

**NATIONAL ENERGY REGULATOR**

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In the matter regarding

**Eskom MYPD2 Regulatory Clearing Account (RCA) and RCA Balance**

By

**ESKOM HOLDINGS SOC LIMITED ('ESKOM')**

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**THE DECISION**

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Based on available information and the analysis of Eskom's application on the MYPD2 Regulatory Clearing Account (RCA) and RCA Balance, the National Energy Regulator (NERSA), at its meeting held on 17 March 2014 decided as follows:

1. that the MYPD2 Regulatory Clearing Account and cumulative RCA Balance of R7 818m in favour of Eskom be approved; and
2. that an implementation plan be developed for the MYPD2 RCA balance of R7 818m.

## Abbreviations and Acronyms

c/kWh	Cent per kilowatt hour
Capex	Capital expenditure
CECA	Capital Expenditure Clearing Account
CSP	Concentrated Solar Power
DMP	Demand Market Participation
EEDSM	Energy Efficiency and Demand Side Management
EPP	Electricity Pricing Policy
GWh	Gigawatt hour
IPP	Independent Power Producer
km	Kilometre
kWh	Kilowatt hour
L/MWh	Litres per megawatt hour
L/USO	Litres per unit sent out
LED	Light-emitting diode
MW	Megawatt
MWh	Megawatt hour
MYPD	Multi-Year Price Determination
NERSA	National Energy Regulator of South Africa
OCGT	Open Cycle Gas Turbine
Opex	Operating expenditure
PBB	Power Buy Back
PCLF	Planned Capacity Loss Factor
PE	Primary Energy
PPE	Property Plant and Equipment
PPI	Producer Price Index
R/MW	Rand per Megawatt
R'm	Rand million
RAB	Regulatory Asset Base
RCA	Regulatory Clearing Account
ROA	Return on assets
RTS	Return-to-service
SAIDI	System Average Interruption Duration Index
SM	System Minutes
SPAs	Special Pricing Agreements
SQI	Service Quality Incentive
SWH	Solar Water Heaters
UCLF	Unplanned Capacity Loss Factor

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## REASONS FOR THE DECISION

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### INTRODUCTION AND BACKGROUND

1. On 24 February 2010, the National Energy Regulator (NERSA) approved Eskom's second Multi-Year Price Determination (MYPD2) and allowed the following revenues, standard average prices and percentage increases for 2010/11–2012/13:

**Table 1: MYPD2 Decision of 24 February 2010**

	2010/11	2011/12	2012/13
<b>Allowed revenues from tariff based sales (R'm)</b>	<b>85 180</b>	<b>109 948</b>	<b>141 411</b>
Forecast sales to tariff customers (GWh)	204 551	210 219	214 737
<b>Standard average price (c/kWh)</b>	<b>41.57</b>	<b>52.30</b>	<b>65.85</b>
<b>Percentage Price increase (%)</b>	<b>24.8 %</b>	<b>25.8 %</b>	<b>25.9 %</b>
Total expected revenue from all customers (R'm)	90 927	116 152	148 378

2. On 09 March 2012, the Energy Regulator revised the allowed revenue for the final year of the MYPD2. The Energy Regulator reduced the allowed revenue from tariff customers (standard customers) to R130 258m. This resulted in a R11 153m reduction in allowed revenue from tariff customers. However, since the allowed revenue from local Special Price Agreements (SPAs) and the allowed revenue from international sales were not revised, the effective total expected revenue for 2012/13 from all customers was R137 225m.
3. The R11 153m reduction of allowed revenues for 2012/13 was attributed to a R8 105m re-phasing of shareholder Return on Assets and Eskom's assessment of the cumulative MYPD2 RCA balance as at 31 March 2012 of R3 048m in favour of the customers.
4. Eskom has now submitted its RCA assessment for the three years of MYPD2 for consideration by the Energy Regulator. In terms of the provision of the MYPD methodology, the Energy Regulator has to, upon application by Eskom, assess certain qualifying allowed revenue and expenditure against actual revenue and expenditure. Differences in revenue and expenditure are debited/credited to the RCA for the MYPD2 control period.

5. The RCA only considers variances attributable to risk management adjustments which consist of adjustments to primary energy costs, Open Cycle Gas Turbine (OCGT) costs, capital expenditure, third-party generation costs by Independent Power Producers (IPP) and consumer price index, as well as sales volume and revenue variance adjustments.
6. The methodology further allows for sales revenue variance assessment, as well as for variances of specifically ring-fenced funding. The methodology also allows for transmission and distribution service quality incentive/penalty adjustments via the RCA.
7. The RCA therefore consist of five broad categories of qualifying revenues and expenditure namely:
  - I. revenue variances;
  - II. pass-through adjustments;
  - III. correction factor adjustments for primary energy cost and operating expenditure due to changes in inflation and sales volume;
  - IV. qualifying ring-fenced expenditure adjustments; and
  - V. incentive-based adjustments.
8. The RCA methodology allows for assessment of the Eskom's total allowed revenue against actual revenue recovered from customers during the MYP2 review period for inclusion of the revenue variance in the RCA balance.
9. The pass-through adjustments consist of coal price and volume adjustments, OCGT primary fuel price and volume variance and the Capital Expenditure Clearing Account (CECA).
10. The coal volume and price variance is allowed as a full pass-through cost except it is subjected to an alpha factor of 95%. In terms of the alpha adjustment, 95% of the price variance is passed through to the customers.
11. Variances in the OCGT fuel cost attributable to changes in the unit price of primary fuel are allowed as automatic pass-through limited to the volumes allowed by the Energy Regulator.
12. However, variances attributable to changes in the utilisation of the OCGT plant (volume variances) have to be subjected to a NERSA prudence test upon application by Eskom. Pass-through of the volume variance cost is allowed to the extent that the Energy Regulator considers it prudent.

13. While NERSA does not place any limitation on the load factor of an OCGT plant it has to ensure that use of OCGTs is prudent (used only when necessary) after due consideration of all other options.
14. The correction factor adjustments are with respect to changes in the actual inflation rate when compared to the inflation rate assumed in the MYPD2 determination, as well as adjustments for variability of cost for changes in the actual production level when compared to the production level assumed as part of the MYPD2 determination.
15. The inflation variance adjustment is applied to all primary energy costs as well as operating costs. The volume variance adjustment is however, only applied on primary energy cost as the operating cost are considered fixed as they generally do not vary with changes in the level of production.
16. The MYPD2 revenue requirement allowed for cost ring-fenced specifically for Energy Efficiency and Demand Side Management (EEDSM), Demand Market Participation (DMP), 2010 World Cup support projects, coal haulage, road maintenance, Independent Power Producer (IPP) costs and co-generation and the environmental levy. The RCA methodology allows for assessment of Eskom's total allowed ring-fenced expenditure against actual ring-fenced expenditure during the MYPD2 review period for inclusion of qualifying variances in the RCA balance.
17. In terms of the provision of the incentive-based compensation scheme, Eskom Transmission and Distribution are compensated for achieving prescribed performance requirements. The compensation Eskom may have earned over the MYPD2 period is included in the RCA assessment. In cases where Eskom does not achieve the prescribed performance requirements, it is penalised. In that case, such penalty will form part of the RCA assessment.

