

MAINTENANCE IN THE MUNICIPAL ELECTRICITY DISTRIBUTION INDUSTRY

Portfolio Committee on Energy

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Overview

- **Structure of the electricity distribution industry**
- **Available resources**
- **Principles of financing electricity infrastructure**
- **Financing electricity for non-poor customers**
- **Financing electricity for poor customers**
- **Proposals for the way forward**

Structure of the South African electricity distribution industry

- Municipalities supply more than half of all customers, but less than half of electricity sold (in GWh)
 - Eskom supplies many poor areas and industrial customers
 - Municipalities supply poor and non-poor customers, but less industry

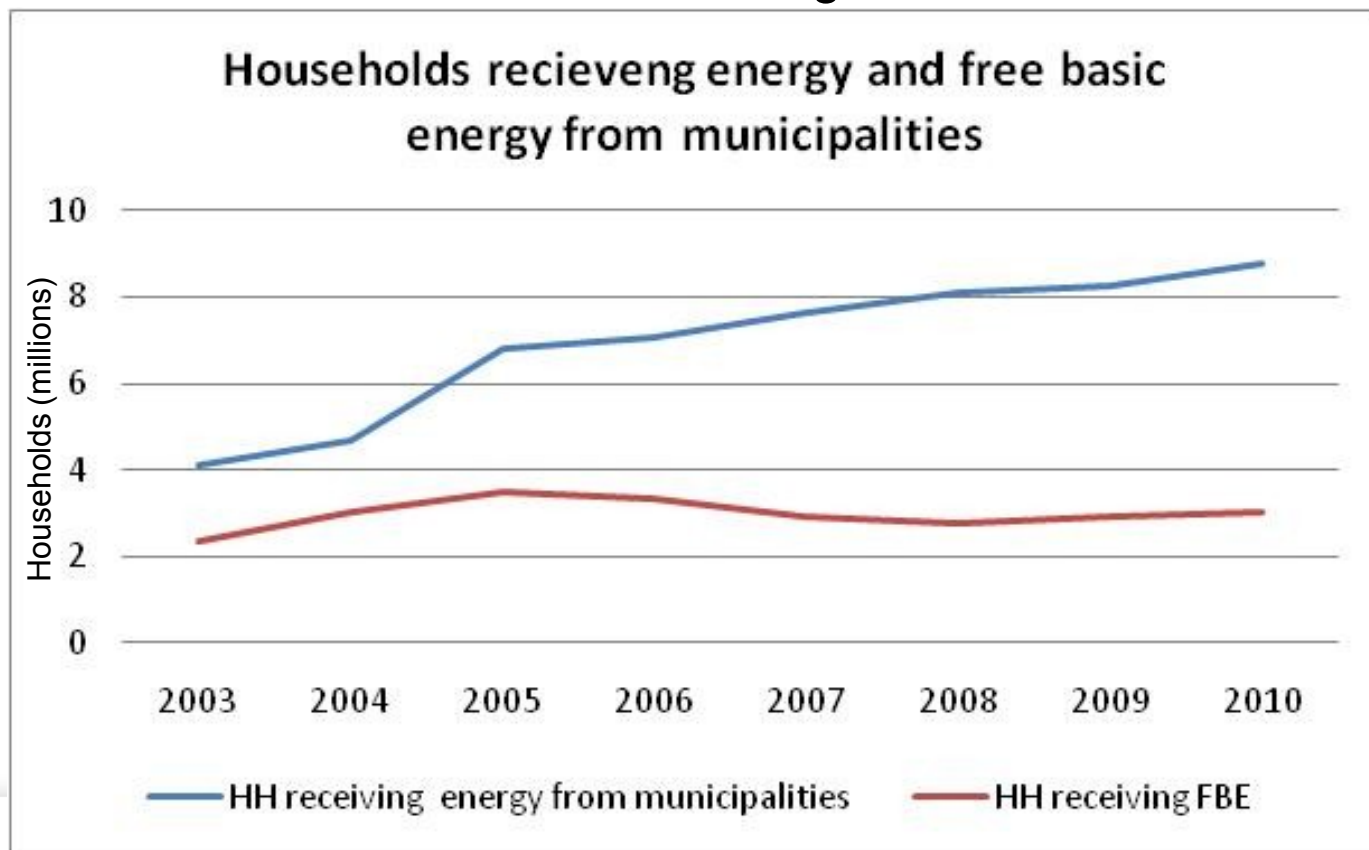
Electricity sales by category for Eskom and municipalities, 2006

