



Emnambithi/Ladysmith Municipality – Meter Sweep

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Context

- Emnambithi/Ladysmith Municipality
- Sixth biggest municipal distributor in KZN
- Electricity covers Ladysmith, Steadville and Colenso
- 14 061 customers
- R 87m (2007/2008) turnover from electricity sales

Customer Classification

Customer Category	Qty	%	Energy/kWh	%	Income
Temporary Supply	22	0.2%	162,627	0.1%	R 2,051,728
Residential - Credit	6084	90.9%	68,163,504	39.2%	R 25,848,392
Prepaid - Indigent	2500		4,500,000		R 1,339,000
Prepaid - Domestic	4200		17,136,000		R 7,651,224
Commercial	1142	8.3%	30,903,403	13.8%	R 17,159,545
Prepaid - Commercial	30		720,000		R 388,800
Industrial - LT	52	0.6%	16,603,623	47.0%	R 7,181,453
Industrial - HT	31		91,083,534		R 25,173,868
TOTAL	14061		229,272,691		R 86,794,011

Loss Calculations

Category	kWh	Percent
Electricity Purchased	268,215,312	100%
Electricity Sales	228,272,691	85%
Losses	38,942,621	15%
Technical (Assumed)	14,095,199	6%
Theft	22,849,703	9%
Cost at R 0.1866	R 4,263,755	
Income Lost at R 0.44	R 10,053,869	

2007/2008

Distribution of Losses

Total Theft	22,849,703			
Customer Category	Sales	Loss Distribution	Loss Amount	Percent
Temporary	162,627	0%	0	0%
Residential - Credit	68,163,504	25%	5,712,426	8%
Commercial	30,903,403	25%	5,712,426	18%
Prepaid	22,356,000	50%	11,424,852	51%
Industrial	107,687,157	0%	0	0%
Total	229,272,691	100%	22,849,703	10%

Meter Sweep - Aim

- Minimize Losses
- Achieve Targeted 10% Saving
- Allow for Growth
- Ease Network Burden
- Data Verification –
 - All meters are on database
 - Each meter has an electrical address

Meter Sweep – Out Source or In House

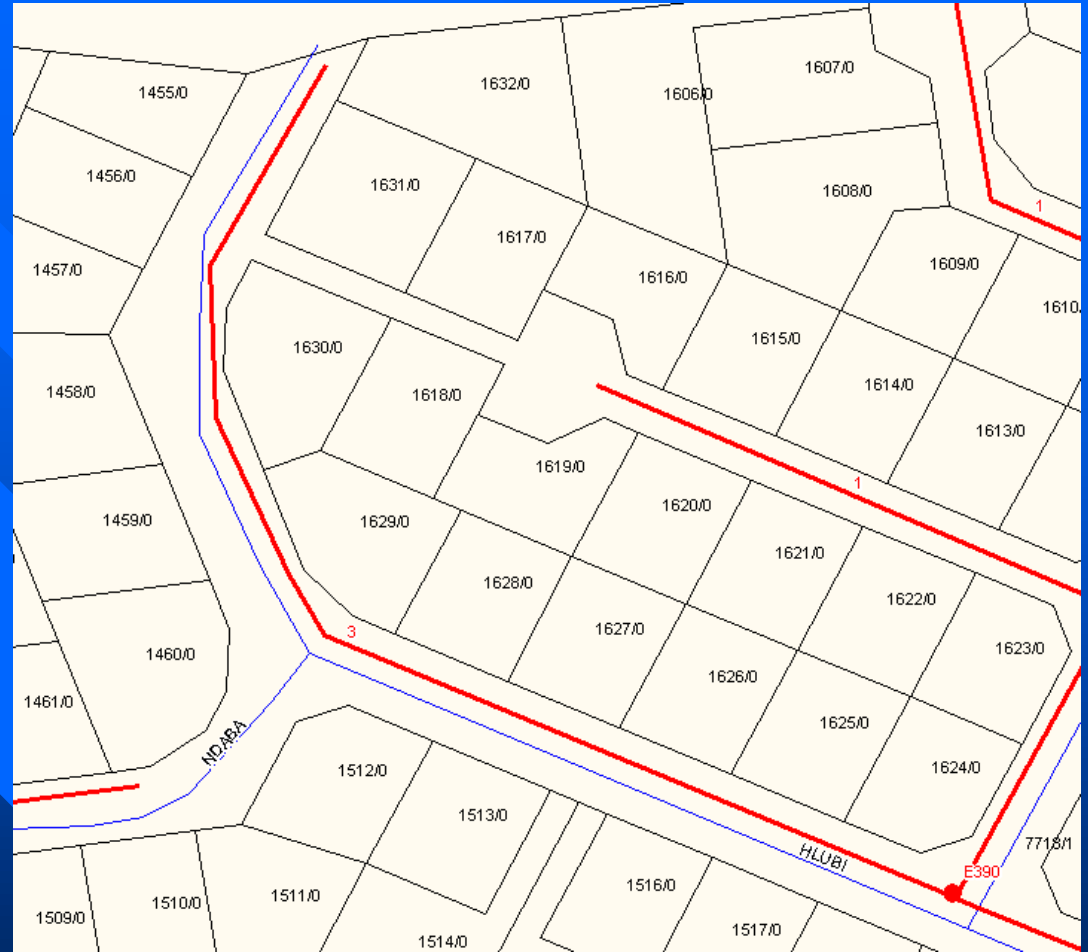
- Previous problems with external service providers
- Major resources are readily available – job creation
- Expertise are available
- In-House decided
- Outsource disconnections