## **ESKOM'S MYPD2 RCA APPLICATION**

18. As can be inferred from Table 2 below, Eskom applied for a cumulative RCA balance of R18 398m in its favour. According to the application, the RCA balance as at the end of 2010/11 was R3 441m in favour of the customers. The balance of R3 441m was the opening balance for year 2011/12. The cumulative balance at the end of 2011/12 was R2 249m in favour of Eskom after adjustment for the R3 048m already clawed back (as part of the price adjustment from 25.9% to 16% increase). However, according to Eskom, the

cumulative RCA balance as at the end of year 2012/13 increased to R18 398m in its favour.

**Table 2: Eskom's RCA application for period 01 April 2011 to 31 March 2013**

DETAILED RCA ACCOUNTS	2010/11	2011/12	2012/13	Total
All amounts are expressed in Nominal R'm	RCA Balance as per Eskom	RCA Balance as per Eskom	RCA Balance as per Eskom	MYPD2 Cumulative RCA
OPENING BALANCE	-	(3 441)	2 249	
<b>(YEAR) REVENUE VARIANCE</b>	<b>1 369</b>	4 297	12 012	17 678
Clawback of Refaced Shareholder Return			8 105	8 105
<b>PASS-THROUGH ADJUSTMENTS</b>	<b>(1 342)</b>	<b>(1 270)</b>	<b>924</b>	<b>(1 689)</b>
Coal burn price	(766)	(282)	1 315	268
Coal burn volume	(356)	(607)	(1 919)	(2 882)
OCGT	(87)	926	4 395	5 233
CECA return	(133)	(1 307)	(2 867)	(4 307)
<b>CORRECTION FACTOR ADJUSTMENTS</b>	<b>(584)</b>	<b>(482)</b>	<b>(651)</b>	<b>(1 716)</b>
Volume variance adjustments	(99)	(145)	(434)	(677)
Inflation variance adjustments	(485)	(337)	(217)	(1 039)
<b>RING FENCED EXPENDITURE ADJUSTMENTS</b>	<b>(2 884)</b>	<b>97</b>	<b>3 164</b>	<b>377</b>
EEDSM allocation	273	361	750	1 384
SAPP support for 2010 WC	(154)	-	-	(154)
DMP	(256)	(155)	(367)	(778)
Power Buy-Back	-	499	3 029	3 528
Cost of cover (FEC)	(779)	(45)	921	97
Coal haulage road maintenance	(832)	(584)	(1 052)	(2 469)
IPP & co-generation	(1 040)	(1 049)	(2 863)	(4 952)
Environmental Levy	(96)	1 070	2 747	3 720
Portion of RCA clawed-back		3 048		3 048
<b>Closing Cumulative RCA Balance for the year</b>	<b>(3 441)</b>	<b>2 249</b>	<b>25 803</b>	<b>25 803</b>
less: Continued rephasing of shareholder return			(8 105)	(8 105)
Add: The benefit due to decrease in ROA			700	700
<b>RCA Balance as at 31 March 2013</b>			<b>18 398</b>	<b>18 398</b>

19. Eskom included the R8 105m re-phased shareholder return in its RCA balance.

Since the amount continues to be re-phased as at the end of the MYPD2 control period, the RCA balance is adjusted by the same amount of R8 105m to reduce the closing cumulative RCA balance from R25 803m to R18 398m. The Eskom cumulative RCA balance of R18 398m is largely attributable to it not achieving the forecasted sales volumes, revenue and power buy back particularly in the final year of MYPD2, as well as the level of over-expenditure on its OCGTs.

## Revenue Variance

**Table 3: Eskom's calculation of RCA revenue variance for MYPD2**

Eskom Revenue Variance (R'm)	2010/11	2011/12	2012/13	MYPD2
MYPD2 allowed revenue	87 617	112 387	132 691	332 695
Standard tariff customers	85 180	109 948	130 258	325 386
Special pricing agreements (local SPA's)	2 437	2 439	2 433	7 309
Special pricing agreements (International Trader)				-
Actual revenue	86 248	108 090	120 679	315 016
Standard tariff customers	83 980	105 863	118 418	308 262
Special pricing agreements (local SPA's)	2 268	2 227	2 260	6 755
Special pricing agreements (International Trader)				-
Revenue difference	1 369	4 297	12 012	17 679

20. According to Eskom's audited annual financial statements, it under-recovered on its sales revenue in each of the three years of the MYPD2. In other words, its actual revenue in each of the financial years was lower than the respective allowed total revenue for such year. Eskom however, excluded the international trader in its revenue variance calculation. According to the MYPD2 decision of 24 February 2010, revised on 09 March 2012, total allowed revenue was to be recovered from all customers including the international trader. This is notwithstanding the fact that revenue from standard tariffs was the main contributor to total allowed revenue. It is therefore not appropriate for Eskom to exclude the international trader from its revenue variance computation.

21. Eskom furthermore realised additional actual revenue of R8 688m during the MYPD2 which it did not include in its revenue variance calculation. Though Eskom could not have reasonably estimated such additional revenue at the time of the MYPD2 determination, it would have been appropriate for it to declare all such actual additional revenue at least to the extent that it is relevant to the RCA assessment. The declaration of the source of such additional revenue is important to avoid double dipping as allowed revenue already provided for all allowed costs.

22. The prospect of additional revenue other than what was allowed by the Energy Regulator was not declared at the time of the MYPD2 decision. The Energy Regulator therefore was not afforded the opportunity to take a view on how such additional revenue should be treated once realised.

## Pass-Through Adjustments

23. Eskom experienced an increase in the average price of coal (Rand/ton) over the three years of the MYPD2 such that its over-expenditure was R268m after adjusting for the alpha factor. The price variance of R268m represents 95% of

the actual total over-expenditure over the three years due to the alpha<sup>1</sup> factor. However, since Eskom did not burn as much coal as was allowed it had a total of R2 882m coal volume variance in favour of the customers over the three years of the MYPD2.

24. As can be seen in Table 4 below, Eskom generated more electricity from its OCGT plant than was allowed over the three years of MYPD2. Although Eskom was allowed only 874GWh over the MYPD2 period it generated 2 809GWh from OCGT and therefore exceeded the allowed limit. Eskom as a result overspent by R5 233m over the MYPD2 period and has included the amount in the RCA balance applied for.

**Table 4: Eskom's MYPD2 OCGT Utilisation**

OCGT	2010/11	2011/12	2012/13	MYPD2
Allowed OCGT GWh	274	300	300	874
Actual OCGT GWh	197	707	1 905	2 809
Allowed Cost (R'm)	521	612	657	1 790
Actual Cost (R'm)	434	1 538	5 052	7 023
Variance over/(under) (R'm)	(87)	926	4 395	5 233

25. In the 2012/13 financial year, Eskom overspent on its OCGT allowed cost by R4 395m in trying to meet its peak demand mainly in the summer period when its peak profile is significantly flatter, requiring it to run its OCGT for much longer on a typical summer day. The variance in OCGT cost is attributable to changes in the unit price of fuel used in running the OCGT plant, the volume of fuel used in generating such, as well as the fuel efficiency of the OCGT plant.