Category	Average sales price (c/kWh)	Eskom		Municipalities and other		Total			
		No. of customers	GWh sales	No. of customers	GWh sales	No. of customers	% of total	GWh sales	% of total
Domestic	37.49	3 829 986	9 736	4 043 471	29 339	7 873 457	94.4%	39 075	20.3%
Agriculture	33.52	82 583	4 732	21 162	1 110	103 745	1.2%	5 842	3.0%
Mining	16.90	1 127	32 421	16	197	1 143	0.0%	32 618	16.9%
Manufacturing	20.71	2 955	52 251	30 504	23 305	33 459	0.4%	75 556	39.2%
Commercial	33.90	45 233	7 842	225 847	20 924	271 080	3.2%	28 766	14.9%
Transport	21.13	510	3 069	330	207	840	0.0%	3 276	1.7%
General	28.78	–	–	60 432	7 638	60 432	0.7%	7 638	4.0%
Total	25.60	3 962 394	110 051	4 381 762	82 720	8 344 156	100.0%	192 771	100.0%

Source: National Electricity Regulator of South Africa, Electricity supply statistics for South Africa, 2006

Dramatic growth in access to electricity (supplied by municipalities)

- Number of households supplied by municipalities more than doubled between 2003 and 2010
- Reduction in number of households receiving FBS is evidence of better targeting



The relative size of different municipal electricity operations

- 178 municipalities reported spending R38 billion on bulk purchases in 2010/11, but a small group of municipalities is responsible for the vast majority of municipal electricity distribution:
 - 6 municipalities accounted for 65% of all bulk purchases (spending over R1.5 billion each)
 - The 12 municipalities that each bought more than R500 million in electricity accounted for 76% of all bulk purchases
- The *2011 Local Government Budget And Expenditure Review* estimated that by 2012/13 electricity revenues would account for an average of 40% of municipal revenue in those municipalities licensed for electricity distribution

Is there enough funding available for electricity in municipalities?

2010/11 Operating Revenue and Expenditure for Electricity

R thousands	Adjusted Budget	Actual Expenditure	Total Expenditure as % of adjusted budget
Operating Revenue	63 255 547	62 014 468	98.0%
Billed Service charges	58 760 737	58 380 388	99.4%
Transfers and subsidies	2 182 731	1 434 851	65.7%
Other own revenue	2 312 079	2 199 229	95.1%
Operating Expenditure	54 981 960	53 028 646	96.4%
Employee related costs	3 950 127	3 867 399	97.9%
Bad and doubtful debt	1 800 469	1 290 117	71.7%
Bulk purchases	38 237 839	38 447 271	100.5%
Other expenditure	10 993 526	9 423 859	85.7%
Surplus/(Deficit)	8 273 587	8 985 822	
Capital transfers and other adjustments	(1 320 466)	(1 308 487)	99.1%
Revised Surplus/(Deficit)	6 953 121	7 677 335	110.4%

- In 2010/11 the electricity function generated a **R7.7 billion** surplus for municipalities (this is after accounting for R1.3 billion transferred to capital budgets)
- **There is plenty of funding available in the sector**
- The question is how its being used and how infrastructure is being managed

Principles for the financing of electricity

R&M

- Repairs, maintenance and refurbishment should be funded as part of the **operating cost** of an electricity distribution system
 - The operating costs of providing this service to non-poor households and businesses should be funded through service charges
 - The operating costs of providing free basic electricity (50kWh per month) should be funded by the national fiscus through the local government equitable share
- The capital costs of installing new infrastructure should be funded through service charges (financed via debt or development charges) for non-poor customers, and through the Integrated National Electrification Programme (INEP) for poor customers

FINANCING ELECTRICITY FOR NON-POOR CUSTOMERS: Service-charges

Financing infrastructure repairs and maintenance and capital costs

- NERSA, as part of its regulatory oversight role annually recommends the appropriate provision that municipalities should make for the provision of maintenance, refurbishment and recapitalization;
- Municipalities are therefore required to appropriately budget for maintenance and refurbishment costs as part of their overall budget process;
- There are two types of infrastructure, namely social and economic, where different funding approaches are/should be applied for repairs and maintenance
- With respect to economic infrastructure, such costs are funded through electricity tariffs whilst grants (equitable share) are used to fund social infrastructure;
- However most rural municipalities have a limited ability to optimise revenues from electricity tariffs and are highly reliant on grants from the fiscus to fund their operations;
- This is mainly due to their local circumstances such as high percentage of poor households versus non poor households, limited number of business customers etc;
- The opposite is true for large urban municipalities which also have access to borrowing to finance repairs and maintenance and capital costs.