Meter Sweep – Basic Process

- Erf Based
- Customer Awareness – Imperative
- Staff Integrity (Bribery)
 - Vacant Land
 - No Supply/Supply Removed
 - All Okay
 - Damaged/Faulty
 - No Inspection Sheet

Meter Sweep – Transformer Control

- Sweeping done by:
 - Transformer
 - LV Circuit



Meter Sweep – Data Capture

- Management System
- Controlled

Meter Sweep – No Access

- No Access is a problem
- Leave note
- After 14 days, soft disconnect.
- Still no response, hard disconnect.

Meter Sweep - Sealing

- All meters to be resealed.
- Total control. Each seal is logged when issued and used.
- Letter re Implications of Breaking a Seal

Meter Sweep – Job Cards

- Hard Disconnect – Tamper
- Meter Change (Damaged/Faulty)
- Revisit – Query
- Query – Meter Error
- Soft Disconnect – No Access
- Soft Disconnect – Refused Access
- Hard Disconnect – No response to Soft

Management System

- Internally Developed
- Control
- Reporting

Results – Inspection Status

Status	Initial Status		Current Status	
	Quantity	Percent	Quantity	Percent
Complete	2509	66.8%	2534	67.4%
Customer to Call	496	13.2%	28	0.7%
Hard Disconnect Done	0	0.0%	57	1.5%
Hard Disconnect Pending	205	5.5%	302	8.0%
Meter Change Pending	60	1.6%	59	1.6%
Query	333	8.9%	329	8.8%
Query - Meter Error	124	3.3%	124	3.3%
Revisit Pending	28	0.7%	28	0.7%
Soft Disconnect Pending	2	0.1%	296	7.9%
TOTAL	3757	100.0%	3757	100.0%

Results – Inspection By Meter Type

Status	Prepaid		Credit	
	Qty	%	Qty	%
Complete	954	74.01%	1026	97.99%
Hard Disconnect Done	49	3.80%	1	0.10%
Hard Disconnect Pending	112	8.69%	8	0.76%
Meter Change Pending	27	2.09%	2	0.19%
Query	130	10.09%	5	0.48%
Revisit Pending	16	1.24%	3	0.29%
Soft Disconnect Pending	1	0.08%	2	0.19%
TOTAL	1289	100.00%	1047	100.00%
Tamper	161	12.49%	9	0.86%
Potential Tamper	147	11.40%	10	0.96%
Total	308	23.89%	19	1.81%

Results – Transformer Status



Targeted Sweeps

- Transformer Zone Monitoring
- Loss by zone not by municipality
- Challenges to be explored

Challenges

- Supply Chain Management
- Resources
- Legal – Court Challenge – *Mandament van Spolie* (Spoliation Action)
- Forgetfulness

Conclusion

- Must sweep
- Must have Council Policy:
 - In Place
 - Supported
- Plan and manage properly:
- Seals
- Use effective management systems
- Talk about It

Thank YOU