Performance on strategic objectives

This section deals with Eskom’s performance during the six months to 30 September 2013, placed within the context of its eight strategic objectives, as highlighted in ‘About this report’ on page 9. It includes relevant key performance indicators for each objective; actuals for the current period and historical data for comparison; operating highlights and challenges faced; as well as a performance commentary on each key performance area. Unless otherwise stated, future focus areas have remained unchanged since 31 March 2013.

Integrated Resource Plan 2010 (IRP 2010)

The IRP 2010 sets out South Africa’s long-term energy needs and discusses the generating capacity, technologies, timing and costs associated with meeting that need. The update to the integrated resource plan by the Department of Energy is expected to be available towards the end of 2013. The determination on Eskom’s allocation pursuant to the IRP 2010 is still to be made.

Notwithstanding the absence of an IRP 2010 allocation, Eskom has an aspirational allocation, which takes into consideration its ambition to diversify its energy mix. Eskom opted to take the lead in the development of the various generation options in the IRP 2010 and acknowledges that it may not be the owner or operator of these proposed generation alternatives. This approach was aimed at ensuring that ‘execution ready’ options and plans exist for the country.

The development of the framework which informs how Eskom would pursue new capacity options extending up to and beyond 2030 has, however, been put on hold until Eskom’s future business model and the outcome of the IRP 2010 review have been finalised. In view of Eskom’s inability to fund front-end planning activities of its aspirational IRP 2010 allocation, Eskom decided to proceed with the development at the lowest possible level for the next coal and nuclear power stations to avoid team demobilisation. No long-term commitments are to be made and expenditure is to be kept to an absolute minimum.

Coal 3

Development work for a third new coal fired powered station began in early 2008 and continued during 2009/10. In March 2010, a decision was made to stop development work on the project. The project was restarted in February 2012 with the investigation of the flexibility and modular build options. Currently, the project is awaiting PFMA approval from the Department of Public Enterprises before proceeding with site property acquisition and conducting further project development work.

Eskom and the government need to make a decision on the appropriate water pipe size for phase 2 of the Mokolo and Crocodile Water Augmentation Project. The process to purchase properties and restart the generation environmental impact assessment can only commence upon approval from the Department of Public Enterprises.
Performance on strategic objectives

continued

Nuclear build programme

The programme aims to deliver Eskom’s assigned portion of the nuclear power capacity as specified in the Integrated Resource Plan 2010 on a timely basis. The capacity and timing of new nuclear power projects within South Africa are guided by the IRP 2010 process, which in its 2010 revision called for 9.6GW of nuclear power to be commissioned between 2023 and 2029. The South African cabinet endorsed the designation of Eskom as the owner-operator as per the Nuclear Energy Policy of 2008 on 7 November 2012.

Eskom’s funding prioritisation following the MYPD 3 determination has resulted in the cutting back of all programme activities barring those where termination would result in serious programme setbacks. The critical path for this project is being delayed and the funding of these limited activities will have to be reconsidered.

Eskom will continue aligning with government stakeholders on the short-term funding of the programme and on securing this funding. Eskom’s MYPD 3 application did not include any capacity expansion projects post the Kusile power station.

MYPD 3 price determination

On 28 February 2013, NERSA approved total revenue of R863 billion over the next five years, against an applied revenue of R1 088 billion resulting in an average annual increase of 8% in electricity tariffs (this includes 2% for Independent Power Producers). The new tariffs took effect on 1 April 2013 for Eskom customers and from 1 July 2013 for municipal customers. NERSA’s decision will result in a revenue shortfall of R225 billion over the next five years.

The impact of a reduction from the applied tariff increase of 16% to the NERSA determined 8% requires significant changes to the Eskom business. Eskom’s response to the overall challenges facing the organisation will be addressed through the execution of the Business Productivity Programme.

The Business Productivity Programme aims to deliver cost saving opportunities in order to close the revenue gap resulting from the MYPD 3; 8% tariff increase determination by NERSA. The programme focuses on the reduction of the cost base, increased productivity and revisions to the Eskom business model and strategy. A detailed review of the cost base has been conducted. A structured cost management methodology has been implemented. For every opportunity a full process is followed, including conceptual definition, detailed analysis, business case development, budget adjustment, implementation and tracking of benefits. International skills and best practices are utilised to define opportunities and apply proven methodologies and processes.

The programme has been mobilised and staff have been seconded on a full time basis. Governance processes have been implemented and methodologies embedded. The project team is structured in mainly seven key functional areas, focussing on:
• improving efficiency and effectiveness of the capital programme
• reducing external spend through efficient procurement practices, price reduction and revision of technical standards
• reducing revenue losses, improved debt management and finding additional revenue sources
• maintenance cost and process optimisation
• opportunities to reduce direct and indirect employee benefit cost
• funding options and balance sheet optimisation
• optimising and reducing the cost of primary energy

Savings opportunities have been identified, however, it must be highlighted that these opportunities will be dependent on certain trade-offs in terms of Eskom’s mandate and objectives. These are in the process of being defined and consulted with stakeholders. Savings opportunities are in various stages of maturity. It is anticipated that not all opportunities will realise.

Also, external factors that will result in increased pressure on cost will be closely monitored, specifically the implications of the declining sales volumes – savings targets will be amended accordingly.

The key focus areas for the next six months will be:
• articulation of trade-offs and the implication to Eskom’s mandate and objectives
• continued formulation of opportunities to save cost
• detailed analyses and development of a robust business case for each savings opportunity
• expedited implementation of ‘quick wins’
• initiation of the revisions to the Eskom business model
• development of a detailed implementation plan per value package
• revise the Eskom performance model and incentive scheme
• continued communication and stakeholder management
• sign-off of all value packages and adjustments to divisional budgets
• implementation and monitoring of savings opportunities

Eskom is confident that the Business Productivity Programme provides a sound basis to address the challenge of financial sustainability into the future. The programme is actively supported by the chief executive and the Executive Management committee to ensure focus and delivery.

Koeberg nuclear power station was completed in 1984 and has been operated safely for the past 29 years.
Performance on strategic objectives

Becoming a high-performance organisation

Eskom continues its transformation into a utility focused on improved customer service; safer, more effective and efficient operations; better service delivery; talent and skills development and management; transparency; and consistency in communications.

Operating highlights

- The implementation of the generation sustainability strategy has already seen benefits, as the increased opportunity for maintenance has enabled several power stations to significantly improve their emissions performance.
- At 30 September 2013, both Koeberg units had been simultaneously online for 160 days, surpassing the previous record set in 2004.
- Sustained improvement in the following key technical performance measures:
  - No transmission major incidents occurred during the six months to 30 September 2013.
  - The excellent line fault performance attained during the 2012/13 year has continued, as the line fault performance was 0.78 line faults per 100km for the six months to 30 September 2013 (September 2012: 0.91 line faults per 100km).
  - Network performance as measured by system average interruption duration index (SAIDI) and the system average interruption frequency index (SAIFI) improved during the six months to 30 September 2013.
- The contact centre’s KeyCare performance indicator, which measures Eskom’s interactions with its large industrial customers was above target for the six months to 30 September 2013.

Operating challenges

- Eskom’s safety performance remains a challenge.
- The outage plan and backlog is spread over five years, hence the turnaround in the unplanned capability loss factor performance will be gradual.
- Executing the generation sustainability strategy, while keeping the lights on in an environment where the capital expenditure budget to execute the technical plan, is being reduced.
- Challenges were experienced during winter following the failure of a gas insulated switchgear installation at Croydon substation, where high loading prevented normalisation due to outage constraints.
- Debt collection remains a key area of concern, both from the municipalities and the small power users.

Focusing on safety

Eskom’s safety principle is that no operating condition or urgency of service justifies exposing anyone to negative risks arising out of Eskom’s business or causing them injury or damage to the environment. This principle applies to all levels of the company, the public and the environment.

Key performance indicators for Eskom’s safety performance

<table>
<thead>
<tr>
<th>Indicator and unit</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual year to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee lost-time incident rate (LTIR) SC, rate</td>
<td>0.34</td>
<td>0.40</td>
<td>0.40^c</td>
</tr>
<tr>
<td>Fatalities (employees and contractors), number</td>
<td>10</td>
<td>11</td>
<td>19</td>
</tr>
</tbody>
</table>

SC Indicator included in the shareholder compact.
1. The progressive lost-time incident rate (LTIR) is a proportional representation of the occurrence of lost-time injuries over 12 months per 200 000 working hours.
2. Number revised from 0.39 to 0.40 due to the late reporting of incidents.