NERSA's processes of determining municipal tariffs (distributors)

- NERSA calculates an appropriate electricity price increase on an annual basis;
- The price increase is communicated to municipal distributors as a guide to them in determining their annual electricity tariffs;
- However, municipalities are legally required (*ito* of Energy Regulation Act) to apply to NERSA for tariff increases before implementation
- In determining the price annual increase for NERSA consider the following structure to constitute the municipal tariff:
 - (i) Bulk purchases (Eskom approved price increase);
 - (ii) Bad debts;
 - (iii) Reasonable energy losses;
 - (iv) Salaries and wages (increased by CPI);
 - (v) Repairs and maintenance (increased by CPI),
 - (vi) Capital charges and other costs (increased by CPI)

Financing of repairs and maintenance cont.....

- NERSA may approve a tariff that is above the guideline to cater for issues such as (provided sufficient motivation has been provided) :
 - (i) Extensive repairs and maintenance programmes
 - (ii) Need for additional funds due to the need to fill in critical vacancies
 - (iii) Municipalities facing serious financial challenges and municipalities placed under administration
 - (iv) Capital expenditure programmes
 - (v) Any other special electricity related projects such as DSM initiatives
- Table below illustrates examples of municipalities that applied for above guideline tariffs during 2012/13 financial year for the purposes of repairs and maintenance of infrastructure

Municipality	<i>Municipal Proposed Percentage Increase for 2012/13</i>	<i>Motivation provided for above-guideline increase</i>	<i>Approved percentage increase by NERSA for 2012/13</i>
Ba-Phalaborwa	21%	Maintenance of electrical infrastructure	17%
Centlec (Kopanong, Mohokare and Naledi)	17.17%	Infrastructural upgrade	13%
Ditsobotla	16%	Upgrade of sub stations and operational expenditure	15%
Inxuba Yethemba	13.5%	Infrastructure refurbishment	13.5%
Kgetleng Rivier	12.15%	Infrastructural maintenance	12%
Rustenburg	12.15%	Infrastructural maintenance	12.5%
Umvoti	18%	Infrastructural development	18%
Mbizana	18%	Infrastructural maintenance	13.42%
Gamagara	23.83%	Infrastructural maintenance	14%

This provides another way to obtain funding for R&M

Enforcement by NERSA to ensure that the approved tariffs (above-guideline) are used correctly

- NERSA requires a municipality which is approved for an above-guideline tariff increase to ring-fence the additional funding and use it for the approved purpose (e.g. infrastructure maintenance);
- A municipality must provide a report on how the additional revenue was spent;
- If funds were not spent in accordance with what it was approved for, the increase will be clawed back in the following year.

Surcharges

- The Constitution gives municipalities the right to apply surcharges to municipal services, subject to national legislation
- The Municipal Fiscal Powers and Functions Act introduced a “base municipal tariff” concept that provides that all operating and input costs as well as “reasonable rate of return” be catered for within the municipal (base) tariff;
- A surcharge, which is then levied over and above base tariff, is deemed to be a general revenue source to fund other municipal revenues;
- Municipalities could opt to use a portion of their revenue derived from electricity surcharges towards addressing electricity repairs and maintenance;
- However it is not prudent for national government to impose restrictions on the use of surcharges as it is a general revenue source

Budget reporting requirements to support prioritisation of R&M

- In addition to changes to the budget reporting formats to make it easier to monitor budgeting on R&M, MFMA circular 55 requires that:
 - Where a municipality allocates less than 40 per cent of its Capital Budget to the renewal of existing assets it must provide a detailed explanation and assurance that the budgeted amount is adequate
 - Where the budgeted amounts for R&M is less than 8 per cent of the asset value of the municipality's Plant Property and Equipment they must provide a detailed explanation
 - In the case of a municipality that received an audit qualification related to its assets register, where the budgeted amounts for repairs and maintenance is less than 10 per cent of the municipality's operating expenditure, the municipality must provide a detailed explanation and assurance that the budgeted amount is adequate
 - All municipalities should provide information in their budget documents on how they are planning, managing and financing R&M and asset renewal, with particular reference to what they have done to assess their R&M backlog, and the strategy they have put in place to progressively deal with the backlog

