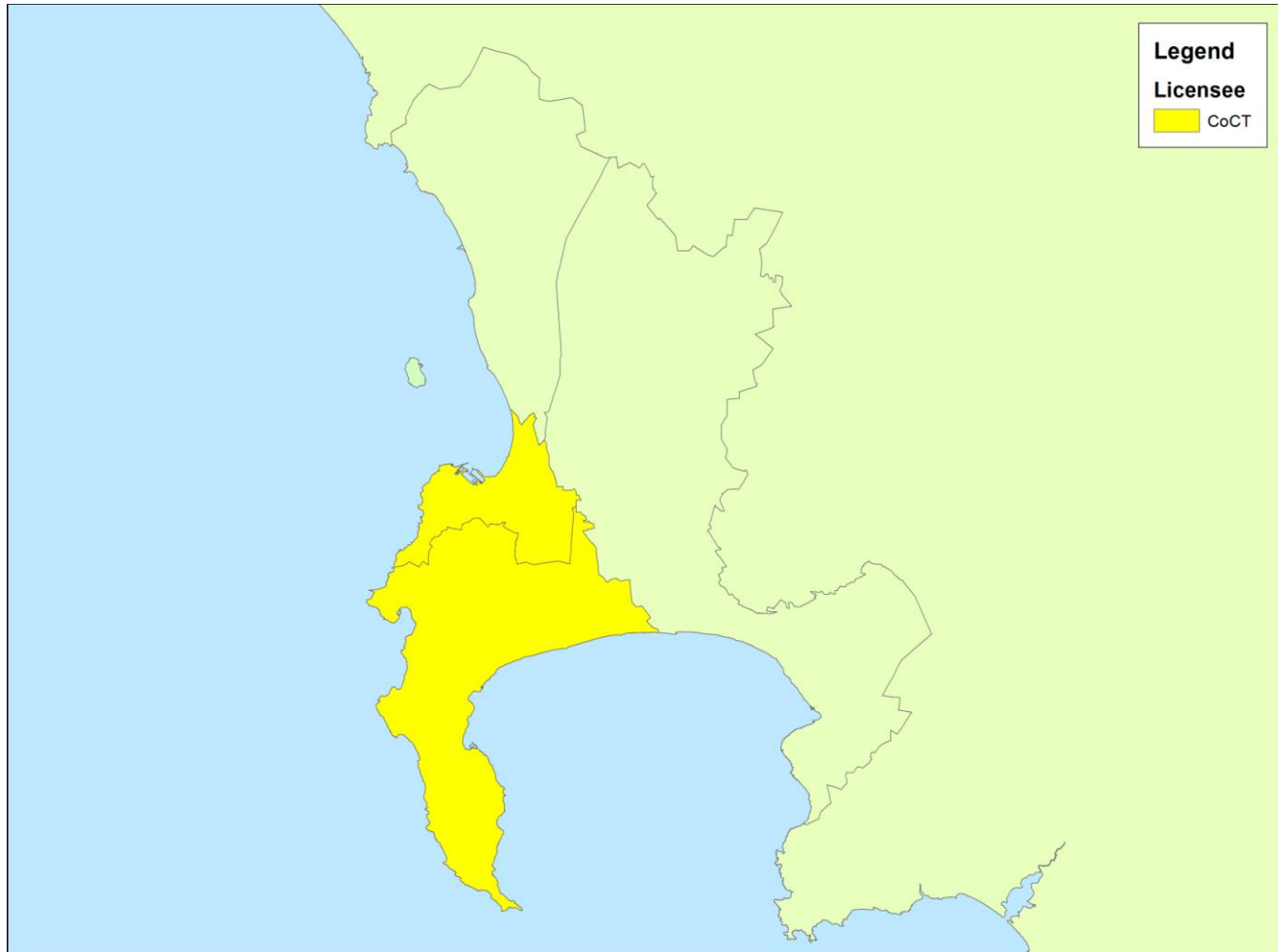
Unmetered supplies  
Theft due to tampering  
Defective metering  
Bad billing and Data