Two Eskom employees (September 2012: one) and eight contractor employees (September 2012: ten) died on the job in the six months to 30 September 2013, while the lost-time incident rate showed improvement. The two Eskom employees lost their lives due to a motor vehicle accident and an electrical contact incident. Of the eight contractor employees who lost their lives, four were due to motor vehicle accidents, one was struck by an object, one was caught between objects, one was due to an electrical contact and another was due to an assault.
Performance on strategic objectives
continued

### Improving operations

**Key performance indicators for improving performance**

<table>
<thead>
<tr>
<th>Indicator and unit</th>
<th>Definition of indicator</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual year to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal UCLF&lt;sup&gt;SC&lt;/sup&gt; %</td>
<td>Measures the lost energy due to unplanned production interruptions resulting from equipment failures and other plant conditions</td>
<td>11.53</td>
<td>9.99</td>
<td>12.12</td>
</tr>
<tr>
<td>Constrained UCLF %</td>
<td>UCLF that results from emissions and short-term related UCLF due to system constraints to meet the 'Keep the Lights On' objective. This is proportioned between the planned capability loss factor (PCLF) and the other capability loss factor (OCLF)</td>
<td>3.45</td>
<td>2.49</td>
<td>3.41</td>
</tr>
<tr>
<td>Underlying UCLF %</td>
<td>The difference between normal and constrained UCLF and that is still within Eskom's control</td>
<td>8.08</td>
<td>7.49</td>
<td>8.71</td>
</tr>
<tr>
<td>Planned capability loss factor (PCLF) %</td>
<td>Planned energy loss is energy that was not produced during a period because of planned shutdowns or load reductions due to causes under plant management control</td>
<td>9.36&lt;sup&gt;1&lt;/sup&gt;</td>
<td>8.73&lt;sup&gt;1&lt;/sup&gt;</td>
<td>7.86</td>
</tr>
<tr>
<td>Energy availability factor (EAF)&lt;sup&gt;SC&lt;/sup&gt; %</td>
<td>EAF measures plant availability, plus energy losses not under the control of plant management (external) and internal non-engineering constraints</td>
<td>78.42</td>
<td>81.18</td>
<td>77.65</td>
</tr>
<tr>
<td>Total system minutes lost for events &lt;1 minute&lt;sup&gt;SC&lt;/sup&gt;, minutes</td>
<td>Total number of system minutes lost for incidents of less than one minute</td>
<td>1.58</td>
<td>1.53</td>
<td>3.52</td>
</tr>
<tr>
<td>Major incidents, number</td>
<td>Records the number of incidents with a severity greater than one system minute</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>SAIDC&lt;sup&gt;SC&lt;/sup&gt;, hours per year</td>
<td>System average interruption duration index – measures the availability of supply</td>
<td>37.28</td>
<td>43.85</td>
<td>41.89</td>
</tr>
<tr>
<td>SAIFC, events per year</td>
<td>System average interruption frequency index – measures the reliability of supply</td>
<td>20.10</td>
<td>22.61</td>
<td>22.19</td>
</tr>
</tbody>
</table>

<sup>1</sup> Indicator included in the shareholder compact.
1. OCLF – Other capability loss factor is the energy lost because of unplanned shutdowns due to conditions that are outside Eskom’s generation management control.
2. Underlying PCLF – the sum of the normal PCLF and the constrained PCLF (the apportionment of the constrained UCLF that is assigned to PCLF).
3. Normal PCLF.

### Generation

Eskom aims to become a world-class generating utility, capable of providing electricity without interruptions due to plant unavailability. Eskom operates 27 power stations with a total nominal capacity of 41 978 MW.

**Plant performance**

The UCLF percentage for the six months to 30 September 2013 was both higher than the target and the September 2012 figure. This had a negative impact on Eskom’s power plant availability (EAF percentage).

The higher UCLF percentage is an indication of the deteriorating plant health of an ageing power station fleet. The following factors contributed to the high UCLF percentage recorded in the six months to 30 September 2013:

- Partial load losses contributed 4.47% and continue to increase
- 94 boiler tube failures (September 2012: 87) contributed 1.97%
- Major/significant load losses contributed 1.74%

**Generation sustainability strategy**

The strategy aims to improve technical performance in the generation plant over the long term, in a sustainable manner, whilst minimising the negative impact on Eskom’s ability to ‘keep the lights on’.

The strategy ensures that the opportunity is created to perform the required maintenance on the generating plant (within the constraints of achieving 80% plant availability), but at the same time addressing people and process issues. There is a need for a predictable and sustainable power plant performance within a targeted technical performance of 80:10:10 over the next five years; 80% EAF, 10% PCLF, 9% UCLF and 1% other capability loss factor (OCLF). The target for UCLF and OCLF is a maximum of 10%.

### Koeberg performance

On 20 February 2013, Koeberg Unit 1 sustained a reactor and turbine trip due to a switchboard busbar fault. The unit was returned to service on 22 April 2013, and reached full load on 26 April 2013. A partial loss was required for a condenser tube-leak repair from 31 May 2013 to 2 June 2013. Koeberg Unit 2 has operated continuously since its return from a refuelling outage at the end of November 2012.

**Steam Generator Replacement Project**

The project to replace Koeberg’s steam generator is currently in the final stage of the procurement process. The project will extend Koeberg nuclear power station’s life by 20 years. Negotiations with potential suppliers will start once the board confirms the mandate and the necessary approvals are obtained.

**Transmission**

Eskom’s power stations generate electricity, which then flows through its transmission and distribution networks to its end customers. The transmission grid comprises 155 substations and approximately 29 300 km of transmission lines.

This network is used whenever Eskom needs to balance electricity supply and demand in real time, trade electricity internationally, or buy energy from Independent Power Producers (IPPs).

**Technical performance**

The total number of system minutes lost performance (for incidents of less than one system minute) for the six months to 30 September 2013 was impacted by a combination of human errors, ageing assets as well as incidents triggered by customer network faults, which exposed transmission system vulnerabilities. Focus areas include initiatives to improve asset management and human performance.
Criminal incidents
Although no significant incidents have occurred during the period to 30 September 2013, this remains a risk for Eskom. An incident involving theft of copper at a substation resulted in an interruption to a rural supply point. PFMA approval has been obtained for the Transmission National Security Refurbishment project investment proposal. This project includes various initiatives to improve and upgrade the security systems at various critical and high-risk transmission sites in order to mitigate potential risks, thereby ensuring the integrity of assets and continuity of supply.

Distribution
Eskom’s distribution network relays electricity from the transmission network to most of Eskom’s end users. Eskom’s distribution network in South Africa consists of approximately 325 000km of power lines.

Technical performance
The SAIFI performance improved in the six months to 30 September 2013, although not achieving the target of ≤20 interruptions per annum for 2013/2014. SAIDI performance improved in the six months to 30 September 2013 and achieved the target of ≤45 hours per annum for 2013/2014.

The improved distribution network performance is driven by the overall planning, coordination and disciplined execution of Eskom’s network reliability improvement plans and other operational excellence initiatives. Eskom’s long-term distribution network objective is to move to the first quartile performance for distributors with similar network characteristics.

Customer service performance
Eskom’s customer satisfaction levels are assessed in terms of a composite index, which measures Eskom’s service to residential, small and medium customers and the Eskom KeyCare rating, which measures the satisfaction of Eskom’s large industrial customers. The customer service index performance was stable, while the Eskom KeyCare measure showed improvement in the six months to 30 September 2013. The improvement in the KeyCare performance is indicative of the regular interactions with top customers to share critical information on the power system status and capital expansion programme.

The online vending system was successfully enhanced and went live on 22 July 2013.

Municipal arrear debt
Municipal arrear debt continues to rise. The total municipal debtors increased from R5.1 billion at 31 March 2013 to R7.0 billion as at 30 September 2013; R1.2 billion and R2.4 billion of which were arrears as at 31 March 2013 and 30 September 2013 respectively. The percentage of municipal arrear debt to total municipal debt has increased from 24% in September 2012 to 34% in September 2013. The expected reduction in total municipal arrear debt in July 2013 as a result of municipalities receiving their governmental equitable share income didn’t materialise and only limited payments were made to Eskom.

Eskom started the disconnection process in line with the Promotion of Administrative Justice Act (No 3 of 2000) process to a number of municipalities mainly in Mpumalanga and in the Free State. Disconnection was averted as the municipalities have taken appropriate action upon receipt of Eskom’s disconnection notice by either paying or making arrangements to
Performance on strategic objectives

settled their debt. In October 2013, Eskom was interdicted and restrained from disconnecting the bulk electricity to Thaba Chweu Local Municipality in Mpumalanga subject to the outstanding debt or a payment schedule for such debt, be negotiated and concluded by 18 November 2013.

Soweto arrear debt
The Soweto arrear debt remains a major concern. The total Soweto debt as at 30 September 2013 was R3.5 billion (31 March 2013: R3.2 billion), which excluded all interest charges raised on these overdue amounts.

The residential revenue management strategy, which includes Soweto, entails the installation of split metering with protective enclosures and converting customers to prepaid with new supply group codes to eliminate ghost vending. This strategy, combined with focussed credit management and disconnections should assist in the recovery of outstanding debt.

Energy losses and theft
Energy losses continue to be a challenge for utilities globally, both within developed and developing economies. As a result of the increasing production costs within the value chain, it is becoming increasingly important for utilities to manage these losses at acceptable levels. Within Eskom the problem becomes even more visible because of the generation capacity challenges being experienced.

In the six months to 30 September 2013, Eskom’s total energy losses were 9.22% (September 2012: 8.98%).

The distribution energy losses performance since March 2013 has deteriorated due to two dominant factors, namely:

- A significant reduction in sales to high-voltage customers resulting in an increase in the distribution losses percentage.
- Non-technical losses, particularly theft, has been growing across all sectors in Eskom’s customer base, resulting in increases in the energy losses volume.

For internal evaluation purposes the estimated technical losses range from between 60% and 75% of total losses in the distribution networks, while 100% is estimated for the transmission networks.

The current harsh economic conditions being experienced across the country also contributes to the deterioration in energy and revenue losses. Eskom will continue to focus on curbing electricity theft, while ensuring that the technical losses are also kept in check.

Conductor or copper theft continues to plague Eskom. In the six months to 30 September 2013, R13.3 million of material was stolen (September 2012: R0.5 million), 833 incidents were reported (September 2012: 816) and 118 perpetrators were arrested (September 2012: 130).

The increase in the value of the material stolen remains a serious concern and is an indication of organised criminal activity in the conductor theft environment. This is being addressed by means of intelligence driven investigations by the Hawks special investigating unit, supported by industry and aggressive policing of the market for stolen goods.

On a positive note, the courts are taking this type of crime seriously and the sentences being meted out to perpetrators are starting to be comparable to the severity of the crime.

The joint industry working group, formed by Eskom, Transnet, Telkom, the South African Police Services, the National Prosecuting Authority, Business Against Crime and the South African Chamber of Commerce and Industry, continues to positively contribute in the fight against crime.

Building strong skills
Eskom constantly needs to source, develop and retain technically skilled workers at all levels of the company to ensure the sustainability of its business.