26. The changes attributable to fuel price is allowed as a full pass-through cost but limited to allowed volumes only. The variance attributable to the volume variance is subject to a prudence review and only allowed to the extent that the Energy Regulator considers it prudent.

27. According to Eskom, it used OCGT as last resort when all other generation was on line and it was still not able to meet demand. Eskom attributes the higher than approved utilisation of OCGT to its shareholder mandate to 'keep the lights on' at all times. Eskom clarified that it had to resort to the following measures in 2011/12 and 2012/13 to be able to 'keep the lights on':

- I. Kept generating units in operation despite them having known defects for as long as it did not compromise safety or statutory requirements.
- II. Implemented Demand Side Management initiatives

<sup>1</sup> Alpha is the factor that determines the ratio in which risk in coal burn expenditure is divided between Eskom and the customers.

- III. Increased the utilisation of OCGTs
- IV. Purchased additional capacity from IPPs
- V. Deferred maintenance of power plant.
- VI. Implementation of a power buy back programme

### Capital Expenditure Clearing Account (CECA)

28. Eskom was allowed total capital expenditure (capex) of R232 741m for MYPD2. As can be inferred from Table 5 below, Eskom's actual capex was lower by R76 361m. As a part of the MYPD2 decision, Eskom was allowed a return on its regulatory asset base (RAB) which included capex of R232 741m. In terms of the MYPD methodology, Eskom does not earn a return on capex that it did not execute, an adjustment is made using CECA. The amount is calculated by applying the respective allowed rates of return for each of the years on the actual underlying capex for the particular year. The return on the under-expenditure for each of the respective years is therefore included in the RCA assessment as a variance in favour of the customers. Eskom attributes the under-expenditure to delays in the build programme as well as its limited capacity to execute capital projects outside its generation expansion programme.

**Table 5: Eskom's MYPD2 CECA variances**

CECA (R'm)	2010/11	2011/12	2012/13	MYPD2
Original allowed MYPD2 capex	79 308	82 373	71 060	232 741
Actual capital expenditure	46 113	55 400	54 867	156 380
Difference	(33 195)	(26 973)	(16 193)	(76 361)
Closing cumulative difference	(33 195)	(60 168)	(76 361)	
Average cumulative difference for ROA calculation	(16 598)	(46 682)	(68 264)	
MYPD2 allowed return on assets (ROA %)	0.80%	2.80%	4.20%	
ROA on average cumulative difference (CECA)	(133)	(1 307)	(2 867)	(4 307)

### Correction Factor Adjustments

29. The adjustments are attributed to volume and inflation variances. The total volume variance adjustments over MYPD2 were R677m in favour of the customers. The adjustments are made to primary energy cost that is considered to vary with the level of production from coal and nuclear. The allowed primary energy cost is adjusted in line with the lower level of generation of electricity from coal, hydro and nuclear. Coal cost as well as OCGT volume variances are however excluded from the correction factor adjustments as they are treated separately in the RCA.

30. The total inflation volume variance adjustments over the MYPD2 period were R1039m in favour of the customers. The adjustments are made to primary energy costs and all other operating expenditure as the actual average inflation

rates for each of the respective years were lower than the average inflation rates used in the MYPD2 determination.

### Ring-fenced Expenditure Adjustments

31. Table 6 below shows that Eskom was allowed total funding of R5 446m for energy efficiency and demand side management (EEDSM) projects over the MYPD2 period. Over the three years Eskom executed EEDSM projects to the value of R5 361m and therefore had a variance of R82m in favour of the customers.

**Table 6: EEDSM funding for MYDP2**

EEDSM (R'm)	2010/11	2011/12	2012/13	MYPD2
EEDSM Funding Allowed	1 406	1 689	2 351	5 446
Actual Expenditure	781	1 772	2 811	5 364
Over/(Under) expenditure	(625)	83	460	(82)
Claimed in RCA	273	361	750	1 384

32. Eskom however applied for total of R1 384m as compensation for exceeding the MW saving targets set by NERSA for each of the MYPD2 years.

33. As outlined in Table 7 below, Eskom exceeded the MW (capacity) savings targets for each of the respective years. Eskom, however, did not achieve the MWh (energy) savings targets of the respective years of MYPD2.

**Table 7: EEDSM saving targets for MYDP2**

EEDSM Saving targets	2010/11	2011/12	2012/13	MYPD2
Allowed MW Savings target (MW)	289	301	447	1 037
Actual MW Savings Achieved (MW)	345	343	587	1 275
MW savings Over/(Under) achieved (MW)	56	42	140	238
Allowed MWh Savings target (MWh)	977	1 263	1 815	4 055
Actual MWh Savings Achieved (MWh)	707	373	1 099	2 179
MWh savings Over/(Under) achieved (MWh)	(270)	(890)	(716)	(1 876)

34. Eskom is basing its claim for compensation on the fact that it did exceed the MW saving targets in each of the respective years. Eskom argues that since the compensation rate is based on R/MW achieved the savings target is limited to MW savings only. Eskom's argument is silent on the fact that the MYPD2 decision clearly defined MW and MWh savings targets that are to be achieved in each of the respective years.

### SAPP support for 2010 World Cup

35. Eskom was allowed an amount of R154m in the 2010/11 financial year for procurement of surplus capacity from the Southern African Power Pool during

the 2010 World Cup. According to Eskom it was not necessary to use any of the R154m allowed. Eskom therefore has a variance of R154m in favour of the customers.

## Demand Market Participation

36. Table 8 below indicates that Eskom was allowed total funding of R1 688m over the MYPD2 period for Demand Market Participation (DMP) projects. Over the three years, Eskom executed DMP projects to the value of [REDACTED] and therefore had a variance of [REDACTED] in favour of the customers.

**Table 8: DMP funding for MYDP2**

### Power Buy Back

DMP Funding (R'm)	2010/11	2011/12	2012/13	MYPD2
DMP Funding Allowed	467	570	651	1 688
Actual DMP Funding				
DMP Over/(Under) expenditure				

37. As can be seen in Table 9 below, during the last two years of the MYPD2, Eskom spent R3 528m on its power buyback (PBB) programme as part of its 'keeping the lights on' initiative, though such expenditure was not allowed by the Energy Regulator as part of the MYPD2 decision or any subsequent decision.

**Table 9: Eskom PBB actual expenditure during MYDP2**

PBB (R'm)	2010/11	2011/12	2012/13	MYPD2
PBB funding Allowed	-	-	-	-
PBB actual expenditure	-	499	3 029	3 528
PBB Over/(Under) expenditure	-	499	3 029	3 528

38. Eskom therefore applied for a special inclusion of the PBB expenditure in the RCA as it was incurred under 'the keeping the lights on' initiative, being a strategic imperative. The Energy Regulator will not place any limitations on the load factors for OCGT plants but has to ensure those are run only when necessary after due consideration of all other available options as prescribed in the Grid Code. During 2011/12 and 2012/13, according to Eskom it approached a number of key industrial customers to remove substantial base load from the grid for a number of months to ensure system stability and to create the necessary space for essential and critical maintenance of the generation plant. The PBB programme was managed in two phases. Phase 1

was from January 2012 to May 2012; Phase 2 was from November 2012 to March 2013.