# Reality

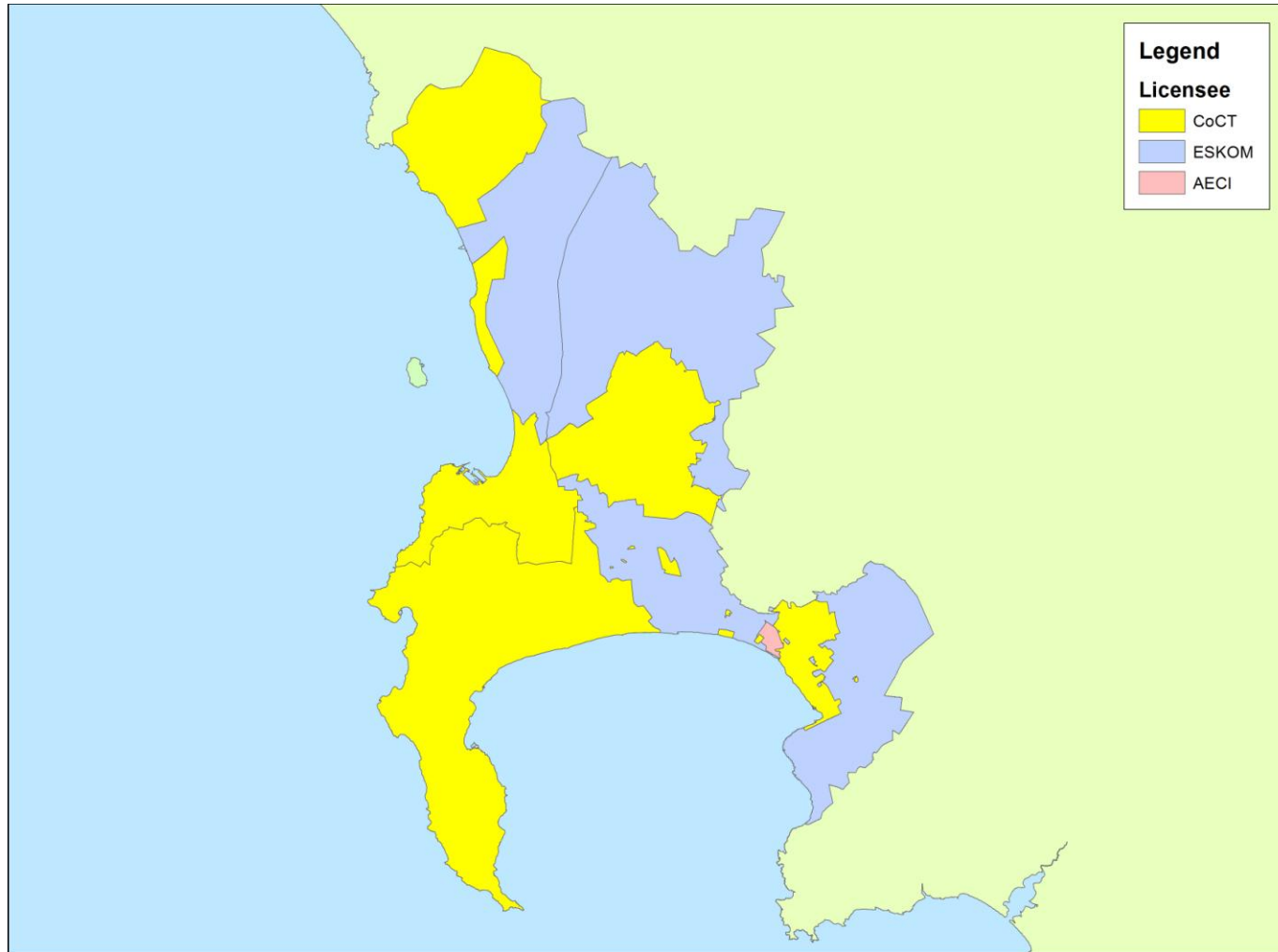
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- Socio economic problem
  - CT high influx
  - Unemployment rate 23.5%
  - Influx in informal area (large proportion of tampering)
  - 400 informal areas in CT
- Increasing price of electricity
- Getting worse
- National and International benchmarks ito losses
  - National losses - Non Technical
    - = **8%** = **R 6.1bn/y (World Bank)**
  - International losses
    - = **3 to 55%** = **US\$ 200bn/y (World Bank)**
- NERSA regards 10% losses as acceptable!
- Not condoning losses always strive to improve situation
- Knock on effect for those paying