Key performance indicators for building strong skills

<table>
<thead>
<tr>
<th>Indicator and unit</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual year to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training spend as a percentage of gross employee benefit costs*SC 1, %</td>
<td>7.48</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Total engineer learners in the system*SC, number</td>
<td>2 269</td>
<td>2 052</td>
<td>2 144</td>
</tr>
<tr>
<td>Total technician learners in the system*SC, number</td>
<td>822</td>
<td>733</td>
<td>835</td>
</tr>
<tr>
<td>Total artisan learners in the system, number*SC</td>
<td>2 518</td>
<td>2 040</td>
<td>2 847</td>
</tr>
<tr>
<td>Strategic youth development programme, number*SC</td>
<td>5 100</td>
<td>5 029</td>
<td>5 701</td>
</tr>
</tbody>
</table>

*SC Indicator included in the shareholder compact.
1. New key performance indicator, comparatives not available.

As at 30 September 2013, there were 5 609 technical learners (engineers, technicians and artisans with three- to four-year learning or bursary contracts) in the pipeline, 217 lower than the 5 826 learners as at 31 March 2013. There were also 5 100 participants in the youth programme, which trains young people to contribute to the country’s socio-economic development, of which 2 590 represent the young people funded by Eskom. The remainder of the participants are trained by the capital expansion programme suppliers.

Illegal connections not only create revenue problems for Eskom, but also create safety risks.
Performance on strategic objectives
continued

Investing in appropriate technologies
Eskom sees itself as a highly innovative organisation, on par in research and innovation with other leading international power utility companies.
Eskom invested R216.6 million into researching and testing technologies with R41.8 million directly invested in applied research and R9.8 million into capital pilot and demonstration projects. An initiative is under way to identify efficiency opportunities and refores the portfolio. The portfolio is focussed on 18 high priority projects for the current year, five of which are highlighted below.

Online boiler condition monitoring being piloted at Kriel power station
By combining measurement data obtained during outages with data streamed from advanced online boiler condition monitoring equipment the project has developed an innovative, proactive approach to boiler tube failure prediction.

High frequency electrostatic precipitator being piloted at Lethabo power station
The project aims to improve the particulate emission performance of Eskom’s precipitator plants, thereby improving Eskom’s particulate emission performance.

Material analysis and support
Using advanced analysis techniques, it is possible to quantify the risk of power plant breakdowns and to proactively take measures to increase plant reliability and running time. Most notably, these techniques were employed in the identification of Medupi welding compliance and risk, and in defining an optimal way forward for Eskom.

Waterberg coal suitability analysis
Eskom is conducting an analysis on Waterberg coal samples to determine the suitability of this coal for use in the Mpumalanga power stations. This is of strategic importance as this knowledge will affect the procurement and transport strategies in sourcing coal for the Mpumalanga projects. The project is on track and the first samples are undergoing tests.

Underground Coal Gasification (UCG)
A strategic partnership agreement with Sasol has been signed to explore synergies between the two companies regarding strategic opportunities for UCG gas and to leverage the gas handling and gas clean up expertise of Sasol.

leading and partnering to keep the lights on

Eskom is committed to preventing load-shedding by actively partnering with all key stakeholders, including the people of South Africa, in a comprehensive supply-and-demand management strategy. This objective primarily focuses on ensuring security of supply for South Africa.

Operating highlights
• Avoided load-shedding during the six months to 30 September 2013 despite facing significant challenges
• Power plant maintenance undertaken during the past winter, which is in line with the strategy towards achieving a sustainable generation fleet
• The energy imports from the Hydro Cahora Bassa scheme have been normalised following the repair of damaged towers caused by the floods in Mozambique in 2012
• The return to service power station project has been concluded with the successful commissioning of the final 90MW unit at Komati power station. President Jacob Zuma officially declared Grootvlei power station open on 20 September 2013, following the commissioning of an additional 30MW on Unit 5 during April 2013
• Integrated demand management initiatives, mainly through demand response programmes provide the system operator with approximately 981MW of dispatchable load for its control and peak reduction requirements

Operating challenges
• Tight operational reserves resulted in a high usage of the open cycle gas turbine fleet
• The performance and reliability of the Hydro Cahora Bassa imports may be at risk pending the finalisation of the refurbishment of the Songo converter station in Mozambique
• The MYPD 3 determination significantly reduced the integrated demand management funding, which may put the security of supply at risk
• The key challenge facing the capital expansion programme is remaining on schedule in the face of contractor issues and labour action
• Contractor performance in addressing welding issues on the boilers remains an ongoing concern
• The Ingula transformer hall and dewatering shaft is about three months behind the optimised schedule and will result in possible delays to other project timelines
• The timely acquisition of servitudes over state owned and tribal land is a challenge as in most cases land is unsurveyed

Keeping the lights on
‘Keep the lights on’ is a collective term that Eskom uses to refer to the complex interplay between the ability of its electricity demand-management initiatives, both internal and regionally, to reduce South Africa’s energy usage and consequently provide an adequate margin between supply and demand.
Performance on strategic objectives

continued

Key performance indicators for keeping the lights on

<table>
<thead>
<tr>
<th>Indicator and unit</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual year to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance backlog reduction based on</td>
<td>1</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>the Eskom Technical Governance committee approval SC, number</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demand management savings SC, MW</td>
<td>117</td>
<td>220</td>
<td>595</td>
</tr>
<tr>
<td>Internal energy efficiency SC, GWh</td>
<td>0</td>
<td>1.0</td>
<td>28.9</td>
</tr>
</tbody>
</table>

SC Indicator included in the shareholder compact.

1. The maintenance backlog reduction key performance indicator has been included in the shareholder compact for 2013/14, based on revised definitions of the maintenance backlog, and requiring approval by the Technical Governance committee. This measure tracks the status of approved scheduled backlogging maintenance. If the outage has not yet started by the scheduled start date, the measure will be greater than zero. The measure is new and hence comparative figures are not available.

Managing supply-and-demand constraints

During the past six months Eskom performed more maintenance than normal as a result of implementing the generation sustainability strategy – refer to page 38, which deals with maintenance in further detail. This has created more pressure on the already tight supply-demand balance and the situation has been further exacerbated by the revenue gap, which has reduced Eskom’s ability to procure additional demand and supply side levers.

While there was sufficient capacity to meet the demand during the day in winter, on a number of evenings the power system was tight with all available generation in service and contracted demand requested to reduce load. The average available operating reserves over the peak period in June 2013 were under 3% as depicted on the graph alongside. On 13 June 2013, the worst constrained day this past winter, the actual available reserves over the peak period were 1.09% short of demand – emergency resources including interruptible load supply from some industrial customers were required to meet the demand.

While the power system remained tight throughout this period, it was nonetheless better than expected mainly due to a warmer winter and some savings over peak periods. The reduced demand and demand-response initiatives (refer to the Demand-side management and energy efficiency section on page 40 for more details on these initiatives), includes power buybacks translated into lower-than-expected sales of 110 659GWh for the six months to 30 September 2013.

Open-cycle gas turbines (OCGTs) were used more extensively over the past six months mainly as a result of the implementation of the generation sustainability strategy. The OCGT average load factor for the six months to 30 September 2013 was 11.4% (September 2012: 3.9%). While electricity sales volumes decreased slightly, this did not necessarily translate into reduced electricity demand during the peak periods of between 17:00 and 21:00; hence the requirement for OCGT generation during peak periods to meet demand. A lower than normal reduction in sales volumes to key customers in the winter periods to offset the growth in sales to the remainder of the customer base did not manifest itself as strongly this year; resulting in additional demands on the OCGT fleet. The expectation is that the OCGT fleet will continue to be extensively used throughout the forthcoming summer months subject to the availability of funding. The costs associated with running the OCGT fleet for the six months to 30 September 2013 were R3.3 billion, an increase of 231% in comparison to the R1.0 billion incurred in the six months to 30 September 2012.

Refer to page 50 for details on electricity purchases from IPPs, which have contributed to the security of electricity supply.

The system outlook remains tight for the coming summer, with different challenges due to the summer load profile. Unlike winter, where the demand increases during the evening peak, the demand profile during summer is much flatter (‘Table Mountain’ profile as depicted in the figure overleaf) with an increased demand profile throughout the day, primarily due to air-conditioning and geysers.

While there was sufficient capacity to meet the demand during the day in winter, on a number of evenings the power system was tight with all available generation in service and contracted demand requested to reduce load. The average available operating reserves over the peak period in June 2013 were under 3% as depicted on the graph alongside. On 13 June 2013, the worst constrained day this past winter, the actual available reserves over the peak period were 1.09% short of demand – emergency resources including interruptible load supply from some industrial customers were required to meet the demand.

While the power system remained tight throughout this period, it was nonetheless better than expected mainly due to a warmer winter and some savings over peak periods. The reduced demand and demand-response initiatives (refer to the Demand-side management and energy efficiency section on page 40 for more details on these initiatives), includes power buybacks translated into lower-than-expected sales of 110 659GWh for the six months to 30 September 2013.

Open-cycle gas turbines (OCGTs) were used more extensively over the past six months mainly as a result of the implementation of the generation sustainability strategy. The OCGT average load factor for the six months to 30 September 2013 was 11.4% (September 2012: 3.9%). While electricity sales volumes decreased slightly, this did not necessarily translate into reduced electricity demand during the peak periods of between 17:00 and 21:00; hence the requirement for OCGT generation during peak periods to meet demand. A lower than normal reduction in sales volumes to key customers in the winter periods to offset the growth in sales to the remainder of the customer base did not manifest itself as strongly this year; resulting in additional demands on the OCGT fleet. The expectation is that the OCGT fleet will continue to be extensively used throughout the forthcoming summer months subject to the availability of funding. The costs associated with running the OCGT fleet for the six months to 30 September 2013 were R3.3 billion, an increase of 231% in comparison to the R1.0 billion incurred in the six months to 30 September 2012.

Refer to page 50 for details on electricity purchases from IPPs, which have contributed to the security of electricity supply.

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Performance on strategic objectives

continued

Unlike winter, where residential customers have the greatest impact, during the summer, it is primarily the commercial sector that can make the biggest difference. The challenge is to ensure that there is sufficient generation capacity throughout the day, as Eskom continues with the maintenance plan and focuses on reducing unplanned outages.

