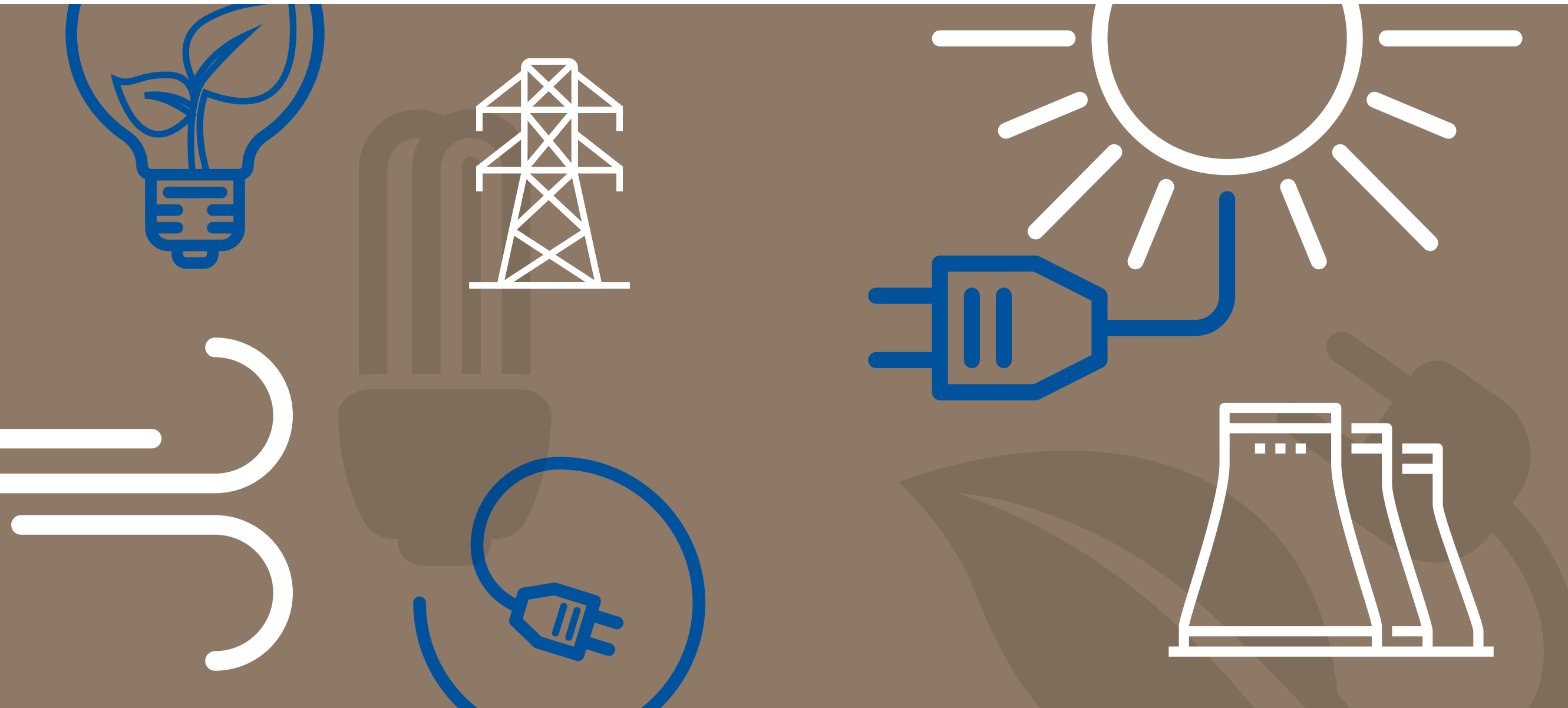


RESTORING TRUST



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Navigation icons

The following navigation icons are used to link our strategy and resources to material matters, strategic risks, key performance indicators and performance:

-  Our finances (financial capital)
-  Our infrastructure (manufactured capital)
-  Our interaction with the environment (natural capital)
-  Our people (human capital)
-  Our role in communities (social and relationship capital)
-  Our know-how (intellectual capital)




Further content

-  Information block or case study
-  Additional information in the integrated report
-  Supplementary information provided in a fact sheet
-  Information available online
-  Information related to COVID-19

A list of abbreviations and glossary of terms is available on pages 132 to 134

Performance indicators

Throughout this integrated report, performance against target is indicated as follows:

-  Actual performance met or exceeded target
-  Actual performance almost met target (within a 5% threshold)
-  Actual performance did not meet target

sc Indicates that a key performance indicator is included in the shareholder compact

Request for feedback

We aim to provide relevant information to stakeholders through our integrated report. We appreciate feedback on ways in which we could improve our report in future. Please send your suggestions to IRfeedback@eskom.co.za

ESKOM AT A GLANCE

MANDATE

To supply stable electricity in an efficient and sustainable manner, to contribute to lowering the cost of doing business in South Africa and enable economic growth

VISION

Driving economic growth by being a financially sustainable provider of energy solutions across Africa

KEY PRIORITIES

-  Operational stability
-  Financial sustainability
-  Restructuring
-  High-performance culture

Eskom Holdings SOC Ltd

LINE DIVISIONS

Generation

Transmission

Distribution

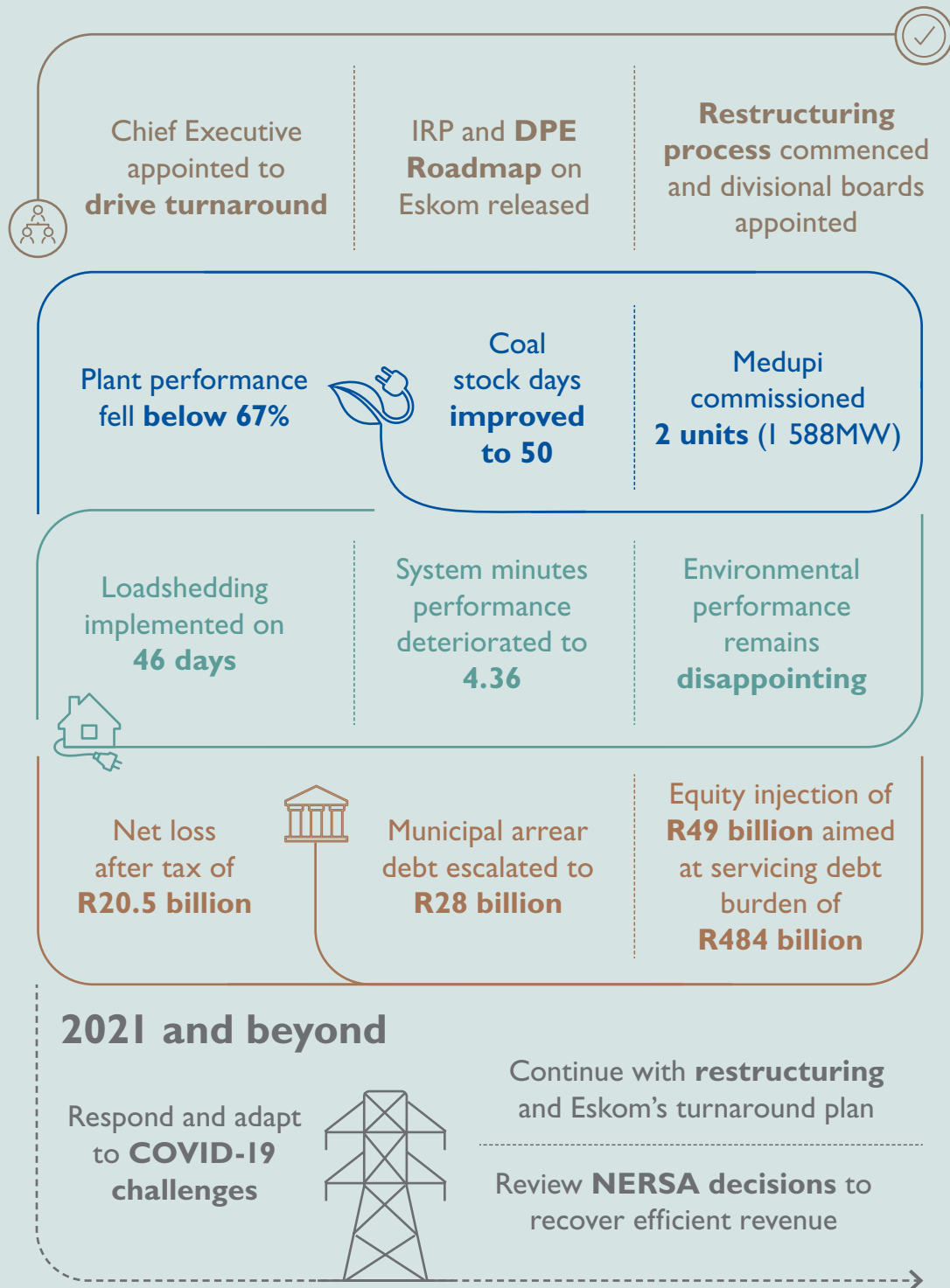
SUPPORT FUNCTIONS

- Primary Energy | Group Capital | Subsidiaries
- Finance | Group IT | Human Resources | Procurement
- Eskom Rotek Industries | Risk and Sustainability | Legal and Compliance

VALUES

-  Zero Harm
-  Integrity
-  Innovation
-  Sinobuntu
-  Customer Satisfaction
-  Excellence

THE YEAR IN REVIEW



ABOUT THIS REPORT

Board responsibility and approval

The Board, assisted by the Audit and Risk Committee and the Social, Ethics and Sustainability Committee, is accountable for the integrity and completeness of the integrated report and any supplementary information.

The Board has considered the preparation and presentation of the integrated report and concluded that it is presented in accordance with the International <IR> Framework. Reflecting on the completeness of material items dealt with and the reliability of information presented, given the combined assurance process followed, the Board approved the 2020 integrated report, annual financial statements and supplementary information on 28 October 2020.

Prof. Malegapuru Makgoba
Interim Chairman

Dr Pulane Molokwane
Chairman: Audit and Risk Committee

Dr Banothile Makhubela
Chairman: Social, Ethics and Sustainability Committee

Basis of preparation

This integrated report, which follows our 2019 report, reviews our financial, operational, environmental, social and governance performance for the year from 1 April 2019 to 31 March 2020. Material events up to the date of approval have been included. It considers our use of and impact on the six capitals, and our performance against our strategy. We have also commented on the impact of the COVID-19 pandemic on our business to date, wherever possible.

This is our primary report to stakeholders, which seeks to provide information to a wide range of stakeholders. We endeavour to focus on material matters, both positive and negative, by considering qualitative and quantitative matters material to our operations and strategic objectives, which may influence stakeholders' decision-making. As part of this process, we consider our strategic risks and opportunities.



The determination of material matters is set out on page 55, while our organisational risks are discussed from page 56

Based on feedback received on our 2019 report, our main objective was to improve conciseness, while still delivering a reliable and complete report that delivers sufficient information on material matters and issues of concern to stakeholders. That said, due to the COVID-19 pandemic, the world is a very different place to that of a year ago, which has necessitated an assessment of the impact of the current reality on Eskom, and our response to the challenges it brings.

The principles contained in the International <IR> Framework, published by the International Integrated Reporting Council (IIRC), underpin our integrated report. We aim to provide a transparent and balanced account of how we create, preserve or erode value through our use of the various capitals, as well as considering the impact of our business on the capitals.

The content is further guided by legal and regulatory requirements, such as the Companies Act, 2008 and the King IV Report on Corporate Governance for South Africa, 2016, as well as global best practice.

Reporting boundary and frameworks

The information in this report covers the group performance of Eskom Holdings SOC Ltd (Eskom) and its major operating subsidiaries in South Africa, unless otherwise stated. For a full overview of our financial performance, the integrated report should be read in conjunction with our group annual financial statements.

Eskom's group annual financial statements are available at www.eskom.co.za/IR2020



Unless otherwise indicated, the information presented is comparable to that of prior years, with no significant restatements.

Assurance approach

Our combined assurance model relies on review by management, as well as internal and external assurance. The Audit and Risk Committee and the Board depend on combined assurance in assessing the adequacy of internal controls and risk management processes.

Our Assurance and Forensic Department provided reasonable assurance on quantitative information, and to a lesser degree, some qualitative aspects of the report. The sustainability key performance indicators (KPIs) contained in the shareholder compact were subject to external assurance; all but three of the KPIs scoped in for reasonable assurance received an unqualified opinion.

The independent sustainability assurance report is included from page 153



The consolidated annual financial statements have been audited by the group's independent auditors, SNG Grant Thornton Inc, who issued a qualified opinion relating to the completeness of irregular expenditure disclosed in terms of the Public Finance Management Act, 1999 (PFMA). Except for this qualification, the consolidated annual financial statements are fairly presented in terms of IFRS. Furthermore, the independent auditors reported a material uncertainty relating to Eskom's ability to continue as a going concern, as well as a key audit matter regarding the accounting treatment of the Eskom Pension and Provident Fund. However, these matters do not affect their opinion.

Our suite of reports

Our 2020 suite of reports are available online at www.eskom.co.za/IR2020, and consist of the following:



Integrated report and supplementary information

The integrated report provides an overview of how Eskom creates value by considering our business model, strategy and risks, performance and outlook, as well as governance of these areas. It is prepared in accordance with the IIRC's International <IR> Framework. The report has undergone combined assurance – our Assurance and Forensic Department has verified certain aspects of the report, and our external auditors provided reasonable assurance on specific KPIs. Supplementary information is available as fact sheets at the back of the report; we trust that this may be of interest to a variety of stakeholders.



Sustainability report

This is Eskom's first standalone sustainability report in more than 20 years. It describes Eskom's journey to sustainable development based on current performance against material issues related to the environment, society and the economy. The report also deals with future aspirations in these areas within the context of national and international agendas on sustainable development. It is guided by the reporting principles of the Global Reporting Initiative (GRI). It also considers Eskom's contribution to the United Nations' Sustainable Development Goals.



Annual financial statements

Our independent auditors, SNG Grant Thornton Inc, have audited the consolidated annual financial statements of Eskom Holdings SOC Ltd, which have been prepared in accordance with IFRS as well as the requirements of the Companies Act, 2008 and the PFMA, 1999.

Forward-looking statements

Certain statements in this report regarding Eskom's business operations may constitute forward-looking statements. These include all statements other than statements of historical fact, including those regarding the financial position, business strategy, management plans and objectives for future operations. Forward-looking statements constitute our current expectations based on reasonable assumptions, data or methods that may be incorrect or imprecise and that may be incapable of being realised and as such, are not intended to be a guarantee of future results. Actual results could differ materially from those projected in any forward-looking statements due to various events, risks, uncertainties and other factors. Eskom neither intends to nor assumes any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Our strategy, as set out in this integrated report, incorporating future targets and plans, was developed prior to the outbreak of the COVID-19 pandemic. The Board-approved Corporate Plan has since been revised to cater for the impact of COVID-19 and other significant changes in the operating environment, which have a significant effect on targets for the 2021 financial year and beyond.

Neither future performance plans and/or strategies referred to in the integrated report, nor the potential impact of COVID-19, has been reviewed or reported on by the independent auditors.

Eskom is a proud supporter member of the following integrated reporting bodies



CREATING VALUE THROUGH OUR BUSINESS

Eskom generates about 90% of the electricity in South Africa, and is Africa's largest electricity utility



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OUR BUSINESS MODEL

Nature of our business

We generate electricity by transforming inputs from the natural environment – coal, water, wind, nuclear and liquid fuels. Together with power generated by independent power producers (IPPs) and imports from neighbouring countries, the electricity is supplied to a wide range of customers, thereby supporting economic growth and improving the quality of life in South Africa and the region.

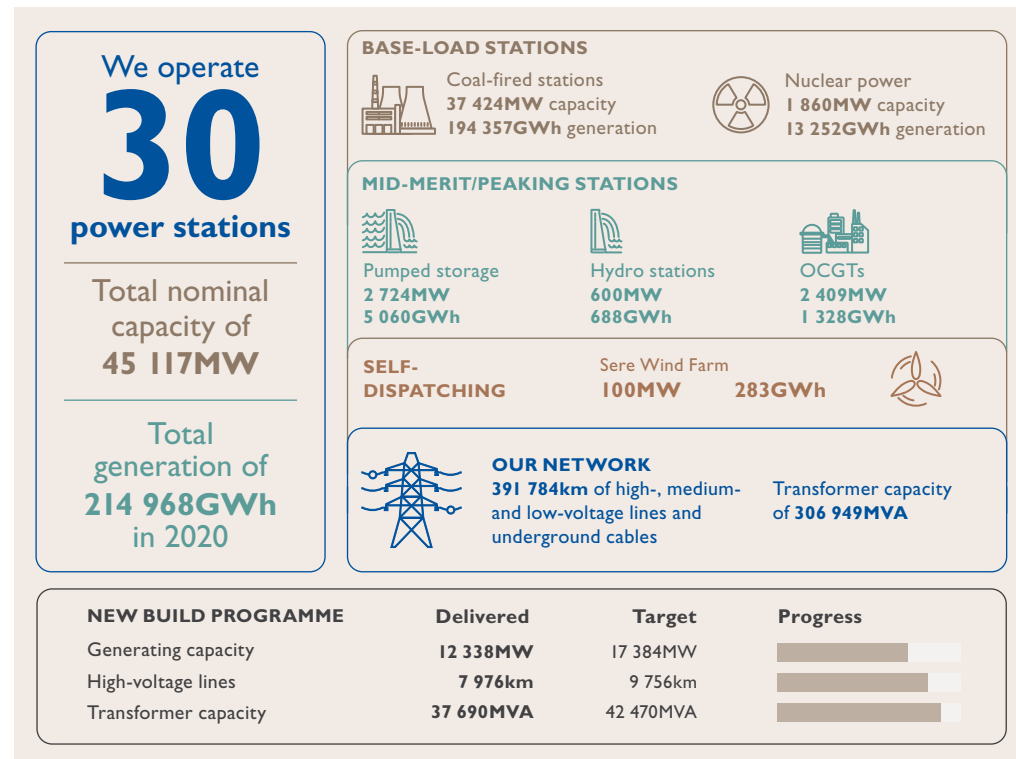
To balance electricity supply and demand in real time, our System Operator maintains the frequency of the power system at 50Hz.