# Past geographical area served by former compliment

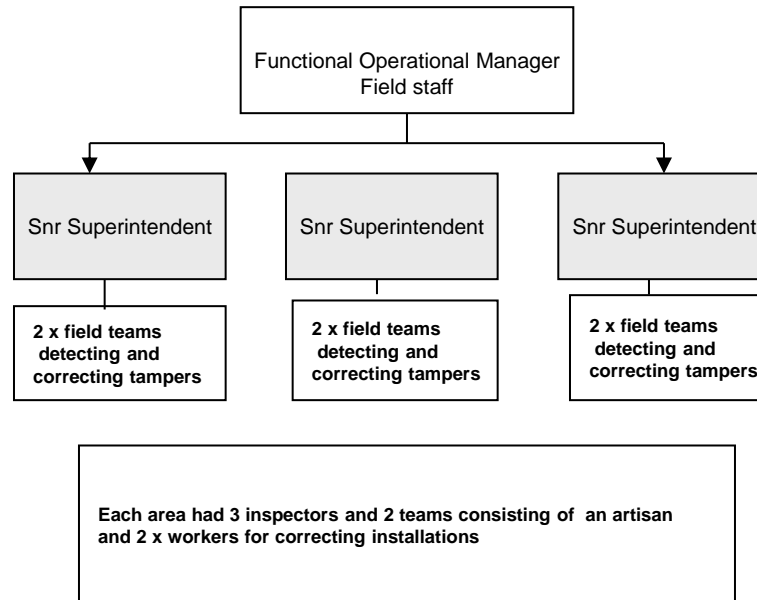


# Current geographical area served by this compliment



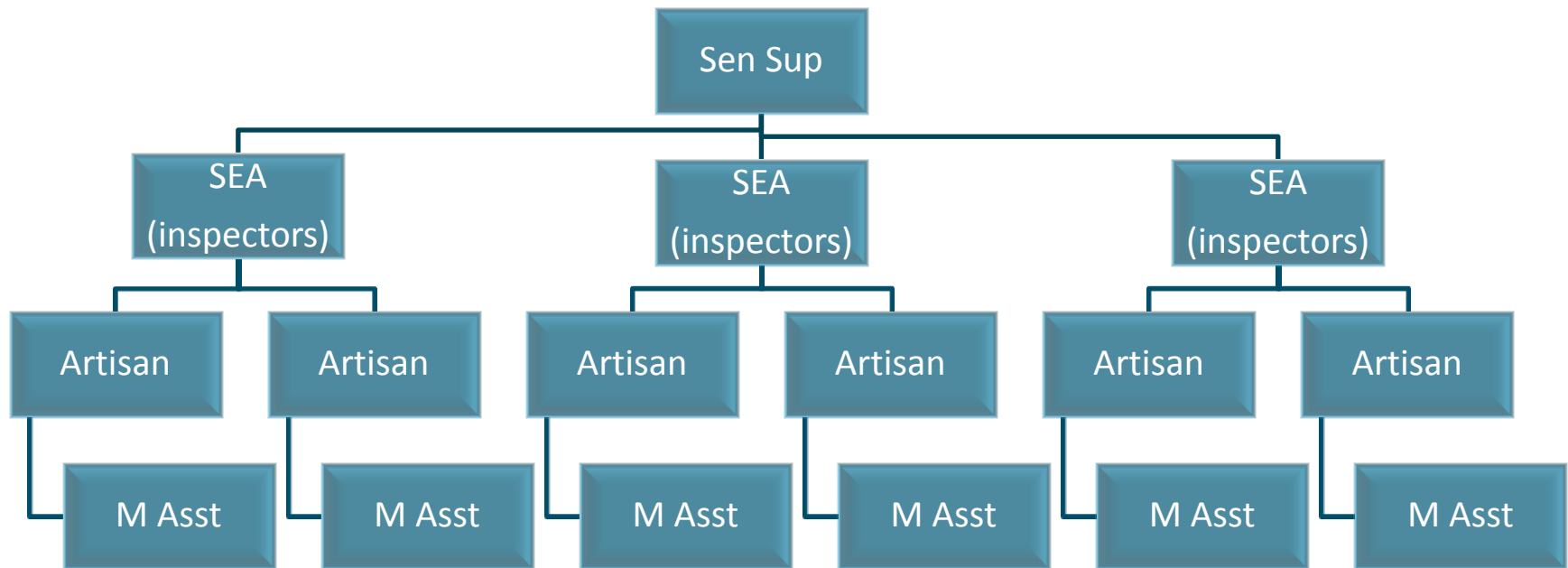
# Past Structure

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# New Structure per Area (ie this structure x3)

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# Better use of staff resources

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- Previous organisation
  - 6 Teams each consisting of 1x Artisan and 2 Workers
  - Past modus operandi visits to premises by Inspector then team for rectification
  
- New organisational structure and methodology
  - Teams consisting of 1x Artisan and 1 x Maint Asst
  - 6 teams per area under control of 3x Spc Eng Art's (Inspectors) reporting to Snr Supt
  - One Stop shop (eliminate multiple visits)
  - Team visits, inspects, and corrects installation
  - Surprise of single visit
  - Provision for Floating Maint Asst to assist with Pole box jobs
  - Contravention Notices posted