Maintenance backlog reduction strategy

Eskom’s coal-fired generating units require routine maintenance to ensure that they meet their technical performance requirements, are safe to operate and do not violate environmental laws. Almost two-thirds of Eskom’s power stations are past the midpoint of their expected operating lives and they therefore require higher levels of planned maintenance work. Like any engine, generating plants need routine maintenance or upgrades that require them to be fully or partly taken out of service.

Since the load-shedding events of 2008, Eskom has committed to keep the lights on. While this strategy has ensured that load-shedding has been averted to date, it has created a maintenance backlog, which has resulted in the deterioration of plant health and environmental performance.

To reduce the maintenance backlog and ensure the long-term sustainability of the generating plant, Eskom has and will continue to schedule more maintenance in the winter months compared to what had normally been the case in previous years. Refer to page 29 for further information regarding the generation sustainability strategy.

A maintenance schedule has been compiled to track future scheduled maintenance. During the six months to 30 September 2013, nine planned maintenance outages were scheduled. The backlog of scheduled Technical Governance committee related outages is one. Eight outages are either complete or in the process of execution. The remaining outage was released on 31 October 2013.

More maintenance was done during this winter than in the three preceding years for the same period, as evidenced by the graph which follows. This is consistent with the strategy towards achieving a sustainable generation fleet.

As at September 2013, the underlying PCLF (reflecting the energy loss during the period because of planned shutdowns) was 9.36% (including constrained UCLF) and 8.73% (excluding the constrained UCLF) against a target of 10%. Gross expenditure on power station maintenance before capitalisation and excluding employee benefit costs for the six months to 30 September 2013 was R6.4 billion (September 2012: R3.8 billion).

Summer is typically maintenance season, but this summer maintenance will increase based on the generation sustainability strategy as most of the scheduled maintenance is fixed and cannot be deferred.

Cross-border electricity sales and purchases

In contrast to South African sales, cross-border sales in the six months to 30 September 2013 were higher than expected, mainly due to the unplanned low availability of the new Morupule B power station in Botswana; in Namibia the dry season affected output at the Ruacana hydro station; the growth in electricity demand in Mozambique has resulted in a reduced surplus of energy available for sale to other regional utilities, most notably Swaziland; and Lesotho has seen considerable load growth.

Cross border energy purchases in the six months to 30 September 2013 were lower than expected due to Hydro Cahora Bassa operating at a 1 300MW level instead of 1 500MW following the inability to restore full output owing to the failure of the reactor at the Songo Converter Station in mid-2012.
Performance on strategic objectives

continued

Demand-side management and energy efficiency

Demand-side management interventions encourage customers to use electricity more efficiently, so reducing the gap between supply and demand in the short to medium term.

During the six months to 30 September 2013, Eskom achieved total evening peak demand savings of 117MW (September 2012: 220MW) and annualised energy savings of 306GWh (September 2012: 813GWh). Eskom spent R0.7 billion on integrated demand management initiatives’ during the six months to 30 September 2013 (September 2012: R1.2 billion).

The MYPD 3 tariff determination has reduced the available funding for integrated demand management projects. The Standard Product and Standard Offer programmes are currently on hold, and active marketing of integrated demand management products has been stopped resulting in a reduction in the pipeline of projects.

Eskom continued the rollout of the demand response rewards programme to sign up customers to reduce demand for compensation should the electricity system require it. Currently, 579MW of supplemental and 394MW of instantaneous load, as well as 8MW of standby generation is available to the system operator for its control and evening peak reduction requirements.

Power buybacks for the six months to 30 September 2013 were 1 310GWh (September 2012: 289GWH), all of which were executed in April and May 2013. The costs associated with the power buybacks were provided for during 2012/13.

The residential mass rollout programme continues to be the key residential initiative contributor, delivering 81MW of verified savings in the six months to 30 September 2013. Phase two of the compact fluorescent lamp replacement programme is nearing completion with 4.5 million of the targeted 5 million bulbs installed; of which 17.7MW savings have been verified in the six months to 30 September 2013. In addition to these savings, three suppliers have been contracted to procure 5 million compact fluorescent lamps, the first batch of which is expected at the end of 2013.

Eskom contributes to the government’s solar water heating initiative, which aims to install a million solar water heaters by 2014/15. In the six months to 30 September 2013, 32 165 solar water heaters have been installed, bringing the inception to date total to 319 429 for the rebate programme and 30 768 for residential contracts.

Eskom’s power alert and power bulletin campaigns televised during the evening peak between 17:00 and 21:00 continue to reduce power demand during the evening peak period. The average weekday evening peak impact for the period under review for all colours (green, orange and red) is 238MW, while the average impact for the red flightings in the evening peak on the worst constrained day is 324MW.

No verified internal energy efficiency savings were recorded in the six months to 30 September 2013 (September 2012: 813GWh), all of which were executed in April and May 2013. The costs associated with the power buybacks were provided for during 2012/13.

Delivering capital expansion

Continue to pursue the capital expansion programme and spend the resources required to increase generation capacity, increase transmission network performance and strengthen the distribution network performance and develop comprehensive governance structures around the capital expansion programme.

Key performance indicators for delivering capital expansion

<table>
<thead>
<tr>
<th>Indicator and unit</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual year to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation capacity installed and commissioned SC, MW</td>
<td>120</td>
<td>20</td>
<td>261</td>
</tr>
<tr>
<td>Transmission lines installed SC, km</td>
<td>511.1</td>
<td>427.9</td>
<td>787.1</td>
</tr>
<tr>
<td>Transmission capacity installed and commissioned SC, MVA</td>
<td>290</td>
<td>2 250</td>
<td>3 580</td>
</tr>
<tr>
<td>Generation new build capacity milestones (Medupi, Kusile and Ingula) SC, days</td>
<td>5.75</td>
<td>-2.32</td>
<td>43.48</td>
</tr>
<tr>
<td>Total capital expenditure (excluding capitalised interest), R billion</td>
<td>23.4</td>
<td>26.0</td>
<td>60.1</td>
</tr>
</tbody>
</table>

SC Indicator included in the shareholder compact.

The key challenge facing the capital expansion programme is remaining on schedule in the face of contractor issues and labour action. Between 2005 and 30 September 2013, the programme has increased Eskom’s generating capacity by 6 137MW, its transmission lines by 5 198km and its transmission substation capacity by 24 065MVA.

Medupi

The delivery of Medupi Unit 6 remains a critical focal point. The first synchronisation of Medupi Unit 6 has been extended and is expected during the second half of 2014.

Eskom negotiated a new partnering agreement with contractors and labour. This has restored labour stability. Site attendances have improved with the exception of sporadic instances of temporary stoppages.

Eskom continues to investigate optimal recovery processes and progress is being made in this regard. Productivity issues, however, persist. Project cost, time and commercial reviews are ongoing with the aim of achieving the target first synchronisation dates, determining cost-to-completion and developing action plans for outstanding dependencies.

The technical issues surrounding welding on the Unit 6 boiler have largely been quantified and recovery strategies are now receiving attention. The aim is to implement solutions

1 Only reflects integrated demand management operating expenses.
Performance on strategic objectives
continued

to the post-weld heat treatment and weld procedure qualification record to meet the project milestones.

Eskom and its key partners in the Medupi project have established the Medupi leadership initiative to address the consequence of demobilisation of workers and the impact it has on the local community and economy of Lephalale.

From the more than 250 opportunities identified, six were prioritised and funding of approximately R76 million was committed by the collaborating partners to kick-start the initiative for the first three years. Many of these initiatives are planned for late 2013 to coincide with the anticipated mass demobilisation. Eskom has set aside R150 million in the Medupi project’s revised business case for the Medupi leadership initiative.

Kusile
While significant challenges remain to meet the target synchronisation in the second half of 2015, Eskom is aggressively implementing recovery strategies intended to mitigate delays and achieve the earliest possible synchronisation date, with commercial operation to follow six months thereafter. The schedule has been strained by the boiler contractor’s poor progress in erecting the Unit 1 boiler.

Ingula
The Ingula transformer hall and dewatering shaft is about three months behind the optimised schedule and will result in delays to other packages and possibly to project timelines. The impact is not expected to have a major impact on the official schedule, provided there are no further slippages. The critical aspect is that the commissioning of the gates in the surge chambers could be delayed. The immediate focus for this project is to complete the civil works for Unit 3 to enable the erection of the electrical and mechanical plant by December 2013.

Generation capacity plan, 2013/14 to 2018/19 (capacity installed/first power to the grid)

<table>
<thead>
<tr>
<th>Project</th>
<th>Year to 31 Mar 2014</th>
<th>Year to 31 Mar 2015</th>
<th>Year to 31 Mar 2016</th>
<th>Year to 31 Mar 2017</th>
<th>Year to 31 Mar 2018</th>
<th>Year to 31 Mar 2019</th>
<th>Year to 31 Mar 2020</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grootvlei (return to service)</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Komati (return to service)</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>90</td>
</tr>
<tr>
<td>Medupi (coal-fired)</td>
<td>1 588</td>
<td>1 588</td>
<td>1 588</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4 764</td>
</tr>
<tr>
<td>Kusile (coal-fired)</td>
<td>800</td>
<td>800</td>
<td>1 600</td>
<td>800</td>
<td>800</td>
<td></td>
<td></td>
<td>4 800</td>
</tr>
<tr>
<td>Ingula (pumped storage)</td>
<td>999</td>
<td>333</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 332</td>
</tr>
<tr>
<td>Sere wind farm (renewable)</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td><strong>Total (MW)</strong></td>
<td>120</td>
<td>2 687</td>
<td>2 721</td>
<td>2 388</td>
<td>1 600</td>
<td>800</td>
<td>800</td>
<td>11 116</td>
</tr>
</tbody>
</table>

The table above represents the first synchronisation dates and total capacities for each new power station unit. Commercial operation occurs several months after the first synchronisation dates in each case.

