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Eskom RCA: Revenue Application NERSA Public Hearing



City Power Presentation
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Table of contents

1

Background to City Power Operations

2

Sales Forecasting & Rebasing of Sales Volumes

3

Comments on RCA Balance

4

Liquidation of RCA Balance

5

Summary and Conclusions



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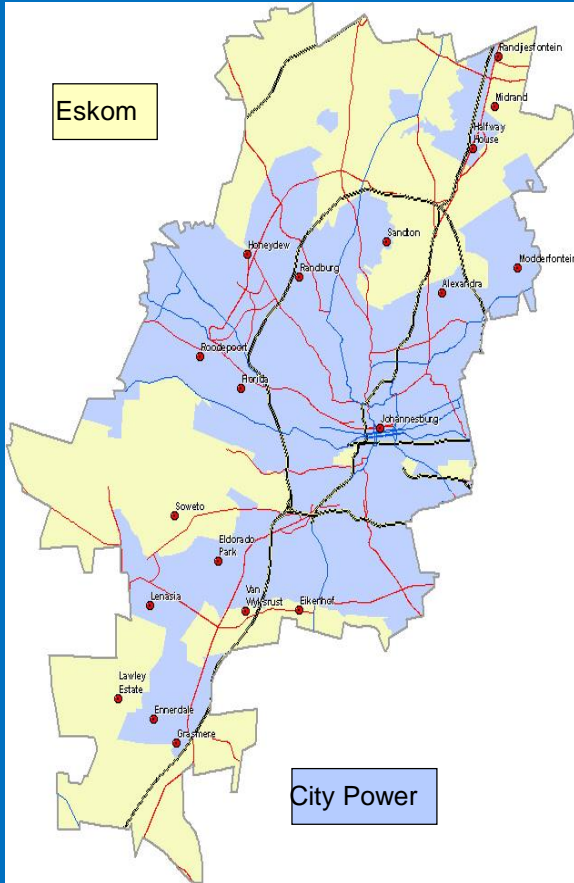
1

Background on City Power Operations

City Power at a Glance... June 2016



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MOE: City of Johannesburg is the single shareholder of City Power

Number of customers: Over **390,000** - LPU: **1%**,
Prepaid: **62%**, Conventional Business/Domestic: **37%**

Infrastructure: over **17 500km** of cable, over **18 000**
substations, and over **270 000** public lights ,

Estimated asset value : **R52bn**

Revenue: over **R14bn**

Employees: over **1,700**

Current peak demand is over **2800MW** which is **8-10%**
of national load

Capital investment: over **R11,8bn** invested in
infrastructure in the past 10 years

ISO: Only utility in Africa with **four ISO accreditations**
(9001, 14001, 18001 & 31000)

ISO 26000 **compliant** and currently implementing 16000

Head Office: National Key Point



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2

Sales Forecasting & Rebasing of Sales Volumes



Total sales forecasting vs variance in level of sales (GWh)

Forecasted Growth	2011	2012	2013	2014	2015	2016	2017	2018	AVE 7YRS
Forecasted Sales Volume GWh	228 266	233 400	237 932	227 404	229 513	235 638	239 112	244 026	
Forecasted Growth Rate		2,25%	1,94%	-4,42%	0,93%	2,67%	1,47%	2,06%	0,98%

Actual Growth	2011	2012	2013	2014	2015	2016	2017	2018	AVE 7YRS
Actual Sales GWh	224 446	224 785	216 561	217 903	216 274	214 467	214 121	213 981	
Actual Sales growth %		0,15%	-3,66%	0,62%	-0,75%	-0,84%	-0,16%	-0,07%	-0,67%

Volume Base Line GWh									
Variance in GWh	-3 820	-8 615	-21 371	-9 501	-13 239	-21 171	-24 991	-30 045	
Variance in GWh %	-1,67%	-3,69%	-8,98%	-4,18%	-5,77%	-8,98%	-10,45%	-12,31%	

- Sales Growth rate forecasting variance very minimal over longer term horizon,
- Likely baseline sales volume (237 932GWh) at the time of decision was however almost 10% higher than what it turned out to be when MYPD3 implementation started
- Effective and prudent cost management should have been responsive to consistently lower levels of actual production & sales