We operate one of the few remaining vertically integrated utilities across a value chain supplying electricity to South Africa and the Southern African Development Community (SADC) region. We are connected to the Southern

African Power Pool (SAPP) – comprising South Africa, Botswana, eSwatini, Lesotho, Mozambique, Namibia, Zambia and Zimbabwe – through an integrated grid, which serves to support grid stability. This partnership relies on SADC members to ensure sufficient and reliable transmission grids in their countries.

The generation, transmission, distribution and sale of electricity form the core of our integrated value chain, supplemented by the construction of new power stations and network infrastructure. Our core divisions rely on support in the form of finance, human resources, procurement, information technology, telecommunications, risk and sustainability, legal and compliance, stakeholder management and corporate communications. Eskom is supported by its subsidiary, Eskom Rotek Industries, which offers support services on turbine and transformer repairs as well as specialised construction and transport.

Our operations



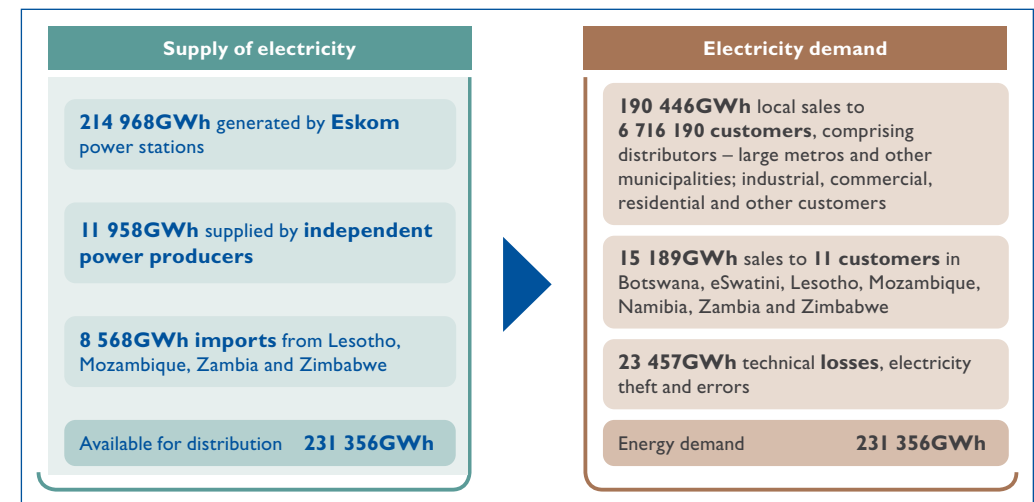
Detailed information on our power stations, power lines and substation capacities is available in the fact sheet on pages 148 to 150. It includes a map which indicates the geographic location of our power stations and major transmission lines

Our new build programme, which commenced in 2005, aims to cater for South Africa's future energy demand and strengthen our transmission grid.

Two units at Medupi Power Station were commissioned during the year as part of the programme. We expect a further two units to achieve commercial operation during the coming year.

Supply and demand of electricity

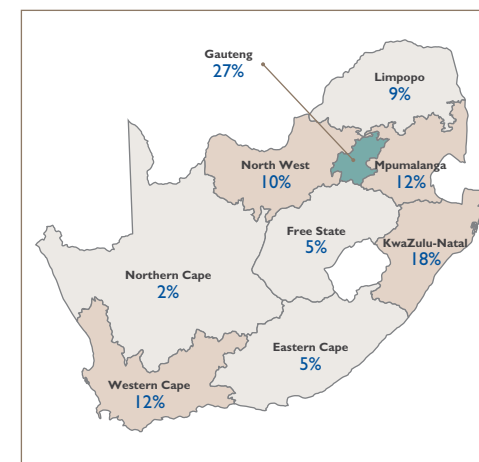
The following diagram illustrates the supply and demand of electricity, with electricity flowing from Eskom's power stations, IPPs and cross-border suppliers, to Eskom's supply points to local and export customers. It also accounts for technical energy losses incurred during the transmission and distribution process, as well as losses due to electricity theft and errors.



Not all elements of supply and demand are shown.

The total number of customers, electricity sales volumes and revenue by customer segment are set out in the fact sheet on pages 151 to 152

The share of local electricity demand per province is depicted below.



We estimate that loadshedding over the past year reduced our supply by approximately 1 290GWh, which equates to approximately 0.5% of total energy demand for the year.

Using the capitals to create value

We use all the capitals set out in the International <IR> Framework as inputs in our business.

Through our processes, we either create, preserve or erode value as it relates to the capitals. Creating value in one area frequently leads to the erosion of value in another and as such, trade-offs are inevitable.

Key to our sustainability as a business is financial capital, comprising retained earnings, equity from our shareholder and debt funding provided by lenders, a large portion of which is guaranteed by Government. Lenders and bondholders earn a return in the form of interest. We do not pay dividends to our shareholder at this time.

At 31 March 2020, our equity stood at R185.9 billion, with R132 billion in share capital and the balance in retained earnings and reserves. Our equity was boosted by the R49 billion Government equity support, as announced in the 2019 National Budget Speech. However, our financial capital was eroded by the after-tax loss of R20.5 billion for the year. Lenders and bondholders provided debt securities and borrowings of R483.7 billion.

OUR BUSINESS MODEL



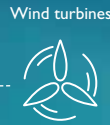
RENEWABLE



Wind



Hydro



Wind turbines



Solar



Sun



50Hz



IPPs



Distribution line



Rail



Exports



Agriculture

PRIMARY ENERGY



POWER GENERATION



TRANSMISSION



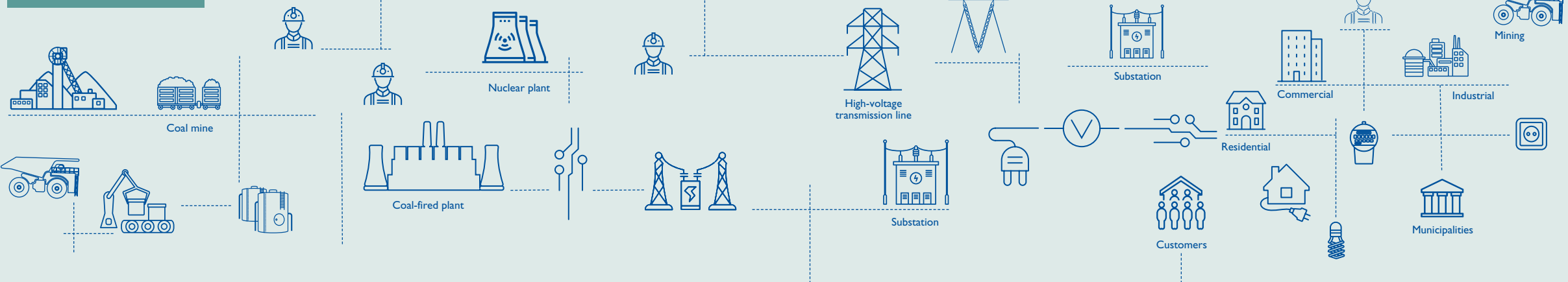
DISTRIBUTION



CUSTOMERS



NON-RENEWABLE



INPUTS



PERFORMANCE



OUTPUTS



108.61Mt Coal burnt (113.76Mt)

45 117MW Nominal power station capacity (44 172MW)

391 784km Power lines and cables (387 633km)

44 772 Group employees (46 665)

R50.9 billion Funding raised (R63.3 billion)

50 days Normalised coal stock (36 days)

1.42ℓ/kWhSO Specific water consumption (1.41ℓ/kWhSO)

66.64% Energy availability (EAF) (69.95%)

8.92% Planned maintenance (PCLF) (10.18%)

22.86% Unplanned maintenance (UCLF) (18.31%)

4.36 System minutes lost <1 (3.16)

36.9 hours Interruption duration (SAIDI) (38 hours)

8.79% Distribution energy losses (8.47%)

11 958GWh IPP purchases (11 344GWh)

R23.4 billion Capital expenditure (R33.9 billion)

214 968GWh Electricity sent out (218 939GWh)

R199.5 billion Revenue (R179.9 billion)

32.04Mt Ash produced (33.23Mt)

94.9kt Particulate emissions (99.9kt)

213.2Mt CO₂ emitted (220.9Mt)

205 635GWh Total sales (208 319GWh)

41.7% Municipalities

22.2% Industrial

14.0% Mining

7.4% International

5.5% Residential

5.1% Commercial

2.8% Agriculture

1.3% Rail

OUTCOMES FOR ESKOM

R37 billion EBITDA (R31.4 billion)

18.55% EBITDA margin (17.46%)

101.86c/kWh Average electricity price (90.01c/kWh)

R28 billion Municipal arrear debt (R19.9 billion)

R23 billion Cash balance (R2 billion)

2.45 Debt/equity ratio (3.18)

14.39 Gross debt/EBITDA (15.73)

R14 billion Maintenance expense (R14.1 billion)

2 New build units commissioned (none)

127.9km Transmission lines installed (378.7km)

OUTCOMES FOR OTHERS

0.30 Group LTIR (0.31)

9 Fatalities (7)

R33 billion Employee benefit expense (R33.2 billion)

R33.9 billion Finance cost (R30.5 billion)

0.52 Debt service cover (0.47)

46 days Loadshedding (30 days)

163 613 Electrification connections (191 585)

R123.8 million CSI committed spend (R132.4 million)

65.97% Preferential procurement (58.66%)

71% Racial equity in senior management (69.80%)

Comparatives for 2019 are shown in brackets.

Traffic lights indicate whether the 2020 target was achieved or not, where applicable (refer to "Performance indicators" on the outside flap). These are in line with the indicators used in the tables in the "Financial review" and "Operating performance" sections.

Our credit rating was downgraded over the past year, influenced by the downgrade of the Sovereign as well as the tariff determination being insufficient to improve our financial outlook – this will affect our capacity to borrow, as well as the cost of future borrowings.

Our manufactured capital comprises power stations, together with our transmission and distribution networks. We improve our manufactured capital base by commissioning new units, as well as through maintenance and capital refurbishment of existing plant. Nevertheless, the base is eroded in the process of generating, transmitting and distributing electricity.

The primary energy sources we use to generate electricity consist of coal, water, wind, nuclear and liquid fuels, the use of which erodes natural capital. The generation process produces waste in the form of ash, gaseous and particulate emissions, and nuclear waste, further eroding natural capital. In line with the Paris Agreement, South Africa aims to reduce our impact on the environment by transitioning to a cleaner energy mix, mainly through the increased use of renewable energy. In some areas, our transmission and distribution networks have a negative impact on bird life, although we strive to mitigate the impact on the natural environment.



Our employees and contractors, and their competencies, capabilities and experience, form our human capital. We continue to improve racial, gender and disability transformation of our employee base. Given the significance to our cost base, we are actively working to reduce our headcount, while maintaining the productivity of our workforce. We develop learners in our skills pipeline and train employees to enhance our human capital, although these efforts are hampered by our financial situation.

As we saw during the industrial action in the 2019 financial year, if human capital is not managed properly, it can have a devastating effect on our operations and financial position, as well as the economy at large.

Our social and relationship capital is based on interactions with customers, suppliers, communities and the public in general. We contribute in this area in many ways – enabling economic growth through the supply of electricity; constantly electrifying new households in our licensed areas of supply; contributing to job creation, skills development, supplier transformation and broad-based black economic empowerment (B-BBEE); as well as improving the lives of many South Africans through our corporate social investment (CSI) and socio-economic development activities. Nevertheless, to some extent our power stations and lines also negatively impact the communities in which we operate.

Strong stakeholder relationships are critical to our ability to create value; one of our main areas of focus is restoring trust in our organisation.

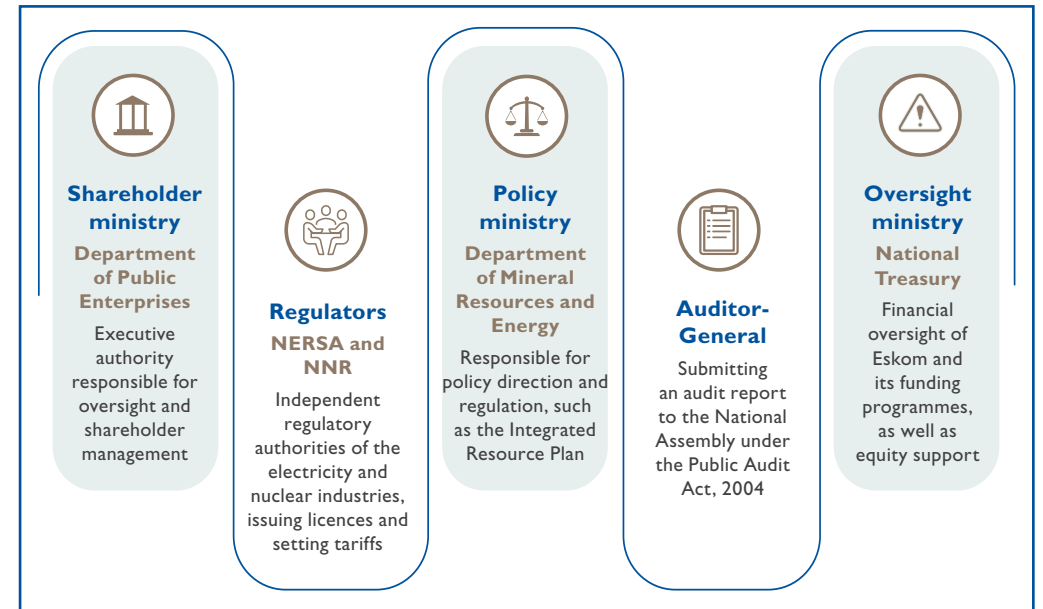
Our intellectual capital includes technology, a key enabler of our business, which comprises telecommunications, information and operational technology; organisational knowledge, systems, policies and procedures; as well as research and innovation to industrialise future technologies and improve current operations.

How we are regulated

Eskom Holdings SOC Ltd is wholly owned by the South African Government and is a state-owned company (SOC) as defined in the Companies Act, 2008.

For a non-exhaustive list of the legislation and regulations we have to comply with, refer to our governance framework on page 18

In addition to our shareholder ministry, the Department of Public Enterprises, which sets our mandate, we are subject to oversight or regulation by a number of other entities.



We continue to play a significant developmental role in support of the National Development Plan 2030 (NDP), by supporting job creation, economic and skills development, B-BBEE, transformation and other national initiatives. This is in addition to our mandate of providing a stable electricity supply in a sustainable and efficient manner, to assist in lowering the cost of doing business in South Africa and enabling economic growth.

In executing our mandate, we have to ensure that our business remains sustainable across all the capitals.

Our latest annual Corporate Plan covers the three-year period to 2023; it is based on our mandate and sets out our medium- to long-term strategic objectives. We also agree on an annual shareholder compact with DPE, which outlines the KPIs which support our mandate and strategic objectives.

Performance against the 2020 shareholder compact is set out in detail in the directors' report in the consolidated annual financial statements. Throughout tables in the report, shareholder compact KPIs are denoted using ^{SC}. Where relevant, these KPIs are also included in the statistical tables, available as a fact sheet at the back of this report, from page 140

South Africa's electricity supply industry

The electricity supply industry consists of the generation, transmission, distribution and sale of electricity, as well as the import and export thereof. Eskom owns and operates most of the base-load and peaking capacity, although the share of electricity supplied by IPPs, largely through peaking capacity, continues to grow.

Capacity added and energy supplied by IPPs are discussed from page 94

The electricity industry is regulated by the National Energy Regulator of South Africa (NERSA) under the Electricity Regulation Act, 2006 and the National Energy Regulatory Act, 2004. NERSA does so by providing licences, regulatory rules, guidelines and codes, and determining our revenue requirement in accordance with the requirements of the Electricity Pricing Policy (EPP).

Refer "Our finances – Price applications to support revenue requirements" from page 77 for information on the review applications we have submitted of NERSA's decisions

Our nuclear power station, Koeberg, is regulated by the National Nuclear Regulator (NNR) to ensure that it complies with nuclear safety standards, to protect individuals, society and the environment against radiological hazards linked to the use of nuclear technology.

GROUP OVERVIEW

Eskom Holdings SOC Ltd is the main operating company, which houses the electricity business and holds investments in subsidiaries. The Eskom group comprises the operating company and its subsidiaries and joint ventures.

Our head office is based in Johannesburg, and we have operations across South Africa, with administrative offices in most major centres. Our local subsidiaries provide strategic services to Eskom and our employees; we also have a subsidiary based in Uganda. There have been no changes to the group structure during the past year.