Capital expenditure
Summary of capital expenditure by division, excluding capitalised borrowing costs

<table>
<thead>
<tr>
<th>Division (R million)</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual year to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group capital</td>
<td>14 971</td>
<td>17 322</td>
<td>37 690</td>
</tr>
<tr>
<td>Generation</td>
<td>3 613</td>
<td>3 095</td>
<td>8 512</td>
</tr>
<tr>
<td>Transmission</td>
<td>719</td>
<td>474</td>
<td>893</td>
</tr>
<tr>
<td>Distribution</td>
<td>3 517</td>
<td>3 680</td>
<td>8 317</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>22 820</td>
<td>24 571</td>
<td>55 412</td>
</tr>
<tr>
<td>Future fuel</td>
<td>1 153</td>
<td>1 042</td>
<td>2 634</td>
</tr>
<tr>
<td>Eskom Enterprises</td>
<td>163</td>
<td>278</td>
<td>376</td>
</tr>
<tr>
<td>Other areas including intercompany eliminations</td>
<td>(696)</td>
<td>129</td>
<td>1 711</td>
</tr>
<tr>
<td><strong>Total capital expenditure</strong></td>
<td>23 440</td>
<td>26 020</td>
<td>60 133</td>
</tr>
</tbody>
</table>

The Ingula pumped storage scheme under construction entails 14km of tunnels and 8km of waterways.
Performance on strategic objectives

Reducing Eskom’s environmental footprint and pursuing
low-carbon growth opportunities

Improving environmental performance remains a focus area for Eskom.

Operating highlights
• Improved relative particulate emission and water use performance when compared to the equivalent period last year
• The Sere wind farm construction has gained momentum and the first foundations for the wind turbine generators have been poured and the first consignment of equipment has arrived at the Saldanha port
• Eskom has actively participated in the governmental processes to develop carbon budgets, adaptation plans, measuring and evaluation protocols, greenhouse gas reporting (carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, hydro fluorocarbons) procedures and mitigation plans for the country. Eskom is providing active advice, drafting submissions and participating in government’s international climate change negotiation process
• Eskom took second place in this year’s Sunday Times top brand survey for ‘companies that do the most to look after South Africa’s environment and natural resources’

Operational challenges
• Eskom has initiated a process to request exemption from the minimum emission standards, which are applicable for existing plant standards in 2015 and new plant standards in 2020. Eskom is applying for a postponement from the minimum emission standards for some plant and exemption in other cases where there is insufficient water, sorbent or finances available to implement compliance to the standards. The first round of public meetings for this exemption took place in July 2013. An atmospheric impact study, which assesses the impact of the proposed higher emission levels on the regional quality is being done as part of the exemption application
• Eskom’s ability to significantly address the reduction of its carbon emissions by diversifying its energy mix in the medium term remains constrained by the absence of an enabling environment for large scale development of additional renewable energy projects
• Eskom provided extensive comments on National Treasury’s carbon tax proposal. Extensive work was done on this and positive engagement with National Treasury continues. The implementation of a carbon tax, however, remains a challenge to the economy as it will impact electricity tariffs

Reducing Eskom’s environmental footprint

While a solid reduction of carbon dioxide emissions will only be feasible with a diversification into a new-generation fleet, Eskom continues to pursue a range of actions to limit the environmental footprint on its existing fleet.

Key performance indicators for reducing Eskom’s environmental footprint

<table>
<thead>
<tr>
<th>Indicator and unit</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual year to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative particulate emissions(^{SC}), kg/MWh sent out</td>
<td>0.31</td>
<td>0.33</td>
<td>0.35</td>
</tr>
<tr>
<td>Specific water consumption(^{SC}), L/kWh sent out</td>
<td>1.33</td>
<td>1.35</td>
<td>1.42</td>
</tr>
<tr>
<td>Environmental legal contraventions in terms of the Operational Health Dashboard(^{2}), number</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

\(^{SC}\) Indicator included in the shareholder compact.
1. The specific water performance excludes Komati power station.
2. In defined circumstances where the management of a legal contravention indicates specific management issues or findings, it is recorded on the Eskom Operational Health Dashboard.

Reducing particulate and gaseous emissions
The generation sustainability strategy and the associated increased opportunity for maintenance have resulted in improved emissions performance at several stations.

Reducing water consumption
The improved specific water consumption performance can in part be attributed to an increase in the proportion of energy generated by the dry cooled stations. Despite the improved performance, cooling water leaks and high demineralised water usage have negatively affected performance.

Ground water action plans are being developed for all the power stations based on the reviews that were conducted in March 2013. Three new water use licences were issued by the Department of Water Affairs, while 26 applications are outstanding.

Reducing environmental contraventions
The environmental compliance framework is being implemented. Zero environmental legal contraventions in terms of the Operational Health Dashboard (OHD) have been identified during the six months to 30 September 2013 (September 2012: 1). One potential OHD legal contravention associated with ash water spills at Hendrina power station is presently under investigation. There have been 15 environmental legal contraventions registered during the six months to 30 September 2013 (September 2012: 12).
Reducing Eskom’s carbon footprint

Eskom remains committed to reducing its carbon footprint and helping the country transition to a cleaner energy mix by pursuing low-carbon sources of generation capacity.

Climate change strategy

Eskom’s adaptation strategy is in the process of being implemented throughout the business. The strategy, which details how Eskom will respond to and prepare for the impacts of climate change, is industry leading. Eskom has been invited to international meetings to present this strategy and has participated in discussions to prepare business views on the issue.

Eskom is actively participating in government’s process to implement the national climate change response policy. Current discussions are focussed on assessing the potential reduction of emissions by different sectors and on carbon tax. Eskom has done emission reduction scenario work and plans to update this work in the coming year, so that its contribution is relevant and factually based. In addition, there have been constructive engagements with the National Treasury with regards to the design of the carbon tax.

To ensure Eskom takes a holistic view of all its projects, Eskom’s Executive Management committee recently approved a socio-economic development policy and strategy. The policy supports Eskom’s drive for sustainable socio-economic growth through the provision of electricity.

Investing in renewable energy

Concentrating solar power (CSP) demonstration plant

Eskom continues the project development work on its 100MW CSP plant near Upington in the Northern Cape. The plant is based on a tower design with molten salt as the heat transfer and storage medium. This will provide some stability to the system given its dispatchable characteristics and address supply constraints during times of peak demand. The basic designs are complete, revised environmental authorisation has been received from the Department of Environmental Affairs, and the commercial documentation to shortlist the engineering, procurement and construction contractor has been prepared and will be issued to the market once Eskom receives a response to its request for exemption from the Preferential Procurement Policy Framework Act (PPPFA) from National Treasury.

Future wind, CSP and photovoltaic programme development

In anticipation of an IRP allocation, Eskom has commenced prefeasibility development work associated with its future build; this includes resource identification and environmental scanning. This will minimise scheduled delays once Eskom’s allocation of future renewable projects is announced. Moreover, Eskom is developing photovoltaic projects at its sites for self-consumption and exploring solar augmentation options at its power stations.

Operating highlights

- The Komati Water Scheme Augmentation Project was commissioned and declared operational on 5 June 2013
- Coal stock days increased to 53 days at the end of September 2013 (September 2012: 44 days)
- Overall system coal quality measured by calorific value was as planned
- Significant progress in the execution of the Coal Supply Strategy
- Four medium-term contracts were signed for coal supply to the Kusile power station during the commissioning phase

Operational challenges

- Nooitgedacht Dam and the Usutu system are at their lowest water levels in the past three years. The low water levels result in additional operating expenditure as water has to be transferred to these schemes
- The Kilbarchan Colliery is currently decanting mine affected water
- Despite the overall coal quality being on target, coal-related losses were experienced at Arnot and Tutuka power stations due to inconsistent coal quality and supply
- Coal stockyard space constraints were experienced at Lethabo, Hendrina, Camden and Komati power stations
- Production performance of cost-plus mines continue to be a challenge leading to volumes being augmented through more expensive short to medium-term coal supply agreements

Securing future resource requirements, mandate and the enabling environment

Eskom needs to optimally identify, develop, source, procure and deliver the required amounts of primary energy (water, coal, uranium, limestone and natural gas) to its power stations at the required locations, in the required quality, at the right time and at minimum cost.
Implementing coal haulage and the road-to-rail migration plan

Eskom’s long-term ambition is to reduce the volume of coal transported by road to power stations.

Eskom will continue to reduce the movement of coal trucks on the road through various initiatives, with the aim of improving the cost and safety of coal logistics and ultimately ensuring the security of coal supply. Eskom is also investigating ways in which any economic impact to road transporters as a result of the migration from road-to-rail and their employees can be mitigated (Road Change-over Strategy).

Operating highlights
- Up to the end of September 2013, Free Carrier Arrangement (FCA) coal transporters achieved 64 days without a fatality, while delivered coal transporters achieved 78 days

Operational challenges
- During the six months to 30 September 2013, there were 13 public fatalities resulting from FCA and delivered coal transporters, and two contractor fatalities relating to FCA coal transporters
- Both Eskom and Transnet Freight Rail continue to experience operational challenges in regard to rail deliveries

Although more coal was transported by rail in the six months to 30 September 2013 compared to that in the comparative period in 2012, coal deliveries by rail remain a challenge due to the operational performance constraints experienced by both Eskom and Transnet Freight Rail. Operational inefficiencies were experienced across all Eskom rail services.

In June 2013, the rail deliveries were affected by a series of derailsments on the Transnet Freight Rail Natcor rail line.

Actual road delivery costs increased in the six months to 30 September 2013 due to the fluctuation in diesel costs, increased delivery on longer routes, road-to-rail under-performance and rerouting due to coal unavailability at certain sources.

Eskom continues to drive and implement driver safety awareness with both FCA and delivered transporters. A road transportation safety response plan has been developed from an in-depth review of the current road operations.