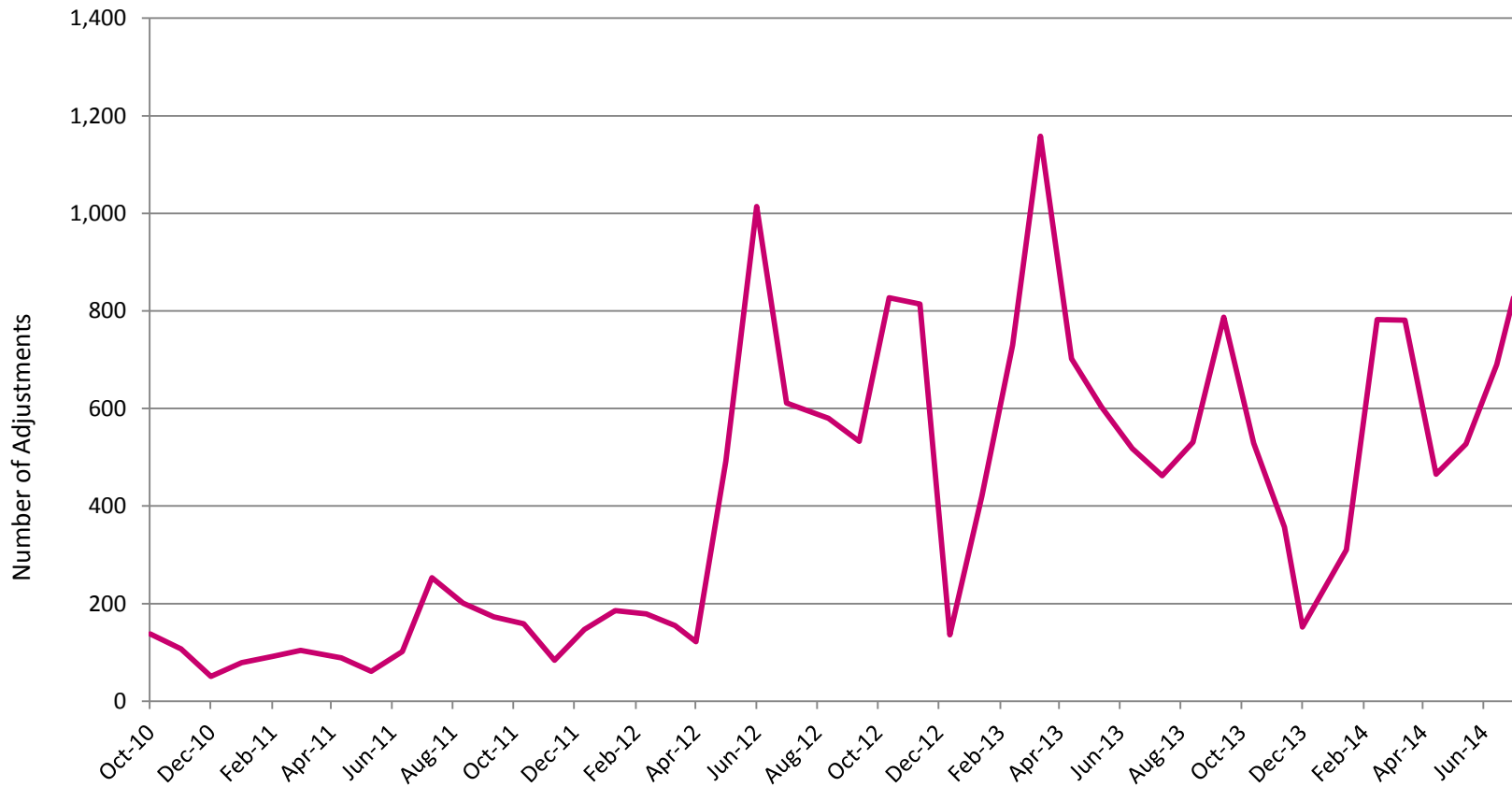


# Notification Stats

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- There has been an increase in the number of outstanding notifications
  - 2013 - 7200
  - 2014 outstanding 12700 notifications
- Trend going up
- With increased staff complement the prediction is that it will take about 5yrs to eliminate backlog

# Adjustment Stats



# Adjustment Stats

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- See-Saw effect
- New adjustment software implemented May 2012
- Average before May 2012 - 115 cases /month
- Average since May 2012 - 609 cases /month
- Average **monthly** income from Adjustments prior to May 2012 - R650k
- Average **monthly** income from Adjustments since to May 2012 – R2.7 million
- R5.6 mil in Contravention notices (current rolling year)

# Stats

- 50% of the 8000 visits pa result in action
  - Contravention notice
  - Adjustment
  - Back on the radar
- Breakdown of cases( Dom & SPU only)

	<u>Tampering</u>	<u>Defective</u>	<u>Cable Fault</u>	<u>By-passed</u>	<u>Unmetered supply</u>	<u>Missing meter</u>	<u>No Further action required</u>
	18%	25%	11%	10%	1%	1%	34%
Avg / Adjustment	R 8,489.06	R 14,008.71	R 2,166.94	R 8,362.02	R 1,538.99	R 3,541.94	

# Observations

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- Clear that there is an awareness of Rev Prot
- Auxiliary charges 60% previously 20-30%
- AMI
- Pareto or “ABC” Law. A small number of large consumers represent large % of revenue
- High hit rate 50% (vs sweeps = 5% hit rate)
- Success in Split Mtr installation era