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RCA Balance

2

Comments on RCA Balance

Assessment of RCA Balance for MYPD3 Y2, Y3, Y4



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	1415	1516	1617	Total
Eskom Application (R'm)	19 179	23 633	23 866	66 678
Assessment (R'm)	13 259	16 924	17 173	47 356
Adjustment (R'm)	-5 920	-6 709	-6 694	-19 323
Adjustment %	-30,9%	-28,4%	-28,0%	-29,0%

- Eskom applied for RCA Balance of R66.678m,
- There is scope to reduce RCA Balance to at least R47 356m i.e. proposition to reduce by at least R19 323m, before further regulatory discretion of prudence and efficiency assessment as provided for by the Electricity Regulation Act, (Act 4 of 2006),
- The RCA Balance as determined by NERSA is subjected to provisions of both the MYPD methodology and relevant legislation, where some are subordinate to other.



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Revenue Variance

	1415		
	Allowed	Actual	Variance
Revenue Variance	156 057	147 691	8 366
	1516		
	Allowed	Actual	Variance
Revenue Variance	179 587	164 239	15 348
	1617		
	Allowed	Actual	Variance
Revenue Variance	198 035	177 136	20 899
Total	533 679	489 066	44 613

- All actual revenue from sale of electricity as per AFS included, i.e. Electricity other revenue (note 32), deferred income,
- Municipalities are paying significant amounts as penalty for exceeding NMD (amounts punitive) and should be included in actual Eskom revenue from sale of electricity,
- Other Income (note 33) excluded from variance calculation, as according to application it relates to operating expenses that are excluded from RCA.



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RCA Balance

2 Primary Energy –Coal Burn



Coal Cost Management by Eskom before alpha factor

1415			
R'm	Allowed	Actual	Total variance
Total Coal Variance	36 617	37 376	759
Price Variance			3 696
Volume Variance			-2 937
1516			
R'm	Allowed	Actual	Total variance
Total Coal Variance	39 838	43 484	3 646
Price Variance			7 756
Volume Variance			-4 110
1617			
R'm	Allowed	Actual	Total variance
Total Coal Variance	44 245	44 142	-103
Price Variance			5 130
Volume Variance			-5 233
Total			
R'm	Allowed	Actual	Total variance
Total Coal Variance	120 700	125 002	4 302
Price Variance			16 583
Volume Variance			-12 281

- MYPD Methodology allows Eskom to pass through 95% of coal price variance between budget and actual R/t price, (Alpha factor)
- Eskom made savings of R12 281m over the three years, due to lower actual sales volumes, resulting in lower use of coal burned,
- Eskom however paid R16 583m more for the lower volume of coal burn,
- There is basis for NERSA to apply its discretion based on detailed prudence and efficiency assessment of Eskom coal cost management, with respect to price escalation.



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Coal Contract Management

Coal Contract	LT Fixed Price	Cost Plus	ST/MT	RCA (R/t)
1415 R/t Actual Ave. price	213,00	284,00	429,00	313,57
1516 R/t Actual Ave. price	262,00	388,00	458,00	378,76
1617 R/t Actual Ave. price	262,00	388,00	458,00	388,11
15/16 Average price increase	23,0%	36,6%	6,8%	20,79%
16/17 Average price increase	0,00%	0,00%	0,00%	2,47%

- MYPD methodology allows for rolling adjustment of coal prices to actual prices achieved in market,
- Between 2014/15 and 15/16 cost plus contract prices on average increased by 36.6%, (p60 of 147 & 66 of 150), only reason given is lower actual production volumes,
- Between 2014/15 and 15/16 long term fixed price contract on average increased by 23.0%, (p60 of 147 & 66 of 150), no explanation provided, except that price escalation as per contractual terms, and lower production volumes,
- Why is it that appears that cheaper contracts under achieved in volumes, seemingly are not attracting consequences and rather appear to be compensated with prices outside contractual terms, (p68 of 150),
- Why does it appear that Eskom placing higher reliance on ST&MT contracts that seemingly always exceed allocated production volumes at the highest price.