Eskom is also implementing a safety drive to curb coal road transportation over weekends as a review of fatalities indicated that there is a significant increase in fatalities during the weekend. This drive intends to stop transporters loading at mines at 18:00 on Fridays, with the power stations remaining open until 22:00 to ensure that the trucks have offloaded. The transporters resume loading at the mines at 06:00 on Sundays.

Key performance indicators for migrating coal transport from road-to-rail

<table>
<thead>
<tr>
<th>Indicator and unit</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual year to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal road-to-rail migration(^{5c}), (additional tonnage transported on rail), Mt</td>
<td>5.4</td>
<td>5.0</td>
<td>10.1</td>
</tr>
</tbody>
</table>

\(^{5c}\) Indicator included in the shareholder compact.
Performance on strategic objectives

Pursuing private-sector participation

Eskom acts as a catalyst for Independent Power Producers (IPPs) to participate in South Africa’s electricity industry, so enhancing South Africa’s security of electricity supply.

Operating highlights
• Eskom signed power purchase agreements for 1 041MW capacity with IPPs as part of the second bid submission under the Department of Energy’s (DoE) renewable energy IPP procurement programme
• In June 2013, contracts for 1 005MW of the DoE open-cycle gas turbine (‘Peakers’) programme were signed
• The first project under the renewable energy IPP procurement programme was connected to the grid on 27 September 2013 and commissioning is in progress

Operational challenges
• Funding approval has not been obtained to extend existing municipal baseload and Short-Term Power Purchases (STPPP) IPP contracts, which are expiring in December 2013

Purchasing and installing IPP capacity

Key performance indicators for pursuing private-sector participation

<table>
<thead>
<tr>
<th>Indicator and unit</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual year to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPP capacity installed, MW</td>
<td>1 150</td>
<td>1 083</td>
<td>1 135</td>
</tr>
</tbody>
</table>

1. Short- to medium-term contracts, municipal generation and wholesale electricity pricing system.
2. Excludes 85MW of contracted capacity not in operation.

The total approved contracted IPP capacity as at 30 September 2013 amounts to 4 707MW, which includes the Department of Energy’s renewable energy IPP procurement programme. Eskom purchased 1 865GWh of energy from IPPs during the six months to 30 September 2013 (September 2012: 1 685GWh) at an average cost per unit of 84c/kWh (September 2012: 80c/kWh). The amount paid for IPP and municipal purchases amounted to R1.6 billion for the six months to 30 September 2013 (September 2012: R1.3 billion).

Transformation

Eskom is aligned to the government’s development and workplace transformation goals. Transformation initiatives include internal transformation, supplier development and localisation, corporate social investment, and skills and leadership development.

Operating highlights
• The Eskom Development Foundation has approved funding for projects to the value of R81.6 million
• The B-BBEE (broad-based black economic empowerment), BWO (black woman owned) and BYO (black youth owned) attributable spend as a percentage of total measured procurement spend continues to improve

Operational challenges
• Delivering on contracted electrification connections, which are substantially higher than previous years
• The capping of the headcount numbers as part of the MyPD 3 response strategy has restricted the opportunities for transformation and other initiatives
• The expiry of Eskom’s exemption from the Preferential Procurement Policy Framework Act (PPPFA) has required a review and amendment to a number of commodity strategies and targets
• Eskom and its recognised trade unions are currently involved in a wage dispute

Early childhood development is one of the key focus areas for the Eskom Development Foundation
Performance on strategic objectives

continued

Maximising Eskom’s socio-economic contribution

Eskom’s supplier localisation drive is complemented by its corporate social investment, which aims to improve society at large through targeted direct investments into community education, health and developmental projects. Eskom’s most direct and widespread contribution to social improvement is in the rollout of government’s universal electrification programme.

Key performance indicators for maximising Eskom’s socio-economic contribution

<table>
<thead>
<tr>
<th>Indicator and unit</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual year to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate social investment, Rm committed</td>
<td>81.6</td>
<td>69.9</td>
<td>194.3</td>
</tr>
<tr>
<td>Job creation, number</td>
<td>38 423</td>
<td>32 478</td>
<td>35 759</td>
</tr>
<tr>
<td>Total number of electrification connections, number</td>
<td>53 600</td>
<td>32 216</td>
<td>144 558</td>
</tr>
<tr>
<td>Percentage of broad-based black empowerment spend against total measurable procurement spend(^{1} ), %</td>
<td>87.6</td>
<td>72.5</td>
<td>86.3</td>
</tr>
<tr>
<td>Local sourcing in procurement(^{1} ), %</td>
<td>62.4</td>
<td>88.6</td>
<td>80.2</td>
</tr>
<tr>
<td>Procurement from black owned entities, %</td>
<td>25.5</td>
<td>16.1</td>
<td>22.1</td>
</tr>
<tr>
<td>Procurement from black woman owned entities, %</td>
<td>6.2</td>
<td>4.0</td>
<td>4.7</td>
</tr>
<tr>
<td>Procurement from black youth owned entities(^{1} ), %</td>
<td>1.0</td>
<td>0.9</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SC Indicator included in the shareholder compact.

1. Measures the local sourcing from the capital expansion projects.

Corporate social investment

The Eskom Development Foundation NPC is responsible for the corporate social investment strategy. While committed spend for corporate social investment initiatives was up in the six months to 30 September 2013 compared to the equivalent period last year, the spend was lower than budget as no new initiatives have been approved due to budgetary uncertainties.

Refer to www.eskom.co.za/csi for more information on Eskom’s corporate social investment initiatives.

Localisation, job creation and skills development through the capital expansion programme

The annual target for local content in capital expansion contracts awarded is 52%.

During the six months to 30 September 2013, a total of 290 contracts were awarded in the capital expansion programme amounting to R2.6 billion (September 2012: R1.2 billion). The local content committed, from these awarded contracts in the capital expansion programme, amounted to R1.6 billion (September 2012: R1.0 billion).

Local supplier development includes skills development and job creation. Since capital expansion contracts started being awarded, a total of 8 009 (September 2012: 6 397) contractor employees have been trained in various trades.

Eskom’s Medupi Leadership Initiative

The initiative, which is aimed at helping unskilled and semi-skilled workers find employment after completion of the power station project near Lephalale, is setting the precedent as the largest post-construction work opportunity programme of its kind in South Africa.

Eskom launched the Medupi Leadership Initiative in collaboration with its key partners in the Medupi project, including Murray & Roberts, Aveng, Alstom Africa, Hitachi Africa, Basil Read, LPS Consortium, Lesedi and Actom.

The initiative comprises job-enabling opportunities and job opportunity initiatives that Eskom, along with its partners, are funding. Sector Education and Training Authorities (Setas) have also committed to co-funding some courses.

Electrification

Approximately 4.4 million households have been electrified by Eskom within its supply area since 1991, when the electrification programme started. Meeting universal access to electricity targets depends on the availability of funding via the integrated national electrification programme. To accelerate the universal access programme the Department of Energy has increased its funding commencing this financial year.

Improving internal transformation

Eskom seeks a balanced workforce that taps into the knowledge and skills of all demographics of South Africa. This will support Eskom’s objective of driving high performance and support the government in its objective of opening job opportunities to all South Africans.
Performance on strategic objectives

continued

Key performance indicators for improving internal transformation

<table>
<thead>
<tr>
<th>Indicator and unit</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual year to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment equity – disability (company)</td>
<td>2.6</td>
<td>2.4</td>
<td>2.6</td>
</tr>
<tr>
<td>Racial equity in senior management, % of black employees (company)</td>
<td>59.5</td>
<td>57.9</td>
<td>58.3</td>
</tr>
<tr>
<td>Racial equity in professionals and middle management, % of black employees (company)</td>
<td>70.5</td>
<td>68.7</td>
<td>69.6</td>
</tr>
<tr>
<td>Gender equity in senior management, % of female employees (company)</td>
<td>28.6</td>
<td>26.2</td>
<td>28.2</td>
</tr>
<tr>
<td>Gender equity – professionals and middle management, % of female employees (company)</td>
<td>35.5</td>
<td>33.9</td>
<td>34.6</td>
</tr>
</tbody>
</table>

SC  Indicator included in the shareholder compact.

Employment equity and people with disabilities

The Eskom group employs 46,624 people including fixed term contractors. Post the MYPD 3 tariff determination by NERSA, it became apparent that Eskom cannot grow its headcount and strategies have been put in place to maintain the current headcount.

The current employment equity plan (signed in 2010) expired in March 2013. In consultation with the Department of Labour and organised labour, a decision was taken to extend the current plan by one year. The extension will enable sufficient time to do a proper analysis, development of and consultation on the long-term employment equity plan. This was signed by the chief executive, supported by the Unions and submitted to the Department of Labour.

There remains an opportunity to focus on the recruitment of designated groups at senior management, professionals and middle management. Actual performance at these levels is still below the targets.

Wind turbine components for the Sere wind facility are offloaded at the Saldanha Bay harbour

Ensuring financial sustainability

Eskom’s financial sustainability relies on being able to balance its revenue with its costs in a manner that allows for sustainable growth.

Group interim financial results, which have been extracted from the condensed interim financial statements for the period ended 30 September 2013 are provided in this report starting on page 66. Eskom’s statutory annual financial statements for the year ended 31 March 2013 are available at http://integratedreport.eskom.co.za/007.