- Identified shortfalls on Mtr accommodation, Kiosks and Pole boxes
- Erf vs Account match 24/600 in Kalksteenfontein

# Observations

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- Energy balancing Project (Appropriate level, ppm 10% out, Smart mtrs)
- Faulty Mtr costs the City more than a Tampered Mtr
- Adjustment 3yrs for Defective Unlimited iro Tamper
- Unmetered Erven (overlay rates and services where El Mtrs are on map)
- Summation graph of VT connected customers with CT ratio >500
- CT metered installation
  - 60 SPU CT metered adjustments p.a.
  - 87 faulty LPU sites in the last year
  - Tampers vs defective (undetected tampers)
- Value vs applied resources
  - LPU adjustment R41 million last year
  - SPU and Domestic R38 million last year

## **Extract from :-** Background Paper for the World Bank Group Energy Sector Strategy

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“In all successful cases, a large share of non-technical losses was concentrated in users able to pay for cost-reflective tariffs. Thus, non-technical losses can be reduced with little loss of welfare, while their continuation jeopardizes the financial sustainability of the power sector and harms well-behaving-electricity consumers, taxpayers, socially disadvantaged segments, and the country as a whole. Elimination of those losses (with the exception unmetered consumption explicitly and transparently defined in the regulatory framework) should be a matter of **high national priority for every country.**”



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**Thank You**

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