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Coal Variance for 14/15

	14/15	
R'm	Eskom	Assessment
Total Coal Variance	574	-1 110
Price Variance	3 814	1 827
Volume Variance	-3 240	-2 937

- Price Variance based on difference between alpha adjusted actual price (**R297.93/t**) and allowed price **R282.60/t** multiplied by actual volumes **119.179mt**.
- Eskom calculation (Table 3a p 58 of 147) applies alpha factor to allowed price as well and uses allowed volumes (**129.561mt**),
- Volume variance is based on difference between actual and allowed volumes (**-10.393mt**) multiplied by allowed price (**R282.60/t**).
- Eskom calculation of volume variance also based on difference between actual and allowed volumes however it increases allowed price to **R312/t**. (Table 3b p 58 of 147)



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Coal Variance for 15/16

	15/16	
R'm	Eskom	Assessment
Total Coal Variance	3 258	1 472
Price Variance	8 211	5 582
Volume Variance	-4 953	-4 110

- Price Variance based on difference between alpha adjusted actual price (**R359.82/t**) and allowed price **R311.20/t** multiplied by actual volumes **114.806mt**.
- Eskom calculation (Table 3a p 64 of 150) applies alpha factor to allowed price as well and uses allowed volumes (**128mt**),
- Volume variance is based on difference between actual and allowed volumes (**-13.208mt**) multiplied by allowed price (**R311.20/t**).
- Eskom calculation of volume variance also based on difference between actual and allowed volumes however it increases allowed price to **R375.40/t**. (Table 3b p64 of 150)



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Coal Variance for 16/17

	16/17	
R'm	Eskom	Assessment
Total Coal Variance	-359	-2,310
Price Variance	5,530	2,923
Volume Variance	-5,889	-5,233

- Price Variance based on difference between alpha adjusted actual price (**R368.70/t**) and allowed price **R343.00/t** multiplied by actual volumes **113.737mt**.
- Eskom calculation (Table 3a p51 of 101) applies alpha factor to allowed price as well and uses allowed volumes (**129mt**),
- Volume variance is based on difference between actual and allowed volumes (-15.257mt) multiplied by allowed price (**R343.00/t**).
- Eskom calculation of volume variance also based on difference between actual and allowed volumes however it increases allowed price to **R385.87/t**. (Table 3b p 52 of 101)

Overall Total and Alpha Adjusted Coal Variance



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Overall Total Coal Variance		
R'm	Eskom	Assessment
Total Coal Variance	4,302	4,302
Price Variance	16,583	16,583
Volume Variance	-12,281	-12,281
Overall Alpha adjusted Coal Variance		
R'm	Eskom	Assessment
Total Coal Variance	3,473	-1,948
Price Variance	17,555	10,332
Volume Variance	-14,082	-12,281

- Alpha adjusted variance is R1 948m in favour of the customer,
- Volume variance should remain the same at R12 281m in favour of the customer as it is not subjected to any alpha adjustment,
- The price variance is reduced to R10 332m in favour of Eskom because of the alpha factor adjustment, that requires Eskom to participate in some of the price risk or benefit,
- In terms of Eskom calculation the price variance increases to R17 555m after the “alpha factor adjustment”,
- Eskom volume variance calculations seems to change the NERSA allowed coal price (R/t),
- Alpha factor in future to be increased and also differentiated between type of coal contract.



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2

Primary Energy –OCGT



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	14/15	
R'm	Eskom	Assessment
Total Coal Variance	1 944	1 734
Price Variance	-263	-300
Additional Allowance	1 669	1 669
Compensation at Coal price	538	365
	15/16	
R'm	Eskom	Assessment
Total Coal Variance	689	659
Price Variance	-408	-448
Additional Allowance	-	-
Compensation at Coal price	1 107	1 107
Other	-10	
	16/17	
R'm	Eskom	Assessment
Total Coal Variance	-1 259	-1 539
Price Variance		-
Storage	280	-
Unused funds	-1 539	-1 539
RCA Claim	Total	
R'm	Eskom	Assessment
Total Coal Variance	1 374	854
Price Variance	-671	-748
Additional Allowance	1 669	1 669
Compensation at Coal price	1 645	1 472
Storage	280	
Unused funds	-1 539	-1 539
Other	-10	-