Only direct subsidiaries are shown.

Eskom Enterprises SOC Ltd (EE) is an investment holding company. Its main subsidiary, Eskom Rotek Industries SOC Ltd (ERI), provides lifecycle, plant maintenance and technical support to Eskom's line divisions.

Eskom Uganda Limited, a subsidiary of EE, operates and maintains two small hydroelectric power stations in Uganda under a 20-year concession arrangement that ends in 2023. The stations have a combined capacity of close to 380MW. Eskom Uganda supplied 1.24GWh, or about 30% of Uganda's energy, in its financial year which ended in December 2019.

Pebble Bed Modular Reactor SOC Ltd (PBMR), wholly owned by EE, remains in a state of care and maintenance to preserve the intellectual property created during its operation. The Board has requested guidance from the shareholder on the future of PBMR.

EE holds an effective 69% interest in South Dunes Coal Terminal Company SOC Ltd (SDCT), both directly and indirectly through Golang Coal SOC Ltd. SDCT is entitled to the right to export coal through its participation in the Phase V expansion of the Richards Bay Coal Terminal (RBCT).

Other dormant subsidiaries of EE are in the process of being wound up or liquidated.

Escap SOC Ltd is Eskom's wholly owned insurance captive company, and manages and insures the business risk of Eskom and its subsidiaries. Under its long-term strategy to diversify its client base, Escap has started insuring other public entities to generate additional income and reduce policyholder concentration risk.

We remain committed to the disposal of Eskom Finance Company SOC Ltd (EFC), as mandated by our shareholder, to free up cash tied up in EFC. The process to dispose of EFC remains under way.

The Eskom Development Foundation NPC (the Foundation) is a non-profit company under section 21 of the Companies Act, 2008. Its mandate is to implement CSI programmes on behalf of Eskom, thereby contributing to improving the quality of life of communities where Eskom operates.

Full details of Eskom's equity-accounted investees and subsidiaries at 31 March 2020 are set out in notes 12 and 13 of the consolidated annual financial statements

Contribution to financial performance

The contribution by the main companies to the group's financial performance and position is shown below. The Eskom business remains by far the most significant.

R million	Eskom company	EE group	Escap	EFC	Foundation	Eliminations and other	Eskom group
Revenue	199 468	8 790	3 322	851	–	(12 963)	199 468
EBITDA ¹	35 381	592	101	180	(6)	750	36 998
Net (loss)/profit after tax	(22 340)	271	491	136	–	940	(20 502)
Total assets	809 543	8 032	15 608	8 694	93	(19 031)	822 939
Total liabilities	640 122	2 255	7 881	7 427	96	(20 705)	637 076
Capital expenditure ²	24 952	271	–	–	–	(559)	24 664

1. EBITDA excludes fair value adjustments on financial instruments and embedded derivatives.

2. The company and group figures include DMRE funded capital expenditure of R2.4 billion.



Detailed segment disclosure is provided in note 8 of the consolidated annual financial statements

GOVERNANCE, LEADERSHIP AND ETHICS

We remain committed to demonstrating effective corporate governance through ethical leadership, and continue to re-establish a culture of ethical behaviour consistent with Eskom's values through our governance framework. This is key to living our values, creating value and restoring trust



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CHAIRMAN'S STATEMENT

MALEGAPURU MAKGOBA
Interim Chairman



The Board is the focal point for corporate governance and is responsible to the shareholder and other stakeholders for Eskom's performance and for meeting financial, operational and other business expectations. The Board is also responsible to the company for its survival and prosperity.

Unquestionably, the past year has been turbulent in terms of leadership – Mr Phakamani Hadebe resigned as Group Chief Executive (GCE) in July 2019, after which Mr Jabu Mabuza stepped down as acting GCE and interim executive Chairman in January 2020. Towards the end of the financial year, the COVID-19 pandemic broke him, which is proving to have a devastating impact on the economy and is significantly affecting Eskom's performance.

On a positive note, after a rigorous recruitment process and nomination of a candidate by the Board, the shareholder appointed Mr André de Ruyter as GCE from 6 January 2020. André is an accomplished CEO with extensive experience in creating and managing high-performing businesses. We thank him for agreeing to a lower compensation package than the position previously paid, given Eskom's current financial situation.

He has hit the ground running, by making a point of understanding the business and getting involved right from the beginning. His presence is already making a difference, and we are confident that he will successfully lead Eskom's turnaround, which includes the restructuring process.

Since his appointment, the boundaries between the Board and Exco have been re-established, with Exco taking accountability for operations guided by a clear vision, and the Board being responsible for oversight. Nevertheless, the Board and Exco continue to collaborate to drive change and Eskom's turnaround.

The Board is mindful of the prevailing low staff morale, after many years of the organisation facing significant challenges. The Board supports any initiatives to improve staff morale.

The evolving electricity supply industry

Eskom has to play by a broad set of rules that govern its operations. These include:

- The National Development Plan 2030, which envisions a reliable, efficient and competitive energy sector that will expand electricity access for consumers and be environmentally sustainable
- The Integrated Energy Plan and Integrated Resource Plan (IRP) 2019, which provide a broad framework for the growth and future direction of the energy sector to 2030

- DPE's *Roadmap for Eskom in a Reformed Electricity Supply Industry, 2019* which positions Eskom within the broader energy context and identifies bold actions for Eskom's transformation, including a range of longer term solutions to support Eskom's separation into Generation, Transmission and Distribution entities

We welcome the release of the long-awaited IRP, as well as DPE's Roadmap, both of which provide some clarity on the future direction of the electricity supply industry. However, a number of issues may have a material impact on the delivery of the IRP within its anticipated timeframe. Furthermore, in Eskom's view, the timelines in DPE's Roadmap are optimistic, given the regulatory and legislative changes required to enable the proposed changes.

Strategy review

As indicated in the past, this Board intended focusing on the following areas during its three-year term. These focus areas remain relevant.

- Instilling transparent and effective governance to support a culture of ethical behaviour
- Improving liquidity and solidifying Eskom's status as a going concern, by focusing on managing costs, given the insufficient tariff increases awarded by NERSA, while those decisions are being challenged in court. Nonetheless, the Board acknowledges that cost curtailment alone will not solve Eskom's financial challenges
- Prioritising financial sustainability and strengthening the balance sheet
- Influencing energy policy and the regulatory environment to support Eskom's turnaround

During the past year, the turnaround plan approved in November 2018 was enhanced based on a revised set of assumptions, considering the current operating environment and addressing difficulties in executing the previous Corporate Plan. It also factors in recommendations of the Presidential Task Team and the Ministerial Review Task Team, specifically towards achieving operational stability.

The Chief Operating Officer's commentary from page 85 provides more detail on progress towards operational stability over the year

Our turnaround strategy focuses on five key areas, namely operational recovery, improving our income statement, addressing our balance sheet, accelerating the

restructuring of Eskom into three divisions, and building a high-performance organisation through addressing our corporate culture by energising our Eskom colleagues. The establishment of sustainable Generation, Transmission and Distribution entities are key features of the plan, signifying Eskom's commitment to the execution of DPE's Roadmap.

Refer to the Chief Executive's review from page 41 for more detail on the strategy, and progress on strategy implementation during the year

Oversight and progress on governance clean-up

In accordance with King IV™, the Board is responsible for the governance of ethics within the organisation and sets the direction for an ethical culture through Eskom's Code of Ethics. One of the Board and GCE's focus areas is a return to Eskom's values, to enable a high-performance culture.

The Standing Committee on Public Accounts (SCOPA) conducted an oversight visit at Kusile and Medupi in August 2019. Following that, SCOPA presented a report to Parliament covering 23 recommendations to address its findings and concerns, ranging from progress on the overdue new build programme to addressing Eskom's governance challenges. These recommendations are consistent with the Board's plan to root out corruption and inculcate a renewed culture of honesty, transparency, good governance and ethical leadership. Eskom is addressing these recommendations, and progress is reported to SCOPA and the shareholder on a quarterly basis.

Various measures were implemented to address issues related to past corporate governance breaches, including:

- Implementing independent lifestyle audits and reviews of conflicts of interest on senior management and other levels, based on risk analysis
- Enhancing the commercial governance process to ensure robust scrutiny, and strengthening the delegation of authority framework
- Strengthening ethics and fraud frameworks and focusing on consequence management
- Instituting disciplinary charges against employees and suppliers, including taking legal action
- Investigating and terminating supplier contracts implicated in irregularities, fraud and corruption

Further detail on the progress on each of these areas is set out in "Ethics and progress on governance clean-up" from page 35

The supply chain recovery programme, which was implemented to address historical issues leading to previous audit modifications, together with improving compliance through proactive monitoring, was concluded in July 2019.

The finalisation of investigations into former executives suspected of misconduct remains a priority. Eskom continues to provide all necessary support to law enforcement authorities to investigate concerns and any violations of the law, and to recover stolen funds

using criminal and civil processes, even where implicated individuals have subsequently left Eskom's employment.

Despite the continued focus on the governance clean-up and the successes in this area, there remains a long way to go. A key concern is to ensure that changes being implemented are sustainable, and truly lead to a reduction in transgressions.

Financial sustainability and going concern

In the Board's opinion, Eskom remains a going concern, but only with Government support, given the insufficient tariff increases over a number of years. As has been said before, Eskom simply cannot save itself out of the shortfall on the tariff decision.

We are grateful to the shareholder and the Standing Committee on Appropriations (SCOA) for answering the call for urgent intervention to strengthen Eskom's balance sheet to ensure its long-term financial sustainability. Eskom has received R49 billion in equity support from the Government in the 2020 financial year, with another R56 billion due in 2021. Nevertheless, the equity support is contingent upon strict conditions, which are enacted in the Special Appropriation Act, 2019, chief of which is that the support may only be used to settle debt and interest payments. Eskom has complied with all stipulated conditions for the 2020 financial year.

The Chief Financial Officer's report from page 60 provides more detail on financial performance

Conclusion

We are grateful to the shareholder representative, the Honourable Minister Pravin Gordhan, for his continued support during this difficult time. The shareholder's leadership and guidance has been invaluable.

I wish to thank Mr Jabu Mabuza, Ms Sindi Mabaso-Koyana and Mr Sifiso Dabengwa for their contribution during their tenure on the Board. Despite these resignations, the Board is satisfied that it comprises the appropriate balance of knowledge, skills, experience, diversity and independence to carry out its duties. Nevertheless, the Board has requested the shareholder to fill the Board vacancies to ensure that all committees are adequately capacitated to fulfil their mandates.

The Board is supportive of Exco's priorities, as overseen by Board, and is confident that Exco will lead a committed and capable management team to take Eskom forward on its journey to business separation and ultimately, a new and sustainable Eskom. On behalf of the Board, I would like to thank Exco and the leadership team for their unfailing efforts to serve South Africa in accordance with Eskom's mandate. To achieve that, we require a partnership approach between all stakeholders to contribute towards a successful and sustainable turnaround of Eskom.

Prof. Malegapuru Makgoba
Interim Chairman

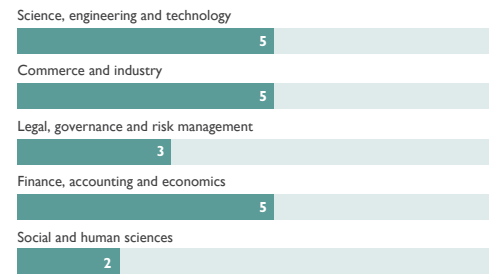
BOARD OF DIRECTORS

AT 31 MARCH 2020

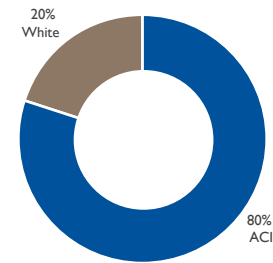
Membership of Board committees

- Audit and Risk Committee
- Investment and Finance Committee
- People and Governance Committee
- Social, Ethics and Sustainability Committee
- Board Strategy Committee
- c Denotes chairmanship of a committee

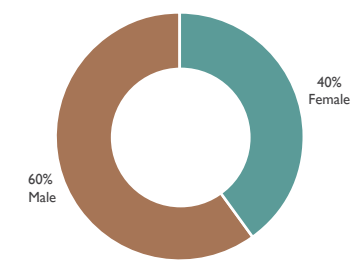
Skills



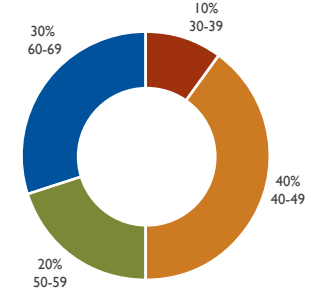
Racial diversity



Gender diversity



Age diversity



1. PROF. MALEGAPURU MAKGOBA (67)

Interim Chairman
Appointed to the Board in December 2017
MB ChB (University of Natal)
D Phil (University of Oxford)



2. MR ANDRÉ DE RUYTER (52)

Group Chief Executive
Appointed to the Board in January 2020
LLB (Unisa)
MBA (Nyenrode University)

3. MR CALIB CASSIM (48)

Chief Financial Officer
Appointed to the Board in July 2017
Chartered Accountant (SA)
Master of Business Leadership (Unisa)

4. DR ROD CROMPTON (67)

Independent non-executive director
Appointed to the Board in January 2018
BA (Hons) (University of Natal)
Ph D Humanities (University of Natal)



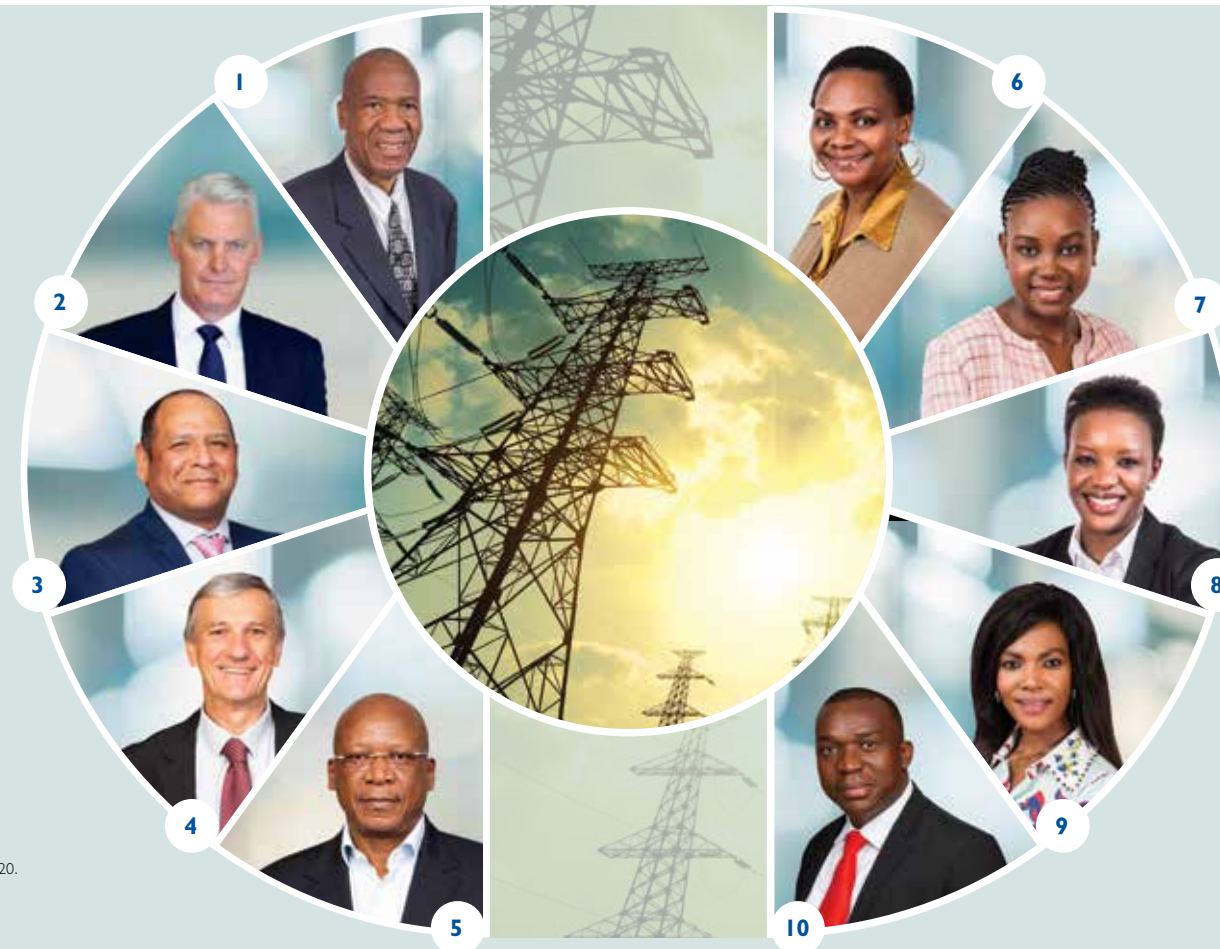
5. MR SIFISO DABENGWA (61)

Independent non-executive director
Appointed to the Board in January 2018
B Sc (Hons) Engineering (University of Zimbabwe)
MBA (University of Witwatersrand)
Executive Program (University of Michigan)



Ages are shown at 31 March 2020.

Mr Sifiso Dabengwa tendered his resignation with immediate effect on 21 July 2020.