39. Eskom benchmarked unit cost for the PBB programme was based on the [REDACTED] associated with the DMP programme. According to Eskom it had to make use of the PBB programme between January 2012 and May 2012 to enable it to execute an average planned maintenance of 12.7% of capacity over the period. This was higher than the previous year's planned maintenance of only 8.2% for the corresponding period between January 2011 and May 2011.

### Cost of Cover

40. Table 10 below indicates that Eskom was allowed total funding of R6 920m for cost of cover over the MYPD2 period. This was allowed as part of its operating expenses. Over the three years Eskom spent R7 017m on cost of cover and therefore had a variance of R97m in its favour. Eskom is claiming the variance as part of the RCA, even though the methodology does not provide for consideration of operating cost as part of the RCA.

**Table 10: Cost of cover funding for MYDP2**

Cost of Cover (R'm)	2010/11	2011/12	2012/13	MYPD2
Cost of Cover Allowed	3 036	2 275	1 609	6 920
Actual cost of cover	2 257	2 230	2 530	7 017
Over/(Under) expenditure	(779)	(45)	921	97

### THE APPLICANT

41. Eskom Holdings SOC Limited, Registration number 2002/015527/06, is a Schedule 2 South African state-owned enterprise in terms of the Public Finance Management Act (Act No 1 of 1999), wholly owned by the South African Government. Eskom Holdings is regulated under licenses granted by the Energy Regulator to generate, transmit and distribute electricity in terms of the Electricity Regulation Act (Act No 4 of 2006).
42. Eskom generates, transmits and distributes electricity to industrial, mining, commercial, agricultural and residential customers and other distributors. It also buys electricity from and sells electricity to the countries of the Southern African Development Community ("SADC").
43. Through its subsidiary Eskom Enterprises (Pty) Limited, Eskom is also active in local unregulated markets and various African countries. These activities include the provision of electricity-related services to countries connected to the South African power grid.

## **THE DECISION MAKING PROCESS**

44. Eskom submitted its MYPD2 RCA application in a letter dated 29 August 2013. The Eskom RCA application was subjected to a comprehensive review and assessment in terms of the provisions of the methodology to ensure only efficiently incurred cost are included in the RCA balance. Eskom was therefore required to submit facts, evidence and figures to substantiate the MYPD2 RCA balance as determined by NERSA.

## **APPLICABLE LAW**

45. The legal basis for the Energy Regulator to approve electricity prices is derived from the Electricity Regulation Act (Act No. 4 of 2006) ("the Act") and the National Energy Regulator Act, 2004 (Act No.40 of 2004) ("the Energy Regulator Act"). The procedure to be followed in deciding the price is derived from the Promotion of Administrative Justice Act, 2000 (Act No.3 of 2000) ('PAJA').

## **NERSA ANALYSIS OF THE ESKOM MYPD2 RCA APPLICATION**

### **Total NERSA RCA Variance Assessment**

46. Table 11 below shows NERSA's assessment of the cumulative RCA balance at the end of the MYPD2 period is R7 818m in favour of Eskom. The RCA balance as at the end of 2010/11 was R5 241m in favour of the customers. The closing balance at the year end of 2010/11 is the opening balance for 2011/12. The cumulative balance at the end of 2011/12 was R2 456m in favour of the customers, which serves as the opening balance for the final year of the MYPD2 RCA. This is after the adjustment for the amount of R3 048m already clawed back in favour of the customers. The cumulative balance at the end of the 2012/13 was however R7 818m in favour of Eskom.
47. The turnaround in the cumulative RCA balance was mainly attributable to Eskom's under-recovery in revenue due to lower than forecast sales volumes, and over-expenditure with respect to its OCGTs. The reallocation of some of the ringfenced under expenditure in MYPD2 to the MYPD3 revenue determination further contributed to the MYPD2 RCA closing balance being in favour of Eskom. The funds were reallocated to enable Eskom to continue activities based on operational requirement.

**Table 11: Eskom's RCA application for period 01 April 2011 to 31 March 2013**

DETAILED RCA ACCOUNT	2010/11		2011/12		2012/13	
	RCA Balance as per Eskom	NERSA RCA Balance	RCA Balance as per Eskom	NERSA RCA Balance	RCA Balance as per Eskom	NERSA RCA Balance
All amounts are expressed in Nominal R'm						
OPENING BALANCE	-	-	(3 441)	(5 241)	2 248	(2 456)
<b>(YEAR) REVENUE VARIANCE</b>	<b>1 369</b>	<b>(288)</b>	<b>4 297</b>	<b>2 343</b>	<b>12 012</b>	<b>9 551</b>
Claw-back Shareholder Return					8 105	8 105
Re-phasing of Shareholder Return					(8 105)	(8 105)
<b>COST ADJUSTMENTS</b>	<b>(4 810)</b>	<b>(4 952)</b>	<b>(1 656)</b>	<b>(2 607)</b>	<b>3 436</b>	<b>723</b>
<b>PASS-THROUGH ADJUSTMENTS</b>	<b>(1 342)</b>	<b>(1 342)</b>	<b>(1 270)</b>	<b>(1 270)</b>	<b>924</b>	<b>(2 145)</b>
Coal burn price	(766)	(766)	(282)	(282)	1 315	1 315
Coal burn volume	(356)	(356)	(607)	(607)	(1 919)	(1 919)
OCGT	(87)	(87)	926	926	4 395	1 326
CECA return	(133)	(133)	(1 307)	(1 307)	(2 867)	(2 867)
<b>CORRECTION FACTOR ADJUSTMENTS</b>	<b>(584)</b>	<b>(620)</b>	<b>(482)</b>	<b>(518)</b>	<b>(650)</b>	<b>(665)</b>
Volume variance adjustments	(99)	(135)	(145)	(181)	(434)	(448)
Inflation variance adjustments	(485)	(485)	(337)	(337)	(216)	(217)
<b>RING FENCED EXPENDITURE ADJUSTMENTS</b>	<b>(2 884)</b>	<b>(3 003)</b>	<b>97</b>	<b>(826)</b>	<b>3 161</b>	<b>3 526</b>
EEDSM allocation	273	(625)	361	83	747	460
SAPP support for 2010 WC	(154)	(154)	-	-	-	-
DMP	(256)	(256)	(155)	(346)	(367)	(367)
Power Buy-Back	-	-	499	-	3 029	-
Cost of cover (FEC)	(779)	-	(45)	-	921	-
Coal haulage road maintenance	(832)	(832)	(584)	(584)	(1 052)	(1 052)
IPP & co-generation	(1 040)	(1 040)	(1 049)	(1 049)	(2 863)	(2 863)
Environmental Levy	(96)	(96)	1 070	1 070	2 747	2 747
Re-allocation for operational requirements						4 602
<b>INCENTIVE SCHEME ADJUSTMENTS</b>	<b>-</b>	<b>13</b>		<b>8</b>	<b>-</b>	<b>8</b>
RCA balance before adjustments	<b>(3 441)</b>	<b>(5 241)</b>	<b>(800)</b>	<b>(5 504)</b>	<b>17 695</b>	<b>7 818</b>
Portion of RCA clawed-back			3 048	<b>3 048</b>		
Cumulative RCA Balance	<b>(3 441)</b>	<b>(5 241)</b>	<b>2 248</b>	<b>(2 456)</b>	<b>17 696</b>	<b>7 818</b>
Add: decrease in ROA					700	-
<b>RCA Balance as at 31 March 2013</b>					<b>18 396</b>	<b>7 818</b>

48. The re-phased shareholder return of R8 105m is included in the RCA as a balance in favour of Eskom for transparency purposes. However, since the amount remains re-phased it is reversed in the final RCA calculation. The inclusion of the re-phased shareholder return therefore does not have any impact on the RCA balance.