Operating highlights

• Successfully raised R8.3 billion cash from domestic bond issues and issued a $1 billion international bond during July 2013

Operational challenges

• Bridging the R225 billion revenue shortfall resulting from the 8% MYPD 3 tariff increase
• The impact of the credit rating downgrades on the cost of and access to funding
• Eskom is required to comply with the provisions of the Preferential Procurement Policy Framework Act (PPPFA). However, these provisions are contradictory to World Bank procurement processes, which must be followed for all development funding institutions funded projects. Eskom has submitted an application for an exemption to the Preferential Procurement Policy Framework Act (PPPFA). All procurement for these projects is on hold until the decision is finalised
Performance on strategic objectives
continued

Key performance indicators for ensuring financial sustainability

<table>
<thead>
<tr>
<th>Indicator and unit</th>
<th>Actual half year to Sep 2013</th>
<th>Actual half year to Sep 2012</th>
<th>Actual to Mar 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of electricity (excluding depreciation) (^{*}), R/MWh</td>
<td>500.27</td>
<td>428.4</td>
<td>496.35</td>
</tr>
<tr>
<td>Interest cover (^{*}), ratio</td>
<td>2.27</td>
<td>1.27</td>
<td>0.27</td>
</tr>
<tr>
<td>Debt/equity (including long-term provisions) (^{*}), ratio</td>
<td>1.84</td>
<td>1.74</td>
<td>1.96</td>
</tr>
<tr>
<td>FFO as % of total debt (^{*}), %</td>
<td>8.68</td>
<td>9.15</td>
<td>8.55</td>
</tr>
<tr>
<td>Electricity revenue per kWh (including environmental levy), c/kWh</td>
<td>68.97</td>
<td>64.89</td>
<td>58.49</td>
</tr>
<tr>
<td>Electricity operating cost per kWh (including depreciation), c/kWh</td>
<td>55.29</td>
<td>47.01</td>
<td>54.15</td>
</tr>
<tr>
<td><strong>Group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working capital ratio</td>
<td>0.89</td>
<td>1.01</td>
<td>0.68</td>
</tr>
<tr>
<td>Free funds from operations (FFO), Rm</td>
<td>23 323</td>
<td>22 257</td>
<td>18 110</td>
</tr>
<tr>
<td>Gross debt/EBITDA ratio</td>
<td>10.61</td>
<td>9.07</td>
<td>16.16</td>
</tr>
<tr>
<td>Debt service cover ratio</td>
<td>1.52</td>
<td>3.85</td>
<td>2.01</td>
</tr>
</tbody>
</table>

\(^{*}\) Indicator included in the shareholder compact.

Results of operations

Eskom has achieved a group net profit for the six months to 30 September 2013 of R12.2 billion (September 2012: R12.6 billion). The seasonality of Eskom’s business should be considered when reviewing the half year results. Due to higher tariffs, higher energy demands and comparatively less maintenance activities conducted in winter, Eskom achieves higher profits in the first six months of the year.

The operating profit for the six months to 30 September 2013 before fair value gains and losses on embedded derivatives and net finance costs for the Eskom group was R17.0 billion (September 2012: R20.7 billion).

When compared to the same period last year, the 8.0% tariff increase (including the environmental levy) granted by NERSA with effect from 1 April 2013 for non-municipal customers and from 1 July 2013 for municipal customers, resulted in a 6.3% average increase in electricity revenue per kWh.

Sales and revenue

Revenue for the group for the six months to 30 September 2013 amounted to R77.8 billion (September 2012: R73.4 billion).

The sales of electricity for the six months to 30 September 2013 amounted to 110.659GWh, representing a decrease of 0.1% when compared to the prior comparative period (110.766GWh). Sales of electricity have been affected by a relatively mild winter.

Primary energy costs

The primary energy costs for the six months to 30 September 2013 for the group amounted to R31.3 billion (September 2012: R23.0 billion). The costs include the environmental levy of R4.4 billion paid to the government (September 2012: R3.8 billion).

The cost of primary energy as a percentage of electricity revenue was 41.0% (September 2012: 34.7%).

The cost of primary energy increased by 25.3% from 22.5c/kWh in the six months to 30 September 2012 to 28.3c/kWh for the six months to 30 September 2013.

Refer to the ‘Managing supply-and-demand constraints’ section on page 36 for further details regarding the use of open cycle gas turbines and to the section on ‘Cross-border electricity sales and purchases’ on page 39.

Operating costs

Group and company operating costs consist of the following:

Employee benefits

Group employees numbers, which include fixed term contractors increased by 1 711 employees from 44 913 as at 30 September 2012 to 46 624 employees at 30 September 2013. Group gross employee costs (before capitalisation) for the six months to 30 September 2013 amounted to R15.6 billion (September 2012: R14.0 billion). Group employee costs of R2.6 billion (September 2013: R2.3 billion) were capitalised to capital projects during the six months to 30 September 2013.
Performance on strategic objectives

continued

Arrear debt
Group arrear debt was 0.90% of external revenue for the six months to 30 September 2013 (September 2012: 0.66%). Refer to page 31 for details on the municipal and Soweto arrear debts.

Other operating expenses
Group other operating expenses for the six months to 30 September 2013 amounted to R9.1 billion, (September 2012: R10.0 billion). Other operating expenses consist primarily of repairs and maintenance and integrated demand management costs.

The company’s gross repairs and maintenance expenditure before capitalisation and excluding employee benefit costs for the six months to 30 September 2013 was R9.5 billion (September 2012: R6.3 billion). The significant increase in repairs and maintenance costs are due to the generation sustainability programme and the fact that maintenance is now scheduled during the winter. Group repairs and maintenance costs of R3.0 billion (September 2012: R1.8 billion), that were classified as major overhauls, were capitalised. Please refer to page 30 for further details on the power plant maintenance initiatives.

Refer to page 36 for integrated demand management initiatives and costs that are included in ‘other operating expenses’.

Net fair value loss on financial instruments, excluding embedded derivatives
The net fair value loss on financial instruments, excluding embedded derivatives, was R1.0 billion for the six months to 30 September 2013 (September 2012: R1.3 billion) for the group. The costs vary from period to period due to the timing of the placement of related procurement contracts and exchange rate fluctuations.

The euro and US dollar to rand exchange rate movements are presented on the graph below:

Gain on embedded derivatives
The net impact on the income statement of changes in the fair value of the embedded derivatives (relating to the remaining two special pricing agreements) for the group was a fair value gain for the six months to 30 September 2013 of R1.9 billion (September 2012: R0.7 billion). The embedded derivative liabilities for the group amounted to R9.6 billion (September 2012: R4.8 billion). The increase in the embedded derivative liabilities year on year is mainly due to the decision at 31 March 2013, to account for the full term of the underlying special pricing agreement contracts.

The decrease of R1.9 billion in the embedded derivative liability from March 2013 to September 2013 is mainly due to changes in the USD:ZAR exchange rate and changes in interest rates.

Net finance cost
After capitalising borrowing costs and including unwinding of interest on provisions, the net finance charges for the group for the six months to 30 September 2013 was R1.9 billion (September 2012: R3.8 billion).

Gross finance income for the six months to 30 September 2013 was R1.1 billion (September 2012: R1.7 billion) for the group.

Gross finance cost for the group for the six months to 30 September 2013 was R7.6 billion (September 2012: R18.2 billion). As there was no change in the price path during the six months to 30 September 2013, no remeasurement of the government loan was required. Included in gross finance cost for the six months to 30 September 2012 was a remeasurement of the government loan of R9.6 billion, which further impacted the borrowing costs capitalised for the same period.

The borrowing costs capitalised for the group was R6.1 billion for the six months to 30 September 2013 (September 2012: R13.9 billion). Unwinding of interest for the group amounted to R1.4 billion (September 2012: R1.1 billion).

Taxation
The effective tax rate for the six months to 30 September 2013 was 28.4% for the group (September 2012: 28.5%), which is in line with the current statutory tax rate of 28%.

Liquidity and capital resources
Cash and cash equivalents together with liquid investment in securities, amounted to R43.2 billion as at 30 September 2013 (September 2012: R46.3 billion).

Cash flows from operating activities
The group’s net cash inflow from operating activities for the six months to 30 September 2013 was R19.6 billion (September 2012: R18.2 billion). The cash generated from operations was offset by an increase in working capital since 31 March 2013, primarily due to the increase in debtors due to the tariff increase of 8% and higher winter tariffs. The group’s working-capital ratio was 0.89 as at 30 September 2013 compared to 0.68 as at 31 March 2013.

Cash flows used in investing activities
Cash flows used in investing activities for the six months to 30 September 2013 were R24.5 billion (September 2012: R26.7 billion) for the group. The group capital expenditure cash flows included in this line item, excluding capitalised interest, amounted to R23.2 billion (September 2012: R26.2 billion) primarily due to the progress of the capital expansion programme. For the detail on the capital expenditure incurred for the six months to 30 September 2013 refer to the table on page 43.
Performance on strategic objectives
continued

Cash flows from financing activities
The net cash inflows from financing activities for the six months to 30 September 2013 were R24.5 billion (September 2012: R16.4 billion) for the group. The raising of borrowings and the issuing of securities have been managed to match the reduced capital expenditure. The debt-to-equity ratio for the group (including long-term provisions) was 1.72 as at 30 September 2013 (September 2012: 1.63).

The free funds from operations as a percentage of gross debt was 8.86% for the group as at 30 September 2013 (September 2012: 9.39%). The gross debt/EBITDA for the group was 10.61% (September 2012: 9.07%).

Funding progress
Treasury continues to focus its activities on the funding requirements to the end of the committed capacity expansion programme and the maintenance of a liquidity buffer of R20 billion. The borrowing programme is being executed in terms of Eskom’s current approved corporate plan.

Funds for the next 12 to 18 months will be sourced mainly from a combination of issuing domestic and international bonds, Export Credit Agency backed financing, development financing institutions financing and the domestic commercial paper market. New opportunities from alternative funding sources and products, such as preference share type funding, syndicated loans and project-based funding will also be explored and considered to complement the current sources. During the period under review Eskom created a new medium-term note programme for international bond issues and during July 2013 raised USD1 billion in the international market.

As at 30 September 2013, R266 billion or 88.6% of the R300 billion borrowing programme had been secured. The R300 billion borrowing programme is based on the original funding requirements as at April 2010 and covers the period 1 April 2010 to 31 March 2017. Further funding requirements, including those resulting from the lower than expected MYPD 3 tariff determination are not included in this borrowing programme.