6. MS NELISIWE MAGUBANE (54)

Independent non-executive director
Appointed to the Board in January 2018

B Sc Electrical Engineering – Heavy Current (University of Natal)
Postgraduate Diploma in Business Administration (University of West London)
MBA (Milpark Business School)



7. DR BANOTHILE MAKHUBELA (35)

Independent non-executive director
Appointed to the Board in June 2017

M Sc Chemistry (University of Cape Town)
Ph D Chemistry (University of Cape Town)



8. MS BUSISIWE MAVUSO (41)

Independent non-executive director
Appointed to the Board in January 2018

B Compt (Unisa)
Master of Business Leadership (Unisa)



9. DR PULANE MOLOKWANE (43)

Independent non-executive director
Appointed to the Board in June 2017

M Sc Applied Radiation Science and Technology (University of North West)
Ph D Chemical Technology – Environmental Engineering (University of Pretoria)



10. PROF. TSHEPO MONGALO (46)

Independent non-executive director
Appointed to the Board in December 2017

LLM Commercial Law (University of Cambridge)
Ph D Commercial Law (University of Cape Town)

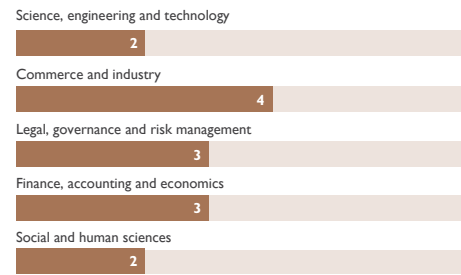


Qualifications listed above are not exhaustive. Refer to pages 135 and 136 for full details of directors' qualifications and active directorships

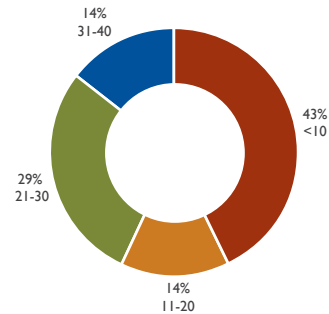
EXECUTIVE MANAGEMENT COMMITTEE

AT 31 MARCH 2020

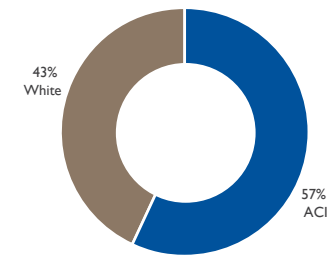
Skills



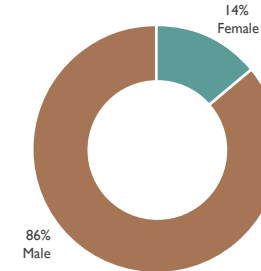
Years in service



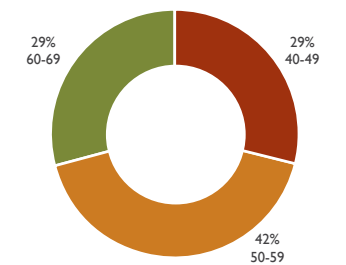
Racial diversity



Gender diversity



Age diversity



1. MR ANDRÉ DE RUYTER (52)

Group Chief Executive
Appointed to Exco in January 2020
<1 year in Eskom
LLB (Unisa)
MBA (Nyenrode University)

2. MR CALIB CASSIM (48)

Chief Financial Officer
Appointed to Exco in July 2017
18 years in Eskom
Chartered Accountant (SA)
Master of Business Leadership (Unisa)

3. MR JAN OBERHOLZER (61)

Chief Operating Officer
Appointed to Exco in July 2018
27 years Eskom experience (including from 1983 to 2008)
B Sc Electrical Engineering (University of Pretoria)
Master of Business Leadership (Unisa)
Executive Program (University of Michigan)

Ages are shown at 31 March 2020.
Ms Faith Burn was appointed as General Manager: Information Technology with effect from 15 May 2020.



4. MR BARTLETT HEWU (44)

Acting Group Executive: Legal and Compliance
Appointed to Exco in April 2018
2 years in Eskom
LLB (University of Pretoria)
Higher Diplomas in Tax and International Tax (University of Johannesburg)

5. MS ELSIE PULE (52)

Group Executive: Human Resources
Appointed to Exco in November 2014
22 years in Eskom
BA (Hons) Psychology (University of Pretoria)
M Sc Business Engineering (Warwick University)

6. MR SOLOMON TSHITANGANO (58)

Chief Procurement Officer
Appointed to Exco in January 2019
1 year in Eskom
B Com (Hons) (University of Venda)
Higher Diploma in Accounting (University of Western Cape)

7. MR NICO HARRIS (60)

Acting General Manager: Information Technology
Appointed to Exco in May 2019
38 years in Eskom
B Com Education (Rand Afrikaans University)
MBA (Henley Management College UK)



Qualifications listed above are not exhaustive. Refer to page 137 for full details of Exco members' qualifications and active directorships

OUR GOVERNANCE FRAMEWORK

Our governance framework provides the roadmap for achieving our strategic priorities within legislative, regulatory and policy requirements. Certain matters require approval in terms of the PFMA; this is set out in the materiality framework which, together with our delegation of authority framework, guides the referral of matters to executive-level committees and to the Board, and from there to DPE and National Treasury, if required

Our mandate is based on our shareholder's Strategic Intent Statement, with our annual performance measured against a shareholder compact

The Board guides Eskom's strategic direction through the Corporate Plan

Refer to "Our strategic context" from page 40

External audit
Internal audit

Refer to "Assurance and controls" from page 27 for information on the governance and functioning of our systems, policies and procedures, as well as controls, and our combined assurance model

Exco is established by the GCE to execute the strategy set out by the Board and manage day-to-day operations

Refer to "Exco composition" on page 34

Board and Exco subcommittees provide in-depth oversight on specific areas, assisting in discharging various responsibilities

DEPARTMENT OF PUBLIC ENTERPRISES

ESKOM HOLDINGS SOC LTD

BOARD OF DIRECTORS

Audit & Risk	Investment & Finance	People & Governance	Social, Ethics & Sustainability	Strategy
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Group Company Secretary

EXECUTIVE COMMITTEE

Capital	Information Technology	Nuclear Management	Operating
Regulation, Policy & Economics	Risk & Sustainability	Tender	Turnaround

DIVISIONAL BOARDS

Generation	Transmission	Distribution
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We are guided by our Code of Ethics and King IV™ to ensure ethical behaviour and good governance practices. Clear accountability for decision-making is assigned through our delegation of authority (DoA) and materiality frameworks

Our Memorandum of Incorporation sets out the powers of the shareholder and the Board, which comprised 10 directors at year end. With the exception of the GCE and CFO, the Board is composed of independent non-executive directors

Refer to "Board composition and appointments" on page 22

Divisional boards were introduced in March 2020 to enhance governance and drive accountability in line with our turnaround plan

The restructuring is discussed under "Our strategic context" from page 40. For further information on divisional boards, refer to page 34

Legislation and regulations

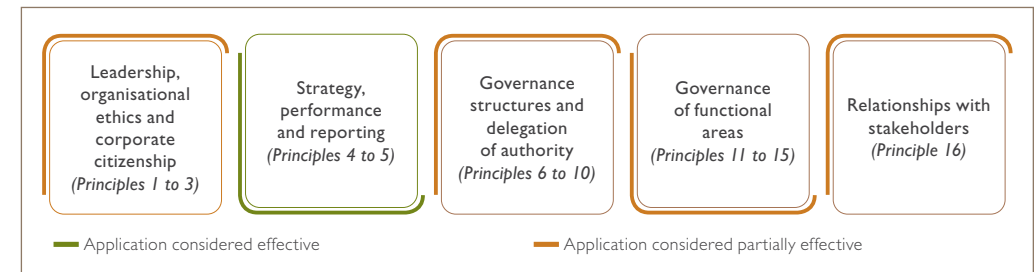
Eskom is subject to numerous laws and regulations which govern our operations, including conditions relating to tariffs, expansion activities, environmental compliance, procurement, and human resources. Our licensing conditions place strict limits on plant emissions to limit our environmental impact. Relevant laws and regulations include the Electricity Regulation Act, 2006; Companies Act, 2008; PFMA, 1999; National Treasury regulations; National Environmental Management Act, 1998; National Energy Regulator Act, 2004; National Nuclear Regulator Act, 1999; Occupational Health and Safety Act, 1993; Basic Conditions of Employment Act, 1997; Labour Relations Act, 1995; Broad-Based Black Economic Empowerment Act, 2003; Promotion of Access to Information Act, 2000; among others.

KING IV™ APPLICATION

We conduct an annual assessment of the overall effectiveness of the implementation of the principles and practices contained in King IV™ through a well-established process of governance monitoring and reporting. Senior management across functional areas are required to record, on a continuous basis, the application

of good governance principles and practices contained in King IV™ as it relates to their governance functional area.

Based on the most recent assessment, our overall level of effectiveness of implementation of the King IV™ principles is considered partially effective.



Key governance developments during the year as well as future focus areas are highlighted below.

Leadership, organisational ethics and corporate citizenship

Our leadership continues to place significant focus on restoring an ethical culture and promoting good governance practices. The Social, Ethics and Sustainability Committee (SES) assists the Board in overseeing the management of organisational ethics, which includes the development, revision and implementation of ethics policies and procedures, such as the Code of Ethics, conflict of interest policy and declaration of interest procedure. Ethics policies and procedures are also applicable to the Board and are guided by Eskom's values.

During the year, the deployment of online ethics training has improved accessibility, awareness and education of employees on ethics requirements. Measures to monitor and improve organisational ethics include instituting disciplinary action against employees who have transgressed ethical requirements, as well as upgrading systems used to oversee employee and supplier declarations of interest, to enable proactive monitoring of unethical conduct and provide enhanced reporting. Measures to deal with supplier transgressions have also been put in place.

Refer to "Ethics and progress on governance clean-up" from page 35

Our strategic processes ensure that matters relating to responsible corporate citizenship are considered in strategies developed throughout Eskom, including our plans covering corporate social investment and socio-economic development; growth; financial, operational and environmental sustainability; health and safety; risk and resilience; quality; human resources; stakeholder engagement; and procurement, including supplier development and localisation. Our performance compact with the shareholder and our Corporate Plan encompass these strategic elements.

We monitor the changing landscape around corporate citizenship through our enviro-scanning process, and consider emerging risks and opportunities.

Refer to "Our strategic context – Our operating context" from page 45

Strategy, performance and reporting

The Board assumes responsibility for Eskom's purpose, vision, strategy, business model, risks and opportunities through an integrated strategic process, culminating in our annual Corporate Plan. We have established a Turnaround Management Office, working in collaboration with the Results Management Office to oversee implementation of our strategy and turnaround plan.

Refer to "Our strategic context – Our strategy and turnaround plan" from page 50

Performance is measured against the shareholder compact and our strategic objectives, in accordance with the shareholder's expectations. When monitoring our performance, the Board considers all aspects, such as financial and technical performance; our societal, environmental and stakeholder impacts; along with the wellbeing of our people. As set out in this report, our performance measurement is aligned to the six capitals. Due to the financial and operational challenges experienced, overall performance for the year did not meet expectations.

Non-performance or any change in operating context is highlighted and acted upon through integrated processes and various governance and oversight bodies at Board and operational level, supported by a combined assurance process. Monthly reports on business performance are considered by the Executive Management Committee (Exco). Furthermore, Eskom submits a quarterly report to the shareholder; this is reviewed by Exco, the Audit and Risk Committee (ARC) and the Board. Our performance against the shareholder compact as well as other elements of performance are regularly discussed with the shareholder and National Treasury.

Our reporting aims to enable stakeholders to make an informed assessment of our performance to support decision-making. The basis for preparation of the annual and interim financial statements and the integrated report are in accordance with international standards and South African legislation. ARC and SES review these externally published reports within their mandate and recommend approval thereof to the Board.

Governance structures and delegation of authority

The Board functions within a well-established governance framework and provides guidance and oversight by setting the strategic direction of the organisation, which includes the approval of policy and strategy and ensuring accountability for performance of the organisation. The Board's roles and responsibilities, membership requirements and procedural conduct are set out in the Board Charter.



Refer to "Feedback on Board activities" from page 22 for further information on the Board Charter, the composition of the Board, evaluation of Board performance as well as reports by the Board and its various committees

The DoA and materiality frameworks prescribe the scope, conditions and parameters within which authority can be exercised by directors, employees and/or committees, and also sets out the powers that remain vested in the Board.

Although the Board has delegated authority to employees and its committees, it has reserved specific matters for its own deliberation and conclusion as recorded in the Memorandum of Incorporation (MOI). Starting in 2018, the Board assumed the approval mandate for all Board committees, except where legislative provisions require otherwise. The DoA was revised during the year and approved by the Board in July 2020.

The main revision includes the reinstatement of the approval authority of Board committees, including the mandate for the Investment and Finance Committee (IFC) to provide oversight of investment decisions, procurement strategies and transactions within its delegation. Furthermore, the authority levels of power station managers were revised to increase their responsibility over the appointment of critical staff and approval of transactions, in a bid to improve operational oversight at power stations and thereby improve plant performance.

The DoA framework will be reviewed again to facilitate the divisionalisation of Generation, Transmission and Distribution and ensure an appropriate balance between Eskom-wide and divisional DoA policies.

Governance functional areas

The Board sets the policy and direction for governance functional areas to support the organisation in achieving its strategic objectives. The Board has delegated responsibility for the oversight of risk, technology and information, compliance and assurance to ARC, while

oversight of remuneration is delegated to the People and Governance Committee (PGC), in accordance with their respective terms of reference. The responsibility for implementation and execution of policies and plans across functional areas is delegated to Exco.

Risk

Identification and treatment of Eskom's strategic and business risks and opportunities are supported by our risk and resilience policy, risk appetite and tolerance framework, and risk and resilience management plan. The Board approves the organisation's risk appetite and tolerance levels annually. Exco provides quarterly updates and progress on the risk management plan to ARC through a risk report, which includes strategic, business and emerging risks and opportunities, as well as feedback on resilience initiatives. Furthermore, risk management is included in the performance contracts of all group executives.

During the year, Exco implemented a quarterly risk workshop to improve accountability for risk throughout the organisation. Risk-based decision-making was also strengthened across our governance structures by requiring that decisions be supported by a risk assessment, with treatment of the risk linked to the decision.

Key areas of focus as well as key risks and opportunities facing the organisation are reported in "Our strategic context – Risks and opportunities" from page 56

Technology and information

The information technology and operational technology functions are managed separately; the integration of these functions continues to remain a challenge. During the year, the Exco Information Technology Committee was established to ensure alignment of information technology and operational technology within the context of Eskom's strategy.

The Operational Technology Review Forum (OTRF) was also established as a single point of accountability for operational technology. Matters are referred from the OTRF to the Exco Information Technology Committee. Divisions are establishing divisional committees that will report into the OTRF.

Compliance

The Board is accountable for compliance and governs this through the Compliance Charter and compliance policy. Through ARC, the Board oversees compliance throughout the organisation.

Assurance

ARC provides independent oversight of the effectiveness of the organisation's assurance functions, with particular focus on combined assurance arrangements, including external assurance service providers, internal audit, forensic and technical investigations, controls, risk management, compliance and the finance function.

Refer to "Assurance and controls" from page 27 for further information on our approach to governance of technology and information, compliance and assurance

Remuneration

The PGC is mandated by the Board to oversee all aspects of remuneration in a fair, responsible and transparent manner, and to ensure that the Board is aware of developments regarding the remuneration of executives and employees.

DPE has issued guidelines on remuneration and incentives to specifically address the remuneration of executive directors, prescribed officers and non-executive directors of state-owned companies. Our executive remuneration policy was submitted to DPE officials for comment, to ensure adherence to these guidelines. The draft policy will be finalised based on DPE's feedback.



Information on executive remuneration is set out under "Executive remuneration and benefits" on page 31, while remuneration of other employees is covered under "Our people – Remuneration and benefits" on page 119

Relationships with stakeholders

We are committed to a stakeholder-inclusive approach and acknowledge our obligation for managing stakeholder relationships effectively. The Board sets the direction for the organisation's stakeholder relationships through the stakeholder relations policy, leadership engagement protocol, stakeholder landscape and the stakeholder strategy. To build and maintain sustainable relationships with stakeholders, standardised and streamlined governance processes have been developed and implemented across the organisation.



Our interaction with stakeholders is discussed under "Our strategic context – Stakeholder engagement" from page 53

During the year, the Board approved the integrated turnaround communication and stakeholder advocacy plan to engage key stakeholders on Eskom's turnaround plan. Additionally, Eskom's public and stakeholder perception across key dimensions was measured using the South African RepTrak® Pulse reputation study.

Quarterly feedback on stakeholder engagement is submitted to Exco and the Board for oversight, highlighting challenges that could affect Eskom's operations.



Our interaction with our customers and our reputation are set out in "Our role in communities" from page 126

Future focus areas

The Board, through its committees, remains committed to driving an improvement in governance and ethics, and will continue to drive effective application of the King IV™ principles. Moreover, adapting our governance framework to facilitate the restructuring of Eskom will require focus in the short to medium term.