FINANCING ELECTRICITY FOR POOR CUSTOMERS: Transfers from national government

Maintenance for Free Basic Electricity (FBE)

- Maintenance for poor households relying on FBE should be funded through the local government equitable share (LGES)
- Amounts available for electricity in the LGES:
 - A total of **R10.5 billion** is provided for electricity for 2013/14
 - This equates to an average subsidy of **R208 per month** for each poor household connected to electricity (in terms of Census 2001 data)
 - A further subsidy of R94 per month is provided for alternate services for poor households not connected to electricity (Census 2001)
 - This is considerably more than the cost of 50kWh of electricity (**R41 per month** at the upper limit of the block 2 guideline municipal tariff issued by NERSA)
 - Tariffs approved by NERSA already include a maintenance portion, so there should be ample funding within the electricity portion of the LGES to cover maintenance

Rolling out new connections

Integrated National Electrification Programme (INEP)

- Funded through two conditional grants
 - Direct grant implemented by municipalities
 - Indirect grant that is implemented by Eskom for areas where Eskom is the licensed distributor
- Over the 2012 MTEF R9.9 billion is available through these two grants

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
	Outcome			Revised estimate	Medium-term estimates		
R million							
Direct transfers							
Integrated national electrification programme (municipal)	589	900	1 033	1 097	1 151	1 315	1 488
Indirect transfers							
Integrated national electrification programme (Eskom)	1 241	1 616	1 720	1 738	1 879	1 983	2 099
Total	1 830	2 516	2 753	2 834	3 031	3 297	3 587

Integrated National Electrification Programme (INEP)

- Expenditure on the INEP grant to municipalities has fluctuated, but is generally at an acceptable level:

Spending on INEP (municipal) grant, 2005/06 to 2010/11

	05/06	06/07	07/08	08/09	09/10	10/11 (preliminary)
EC	97%	96%	100%	99%	97%	104%
FS	92%	100%	87%	98%	87%	84%
GT	98%	100%	106%	99%	97%	83%
KZN	96%	96%	97%	100%	92%	83%
LP	99%	100%	98%	93%	77%	62%
MP	84%	100%	100%	95%	94%	91%
NC	90%	98%	100%	100%	98%	64%
NW	80%	100%	84%	99%	73%	103%
WC	97%	100%	100%	99%	85%	104%
TOTAL	94%	98%	98%	98%	89%	88%

Conditions in the INEP (municipal) grant framework

- “Adhere to labour intensive construction methods in terms of the Expanded Public Works Programme (EPWP) guidelines for activities such as trenching, planting of poles, etc
- Register master plans for bulk infrastructure with INEP and abide by the directives of the department regarding the central planning and co-ordination for such bulk infrastructure. Use INEP funds for the refurbishment of critical infrastructure, only upon submission of a project plan which must be approved by the national department
- Utilise own funding if subsidy is insufficient – top-up funding must be available
- Minimum suite of supply of 1KVA, ADMD, 20 Amp per household and maximum of 16 KVA per clinic connection”

R&M on INEP-funded infrastructure

- INEP-funded infrastructure should be aimed at providing services to poor households
 - R&M for FBS amounts consumed should be funded from the LGES
 - R&M for amounts above FBS should be funded through tariffs
- In addition, the INEP grant framework allows for grant funds to be used for refurbishment if a refurbishment project is approved by the Department of Energy
 - Concern that INEP funds are being used for refurbishment that could have been avoided if R&M had been done and this is resulting in less funding being available to extend connections to eradicate backlogs (households without access suffer because of the failure to budget for R&M)

PROPOSALS FOR THE WAY FORWARD

Proposals for the way forward

- Improve regulatory clarity on the amounts provided for maintenance in the tariff for each municipality
- Monitor municipal budgeting for electricity maintenance using the new provisions in MFMA circular 55
- Department of Energy should monitor and enforce the implementation of NERSA approved tariffs and expenditure against budgeted maintenance
- Raise the profile and public understanding of the importance of R&M for electricity so that councilors and residents ensure their municipalities prioritise budgeting for R&M with the funds generated from the sale of electricity.