- Eskom was allowed R5 817m however spent R18 576m, a variance of R12 759m,
- Due to prudence and efficiency considerations Eskom has therefore claimed only R1 374m in its favour over the three years.
- Eskom coal generation fleet energy availability factor, (EAF) for the year was below target over the review period,
- Eskom had to ensure that its coal fleet is either in use or available for use as per the compact it signed with society,
- The excessive use of OCGT was not to meet excess demand but because the coal fleet became unavailable,
- NERSA should however limit the OCGT RCA to R854m mainly because of the following:
 - Storage of R280m
 - R177m on the basis of calculation of compensation at coal price
 - R77m on the basis of calculation of price variance.



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2 Primary Energy –Other Primary Energy

Other Primary Energy-Coal Burn



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Other Primary Energy	Allowed	Actual	Variance	%
Year 201415	5 183	6 358	1 175	22,7%
Year 201516	5 542	6 211	669	12,1%
Year 201617	5 881	6 322	441	7,5%
Total	16 606	18 891	2 285	13,8%
Level of coal burn	-8,0%	-10,3%	-11,8%	-10,1%

- Exceeded coal related other primary energy budget by at least 13.8% despite the fact that it burned/handled 10% less coal over the review period,
- More than 90% of over expenditure is attributed to start-up and coal handling cost, The only explanation is high unplanned outages which points to operational inefficiencies,
- Total over expenditure was R4 204m over the three years, while water, fuel procurement and sorbet realised combined savings of R1.919m over the same period,
- Over expenditure over and above the savings should be disallowed on account of operational inefficiencies,
- Unless NERSA does detailed assessment for prudence and efficiency, and come to different results.



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2 Primary Energy – Nuclear



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Other Primary Energy-Nuclear

Nuclear-Eskom -R'm	Allowed	Actual	Variance
Year 201415	352	532	180
Year 201516	498	918	420
Year 201617	446	727	281
Total	1 296	2 177	881

Nuclear-Assessment R'm	Allowed	Actual-AFS	Variance
Year 201415	352	477	125
Year 201516	498	470	-28
Year 201617	446	712	266
Total	1 296	1 659	363
Disallowed			518

- Eskom exceeded the nuclear budget of R1 296m by R881m over the review period,
- Based on notes to AFS (future fuel and inventory) it appears that the amount expensed to Income Statement was only R1 659m over the same period resulting in over expenditure of only R363m, the balance of R518m should therefore be disallowed,
- The apparent over expenditure of R363m should be allowed as Koeberg remains the cheapest (marginal cost) and most realisable source of energy to operate,
- NERSA should assess the reasons for the apparent difference between the amounts claimed and what seems to have been expensed as per AFS,
- Additional decommissioning cost should be capitalised and depreciated over the remaining useful life of the plant,



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2 Primary Energy –IPP



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2014/15 R'm	Allowed	Actual	Variance	Adjustment	RCA
Non Renewable IPPs & WEPS	595	2 772	2 177	-2 102	75
STPPP	92	62	-30	30	-
MTPPP	503	2 635	2 132	-2 132	-
Municipal			-		
WEPS	-	75	75	-	75
Total Renewable IPP, Ancillary & Peaking	4 513	6 682	2 169	-129	2 040
Renewable IPP	4 240	6 553	2 313	-	2 313
Deemed Energy		129	129	-129	-
IPP Ancillary	273	-	-273	-	-273
DOE Peaking			-		
Grand Total	5 108	9 454	4 346	-2 231	2 115

- Eskom coal generation fleet energy availability factor, (EAF) for the year was below target,
- It was however allowed depreciation and returns on coal generation fleet based on EAF as declared by itself,
- It had to ensure that its coal fleet is either in use or available for use as per the compact it signed with society,
- Excessive use of non renewable IPPs was not to meet excess demand but because the coal fleet became unavailable,
- It will not be prudent and efficient for the Regulator to completely disregard the fact that the coal fleet failed to perform to target through it was been compensated,
- NERSA need not review its MYPD3 decision however it should disallow the R2 102m claimed for non renewable IPPs as it would be on top of the returns Eskom was already allowed.
- Renewable IPPs are self dispatched however deemed energy should be disallowed as it is due to inefficiencies in Eskom