The Board acknowledges that not all of the King IV™ principles have been implemented effectively, although many of the required practices are in place and have been for many years. Our focus is on addressing the following principles:

Principles 1 and 2

While the deployment of online ethics training has improved awareness of ethical requirements, a need for classroom training still exists, specifically for contractors and other high-risk business areas. Progress in this area has been hindered by a lack of resources in the Ethics Office. Our focus remains on adequately resourcing the Ethics Office to monitor compliance, roll out awareness training, and support reporting of transgressions through our whistle-blowing hotline.

Principles 7 and 10

No succession plans are in place for directors or executives. While the development of a succession plan for non-executive directors is in the hands of the shareholder, the PGC identifies and recommends additional skills and diversity needs to the shareholder, who has the sole discretion under the MOI to appoint directors. We have requested the shareholder to fill the vacancies on the Board and await feedback. Given the restructuring of Eskom, succession planning at executive level is an area of focus.

Principle 9 and 10

The Board's access to professional independent guidance on corporate governance was supplemented by temporary and contracted services, while the appointment of a permanent Group Company Secretary was under way. The appointment of Mr Mlawuli Manjingolo with effect from 1 July 2020, is intended to provide much-needed stability within the environment.

Principle 11

Risk management is embedded throughout the organisation; however, greater management accountability is required to effectively treat Priority 1 risks to achieve organisational objectives. Additionally, annual strategic risk workshops are an area of focus.

Principle 14

Due to different remuneration practices across our bargaining unit, managerial and executive employee categories, Eskom has not developed an organisation-wide remuneration policy.

Principle 16

The appointment of company secretaries in Eskom's subsidiaries has improved the monitoring and reporting on the application of King IV™ across the group, although further improvement is required.

FEEDBACK ON BOARD ACTIVITIES

Governance of the group and the responsibility for driving good corporate citizenship is vested in the Board, supported by several committees and the Group Company Secretary.

The boundaries between the Board and Exco have been re-established, with Exco taking accountability for operations, and the Board being responsible for oversight. Nevertheless, Board and Exco continue to collaborate to drive change in Eskom.

The Board is mindful of restoring trust in Eskom and returning the organisation to its values. To that end, the Board remains committed to driving the implementation of King IV™ in conjunction with an overall improvement in governance and ethics, while setting up the organisation for success as we navigate our changing landscape. This is evidenced by the activities of the Board and its committees during the year, as well as their focus areas for the coming year.

Board Charter

The Board Charter is reviewed periodically to ensure that the Board exercises its authority and carries out its roles and responsibilities, as required by the Companies Act, 2008, the PFMA, 1999, Eskom's MOI, the DoA framework, the shareholder compact and any other applicable legislation, policies or procedures as determined by the shareholder. Collectively, these prescripts comprise our governance framework.



The roles and responsibilities, key activities and future focus areas of the Board and its committees are outlined in the separate Board reports from page 25

Board composition and appointments

In terms of our MOI, the Board must consist of a maximum of 15 directors, with at least two executive directors and the majority being non-executive directors.

Non-executive directors are appointed by the shareholder for a period of three years, reviewable annually; they may not serve more than three consecutive terms.

Given that the shareholder approves the appointment of all directors, targets for race, gender, age and disability as well as succession planning are managed by the shareholder. The PGC assists the shareholder by identifying and recommending the needs of the Board in terms of skills, qualifications, experience and diversity to achieve our objectives.

The Board is satisfied that its composition is appropriately balanced in accordance with King IV™ principles. Nevertheless, the Board has highlighted the vacancies to the shareholder, also noting the lack of succession planning and lack of representation of persons with disabilities.



Refer to pages 14 to 15 for the Board composition, as well as information on skills and racial, gender and age diversity. Directors' profiles, including qualifications and active directorships, are set out in the fact sheet from page 135

Changes in Board composition

The Board comprised 10 directors at year end – eight independent non-executive directors and two executive directors. The following changes affected the composition of the Board during the year.

Mr Phakamani Hadebe stepped down as GCE and executive director on 31 July 2019. The then Chairman, Mr Jabu Mabuza, assumed the role of interim executive Chairman and acting Group Chief Executive from 1 August 2019, until the process to recruit a suitable candidate as GCE could be concluded. To ensure the continued independence of the Board in line with King IV™, Prof. Malegapuru Makgoba was appointed as lead independent director from 1 August 2019.

Following a rigorous recruitment process and nomination of a candidate by the Board, the shareholder appointed Mr André de Ruyter as GCE and executive director with effect from 6 January 2020.

Mr Jabu Mabuza resigned as Chairman with immediate effect on 10 January 2020, after which the shareholder appointed Prof. Malegapuru Makgoba, the lead independent director, as interim Chairman from 13 January 2020.

Ms Sindi Mabaso-Koyana resigned as a non-executive director and chairman of ARC with effect from 31 January 2020. Dr Pulane Molokwane was subsequently appointed as chairman of the committee.

Subsequent to year end, Mr Sifiso Dabengwa tendered his resignation on 21 July 2020 as non-executive director and chairman of IFC with immediate effect. Ms Nelisiwe Magubane was subsequently appointed as chairman of the committee.

Meeting attendance

Although meetings of the Board and its committees are scheduled annually in advance, special meetings may be convened as and when required to address pressing issues.

Directors' attendance of Board and committee meetings (including by former members of a committee) is noted in the fact sheet on page 138



Group Company Secretary

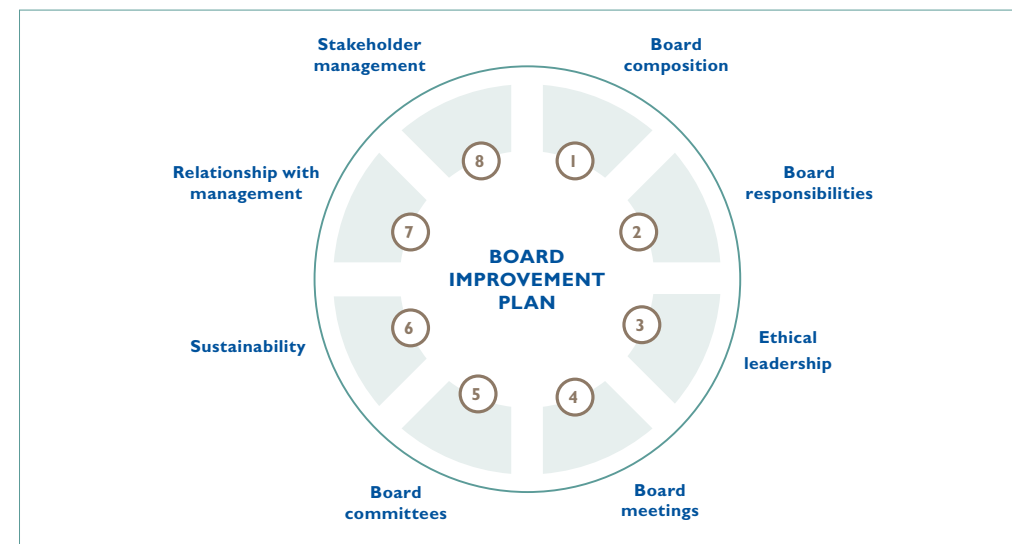
The Group Company Secretary plays an important role in the governance and administration of the organisation, and is vital to the efficient and effective functioning of the Board by providing advice and support to directors.

Following the departure of Mr Wynand van Wyngaardt as Group Company Secretary on 30 April 2019, Mr Mtutuzeli Tyalimpi was appointed as acting Group Company Secretary on a fixed-term contract from 2 July 2019 until 31 December 2019. Upon expiry of the contract, Ms Allison Seckle was appointed as acting Group Company Secretary until the recruitment of a permanent appointment could be concluded. Mr Mlawuli Manjingolo was appointed as Group Company Secretary with effect from 1 July 2020.

Board evaluation

King IV™ recommends that board evaluations be conducted every second year. However, at the request of the shareholder, Eskom endeavours to conduct board evaluations on an annual basis where practical. The evaluation report informs the shareholder's decision on the retention of directors.

The Board acknowledges the independent evaluation report. In response, a Board improvement plan has been developed to address key recommendations across a number of areas. Key recommendations and progress thereon are noted below.



1 Recommendation: The shareholder should address the size and diversity of the Board by filling vacancies and appointing a more balanced Board.

Progress: A request to strengthen and fill existing vacancies has been submitted for the shareholder's consideration.

2 Recommendation: The Board should improve mechanisms to monitor management's performance and conduct evaluations of the GCE.

Progress: The Board has approved the shareholder compact for 2021, setting the foundation for performance management for the coming financial year. At the time of the evaluation, the shareholder compact had not been established. The GCE's performance compact is in place and is aligned to shareholder objectives and Board-priority initiatives.

3 Recommendation: The Board should formulate plans to address a perceived lack of consequence management and non-adherence to ethics policies and procedures by leading a zero-tolerance campaign against unethical behaviour. A culture of ethical leadership should be supported.

Progress: Breaches of ethical conduct and recommendations to address non-compliance are reported to the Board on a quarterly basis. Associated risks are also monitored through ARC.

An external service provider was appointed to undertake a full independent evaluation of the Board for the 2019 financial year from July to August 2019; the results have been shared with the shareholder. An internal board evaluation for the 2020 financial year is under way.

In order to improve our approach to ethics, our consequence management processes and ethics, fraud prevention and whistle-blowing policies have been reviewed and revised. The Board continues to affirm a zero tolerance towards unethical behaviour, to instil a renewed commitment to Eskom's values. Furthermore, a Board workshop focusing on ethical leadership is planned.

Actions taken to address unethical behaviour are discussed in "Ethics and progress on governance clean-up" from page 35

4 Recommendation: The Board should ensure the recruitment of a permanent Group Company Secretary and address general administrative concerns around Board meetings.

Progress: Improvement in the efficient operation of the secretariat function is ongoing, bolstered by the recent appointment of Mr Mlawuli Manjingolo as Group Company Secretary.

An annual agenda plan and meeting calendar is in place; however, due to the nature of Eskom's challenges at the time that the 2019 board evaluation was conducted, the Board had to deal with several pressing issues, necessitating a number of meetings at short notice.



5 *Recommendation:* The Board should apply careful judgement when constituting committees and review the terms of reference of each committee on an annual basis, to ensure that the Board can focus on strategic matters. Discussions of future focus areas must also be prioritised.

Progress: Directors' skills and experience are considered when constituting Board committees; however, the Board vacancies have been brought to the attention of the shareholder to enable the strengthening of the Board and its committees. The review of committees' terms of reference was subject to finalisation of the Eskom DoA, which covers the decision-making authority of the Board committees. All terms of reference, including the Board Charter, have since been reviewed.

Future focus areas are covered in the reports by the various Board committees from page 26

6 *Recommendation:* The Board should focus on a broad range of sustainability issues, as there is a perceived emphasis on financial sustainability to the exclusion of other pressing issues.

Progress: The Board believes that sustainability issues are adequately dealt with through SES, based on its terms of reference and an agenda that focuses on all aspects of sustainability, in line with statutory requirements.

7 *Recommendation:* The Board should renew its relationship with management through continuous engagement, while holding management accountable for decisions and challenging management through agreed expectations.

Progress: The GCE and the Chief Financial Officer (CFO) are executive directors and serve as the interface between the Board and executive management. The GCE and CFO are responsible for providing reports to the Board covering the performance of the organisation on key performance areas agreed with the shareholder. Performance of executive management is linked to the achievement of individual and organisational performance objectives and targets.

8 *Recommendation:* The Board should lead a stakeholder-inclusive approach and consider roadshows to restore trust with Eskom's stakeholders, such as organised labour. Where appropriate, the Board should be more firm in dealing with decisions by the shareholder.

Progress: The Board-approved stakeholder engagement policy sets out the roles and responsibilities of the Board and executives in managing stakeholder relationships. Through our stakeholder engagement strategy, numerous engagements and roadshows are conducted by executive management.

Collaboration with key decision-makers and Government is critical to the success of our turnaround plan. The Board engages with the shareholder on key issues through the shareholder engagement forum. The Board is further held to account by several parliamentary bodies, such as the Standing Committee on Public Accounts (SCOPA) and the Standing Committee on Appropriations (SCOA).

Refer to "Our strategic context – Stakeholder engagement" from page 53 for further information

Board committees

The effectiveness of the Board is aided by committees to which it delegates authority without diluting its own accountability. The Board appoints members to the various committees, by duly considering the necessary skills, experience and diversity required. The exception is ARC, where appointments are made by the shareholder in terms of our MOI and the Companies Act, 2008.

All committees exercise their authority in accordance with Board-approved terms of reference, which define their composition, mandate, roles and responsibilities. These terms of reference are aligned with the DoA framework, legislative requirements and best practice, and are reviewed each year. Both ARC and SES are statutory committees as prescribed by the Companies Act, 2008.

The individual and collective responsibilities of directors in terms of their fiduciary duty are not negated by the deliberations of the committees. Directors are required to exercise due care and judgement in accordance with their statutory obligations.

All Board committees, which comprise only independent non-executive directors, are chaired by an independent non-executive director. During the year, there were several changes to the chairmanship and membership of Board committees as a result of resignations, and a new Board Strategy Committee being established. These changes ensured that the committees were able to discharge their duties effectively despite the current Board vacancies.

No external advisors were invited to committee meetings during the year. The GCE, CFO, Chief Operating Officer (COO) and senior management from various functional areas are invited to attend committee meetings as officials, when required.

Reports by the various Board committees on the following pages include the committees' membership at 31 March 2020, the number of meetings held during the year, the purpose and key activities of the committees, as well as the focus areas for the coming year.

REPORT BY THE BOARD FOR THE YEAR ENDED 31 MARCH 2020



Number of meetings

Sixteen meetings were held during the year.

Membership

Refer to the Board composition on pages 14 and 15

Purpose

The Board fulfils the primary roles and responsibilities of a governing body outlined in King IV™ by:

- Steering the organisation and setting the strategic direction, aligned with DPE's Strategic Intent Statement, while treating strategy, risk, performance and sustainability as inseparable
- Providing oversight through effective governance and materiality frameworks, and approving policies and plans which give effect to the strategy
- Monitoring strategy implementation and execution by management, ensuring accountability and promoting integrity in reporting and disclosure
- Ensuring that compliance requirements and risks are identified and managed through effective internal controls, supported by a risk-based internal audit function
- Promoting a culture aligned to Eskom's values, ensuring that Eskom remains a responsible corporate citizen – ethically, socially and environmentally

Key activities and decisions

- The Board previously assumed the approval mandate for all Board committees except where legislative provisions apply, in the case of ARC and SES. During the year, the approval authority of the Board committees was reinstated and IFC was granted the mandate to approve transactions within its delegation
- Established the Board Strategy Committee to consider matters relating to Eskom's restructuring
- Approved the separation of ARC into two committees; namely an audit committee and a risk committee; however, the separation cannot be implemented until the existing Board vacancies are filled

- Evaluated potential candidates for the appointment of the GCE and submitted recommendations to the shareholder
- Tasked the PGC with ensuring that risk management is included in the GCE's performance compact and also cascaded to lower levels of management, as a Board priority
- Considered and approved the updated enterprise risk and resilience policy, risk and resilience management plan as well as Eskom's risk appetite and tolerance framework
- Approved the Eskom delegation of authority framework, subject to certain revisions
- Revised the delegation of authority of power station managers in consultation with the COO, to drive improved operational accountability
- Lifted the moratorium on external recruitment to fill critical vacancies
- Approved the revised executive organisational structure
- Considered progress on the four focus areas of the 2019 turnaround plan, as well as the Generation recovery plan
- Granted approval for senior management to engage with the Ministers and Directors General of DPE and the Department of Environment, Forestry and Fisheries (DEFF) as well as licensing authorities on the impact that the Minimum Emission Standards (MES) might have on the adequacy of the power system
- Approved the procurement strategy for long-term coal supply to several power stations based on the remaining life of plant plans
- Supported Eskom's municipal debt management strategy and declaratory orders to recover payments, subject to engagement with National Treasury
- Accepted the cost-benefit calculations for Medupi and Kusile Power Stations, based on the commercial decision to complete the new build projects
- Approved the High Court review applications of NERSA's MYPD 4 and regulatory clearing account decisions
- Approved the disposal strategy of Eskom Finance Company SOC Ltd
- Requested the shareholder to assume ownership or alternatively fund the continued warehousing of PBMR
- Approved submission of the Corporate Plan for the 2021 to 2023 financial years to DPE

Conclusion

The Board has adopted an appropriate Board Charter, has regulated its affairs in compliance with this charter and is satisfied that it has discharged its responsibilities contained therein. Furthermore, the Board is satisfied that it comprises the appropriate balance of knowledge, skills, experience, diversity and independence, and is satisfied with the reasons for the resignation of previous directors.

The Board has requested the shareholder to fill the Board vacancies to ensure that all committees are adequately capacitated to fulfil their mandates.

Prof. Malegapuru Makgoba
Interim Chairman

REPORT BY THE AUDIT AND RISK COMMITTEE

FOR THE YEAR ENDED 31 MARCH 2020



- Quarterly reports, such as shareholder reports to DPE and enterprise risk and resilience reports
- Progress against cost curtailment initiatives under the 2019 turnaround plan

In addition, the committee:

- Monitored and considered financial performance and liquidity; IT governance, risk and security; enterprise risk and resilience, including risk appetite and tolerance; insurance; ethics; forensics and technical investigations; litigation and new legislation; nuclear assurance; the compliance charter and compliance management

To address the prior year's focus areas:

- ARC's terms of reference have been reviewed, as well as the proposed terms of reference for the separate audit and risk committees
- The Board reiterated its request to the shareholder to fill vacancies on the Board to strengthen membership of ARC

Number of meetings

Ten meetings were held during the year.