## Revenue Variance

**Table 12: NERSA assessment of calculation of RCA revenue variance for MYPD2**

<b>NERSA Revenue Variance (R'm)</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>	<b>MYPD2</b>
MYPD2 allowed revenue	90 927	116 152	137 225	344 304
Standard tariff customers	85 180	109 948	130 258	325 386
Special pricing agreements (local SPA's)	2 437	2 439	2 433	7 309
Special pricing agreements (International Trader)	3 310	3 765	4 534	11 609
Actual revenue	90 592	113 127	126 888	330 606
Standard tariff customers	83 980	105 863	118 418	308 262
Special pricing agreements (local SPA's)	2 268	2 227	2 260	6 755
Special pricing agreements (International Trader)	4 344	5 037	6 209	15 590
Total revenue variance	335	3 025	10 337	13 698

49. As outlined in Table 12 above, it is NERSA's assessment that the total cumulative revenue under-recovery from all customers was R13 698m for MYPD2. According to the NERSA MYPD2 decision, the allowed total revenue of R344 304m was for recovery from standard customers, customers with special pricing agreements (SPAs) and international sales. It would therefore be inappropriate to exclude the revenue realised by international sales from assessment of the revenue variance as is the case in the Eskom RCA application.

50. Otherwise the actual revenue for each of the years of MYPD2 was lower than the expected total revenue for each in the respective years. The under-recovery of actual revenue is attributable to the fact that the sales volume to standard customers dropped particularly in the last year of MYPD2.

### Other Revenue Variances

51. In addition to the actual revenue as referred to in Table 12, Eskom realised additional actual revenue of R8 688m during the MYPD2 period which it did not include in its revenue variance calculation. This partly explains for the difference between the revenue variances of Eskom and NERSA in the respective RCA assessments. Eskom subsequently provided supporting information and explanations on some of the other revenues and matching costs where applicable.

52. However, Eskom could not have reasonably estimated such additional revenue at the time of the MYPD2 and was not required to do so at the time of submitting its MYPD2 application to NERSA. It would have been appropriate for Eskom to at least declare its intent to recover possible additional revenue other than what was to be allowed by NERSA. Despite the fact that it did not include the additional revenue of R8 688m in its assessment of the RCA, Eskom

acknowledges that it did realise such additional revenue over the MYPD2 period.

53. The MYPD methodology currently does not explicitly provide for the inclusion or exclusion of such additional revenues. The Energy Regulator was never afforded the opportunity to consider such possible outcome as the potential was not disclosed at the time of the decision even though Eskom must have been aware of the potential additional revenue streams.
54. In terms of the provisions of relevant legislation as well as the Electricity Pricing Policy (EPP), it would be appropriate for the Energy Regulator to include such additional actual revenues to the extent they relate to actual cost variances that are ordinarily provided for in the RCA assessment. This is to avoid the customers paying additionally for services that they already pay for via the approved tariff.
55. The inclusion of such qualifying additional revenue in the RCA assessment will ensure that the Energy Regulator enables an efficient licensee to recover only the full cost of its licensed activities. Therefore, ignoring such qualifying additional revenue from the RCA assessment may have the unintended consequence of Eskom recovering more than its full cost as allowed by the Energy Regulator.
56. The exclusion of such additional revenues amounts to double dipping as the allowed revenue already provides for all allowed cost and may provide Eskom with undue incentive to pursue revenue streams other than what was approved by NERSA.
57. Operating expenditure variance is not included in the RCA assessment. This is because operating expenditure is considered to be controllable. Eskom should therefore endeavour to manage its operating cost within budget as any under/over operating expenditure is for its benefit or account. The methodology's exclusion of operating expenditure is premised on the principles of incentive-based regulation is aimed at giving incentives to the utility to unlock operational efficiencies for its benefit and future benefit of the customers by achieving savings on the allowed operating expenditure.
58. If the additional revenue is, for example, associated with operating expenditure which in any case is excluded from the RCA assessment, it would be appropriate to also ignore such additional revenue for the purposes of the RCA assessment to avoid the customer's double dipping in this case. The MYPD methodology protects the customers from the risk of under/over-expenditure on

operating expenditure. It is therefore appropriate to exclude such additional revenue from the RCA assessment as well.

59. As outlined in Table 13 below, Eskom realised total additional revenue of R8 689m over the MYPD2 period. Insurance proceeds of R2 282m essentially relate to the restoration of the Duvha power station after the over-pressurisation incident. Insurance premiums are part of operating expenditure. In terms of the RCA rules operating expenditure is excluded from the RCA assessment. It would therefore be appropriate to also exclude the insurance proceeds for the purpose of the RCA assessment. The insurance proceeds of R 2 282m should therefore be excluded from the RCA assessment.

**Table 13: Eskom additional actual revenue recovered over MYPD2**

<b>Total Additional Actual Revenue for RCA (R'm)</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>	<b>MYPD2</b>
Customer contributions	498	538	699	1 735
Insurance Proceeds	449	1 384	449	2 282
Management Fee Income	635	725	734	2 094
Government Grant	1	107	23	131
Surplus from disposal of PPE (net)	68	32	-	100
Operating Lease	207	172	171	550
Dividend Income	15	13	16	44
Sale of Scrap	111	118	255	484
Other Income	202	440	627	1 269
<b>Total additional actual revenue</b>	<b>2 186</b>	<b>3 529</b>	<b>2 974</b>	<b>8 689</b>

60. According to Eskom, the management fee of R2 094m (which is an intercompany transaction) over the three years was a payment from Eskom subsidiary companies for Eskom employees seconded to such companies. The MYPD2 decision provided for all allowed manpower cost for all Eskom employees. To the extent that Eskom generates additional revenue as compensation it would be appropriate to off-set such revenues against actual manpower cost to ensure recovery of full cost only. However, since manpower cost variance is not part of the RCA assessment, the additional revenue in this case should therefore also be excluded.

61. Based on further clarification provided by Eskom, the revenue of R131m over the three years is part of National Government funding towards Eskom's solar water heading (SWH) programme. This funding is in addition to the MYPD2 allowed funding for EEDSM programmes. Since the additional revenue from Government was for projects that are unrelated to MYPD2 it should be ignored for the purposes of the RCA assessment.