As at the end of September 2013, Eskom had sufficient liquidity reserves, which in terms of the latest projections and assuming no further drawdowns, would cover Eskom for approximately 150 days.

R300 billion borrowing programme as at 30 September 2013

<table>
<thead>
<tr>
<th>Sources</th>
<th>Funding Sources</th>
<th>Secured to date</th>
<th>Drawdowns Apr 2010 – Mar 2013</th>
<th>Drawdowns Apr 2013 – Sep 2013</th>
<th>Drawdowns to date</th>
<th>Amount of secured supported by the government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds</td>
<td>Apr 2010 – Sep 2013</td>
<td>90.0</td>
<td>60.9</td>
<td>44.8</td>
<td>16.1</td>
<td>60.9</td>
</tr>
<tr>
<td>Commercial paper1</td>
<td></td>
<td>70.0</td>
<td>70.0</td>
<td>30.0</td>
<td>5.0</td>
<td>35.0</td>
</tr>
<tr>
<td>Export credit agencies</td>
<td>32.9</td>
<td>32.9</td>
<td>19.4</td>
<td>1.1</td>
<td>20.5</td>
<td>–</td>
</tr>
<tr>
<td>World Bank</td>
<td>27.8</td>
<td>27.8</td>
<td>8.6</td>
<td>1.7</td>
<td>10.3</td>
<td>27.8</td>
</tr>
<tr>
<td>AfDB</td>
<td>20.9</td>
<td>20.9</td>
<td>13.3</td>
<td>0.9</td>
<td>14.2</td>
<td>20.9</td>
</tr>
<tr>
<td>Development Bank of Southern Africa</td>
<td>15.0</td>
<td>15.0</td>
<td>7.0</td>
<td>1.0</td>
<td>8.0</td>
<td>–</td>
</tr>
<tr>
<td>Shareholder loan</td>
<td>20.0</td>
<td>20.0</td>
<td>20.0</td>
<td>–</td>
<td>20.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Other/new sources</td>
<td>23.4</td>
<td>18.4</td>
<td>1.0</td>
<td>3.3</td>
<td>4.3</td>
<td>4.9</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>300</strong></td>
<td><strong>265.9</strong></td>
<td><strong>144.1</strong></td>
<td><strong>29.1</strong></td>
<td><strong>173.2</strong></td>
<td><strong>111.8</strong></td>
</tr>
<tr>
<td><strong>Percentages</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(%) of</strong></td>
<td><strong>88.6</strong></td>
<td></td>
<td></td>
<td><strong>65.1</strong></td>
<td><strong>42.1</strong></td>
<td><strong>(% of securing)</strong></td>
</tr>
<tr>
<td><strong>(%) of R300bn</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>(%) of securing)</strong></td>
</tr>
</tbody>
</table>

1. Commercial paper is issued for up to one year and then redeemed and reissued for the same net amount. The commercial paper is thus by definition not fully secured for the full period, however, Eskom’s long-term observations and past trends support a high level of confidence that Eskom will be able to rollout the redemptions each year. For this reason, the gross value of the commercial paper is shown under the “secured” column in the borrowing programme table above.

As at 30 September 2013, R266 billion or 88.6% of the R300 billion borrowing programme had been secured. The R300 billion borrowing programme is based on the original funding requirements as at April 2010 and covers the period 1 April 2010 to 31 March 2017. Further funding requirements, including those resulting from the lower than expected MYPD 3 tariff determination are not included in this borrowing programme.

As at the end of September 2013, Eskom had sufficient liquidity reserves, which in terms of the latest projections and assuming no further drawdowns, would cover Eskom for approximately 150 days.

Further major focus areas, from a new funding point of view includes:
• Co-financing by development finance institutions such as the AFD (Agence Française de Développement)
Performance on strategic objectives

continued

- KFW and the European Investment Bank to finance the concentrating solar plant project
- Monitoring the effects of the funding initiatives on the ratios that impact on Eskom’s credit ratings
- Domestic bond markets where Eskom was able to raise R8.3 billion gross funding during the six months to 30 September 2013

In addition, Eskom has supplemented its vanilla bond issuance with the inflation linked instruments. At the end of June 2013, Eskom reached the issue limit of the EL29 inflation-linked bond, currently capped at a maximum of R3 billion nominal issuance and commenced with the issue of a new EL30 inflation-linked bond from July 2013. Eskom’s base assumption on commercial paper is that as the issues mature, based both on investor appetite and the current market conditions, Eskom will roll them over to a new maturity date and ultimately refinance the projected commercial paper issuance before or by each year-end. During the 2013/14 financial year, Eskom aims to start increasing the commercial paper issuance towards R1.5 billion, which will then be rolled annually.

Eskom’s stand-alone credit ratings as at 14 October 2013

<table>
<thead>
<tr>
<th>Rating</th>
<th>Standard &amp; Poor’s</th>
<th>Moody’s</th>
<th>Local Currency</th>
<th>Fitch</th>
<th>National scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign currency</td>
<td>BBB</td>
<td>Baa3</td>
<td>–</td>
<td>AA+</td>
<td></td>
</tr>
<tr>
<td>Local currency</td>
<td>BBB</td>
<td>Baa3</td>
<td>BBB+</td>
<td>FI+</td>
<td></td>
</tr>
<tr>
<td>Stand-alone</td>
<td>b-</td>
<td>bl</td>
<td>B</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Outlook</td>
<td>Negative</td>
<td>Negative</td>
<td>Stable</td>
<td>Stable</td>
<td></td>
</tr>
</tbody>
</table>

Standard & Poor’s
The ‘BBB’ rating reflects Standard & Poor’s opinion that there is an ‘extremely high’ likelihood that the Republic of South Africa would provide timely and sufficient extraordinary support to Eskom in the event of financial distress. On 14 October 2013, Standard & Poor’s downgraded the stand-alone credit profile of Eskom to ‘b-’ (from ‘b’) which revises the company’s business risk profile to ‘weak’ from ‘fair’. The ‘BBB’ foreign and local currency ratings were affirmed as was the ‘highly leveraged’ financial risk profile.

Rating rationale:

<table>
<thead>
<tr>
<th>Business risk: fair</th>
<th>Financial risk: highly leveraged</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSA’s dominant electricity utility</td>
<td>High leverage due to largely debt-funded capital expenditure programme</td>
</tr>
<tr>
<td>Regulated revenues across the electricity value chain</td>
<td>Ratios likely to remain weak due to challenging regulatory determination for 2013/14 – 2017/18</td>
</tr>
<tr>
<td>Execution risk on a very large capital expenditure programme</td>
<td>Substantial funding requirements from 2015/16 onward</td>
</tr>
<tr>
<td>Rising regulatory risk as tariff increases are being curtailed</td>
<td></td>
</tr>
<tr>
<td>Elevated operational risk due to tight electricity reserve margin in South Africa</td>
<td></td>
</tr>
</tbody>
</table>

The downward revision of Eskom’s stand-alone credit profile reflects the weakening of Eskom’s credit metrics due to its largely debt funded capital expansion programme being insufficiently covered by tariff increases and due to rising operational costs. This revision also reflects Standard & Poor’s view of the rising business risk in light of regulatory and operating risks and weakened profitability owing to an unfavourable regulatory decision. The negative outlook reflects the possibility of a downgrade if Eskom’s Standard & Poor’s weakens further; if the Sovereign is downgraded; or if Standard & Poor’s revise their assessment of the likelihood of extraordinary government support.

Moody’s
On 19 July 2013, Moody’s reaffirmed Eskom’s Baa3 rating and a negative outlook was maintained. The affirmation of the Baa3 rating with a negative outlook reflects Eskom’s continued critical strategic and economic importance to the government of South Africa, as well as its engagement in a significant investment programme to expand and upgrade the country’s electricity infrastructure to meet the country’s changing power needs.

Moody’s revised downwards its assessment of the standalone credit quality of Eskom (expressed as a baseline credit assessment, or BCA) to ‘b1’ from ‘ba3’. This reflects:
- greater uncertainty over the evolution of Eskom’s investment programme and financial profile over the medium term
- limited potential for improvement in Eskom’s weak financial metrics, as had previously been targeted by Eskom, following the conclusion of the tougher MYPD 3 review for the period April 2013 – March 2017
- the significant challenges facing Eskom in relation to the management of operating costs in the context of a very stretched electricity system until new generation comes on-stream and the execution of a large investment programme

While Moody’s expect Eskom to take measures as far as possible to limit the impact of lower tariffs, manage the operating and capital costs, and engage with both the shareholder and the regulator to find appropriate solutions in this respect, nonetheless, given the committed capital expansion programme, Eskom’s financial profile could remain rather stretched for the foreseeable future.
Performance on strategic objectives

continued

The negative outlook on the ratings is in line with the outlook on the South African government’s recently affirmed ratings.

**Fitch**

On 2 August 2013, Fitch affirmed Eskom’s long-term local currency Issuer Default Rating (IDR) rating at ‘BBB+’. The national long-term and short-term ratings were also affirmed at ‘AA+(zaf)’ and ‘F1+(zaf)’, respectively. The outlook on the IDR and the national long-term rating remains stable.

The affirmation continues to reflect the alignment of Eskom’s ratings with those of the Sovereign. In Fitch’s view, the ties between Eskom and the shareholder are likely to remain strong in the foreseeable future.

Fitch view the unsupported creditworthiness of Eskom as commensurate with the ‘B’ rating category, reflecting the constraint of significant and increasing leverage as a result of the recent tariff determination and operational cost pressure, as well as the execution risks associated with the capital expansion programme.

Fitch’s view of future developments that could lead to positive rating actions for Eskom include a positive action on the Sovereign’s rating, providing that the strength of the parent subsidiary linkage does not weaken.

The rating agency also maintain that a decline in government support or a negative rating action on the Sovereign rating would likely result in a negative rating action for Eskom; and that failure to achieve more cost-reflective tariffs, in the absence of increased government support, resulting in an unsustainable financial profile and putting the company’s ability to service its debt at risk, may also result in a negative rating action.