Membership (at year end)

Three independent non-executive directors:

Dr Pulane Molokwane (chairman), Dr Rod Crompton and Prof. Tshepo Mongalo

Collectively, members have qualifications or experience in commerce and industry, economics, public sector, law, governance, risk management, nuclear science and environmental engineering.

Purpose

The committee's roles and responsibilities include:

- The statutory functions of an audit committee set out in the Companies Act, 2008 and the PFMA, 1999, including oversight of financial reporting and disclosure, risk and compliance management and internal control systems, as well as the internal and external audit functions
- Oversight of strategic and business risks and opportunities
- Governance of information and technology
- Serving as the audit committee for Eskom's wholly owned subsidiaries, with the exception of Escap, which has its own audit committee in terms of the Insurance Act, 2017

Key activities during the year

The committee considered and/or recommended the following for approval or noting by the Board:

- Year-end and interim group financial statements, the integrated report and related documents, as well as going concern statements and reportable irregularities raised by the independent auditors
- Appointment of the external auditor and associated fees
- The three-year rolling strategic internal audit plan, including progress on and amendments to the 2020 audit plan

Future focus areas

Focus areas for the coming year include:

- Establishing separate audit and risk committees with clear responsibilities; implementation of this change is subject to Board vacancies being filled
- Considering sustainability risks relating to financial reporting and Eskom's status as a going concern
- Reviewing the effectiveness of risk and compliance management as well as internal financial and other controls, together with the adequacy of consequence management, to ensure that contraventions are addressed in a sustainable manner
- Governing information and technology risk, specifically pertaining to the restructuring of Eskom
- Monitoring the cooperation and coordination between the internal and external audit functions
- Continuing to fulfil all statutory duties in accordance with the terms of reference
- Overseeing the operations of Eskom's subsidiaries and the activities of their audit committees

Conclusion

The committee fulfilled all its statutory duties in terms of the Public Finance Management Act, 1999, and section 94(7)(f) of the Companies Act, 2008. The committee has adopted an appropriate formal terms of reference, has regulated its affairs in compliance with its terms of reference and is satisfied that it has discharged its responsibilities contained therein.

Dr Pulane Molokwane
Chairman
Audit and Risk Committee

ASSURANCE AND CONTROLS

ARC is responsible for setting the direction for risk management and internal controls, governance of technology and information, compliance and combined assurance.

The Assurance and Forensic (A&F) Department, our independent internal audit function, reports directly to ARC. A&F's annual charter is approved by ARC; this includes a risk-based audit plan and resource plan to ensure adequate resources to address the complexity of risks facing the organisation, and to provide reasonable assurance on the effectiveness of the governance and control environment, including forensic and technical investigations.

Systems, policies and procedures

All aspects of our operations are supported, controlled and guided by systems, processes, policies and procedures. We are committed to compliance with international standards, which is realised through simplification, standardisation, optimisation and regular

review of our systems and processes to improve performance and deliver on our strategic objectives. This is in line with our focus on entrenching quality management principles throughout the organisation, to ensure a continuous approach to quality, good governance and sustainable performance.

Refer to pages 152 to 154 of our 2019 integrated report for additional information

Risk management and internal controls

The Board, through ARC, ensures that an effective risk management process is in place and that internal controls are both adequate and effective.

A&F assists the organisation in achieving its objectives by performing assessments and providing assurance on governance, risk management and the design, implementation and effectiveness of financial and operational controls.



Based on a formal review during the 2020 financial year, A&F has concluded that our system of internal financial controls is considered adequate, including the design, implementation and effectiveness thereof, and that it forms a reasonable basis for the preparation of Eskom's financial statements.

The design of the system of internal operational controls and risk management is considered adequate, although application thereof is considered partially effective. In particular, the system of controls relating to compliance requires improvement.

Furthermore, governance requires improvement in respect of compliance with applicable laws and regulations. Roles, responsibilities and authority of external governance role players are to be clarified in Eskom's legislative and policy frameworks.

These conclusions consider information and explanations provided by management, as well as discussions with the external auditors on the results of the external audit.

Governance of technology and information

In accordance with King IV™, governance oversight of technology and information is the responsibility of the Board. Effective management of technology and information is seen as critical for the enhancement of intellectual capital. The responsibility for managing these has been delegated to Exco. Although information technology and operational technology functions are operated separately, the recently established Exco Information Technology Committee will ensure alignment.

Through ARC, the Board has adopted an IT Charter and policies to provide direction on how information technology is addressed in the organisation to ensure the confidentiality, security, integrity and availability of information.

The Technical Governance Committee functions as a governance structure for operational technology to oversee technical processes, standardisation, strategic direction, and ensure effective management of operational technology throughout the organisation. This structure now reports to the Exco Information Technology Committee.

Technical governance structures were discussed in more detail on pages 152 to 153 of our 2019 integrated report

ARC considers quarterly reports, which provide assurance that Eskom's operational technology and information management systems are secure and available, as well as A&F's assessments on the adequacy and effectiveness of technology and information governance, risk management, compliance and controls.

Compliance

Our compliance philosophy respects the rule of law and seeks to comply, in all material aspects, with our compliance obligations. The Board is accountable for compliance and sets the direction through the Compliance Charter and, with the assistance of ARC, oversees compliance throughout the organisation. The responsibility for the implementation and execution of compliance management has been delegated to Exco.

Compliance maturity is based on an assessment of the extent of identification and understanding of the applicable compliance universe, linking and updating related controls, and routine monitoring of adherence to those controls. Based on a review of Eskom's overall compliance status at 31 March 2020, the overall risk of non-compliance in the organisation remains high, given the complex legal and regulatory obligations affecting our operations.

A remedial plan is being developed to address structural inadequacies identified and the lack of automated compliance monitoring systems, among other findings.

Non-compliance places Eskom at risk and may result in reportable matters through the PFMA, 1999. Transgressions are dealt with in terms of disciplinary processes, which extend to civil and criminal action where appropriate.



Quantifiable penalties, fines or sanctions levied against the organisation due to non-compliance, including environmental sanctions, are disclosed in note 53 of the consolidated annual financial statements

Our focus remains on improving our compliance maturity and developing a remedial plan to address the risk of non-compliance. Progress against this plan will be monitored on a regular basis.

Combined assurance

Combined assurance offers benefits extending beyond mere compliance. It includes maximising risk and governance oversight; optimising overall assurance activities; improved reporting to the Board and its committees; coordinated and relevant assurance, with an emphasis on key risks; as well as enhanced control efficiencies and a possible reduction in assurance costs.

The combined assurance model includes a combination of line function oversight, risk and resilience management and compliance activities, as well as other specialist assurance services. Collectively, these enable an effective control environment and support the integrity of information for decision-making by oversight committees, as well as external reporting to stakeholders.

Board and ARC	
	Considers the myriad of control deficiencies, risk and realities affecting the organisation, and then provides guidance on how to address these in order to ensure performance, business health and sustainability
External audit	Internal audit
Independent reasonable assurance that the annual financial statements and integrated report are free from material misstatement and are prepared, in all material respects, in accordance with IFRS and King IV™. Provides business insights on internal financial controls and financial reporting	Assurance over the adequacy and effectiveness of the network of risk management, internal control and governance processes, including key financial controls as represented by management
Specialised control functions	Risk, resilience and compliance management
Development and maintenance of internal control frameworks and policies, as well as reviewing their suitability and monitoring their application	Assurance over the implementation of risk and resilience as well as compliance management practices and processes
Operations management and specialised review functions	
Assurance over the adequacy of operational risk management, effective adherence to internal control processes and delivery against operational and sustainability objectives	
Operations execution and supervisory oversight	
Supervisors and managers ensure the implementation of internal controls and risk management processes to ensure a high-performing and sustainable operating environment	

The combined assurance model assists the Board and ARC in forming their view of the adequacy of risk management and internal controls in the organisation. ARC is ultimately accountable for providing oversight of assurance activities through the combined assurance framework, to provide reasonable assurance that Eskom's financial and non-financial control objectives are achieved, and that the externally published reports are prepared in accordance with the frameworks and standards set out within those reports.

The responsibility for combined assurance has been delegated to A&F, which facilitates and coordinates the execution of combined assurance activities and reports back to relevant committees. ARC receives reports on the status of governance, risk management and compliance, and the adequacy of preventative and corrective controls from the various levels of assurance.



Refer to the report of the Audit and Risk Committee in the consolidated annual financial statements for the full assessment of Eskom's internal control environment and the disclosures required by practice 59 of principle 8 of King IV™

Based on the information and explanations provided by management and A&F, as well as discussions with the external auditors, ARC has concluded that the systems and processes of risk management and compliance are adequate, even though the effectiveness and application thereof need to be improved. Furthermore, internal financial controls are considered adequate to ensure that the financial records may be relied upon and for the preparation of reliable financial statements. ARC also concluded that A&F is operated effectively and has adequate expertise, resources and experience to fulfil its duties. Furthermore, ARC is satisfied that Eskom has access to adequate resources, facilities and support from Government to be able to continue its operations for the foreseeable future as a going concern.

SNG Grant Thornton Inc has been the appointed external auditors since 2015. The lead engagement partner, however, was rotated after a five-year engagement period. Having considered the matters set out in section 94(8) of the Companies Act, 2008, ARC is satisfied with the quality of the external audit as well as the independence and objectivity of the external auditors.

REPORT BY THE INVESTMENT AND FINANCE COMMITTEE

FOR THE YEAR ENDED 31 MARCH 2020



- Options for the disposal of Eskom Finance Company SOC Ltd and recommendations on the preferred strategy
- Eskom's borrowing programme and capital investment plan, aligned to the Corporate Plan
- The medium-term system adequacy outlook and Transmission Development Plan, in compliance with the South African Grid Code

To address the prior year's focus areas:

- The committee considered and approved matters within its approval mandate, and considered and recommended matters above its approval limits for Board approval. Matters included various procurement strategies; contract amendments and modifications; capital investment concept, design and execution approvals or revisions; as well as other commercial decisions

Future focus areas

Focus areas for the coming year include:

- Overseeing considerations for Eskom's capital structure and debt management, both during and after restructuring
- Supervising financial plans and business cases, as well as criteria and guidelines for capital investments and projects for Eskom, its divisions and subsidiaries
- Considering financial proposals in respect of the repurposing of power stations and the Just Energy Transition Transaction

Conclusion

The committee has adopted an appropriate formal terms of reference, has regulated its affairs in compliance with its terms of reference and is satisfied that it has discharged its responsibilities contained therein.

Ms Nelisiwe Magubane
Chairman
Investment and Finance Committee

Number of meetings

Eight meetings were held during the year.

Membership (at year end)

Three independent non-executive directors: Mr Sifiso Dabengwa (chairman), Ms Nelisiwe Magubane and Ms Busisiwe Mavuso

Collectively, members have qualifications or experience in corporate finance, commerce and industry, accounting, energy, public sector and engineering.

After Mr Dabengwa's resignation, Ms Magubane was appointed as chairman of the committee.

Purpose

The committee's responsibilities include:

- Oversight of investment strategies, capital and borrowing programmes, and financial budgets
- Approval of business cases for new ventures, capital investments and projects
- Monitoring the concept, design and execution of major capital projects
- Oversight of Eskom's treasury function

Key activities during the year

The committee considered and/or recommended the following for approval or noting by the Board:

- Funding for Koeberg Nuclear Power Station to execute its long-term balance of plant projects
- Submission to NERSA of the regulatory clearing account (RCA) balance application for the 2019 financial year

REPORT BY THE PEOPLE AND GOVERNANCE COMMITTEE

FOR THE YEAR ENDED 31 MARCH 2020



Number of meetings

Six meetings were held during the year.

Membership (at year end)

Three independent non-executive directors:
Prof. Tshepo Mongalo (chairman), Prof. Malegapuru Makgoba and Ms Busisiwe Mavuso

Collectively, members have qualifications or experience in commerce and industry, accounting, law and governance, public sector and medicine.

Purpose

The committee's responsibilities include:

- Succession planning and nomination at executive level
- Ensuring that remuneration is fair, transparent, responsible and equitable
- Overseeing human resources strategies and policies, including relationships with organised labour and employees
- Monitoring corporate governance

Key activities during the year

The committee considered and/or recommended the following for approval or noting by the Board:

- The evaluation and nomination of potential candidates for the position of the GCE, as well as proposed changes to the executive leadership structure
- Progress on headcount reduction and human resources cost curtailment initiatives under the 2019 turnaround plan
- Eskom's conflict of interest policy and recommendations to address non-compliance with the private work policy

- Progress on relinking centralised support staff to line divisions as part of Eskom's restructuring
- Overview of critical vacancies and recruitment plans, industrial relations, engagements with organised labour and the employee engagement strategy, as well as the annual review of remuneration and employment conditions

To address the prior year's focus areas:

- Following a review of critical skills, the moratorium on recruitment was lifted to address critical vacancies
- A revised human resources strategy – the People Plan – was developed to accommodate divisionalisation and restructuring

Future focus areas

Focus areas for the coming year include:

- Considering human resources strategies and policies, specifically related to headcount reduction, employee benefit cost savings and restoring a culture of high performance and accountability
- Monitoring human resources and industrial relations aspects of divisionalisation, restructuring and Eskom's response to COVID-19
- Finalising the draft executive remuneration policy which was submitted to DPE for comment; the policy will be finalised based on DPE's feedback
- Improving the process around future independent Board evaluations and self-assessments

Conclusion

The committee has adopted an appropriate formal terms of reference, has regulated its affairs in compliance with its terms of reference and is satisfied that it has discharged its responsibilities contained therein. The committee has complied with all relevant legal and regulatory requirements pertaining to remuneration of employees across the organisation, and further notes that no deviations from Eskom's remuneration philosophy were observed during the year.

Prof. Tshepo Mongalo
Chairman
People and Governance Committee

EXECUTIVE REMUNERATION AND BENEFITS

Our approach to remuneration

Principle 14 of King IV™ emphasises that remuneration practices should be fair, responsible and transparent; promote achieving the organisation's strategic objectives; and support positive outcomes in the short, medium and long term.

The PGC assists the Board in approving, guiding and influencing key human resources policies and initiatives aligned to shareholder requirements, social expectations and legislation, such as the Employment Equity Act, 1998, and strives to ensure that remuneration structures support our strategic objectives, encourage value creation and advance Eskom's long-term sustainability by:

- Adopting the principles of King IV™ for the remuneration of directors and executives
- Implementing DPE's guidelines for the remuneration and incentives of employees of SOCs
- Ensuring that the remuneration and incentive philosophy is aligned to the shareholder compact, and drives organisational and individual performance

Total remuneration earned by directors and group executives

Category, R 000	2020	2019
Non-executive directors	9 565	6 967
Executive directors	9 893	11 861
Other group executives ¹	29 516	43 996
Total remuneration	48 974	62 824

1. As reported last year, a more streamlined executive structure was implemented after a section 189 process. This resulted in a reduction in the number of group executives. Consequently, overall executive remuneration has declined.

Refer to note 51 in the consolidated annual financial statements for detailed remuneration information as required by King IV™



Guaranteed remuneration

The guaranteed amount is fixed and includes compulsory benefits such as medical aid, pension, group life and death benefits, as well as allowances for motor vehicle expenses and personal security. Any increase is recommended by the PGC and is subject to approval by the shareholder.

As a result of Eskom's financial challenges, no increase was granted to executives during the year.

Variable remuneration

Variable executive remuneration is linked to the achievement of individual and organisational performance

Remuneration philosophy and structure

Non-executive directors

Non-executive directors receive a fixed monthly fee and are reimbursed for expenses incurred in fulfilling their duties.

Remuneration is benchmarked against the norm for large JSE-listed companies as well as companies similar in size to Eskom, and is determined in line with DPE remuneration guidelines. The PGC submits proposals on non-executive remuneration to the Board, which considers and makes recommendations to the shareholder for approval.

Executives

Our remuneration philosophy aims to attract and retain talent in the competitive labour market on a fair and equitable basis, and reward performance that exceeds expectations and supports the achievement of organisational objectives.

The PGC is solely responsible for determining executive remuneration, rewards and other benefits; executives are not involved in the approval process. The PGC ensures that remuneration policies are designed in a way that demonstrates a clear relationship between performance and remuneration. The PGC also maintains the right to adjust, withhold or veto any remuneration.

The PGC's annual review of executive packages is guided by external benchmarking and ensures an appropriate balance between fixed and variable remuneration.

Our executive remuneration policy was submitted to DPE officials for comment, to ensure adherence to DPE's guidelines. The draft policy will be finalised based on DPE's feedback.

Remuneration of managerial and bargaining unit employees is discussed under "Our people – Remuneration and benefits" from page 119

Refer to pages 74 to 75 of our 2019 integrated report for an explanation of how short- and long-term incentives are structured

In accordance with the conditions of the Special Appropriation Act, 2019, executives may not be paid any incentives in years where Eskom receives equity support. Furthermore, no incentives were paid in 2018 or 2019.

REPORT BY THE SOCIAL, ETHICS AND SUSTAINABILITY COMMITTEE

FOR THE YEAR ENDED 31 MARCH 2020



Number of meetings

Four meetings were held during the year.