62. Similarly, dividend income to Eskom of R44m is unrelated to any of the MYPD2 allowed cost.

63. Table 13 above also includes total actual 'other income' of R1 269m, some of which does not relate to actual cost variances included in the RCA assessment.

64. Table 14 below outlines that out of the total additional actual revenue of R8 689m for MYPD2, R2 092m relates to cost provided for in the RCA for reasons as outlined in the NERSA analysis of the RCA application.

65. Eskom generated total additional revenue of R1 735m as customer's contribution to capital projects part of which was provided for as adjustment in CECA. However, as detailed in Table 14 below, customers contributions amounting to R418m over the MYPD2 period has not been off-set against actual capex and should therefore be included in the revenue variance calculation for the purposes of determining the MYPD2 RCA balance. Eskom did not provide any reason for excluding the amount of R418m.

**Table 14: Eskom additional actual revenue for MYPD2 RCA assessment**

Total Additional Actual Revenue for RCA (R'm)	2010/11	2011/12	2012/13	MYPD2
Customer contributions	141	123	154	418
Surplus from disposal of PPE (net)	68	32	-	100
Operating Lease	207	172	171	550
Sale of Scrap	111	118	255	484
Other Income	97	237	206	540
Total additional actual revenue	624	682	786	2 092

66. Revenue from sale of scrap, disposal of property, plant and equipment (PPE) assets as well as operating lease are generated in relation to CECA. The RCA assessment provides for variances in CECA to which these additional revenue streams relate. Total surplus from disposal of PPE of R100m, revenue from sale of scrap of R484m and operating lease revenue of R550m should therefore be included in the revenue variance for the purpose of computing the MYPD2 RCA balance.

67. Eskom generated additional revenue of R1 269m as other income, but did not sufficiently explain the source and purpose of part of it (R540m). R540m of other income is deemed to be in relation to actual costs that are provided for in the RCA assessment and is therefore included in revenue variance.

68. Therefore, out of the total actual additional revenue of R8 689m for MYPD2, at least R2 092m qualifies for consideration in determining the Eskom revenue variance. This reduces to total actual revenue variance over the three years to R11 605m.

### **Pass-Through Adjustments**

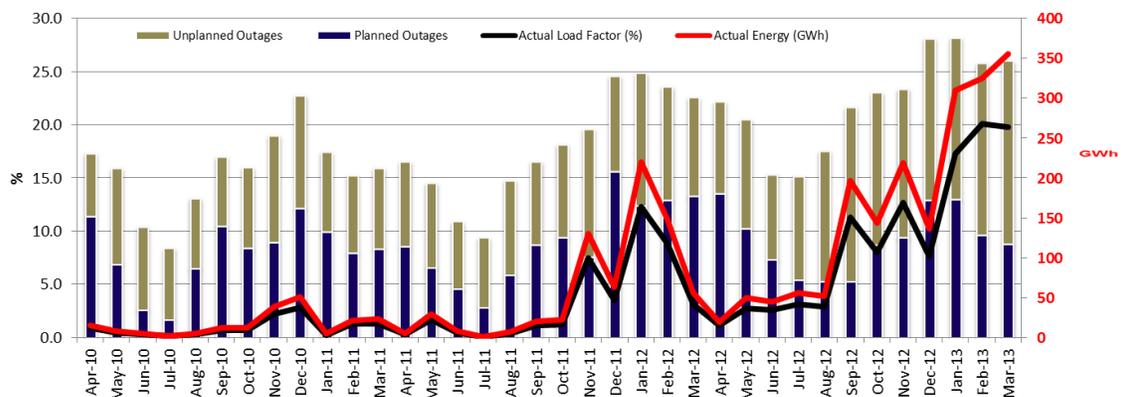
69. Eskom experienced an increase in the average price of coal (Rand/ton) over the three years of the MYPD2 such that it had a variance of R268m in its favour over the MYPD2 period after adjustment for alpha.

70. However, since Eskom did not burn as much coal as was allowed, it had a total of R2 882m coal volume variance in favour of the customers over the three years of the MYPD2. As a result, Eskom's total coal variance of R2 615m in favour of the customers is clawed back in both Eskom and NERSA assessment of the MYPD2 RCA.

71. Eskom produced more electricity from OCGTs than what was allowed over the three years of the MYPD2. Though Eskom was allowed only 1 147GWh over the MYPD2 period, it generated 2 809GWh from OCGTs and therefore exceeded the allowed limit by 1 790GWh. Eskom, as a result, overspent by R5 233m over the MYPD2 period and is now claiming the entire amount from the customers.

72. Figure 1 below shows that OCGTs were run at low load factor in the 2010/11 financial year. The thick black line represents the OCGT load factor over the MYPD2 period. As far as 2011/12 is concerned, the load factor was high during November 2011, January 2012 and February 2013. In 2012/13, the load factor was high from about September 2012, meaning OCGTs were used extensively from September 2012 until March 2013.

**Figure 1: Eskom PCLF & UCLF during MYPD2**



**Source: Eskom reports on OCGT utilisation during MYPD2**

73. Eskom attributed the high load factor to the tightness of the system. Though Eskom has sufficient installed capacity to meet the demand, the system was tight due mainly to an unusually high level of unavailability of its generation fleet.

74. Planned capacity loss factor (PCLF) and unplanned capacity loss factor (UCLF) are used to measure availability of generation plant. The blue bars that represent PCLF were generally the lowest during each of the respective winter months of MYPD2 as Eskom, by design, executes most of its planned maintenance during summer to ensure plant availability during the high demand winter months.

75. The grey bars represent UCLF, which is a measure of unplanned outages. Though Eskom has no direct control over unplanned plant failure, UCLF turned out to be at its lowest during winter of each of the years of the MYPD2 when compared to the UCLF for the respective summer periods. Eskom therefore had a better handle on the level of UCLF during each winter of MYPD2 than in the corresponding summer period. Eskom attributes the higher summer UCLF to the high ambient temperature and rain which, among others, resulted in the following:

- i. high condenser vacuum due to CV (calorific value) trips when running all pumps to maintain vacuum;
- ii. high emissions as a result of lower system efficiency; and
- iii. plant running out of capacity due to higher air volumes.

76. Eskom indicated that the impact of high ambient temperature and rain was exacerbated by it not being able to do the desired level of design-based planned maintenance when plant was out on PCLF. Eskom claims that though the plant is out on planned maintenance, it is not possible for Eskom to do adequate design-based maintenance due to tightness of the system. The system on the other hand was tight due to plant unavailability because of high planned and/or unplanned outages.

**Table 15: Eskom's Planned and Actual MYPD2 PCLF%**

MYPD2 Planned/Actual Capacity Loss factor	2010/11		2011/12		2012/13	
	MYPD2	Actual	MYPD2	Actual	MYPD2	Actual
PCLF %	8.0%	8.0%	8.5%	9.1%	8.5%	9.2

77. However, as can be deduced from Table 15 which is based on detailed data submitted by Eskom, it did achieve and in some years exceeded the planned level of generation plant maintenance. The actual level of PCLF achieved was higher than planned in 2011/12 and 2012/13. The PCLF for 2010/11 was in accordance with what Eskom had planned. Therefore while Eskom claims that it was not able to do the desired level of design-based planned maintenance, it is clear from Table 15 that the plant was taken out of service and maintained to the extent that Eskom at times exceeded its target despite the tightness of the system, particularly in 2012/13.