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201516 R/m	Allowed	Actual	Variance	Adjustment	RCA
Non Renewable IPPs & WEPS	-	3 674	3 674	-3 596	78
STPPP	-	2 682	2 682	-2 682	-
MTPPP	-	56	56	-56	-
Municipal	-	858	858	-858	-
WEPS	-	78	78	-	78
Total Renewable IPP, Ancillary & Peaking	14 826	11 772	-3 054	-24	-3 078
Renewable IPP	13 243	11 158	-2 085	-	-2 085
Deemed Energy	-	24	24	-24	-
IPP Ancillary	388	-	-388	-	-388
DOE Peaking	1 195	590	-605	-	-605
Grand Total	14 826	15 446	620	-3 620	-3 000

- Eskom coal generation fleet energy availability factor, (EAF) for the year was below target,
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- Excessive use of non renewable IPPs was not to meet excess demand but because the coal fleet became unavailable,
- It will not be prudent and efficient for the Regulator to completely disregard the fact that the coal fleet failed to perform to target through it was been compensated,
- NERSA need not review its MYPD3 decision however it should disallow the R3 596m claimed for non renewable IPPs as it would be on top of the returns Eskom was already allowed.
- Renewable IPPs realised a saving of R3 078m, deemed energy should be disallowed as it is due to inefficiencies in Eskom



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2016/17 R'm	Allowed	Actual	Variance	Adjustment	RCA
Non Renewable IPPs & WEPS	-	3 953	3 953	-3 883	70
STPPP	-	2 861	2 861	-2 861	-
MTPPP	-	37	37	-37	-
Municipal	-	985	985	-985	-
WEPS	-	70	70	-	70
Total Renewable IPP, Ancillary & Peaking	19 269	17 768	-1 501	-477	-1 978
Renewable IPP	16 386	15 105	-1 281	-	-1 281
Deemed Energy	-	477	477	-477	-
IPP Ancillary	97	-	-97	-	-97
DOE Peaking	2 786	2 186	-600	-	-600
Grand Total	19 269	21 721	2 452	-4 360	-1 908

- Eskom coal generation fleet energy availability factor, (EAF) for the year was below target,
- It was however allowed depreciation and returns on coal generation fleet based on EAF as declared by itself,
- It had to ensure that its coal fleet is either in use or available for use as per the compact it signed with society,
- Excessive use of non renewable IPPs was not to meet excess demand but because the coal fleet became unavailable,
- It will not be prudent and efficient for the Regulator to completely disregard the fact that the coal fleet failed to perform to target through it was been compensated,
- NERSA need not review its MYPD3 decision however it should disallow the R3 883m claimed for non renewable IPPs as it would be on top of the returns Eskom returns it was allowed in the decision.
- Renewable IPPs realised a saving of R1 978m, deemed energy should be disallowed as it is due to inefficiencies in Eskom



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Summary & Conclusion

- Minimum Implementation period should be three years over which it was incurred,
- Amount liquidated is for the particular year only, i.e. if in first year of implementation R13 000m is recovered it has to be taken out of revenue base at year end,
- If the amount to be liquidated in second year is R17 000m the additional recovery for the year is R2 000m only, even lower if there is growth in volumes is anticipated, this is because the R13 000m is already included in base,
- **Earliest Implementation Date 1 April 2019**
 - NERSA is bound by MFMA provisions of not subjecting municipalities to more than one increase in the same financial year,
 - NERSA is bound by provisions of ERA and other legislation,
 - NERSA is bound by MYPD and ERTSA Methodology,
 - NERSA is bound by existing decisions, e.g. ERTSA implementation for 2018/19, Eskom increase to Municipal guideline finalized,
 - Tread to financial sustainability of municipalities should we not be able to pass-through increase to end customers in time.
 - Duty to avoid unfair discrimination between customer categories,
- NERSA to subject coal price variance in particular to further assessment for prudence and efficiency.



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Thank You