Membership (at year end)

Three independent non-executive directors:
Dr Banothile Makhubela (chairman), Prof. Malegapuru Makgoba and Dr Pulane Molokwane

Collectively, members have qualifications or experience in industry, public sector, nuclear science, environmental engineering, chemistry and medicine.

Purpose

The committee's responsibilities include:

- The statutory functions of a social and ethics committee as set out in the Companies Act, 2008
- Oversight of social and economic development; good corporate citizenship; environmental, climate change, health and safety programmes; and the sustainability audit
- Supervision of nuclear policies, strategies and guidelines, as well as nuclear safety in terms of regulatory requirements and international best practice
- Serving as the social and ethics committee for Eskom's wholly owned subsidiaries

Key activities during the year

The committee considered and/or recommended the following for approval or noting by the Board:

- Launch of the Eskom Factor report in July 2019, which measured Eskom's economic, social and environmental footprint
- Plans for addressing the impact of the MES on the adequacy of the power system, as well as risks associated with MES projects and air quality compliance issues, together with associated engagement plans

- Nuclear oversight and management of associated risks
- Eskom's ethics report, including management of ethics

To address the prior year's focus areas:

- The committee considered numerous reports, covering progress, challenges and mitigating measures on occupational health and safety; assurance and forensics; corporate social investment; stakeholder engagement; sustainability of human capital; operational sustainability; environmental performance; electrification; and the integrated report
- The terms of reference of the committee was recommended to and approved by the Board to ensure alignment to the MOI and Regulation 43 of the Companies Act, 2008

Future focus areas

Focus areas for the coming year include:

- Monitoring Eskom's sustainability through the turnaround plan, Generation recovery plan and the recently approved Transmission sustainability improvement plan
- Supervising the response to environmental contraventions and non-compliance notices
- Overseeing the management of nuclear risks, focusing on the status of findings by the World Association of Nuclear Operators (WANO)
- Monitoring both employee and public health and safety aspects of Eskom's response to COVID-19
- Ensuring continued compliance with Regulation 43 of the Companies Act, 2008

Conclusion

The committee has adopted an appropriate formal terms of reference, has regulated its affairs in compliance with its terms of reference and is satisfied that it has discharged its responsibilities contained therein. Furthermore, the committee fulfilled all its statutory duties as set out in Regulation 43 of the Companies Act, 2008.

Dr Banothile Makhubela
Chairman
Social, Ethics and Sustainability Committee

REPORT BY THE BOARD STRATEGY COMMITTEE

FOR THE YEAR ENDED 31 MARCH 2020



Number of meetings

Three meetings were held during the year.

Membership (at year end)

Three independent non-executive directors:
Dr Rod Crompton (chairman), Mr Sifiso Dabengwa and Ms Nelisiwe Magubane

Collectively, members have qualifications or experience in corporate finance, commerce and industry, economics, energy, public sector and engineering.

Purpose

The committee's responsibilities include:

- Oversight of Eskom's response to and implementation of Government directives, roadmaps and policy documents relating to Eskom's restructuring
- Making recommendations to the Board on the restructuring, by considering the transfer of assets, liabilities and resources, as well as the separation of centralised functions
- Interacting with Government and associated offices on the restructuring of both Eskom and the electricity supply industry

Key activities during the year

The committee considered and/or recommended the following for approval or noting by the Board:

- Progress on restructuring under the turnaround plan
- Eskom's comments on DPE's special paper, *Roadmap for Eskom in a Reformed Electricity Supply Industry*, to be submitted to the shareholder, proposing amendments to the process and timelines

In addition, the committee:

- Mandated the GCE to engage DPE on Eskom's recommendations for a phased approach to separation over two years, firstly through divisionalisation, followed by legal unbundling
- Requested that the Corporate Plan and shareholder compact incorporate the phased approach

Future focus areas

Focus areas for the coming year include:

- Ensuring the establishment of a management structure to implement Eskom's restructuring
- Overseeing interactions with Government on Eskom's restructuring, as well as the implementation of associated directives, roadmaps and policies
- Considering revised strategies for operations, human resources, procurement and debt management, with proposed timelines
- Assisting Government in drafting proposed amendments to any legislation, regulations, licences, methodologies and Grid Codes, as well as any new documents, including market rules, required to enable the new market structure
- Providing direction and making recommendations on Eskom's restructuring in line with the new electricity supply industry structure

Conclusion

The committee has adopted an appropriate formal terms of reference, has regulated its affairs in compliance with its terms of reference and is satisfied that it has discharged its responsibilities contained therein.

Dr Rod Crompton
Chairman
Board Strategy Committee

EXCO AND DIVISIONAL BOARDS

Executive Management Committee

Exco composition

Exco is established by the GCE, and is accountable for executing the strategy set by the Board, as well as exercising executive control over day-to-day operations.

The shareholder is responsible for appointing the GCE, although the Board identifies, nominates and evaluates potential candidates.

The CFO is appointed by the Board, subject to shareholder approval, whereas group executives are recommended by the GCE and appointed by the PGC. The GCE and CFO are appointed on five-year contracts, with an option to renew. Furthermore, the acting Group Executive: Legal and Compliance and Group Executive: Transformation Management Office are fixed-term contractors. All other executives are full-time employees.

From 1 September 2020, Mr Bheki Nxumalo was appointed as Group Executive: Group Capital. In the interim, Mr Rhulani Mathebula will act as Group Executive: Generation.

Ms Nthato Minyuku was appointed as Group Executive: Government and Regulatory Affairs, with effect from 15 October 2020.

Exco subcommittees

Exco is supported by various subcommittees to assist in the execution of its duties.

Refer to "Our governance framework" on page 18 for the structure of Exco and its subcommittees. The purpose and key activities of these subcommittees are detailed on page 71 of our 2019 integrated report

Divisional boards

Under the restructuring focus area of the turnaround plan, divisional boards for Generation, Transmission and Distribution were established in March 2020 to enhance our internal governance structures and facilitate a more streamlined decision-making process.

Presently, the divisional boards do not constitute a board of directors in accordance with the Companies Act, 2008, but will function as operational boards, until the legal restructuring of Eskom has been concluded and separate Generation, Transmission and Distribution companies are incorporated.

Refer to "Our strategic context – Our strategy and turnaround plan" from page 50 for our approach to restructuring through divisionalisation as a first step

All of the divisional boards are chaired by the GCE; the CFO, COO, Group Executive: Human Resources and General Manager: Information Technology are members of all the divisional boards.

The group executives for Generation, Transmission and Distribution serve as divisional managing directors for their respective divisions. Membership includes senior management representation from finance, human resources and operations of the respective divisions. The divisional boards are comprised entirely of Eskom employees, which does not affect current job titles and gradings, nor remuneration and benefits.

The divisional boards are ultimately responsible for implementing the strategy of the Eskom Board as it relates to the division, and assisting group executives with the day-to-day operations of the division.

The specific focus on operations is intended to improve business performance and drive the achievement of the strategic objectives of each division, and is the first major step towards Eskom's restructuring.

The divisional boards report to Exco on a regular basis to ensure that common issues that have an impact beyond the division are addressed by Exco, and that decision-making and implementation are aligned to the overall Eskom strategy. The divisional boards can make recommendations to Exco and the Eskom Board on matters requiring their approval.

Refer to pages 16 to 17 for the profiles and areas of responsibility of Exco members, including their experience, qualifications and directorships

Exco held 36 meetings during the year, seven of which were held by the current GCE.

Attendance of Exco meetings is shown in the fact sheet on page 138

Changes in executive leadership

The following changes took place during the year:

- Mr Monde Bala was appointed as Group Executive: Distribution, effective 1 April 2019
- Ms Nondumiso Zibi, acting General Manager: Information Technology, resigned effective 17 May 2019. Mr Nico Harris was appointed to act in the position
- Mr Bheki Nxumalo was appointed as Group Executive: Generation, effective 1 July 2019
- Mr Phakamani Hadebe resigned as GCE, effective 31 July 2019. Mr André de Ruyter was appointed as GCE, effective 6 January 2020
- Mr Phillip Dukashe was appointed as acting Chief Executive Officer of Eskom Rotek Industries SOC Ltd and Eskom Enterprises SOC Ltd, effective 1 August 2019
- Mr André Pillay, General Manager: Treasury, resigned effective 31 August 2019. Mr Mandla Maleka was appointed to act in the position
- Mr Jerome Mthembu, acting co-Group Executive: Legal and Compliance, resigned effective 31 December 2019
- Mr Ishan Bhowani, acting General Manager: Assurance and Forensic, resigned effective 31 January 2020. Mr Bob Sookrajh is acting in the position

After year end, the recruitment process for a number of senior executive positions was concluded. Ms Faith Burn was appointed as General Manager: Information Technology and Mr Richard Vaughan as General Manager: Treasury, both with effect from 15 May 2020. Mr Vuyolwethu Tuku was appointed as Group Executive: Transformation Management Office from 1 July 2020.

ETHICS AND PROGRESS ON GOVERNANCE CLEAN-UP

Ethics based on our values

In accordance with King IV™, the Board is responsible for the governance of ethics within the organisation and, through SES, sets the direction for ethics by establishing an ethical culture through our Code of Ethics, known as "The Way".

"The Way" reflects our commitment to the highest standards of governance, ethics and integrity, and gives effect to ethical practices, policies, procedures and behaviour across all areas of the organisation. It guides the way in which the Board and employees interact with each other as well as with the shareholder, customers, suppliers, the environment, the public and other stakeholders.

Adherence to the "The Way" is not optional; it is the way we do business in Eskom.

Our Code of Ethics is underpinned by our values. As we focus our efforts on returning Eskom to a values-driven organisation, six core values form the foundation through which we can rebuild stakeholders' trust in Eskom.

	Ensure that zero harm befalls our employees, contractors, the public and the natural environment
	Honesty of purpose, conduct and discipline in actions, as well as respect for people
	Value-adding creativity and results oriented. Leading through excellence in innovation
	Caring about our employees and communities
	A commitment to meet and strive to exceed the needs of our customers
	Acknowledged for exceptional standards, performance and professionalism

The responsibility for the implementation and management of ethics has been delegated to Exco, assisted by a dedicated Ethics Office in setting the framework, rules and standards for ethical behaviour, and monitoring the implementation of ethics policies. The Ethics Office facilitates ethics training and assists in identifying and resolving ethical issues in the workplace. Any potential breach of ethics which require further investigation are referred to A&F.

Our conflict of interest policy complements our Code of Ethics by setting out the obligations of directors and employees when encountering conflicts of interest and engaging in private work, managing relationships with suppliers, as well as receiving or offering business courtesies.

Directors and employees across all occupational levels are required to complete an annual declaration of interest, irrespective of whether a conflict exists, or as soon as circumstances that may affect their declaration change. Where a conflict exists, it must be declared and managed in line with Eskom's ethics policies and procedures. Any interests declared by directors and Exco members in meetings are minuted for the record.

All members of the Board and Exco have completed their declarations of interest as required; any conflicts identified are managed appropriately. Declarations made by staff are verified against various databases and, where any discrepancies or omissions are identified, the necessary disciplinary processes are instituted.

No Eskom official or employee is allowed to do business with Eskom while being employed by Eskom or its subsidiaries. Any employee who is found to have contravened the stipulated policies, procedures or DoA will be subject to disciplinary processes.

Our DoA and materiality frameworks serve as important elements of our governance framework, by governing transactions in Eskom and setting limits and approval authorities based on the nature of a transaction.

As a signatory to the United Nations Global Compact, which includes an anti-corruption clause, as well as the World Economic Forum's "Partnership Against Corruption" initiative, Eskom is committed to the fight against fraud, corruption, irregularities and other forms of economic crime. We adopt a zero tolerance approach to these activities, irrespective of whether they are committed inside or outside the organisation. A dedicated toll-free whistle-blowing hotline enables all stakeholders to report unlawful or irregular conduct in good faith.

Refer to the last page of this report for the contact details to report fraud, corruption and irregularities involving Eskom directors, employees or suppliers using an independent, confidential whistle-blowing hotline

Progress on governance clean-up

In last year's report, we provided background to the corporate governance challenges surrounding SOCs in South Africa, particularly Eskom.

In August 2019, the Standing Committee on Public Accounts (SCOPA) conducted an oversight visit to Medupi and Kusile Power Stations, followed by discussions with Eskom's Board and executive management. Thereafter, SCOPA presented 23 recommendations to Parliament to address its findings and concerns. These recommendations ranged from dealing with concerns around the overdue new build programme to addressing governance challenges in Eskom.

Recommendations to improve governance include instituting criminal charges against former employees implicated in malfeasance of any sort; ensuring appropriate consequence management; recovering financial losses suffered by Eskom where those responsible for wrongdoing have been identified; among others.

These recommendations are consistent with the Board's plan to root out corruption and inculcate a renewed culture of honesty, transparency, good governance and ethical leadership.

We are addressing these recommendations. Progress is reported to SCOPA and the shareholder on a quarterly basis.

Our efforts to address governance challenges

In order to restore Eskom's reputation as a trusted corporate citizen and improve our financial and operational sustainability, we have implemented various measures to address issues related to past corporate governance breaches. We are progressing well with the implementation of actions to address governance challenges by:

- Implementing independent lifestyle audits and reviews of conflicts of interest on senior management and other levels, based on risk analysis
- Enhancing our commercial governance process to ensure robust scrutiny, and strengthening the DoA framework
- Strengthening our ethics and fraud frameworks and enhancing our focus on consequence management
- Instituting disciplinary charges against employees and suppliers, and taking legal action, where appropriate
- Investigating and terminating supplier contracts implicated in irregularities, fraud and corruption

Developments across key elements of this plan are discussed below. However, due to the sensitive nature of these matters, not all information can be disclosed in this report.

Lifestyle audits and conflicts of interest

We have completed the first phase of mandatory lifestyle audits on executives and senior managers and their partners, where applicable.

PHASE ONE

383 lifestyle audits concluded on executives and senior management

34 high-risk cases handed over to the SIU for further investigation

PHASE TWO

Remaining employees were **screened for potential risk factors** through vendor systems, declarations of interest and private work applications

About **3 800 employees** to be prioritised for **in-depth lifestyle audits**

Of the 34 high-risk cases handed over to the Special Investigating Unit (SIU) for further investigation, seven resulted in no adverse findings, 13 resulted in recommendations for disciplinary action and six employees resigned during the process. The remaining cases are still under investigation by the SIU.

The second phase aims to target employees at lower occupational levels through lifestyle reviews, to ensure that employees maintain the highest ethical standards and do not engage in illicit activities in the performance of their duties.

Where the results of the preliminary lifestyle review indicate potential red flags, a detailed independent lifestyle audit will be conducted.

The results of these audits will determine the extent to which further investigations or disciplinary action is required. Where sufficient evidence implicating current employees has been identified, we will continue to take appropriate action. We also work with law enforcement authorities to investigate concerns and any violations of the law, even where implicated individuals have subsequently left Eskom's employment.

Commercial governance process and the DoA framework

For information on the enhancement of our commercial governance process in response to prior years' audit findings, refer to "Improvement process to address irregular expenditure" on page 38



As discussed earlier, we reviewed our DoA framework during the year to enhance accountability and ensure that risks associated with governance and oversight of transactions are managed more effectively. Changes were approved by the Board in July 2020. The DoA is being reviewed again to facilitate the divisionalisation of Generation, Transmission and Distribution.

Ethics, fraud and consequence management

Our Fraud Risk Management Strategy was revised, establishing an Anti-fraud and Corruption Integration Committee (AFCIC) to monitor progress on governance clean-up and related matters. The committee serves to integrate our approach to addressing these matters through collaboration between our forensic, legal, ethics, industrial relations and supplier review functions.

AFCIC reviewed consequence management processes to address factors influencing the time taken to conclude disciplinary processes as well as the appropriateness and execution of sanctions. The committee found that, while adequate consequence management structures are in place, disciplinary sanctions continue to be resolved at a slow pace. In response, ARC has proposed a number of recommendations to improve disciplinary processes going forward.

Notably, A&F no longer terminates investigations where implicated employees have resigned, but follows through on investigating such cases where financially justified and recoveries or criminal prosecution seem likely.

We developed and implemented a Fraud Risk Management Plan for 2020, with the objective of maximising fraud prevention and enhancing good corporate governance practices. In accordance with this plan, our fraud prevention, whistle-blowing and conflict of interest policies and procedures were revised to support our zero tolerance approach to fraud; ensure compliance with changes to relevant legislation such as the PFMA, 1999; strengthen whistle-blowing processes; and extend the obligation of completing annual declarations of interest to all employees.

In order to enhance prevention of fraud and corruption across the organisation, we launched a fraud awareness e-learning programme. Exco is driving this programme as mandatory training through employees' individual development plans. The aim is to improve understanding of the importance of adhering to processes and controls, and to empower employees to identify possible unethical behaviour or practices that increase the risk of fraud and corruption. An anti-fraud and corruption awareness programme was delivered at supplier forums during the year, as suppliers are considered key stakeholders in the fight against fraud and corruption.

The revised Fraud Risk Management Plan for 2021 has been approved; it places greater emphasis on the responsibility and accountability of line management to monitor and deal with unethical conduct. AFCIC will monitor implementation of this plan, with progress reported to Exco on a regular basis.