78. The fact that Eskom was not able to do the desired level of design-based maintenance though the plant was taken out of service may well be due to indiscretion at management level. Eskom could therefore have put measures in place to improve plant reliability and therefore indirectly reduce UCLF and in turn reduce its over-reliance on OCGTs to generate electricity.

79. Furthermore as outlined in Table 16 below Eskom was allowed total repairs and maintenance of R28 373m for the MYPD2 period, of which it only spent R27 601m. It did spend R772m less on total repairs and maintenance than was anticipated at the time of the MYPD2 determination. Included in the total allowed repairs and maintenance was an amount R14 349m for generation repairs and maintenance (net of human resources cost and amount capitalised). Eskom generation however exceeded its repairs and maintenance by R1 003m or 7.0%. Eskom therefore did not only take the plant out of service, but also spent the required level of resources on repairing and maintaining its plant.

**Table 16: Eskom MYPD2 Repairs & Maintenance**

MYPD2 Eskom R&M	2010/11		2011/12		2012/13		MYPD2	
	MYPD2	Actual	MYPD2	Actual	MYPD2	Actual	MYPD2	Actual
Eskom MYPD2 R&M (R'm)	7 948	7 674	9 601	9 377	10 824	10 550	28 373	27 601
Generation R&M (R'm)	4 411	4 340	4 781	5 088	5 157	5 924	14 349	15 352
Generation R&M Growth (%)			8.4%	17.2%	7.9%	16.4%		

80. While the amount of R15 352m actual generation repairs and maintenance consist of both planned and unplanned repairs and maintenance, Eskom indicated that it does not track the cost of UCLF separately. Eskom is therefore unable to quantify the impact of UCLF on its repairs and maintenance despite the unusually high unplanned plant failure.

81. The demand for electricity dropped from 224 785GWh in 2011/12 to 216 561GWh in 2012/13. This represents a 3.7% drop in the demand for electricity, amongst others also reflecting the effect of the various demand side measures. The increase in the constraint on the electricity system over the same period was therefore supply driven rather than by customers demand.

82. In terms of the MYPD2 decision, OCGT utilisation was limited to a load factor of less than 2% per year for MYPD2. Eskom on average used OCGT at a load factor of almost 10% in 2012/13 and at a load factor of just over 3% in 2011/12. The OCGT utilisation in the 2010/11 financial year was less than what was allowed in the MYPD2 decision. Eskom therefore made significantly more use of OCGTs in 2012/13 particularly towards the end of the year. Eskom thus did

not meet its own average UCLF target of 6.0% for 2012/13 as the actual average UCLF was 12.1%.

83. During the 2012/13 financial year more than 88.0% of the OCGT utilisation was between September 2012 and March 2013. Therefore, OCGT utilisation was mainly in the low demand summer period, rather than in the high demand winter period of the year. Based on information provided by Eskom, the OCGT plant was operated at an average load factor of almost 20.0% in the last three months of the year. Over the same period, plant availability dropped to a three-month average of 73.9% as unplanned capacity lost factor was as high as 15.3%, and plant capacity loss factor was at an average of 10.8%.
84. Given that the plant failure is directly attributable to inefficient generation plant management, Eskom could have limited the utilisation of OCGT. It would therefore not be prudent to allow Eskom full pass-through of the volume variance and variance attributable to inefficient fuel utilisation.
85. The fact that Eskom had to rely on greater utilisation of OCGT in 2012/13 to meet lower demand is therefore due to supply constraints attributable to higher summer UCLF. Eskom should therefore have been able to sustain the levels of efficiency achieved in 2011/12 as well as in the winter periods of 2012/13. It should have been possible to at least sustain the level of plant efficiency achieved in 2011/12 due to the reduced demand for 2012/13.
86. Eskom in 2011/12 achieved fuel efficiency (L/MWh) of 293, which dropped to 320 in 2012/13 despite increased utilisation of OCGT. Due to increased load factors achieved in 2012/13, fuel efficiency should in fact have increased if OCGT plant had been operated efficiently. While Eskom agreed that when used prudently, OCGT fuel efficiency should ordinarily increase at higher load factor, it could not adequately explain the drop in fuel efficiency in 2012/13 when compared to what was achieved in 2011/12.
87. In terms of the MYPD2 methodology, the price variance is an automatic pass-through for RCA purposes though limited to the allowed volumes. The entire price variance should therefore be allowed as a variance in favour of Eskom, though limited to allowed volumes.
88. It would be prudent to limit the total OCGT pass-through cost to R3 689m, therefore limiting the variance to R1 898m for the purposes of computing the NERSA RCA balance. The variance of R1 898m in favour of Eskom is therefore included in the RCA Balance.

89. However as can be inferred from the Table 17 below Eskom in 2012/13 financial year generated 1 905GWh using OCGT of which 1198GWh was disallowed. Eskom however still had to generate 1 198GWh to meet the energy supply requirement. This implies that Eskom would have had to rely on other supply options at cost which would have been deemed prudent and recoverable.

**Table 17: MYPD2 OCGT Generation**

OCGT	2010/11	2011/12	2012/13	MYPD2
Allowed OCGT GWh	274	300	300	874
Actual OCGT Generation GWh	197	707	1 905	2 809
OCGT Generation allowed in RCA (GWh)	197	707	707	1 611
OCGT Generation disallowed (GWh)	-	-	1 198	1 198
Average Coal burn cost (R/MWh)				
Additional Allowed Cost (R'm)			266	

90. Eskom was therefore compensated at the 2012/13 actual average coal cost of [REDACTED] as though it used coal fired power stations to meet the additional demand. This will result in an additional OCGT RCA allowance of R266m and therefore increase to the total OCGT variance in favour of Eskom to R2 164m.

## CECA

91. Since Eskom under-spent on the allowed capex by R76 361m over the MYPD2 period, the CECA RCA variance is R4 307m in favour of the customers. Though the actual capex under-expenditure was R72 361m over the MYPD2 period, it is the return on respective annual expenditure which is clawed back in favour of the customers.

## Correction Factor Adjustments

92. The total volume variance adjustments over the MYPD2 period amounted to R764m in favour of the customers. The volume variance adjustments are with respect to primary energy cost only as they are considered to vary with the level of electricity generated by Eskom. The adjustment is in favour of the customers as Eskom generated less electricity from own sources than was allowed as part of the MYPD2 decision due to lower actual demand from customers and unavailability of plant. There is, however, a slight difference of R87m between the Eskom and NERSA RCA assessment. The difference is attributable to the fact that the Eskom assessment double counted the water cost variance for its hydro power station as it was included in the overall water cost.

93. The NERSA assessment is that the total inflation volume variance adjustments over the MYPD2 period amounted to R1 038m. The adjustments were made with respect to primary energy cost and all other operating expenditure as the actual average inflation rates for each of the respective years turned out to be lower than the average inflation rates assumed in the MYPD2 determination.

### **Ring-fenced Expenditure Adjustments**

94. As outlined in Table 7 elsewhere in the report, Eskom was allowed total funding of R5 446m for EEDSM projects over the MYPD2 period and managed to execute EEDSM projects to the value of R5 364m, and only therefore under-spent by R82m.

95. Eskom applied for total of R1 384m as compensation for achieving the MW saving targets set by NERSA as part of the MYPD2 decision. Though Eskom exceeded the MW savings for each of the respective years, it was not the case when it comes to the energy saving (MWh) targets. Therefore, in terms of the provision of the MYPD2 decision, Eskom does not qualify for any compensation over and above the allowed cost over the MYPD2 period.

96. Eskom in year 2010/11 did not manage to spend R625m of the EEDSM funding. However, in year 2011/12, it exceeded its budget for the year by R83m and in year 2012/13, the over-expenditure was R460m. Therefore over the MYPD2 period it the total variance was R82m in favour of the customers which should be included in RCA balance. Eskom should be allowed the over-expenditure to the extent that it does not exceed total savings over the MYPD2 period as some of the projects may have rolled-over from one financial year to the other.

97. Eskom was allowed an amount of R154m in the 2010/11 financial year for procurement of surplus capacity from the Southern African Power Pool during the 2010 World Cup. Since Eskom did not have to make use of the Southern African Power Pool for the purposes of the 2010 World Cup requirements, the entire amount of R154m should be clawed back in favour of the customers.

98. Eskom was allowed total funding of R1 275m for demand market participation (DMP) projects over the MYPD2 period. Over the three years, Eskom managed to execute DMP projects to the value of R910m and therefore had a variance of R784m in favour of the customers. However, included in the actual expenditure of R415m for the 2011/12 financial year, is an amount of [REDACTED] which

is a provision for an ongoing dispute [REDACTED]. The dispute however precedes MYPD2 and the amount should therefore be excluded for the purposes of the MYPD2 RCA.

99. During the last two years of the MYPD2 Eskom claims to have spent R3 528m on its power buyback (PBB) programme as part of its 'keeping the lights on' initiative, though such expenditure was never approved by the Energy Regulator as part of the MYPD2 decision or any other decision.

100. Notwithstanding the fact that the regulatory methodology does not allow for inclusion of PBB in the RCA assessment, Eskom applied for its inclusion. According to Eskom this is because the expenditure was unavoidable and incurred in the context of the 'keeping the lights on' strategic imperative. The intention of the PBB programme was to remove substantial base load from the system by approaching a number of key industrial customers. The PBB programme was managed in two phases. Phase 1 was from January 2012 to May 2012; Phase 2 was from November 2012 to May 2013.

**Table 18: Eskom PBB expenditure**

PBB (R'm)	2010/11	2011/12	2012/13	MYPD2
PBB funding Allowed	-	-	-	-
PBB actual expenditure	-	499	3 029	3 528
PBB Over/(Under) expenditure	-	499	3 029	3 528

101. As outlined in Table 18 above, Eskom is claiming PBB of R499m for 2010/11 and R3 029m for 2012/13. However, according to the evidence provided by Eskom, it incurred expenditure of R669m for 2011/12 and R2 860m for 2012/13. Eskom attributes the difference to the fact that the actual expenditure was under provided for in its financial statements for the 2011/12 financial year and therefore over provided for in the 2012/13 financial year. Thus the total amount claimed for the MYPD2 period remains R3 528m.

102. Given the veracity of the amount and the claim that the country would have faced load-shedding, Eskom was requested to submit an audit report as well as a report on verification of the reported MWh savings and corresponding monetary cost of PBB for each of the respective years.

103. After consideration of the facts, evidence and figures submitted by Eskom on the PBB program the Energy Regulator did not allow any expenditure for the Eskom PBB programme as part of the MYPD2 RCA balance as the MYPD methodology does not provide for inclusion of the PBB cost..

104. The cost of cover of R6 920m for the MYPD2 period was allowed by NERSA as part of its operating expenditure. In terms of the MYPD methodology, cost of cover as part of operating cost is excluded from the RCA assessment. This is the case because operating cost is considered to be controllable, therefore any over/under-expenditure is for the account of Eskom to encourage it to enhance its efficiency.
105. Eskom was allowed total funding of R3 213m for coal haulage and road maintenance projects over the MYPD2 period. Over the three years, Eskom managed to execute coal haulage and road maintenance projects of R744m, therefore it has a variance of R2 469m in favour of the customers, which has been included in the MYPD2 RCA assessment.
106. Eskom was allowed total funding of R12 422m for procurement of electricity from IPPs and co-generation customers over the MYPD2 period. Over the three years, Eskom managed to purchase electricity to the value of R7 470m from IPPs and co-generation customers and therefore has a variance of R4 952m in favour of the customers, which has been included in the MYPD2 RCA assessment.
107. Part of the ringfenced under expenditure (R4 602m) was reallocated to MYPD3 to enable Eskom to continue with the activities based on operational requirements.
108. Eskom was allowed total funding of R15 430m for the statutory environmental levy over the MYPD2 period. Eskom over the three years however paid actual levies of R19 150m to the South African Government and therefore has a variance of R3 720m in its favour which has been included in the MYPD2 RCA assessment. The variance is essentially attributable to the fact that the environmental levy increased to 3.5c/kWh.

### **Incentive Scheme Adjustments**

109. During MYPD2, Eskom was exposed to a total potential revenue adjustment of R120m for its performance levels on selected indices for both Transmission and Distribution. Eskom Distribution received a total accumulative reward of R12.16m for its improved performance on System Average Interruption Duration Index (SAIDI) during the MYPD2 period. Eskom Transmission received a total accumulative reward of R18.49m for performance levels achieved on the three measures used for Service Quality Incentive (SQI). The

measures that were used during the MYPD2 control period are System Minutes (SM)  $<1$ ,  $SM \geq 1$  and line faults/100km.

### **Decrease in Return on Assets (ROA)**

110. The Eskom application added a benefit of R700m due to a decrease in Return on Assets (ROA) back to its RCA balance at the end of the MYPD2 period. The methodology however does not provide for any form of adjustment attributable to changes to ROA.

### **Conclusion: Overall RCA Balance**

111. As outlined in Table 11 on page 14 of 27, the cumulative RCA balance at the end of the MYPD2 is R7 818m in favour of Eskom. This is after the balances at the end of 2010/11 and 2011/12 were R5 241m and R2 456m respectively, both in favour of the customers, even after adjustment for the R3 048m of the balance clawed back before. All the gains in favour of the customers were however reversed in the last year of MYDP2 as the RCA balance was in favour of Eskom after adjustment for IPP revenue as provided for in the MYPD3 decision.

112. The cumulative RCA balance of R7 818m constitutes 2.3% of the total allowed revenue for MYPD2 of R344 304m and can, in terms of the provisions of the methodology, be clawed back all at once. The implementation of the RCA balance should, however, be with due regard to the EPP of affordability of electricity and long-term sustainability of the electricity supply industry.