Investigations and disciplinary action involving employees

FORENSIC INVESTIGATIONS

118 new cases reported through whistle-blowing channels

202 forensic investigations concluded (in respect of current and prior years)

54 fraud	49 corruption	99 irregularities
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41% of findings recommended sanctions, such as disciplinary action

256 cases still under investigation at year end

SANCTIONS

141 disciplinary cases emanating from forensic and industrial relations investigations

133 cases completed	8 cases still in progress
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60 employees resigned during disciplinary processes

18 dismissed due to fraud and corruption

Investigations concluded during the year have indicated trends in failure to declare and manage conflicts of interest; failure to obtain permission to perform private work; and payment for goods not delivered. General procurement irregularities include irregular issuing of purchase orders, incorrect billing for resources and not following correct procurement processes. In many instances, the problem was not a failure in the design of internal controls, but management or operational override of controls.

Reporting and investigation of these and other matters will continue, with the appropriate disciplinary processes being instituted. A&F recommends control enhancements in affected and related areas to prevent recurrence.

Investigations into suppliers

During the year, we re-established the Supplier Review Committee, which is responsible for instituting disciplinary action against suppliers, including the suspension and termination of contracts where non-compliance with Eskom's procurement and supply chain management procedures has been identified. This is a key measure in dealing with supplier transgressions.

At 30 September 2020, 57 recommendations of supplier sanctions were under consideration by the Supplier Review Committee based on findings from forensic investigations. Sanctions have been instituted against nine suppliers, while a further 19 suppliers have responded to proposed sanctions and await legal review. The remaining suppliers have either been notified of proposed sanctions but have failed to make written representations in defence against the allegations, or are still under consideration.

External investigations are also continuing into major cases of suspected fraud and corruption involving suppliers, as discussed below.

Major investigations

The finalisation of investigations into former Board members and executives suspected of misconduct combined with legal action to recover financial losses remain a key priority. We continue to provide all necessary information and support to the South African Revenue Service (SARS), the SIU, the South African Police Service (SAPS), the Directorate for Priority Crime Investigation (Hawks), the National Directorate of Public Prosecutions, the Zondo Commission and National Treasury.

Nevertheless, criminal convictions and recovery of financial losses are dependent on successful prosecution by law enforcement agencies and the justice system. Regrettably, this remains a lengthy process resulting in slow progress on various matters.

Investigations into former Board members and executives

Two former senior employees, Mr Frans Hlakudi and Mr Abram Masango, were arrested on corruption-related charges in December 2019, with prosecution under way.

In August 2020, Eskom and the SIU issued summons to recover approximately R3.8 billion from former Board members Mr Baldwin Ngubane, Ms Chwayita Mabude and Mr Mark Pamensky, as well as former executives Mr Brian Molefe, Mr Anoj Singh, Mr Matshela Koko and Ms Suzanne Daniels, relating to a prepayment to Tegeta Exploration and Resources (Pty) Ltd. Other defendants include the former Minister of Mineral Resources, Mosebenzi Zwane, brothers Ajay, Atul and Rajesh (Tony) Gupta, as well as businessman Salim Essa.

Other matters**Optimum Coal Mine (Pty) Ltd**

Eskom has submitted a claim of R5 billion against Optimum's business rescue practitioners for pre- and post-business rescue penalties. This has subsequently been reduced to R1.28 billion after an arbitration ruling.

Trillian Management Consulting (Pty) Ltd

During the 2019 financial year, Eskom instituted legal proceedings against Trillian to recover R600 million paid to Trillian on the pretext of it being a supplier development and localisation partner to McKinsey. The North Gauteng High Court delivered judgment in Eskom's favour. Trillian applied for leave to appeal, which was refused, and was ordered to pay Eskom in October 2019; no payment has been received to date. In January 2020, Eskom initiated liquidation proceedings against Trillian; liquidators are working with SARS to conclude the matter.

Deloitte Consulting (Pty) Ltd

In October 2019, Eskom instituted legal proceedings against Deloitte to recover R207 million arising from task orders that were awarded irregularly, in the absence of an open and competitive tender process. Eskom and Deloitte reached a settlement agreement in March 2020; Eskom received R150 million plus VAT in full and final settlement in May 2020.

PricewaterhouseCoopers (PwC)

In April 2020, Eskom issued a letter of demand to PwC for the repayment of R95 million that was unlawfully paid to PwC through a risk-based contract intended to realise savings on capital projects. Eskom is preparing court papers in this matter.

Impulse International (Pty) Ltd

Impulse International instituted legal proceedings against Eskom for payment of damages due to termination of its contracts. Eskom is of the view that these contracts are in breach of the Constitution and the PFMA, 1999 and, as such, are unlawful and invalid and should be set aside by the court. In response, Eskom has issued a counter claim to recover all payments previously made to Impulse International under these contracts. Eskom is collaborating with the SIU, SARS and the Hawks, who are conducting investigations into Impulse International and other companies linked to it, together with former Eskom employees involved.

Contractor overpayments

Eskom and the SIU are investigating potential overpayments to a number of contractors involved in the construction of Kusile Power Station; the amount is being quantified. Upon conclusion of the investigation, we will institute recovery processes where necessary.

Response to issues raised by the independent auditors**Improvement process to address irregular expenditure**

As reported previously, Eskom received a qualified audit opinion for the previous three financial years, as the external auditors could not rely on the completeness of information reported in terms of the PFMA, 1999. The auditors have again qualified their opinion on the completeness of information relating to irregular expenditure in the 2020 annual financial statements.

Disclosure of irregular expenditure in terms of the PFMA and the basis on which the audit opinion was qualified is set out in note 53 and the independent audit report in the consolidated annual financial statements



The focus for this year has been on implementing corrective actions under the supply chain recovery programme to address the earlier audit modifications by ensuring that adequate systems and processes are in place to monitor and report information required under the PFMA, 1999 and to proactively monitor compliance with relevant legislation. Our PFMA reporting procedures and guidelines were revised to enhance the identification, management and reporting of information, taking into account new requirements from National Treasury. The supply chain recovery programme was concluded in July 2019, and the emphasis has shifted to maintenance and monitoring.

National Treasury recently issued Instructions No. 02 and 03 of 2019/2020, which require the establishment of a loss control function, responsible for conducting assessments and investigations into all occurrences of irregular expenditure and fruitless and wasteful expenditure. The establishment of Eskom's centralised Loss Control Department was approved in March 2020; the process to fill key positions is under way. In addition to its investigative authority, this department will also perform oversight of consequence management, including disciplinary actions, condonations and recovery of losses.

During the year, the Chief Procurement Officer implemented numerous initiatives under the supply chain recovery programme to mitigate the occurrence of irregular expenditure, including:

- Enhancement of internal processes and controls to eliminate procurement processes being circumvented. In line with legislative and compliance requirements, checklists have been embedded into systems to ensure that the applicable controls and workflows are complied with before conclusion of a transaction
- Analysis of purchase orders as well as monitoring of procurement plans to determine trends indicating possible abuse of low-value procurement mechanisms. Where anomalies are identified, business areas are required to take the necessary action to prevent recurrence
- Implementation of a price check tool and e-auction system to ensure that transactions are based on market-related prices and that potential service providers are able to compete fairly
- Proactive reviews of newly established contracts, modifications and deviations. In instances where potential irregular expenditure is identified, an investigation is conducted and the necessary condonation process implemented if required. Sanctions are instituted against employees and suppliers where wrongdoing is identified, and civil action and recovery measures are pursued where applicable

In conjunction with these initiatives, training on the revised PFMA reporting procedures and guidelines was rolled out, with the aim of eliminating any ambiguities that may arise from different interpretations of our governance framework.

Each functional area is ensuring that progress is made on closing out internal condonations through divisional tender committees and the Exco Tender Committee. Additionally, we continue to engage with National Treasury to prioritise the close-out of items requiring their approval. Unfortunately, expenditure on affected contracts will only cease to be irregular once condoned or upon expiry of the contract.

National Treasury is yet to approve the majority of the condonation requests submitted.**Reportable irregularities raised by the external auditors**

In previous financial years, the external auditors raised a number of reportable irregularities (RIs) in terms of section 45 of the Auditing Profession Act, 2005. The external auditors are required to first report any RI to the Independent Regulatory Board for Auditors (IRBA), and only then report the matter to Eskom, affording management an opportunity to respond to and/or rectify the matter.

These RIs were identified during the audits for the years ended 31 March 2017, 2018 and 2019, as well as during the independent reviews for the six months ended 30 September 2017 and 2018. Despite good progress on closing out those matters within Eskom's control, certain RIs cannot be closed out until external investigations and court cases are finalised.

Three new RIs were reported during the current year. Two of these relate to mainly administrative issues, while the third relates to the tracking and disclosure of irregular expenditure.

Details of RIs reported, as well as the action taken and status of the respective matters, are discussed in note 54 in the consolidated annual financial statements



OUR STRATEGIC CONTEXT

We are entering a decisive stage in our growth and role as South Africa's premier producer of electricity to industry, business and household consumers. Almost a century after being established, we are embarking on a process that will define Eskom's strategic trajectory and position the company for a new role within the broader South African energy landscape



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CHIEF EXECUTIVE'S REVIEW

ANDRÉ DE RUYTER
Group Chief Executive



Eskom is the lifeblood of the South African economy. Our mandate is to provide a stable electricity supply in a sustainable and efficient manner, to assist in lowering the cost of doing business in South Africa and to enable economic growth.

In recent years, Eskom has experienced major operational challenges which have affected vital national priorities such as economic growth, job creation and efforts to combat poverty. The current capital structure and poor performance of the generation business present systemic risks to the South African economy. In response, we have introduced far-reaching measures to mitigate loadshedding, implemented a proactive maintenance programme at existing power stations and appointed new executives in strategic positions. The Government equity support is crucial in assisting us to improve our debt position.

Restoring trust

Eskom faces a crisis of trust: South Africans feel they can no longer rely on Eskom to provide electricity reliably; our shareholder, despite making additional funds available to allow us to service our debt, is not convinced that we will spend the money wisely; and our lenders are reluctant to advance more money without charging ever higher interest rates. Added to this, a small number of bad actors in Eskom have damaged the trust between employees, thereby undermining the hard work and good intentions of the vast majority of Eskom employees.

Overcoming this crisis of trust will require the effort of every Eskom employee to restore this most fundamental aspect of the social contract between Eskom and South Africa. We will have to redouble our efforts to restore Eskom's integrity, both internally and externally. We need clarity on what we as an organisation stand for. To that end, it is important to resuscitate Eskom's values, which have been around for several years, even though they appear to have faded from the corporate consciousness in recent years. Our values form the foundation on which we can rebuild trust, both amongst ourselves and with our stakeholders.

Rebuilding and strengthening the public's confidence and trust in Eskom is of paramount importance to our future success. Our ability to sustain the organisation and create value for the country depends on strong and productive relationships with stakeholders – from Government to the financial sector, business, labour and consumers.

Our strategy and turnaround plan

Over the past few years, Eskom has been focused on cleaning up governance issues, stopping the bleeding and re-energising the business in order to set a firm foundation for growth. At the same time, the focus has been on strengthening the financial position through demand stimulation, cost curtailment and efficiencies, as well as striving to achieve a cost-reflective price of electricity. This was supported by the equity support from Government, which commenced in the 2020 financial year.

Our turnaround strategy is discussed in more detail in "Strategy overview" from page 50

Our turnaround strategy continues the focus on five key areas, namely operational recovery, improving our income statement, addressing our balance sheet, accelerating the restructuring of Eskom into three divisions, and building a high-performance organisation through addressing our corporate culture by energising our Eskom colleagues.

These are largely aligned to the objectives we pursued during the prior year, namely optimising our balance sheet through Government equity support in the absence of adequate tariffs; improving our revenue outlook through migrating towards cost-reflective tariff increases and growing sales volumes; curtailing costs; executing the Generation recovery plan; and working towards the restructuring of Eskom, through divisionalisation as a first step.

Progress on Government equity support, improving our revenue outlook and curtailing costs is discussed in "Our finances – Managing liquidity" from page 76, while progress on the Generation recovery plan is discussed under "Our infrastructure – Generation recovery plan" from page 89



Operations recovery	Improve income statement	Improve balance sheet	Business separation	People and culture
Improve reliability, reduce loadshedding, refurbish networks and address design defects	Achieve revenue certainty, cost optimisation and efficiency	Strengthen the balance sheet through liquidity initiatives	Divisionalise and ultimately form three legal wholly owned subsidiaries of Eskom	Ensure that the business is sufficiently enabled and supported to transform

We have appointed a Group Executive: Transformation Management Office to ensure that the restructuring process receives the necessary attention. Furthermore, divisional boards have been appointed to hold each entity accountable on strategy implementation, business performance and functional compliance. We have ring-fenced all three divisions' financials and are reporting divisional financial statements. This includes a provisional allocation of the debt and associated interest cost attributable to each division, although further work is required to finalise the balance sheets of the three divisions. As we apportion debt to the divisions, we will engage with lenders to ensure that any concerns regarding their rights in terms of loan and bond covenants are adequately addressed.

Our master plan for separation indicates that the implementation timelines envisaged in DPE's Roadmap can be met for Transmission, although the legal separation of Generation and Distribution will take somewhat longer. This delay is due to legal and regulatory changes which are beyond Eskom's control. We have also decided to accelerate the legal separation of Transmission, to create the required certainty for prospective investors in generation capacity that their bids will be fairly adjudicated relative to Eskom generation.

The end state of the process is to ensure that all three divisions will be able to operate as standalone, financially viable businesses, and to further mitigate the risks to debt and lender security and the asset base. In view of this, we are comfortable with our progress towards achieving the milestones envisaged in DPE's Roadmap.

Eskom's performance and operational excellence depend on a well-trained, motivated and competent workforce. A People Plan was developed to respond to developments at Eskom and to support the turnaround strategy. The primary focus areas are to drive a culture of performance and accountability; build critical capabilities across the organisation; increase employee morale and productivity; and manage employee benefit costs.

High-level performance review

Financial overview

Despite Eskom applying for prudent and efficient revenues, the price increases and RCA decisions by NERSA have not enabled the migration towards cost-reflective tariffs as envisaged in the Electricity Pricing Policy. We simply cannot save enough from our operating costs to close the gap. Therefore, even with Government support, Eskom's liquidity remains constrained due to poor long-term financial sustainability. Obtaining clarity regarding the tariff dispensation applicable to Eskom has involved approaching the courts, which we would have liked to avoid. Unfortunately, in the absence of an appropriate dispute resolution mechanism, this has been our only option.

Our financial performance, funding and liquidity are covered in detail in the Chief Financial Officer's report from page 60

Operational performance

For many years, we have been deferring maintenance and mid-life plant refurbishment of our power stations due to the constrained system. This has been a major contributor to decisions on loadshedding; fleet performance will continue to deteriorate unless this is addressed. As a result, prescribed maintenance will no longer be deferred since we can no longer guarantee that available capacity will adequately meet demand. To this end, the Board has approved a focused and well-resourced reliability maintenance programme for Generation. It is anticipated that this programme will start delivering benefits from April 2021, with a meaningful reduction in loadshedding from September 2021 onwards. However, loadshedding may not be eliminated entirely at that point.

The performance of our generation fleet continues to be disappointing, with plant availability decreasing further, and unplanned maintenance in the form of breakdowns and partial load losses skyrocketing to levels not seen before. We sincerely regret the damage the resultant loadshedding causes to our customers and the greater economy.

Although our distribution network continues to perform satisfactorily, the performance of our transmission network has been variable over the past few years.

Our environmental performance continues to be deeply disappointing, with both emissions and water usage performance far exceeding targets. We are redoubling our efforts to improve our compliance with legislated standards, and are cooperating with DEFF to achieve this.

The performance of our generating plant and network, progress on the new build programme, environmental performance and our societal impact are covered in detail in the Chief Operating Officer's commentary from page 85

People and safety

The group headcount continued its decline to 44 772 at year end (2019: 46 665), mainly through natural attrition. As part of the turnaround plan, Exco approved the implementation of voluntary cash separation packages to a maximum value of R400 million. Out of 367 applications received, 235 were approved, with 185 applicants accepting their offers at a total cost of R286 million; the majority of applicants left Eskom's service at the end of March 2020, while 21 left in April and one in June.

Although we did not meet the racial or gender equity targets at middle management/professionally qualified level nor the racial equity target at senior management level, all these indicators improved against the prior year. Gratifyingly, we exceeded the gender equity target at senior management level. Nevertheless, gender and disability equity at executive level are lagging far behind other occupational levels. Moreover, although we did not meet the target for overall representation of people with disabilities for the year, some progress has been made in identifying employees who can be added to and prepared for our leadership pipeline.

Sadly, we suffered nine contractor fatalities during the year (2019: three employees and four contractors). Nevertheless, it is heartening that we recorded no employee fatalities for the first time in at least 15 years. The group lost-time injury rate (including occupational diseases) has improved slightly to 0.30 (2019: 0.31). We remain committed to limiting the number of serious incidents resulting in injuries and/or fatalities, including public incidents due to illegal connections and tampering.

We deeply regret the loss of every life in Eskom's service. Our heartfelt condolences go to the affected family, friends and colleagues.

We are deeply concerned about an increase in incidents where our employees or contractors are intimidated, injured or even held hostage while attending to network faults or removing illegal connections. We condemn, in the strongest possible terms, violent behaviour against our people while they provide an essential service to customers and the larger public.

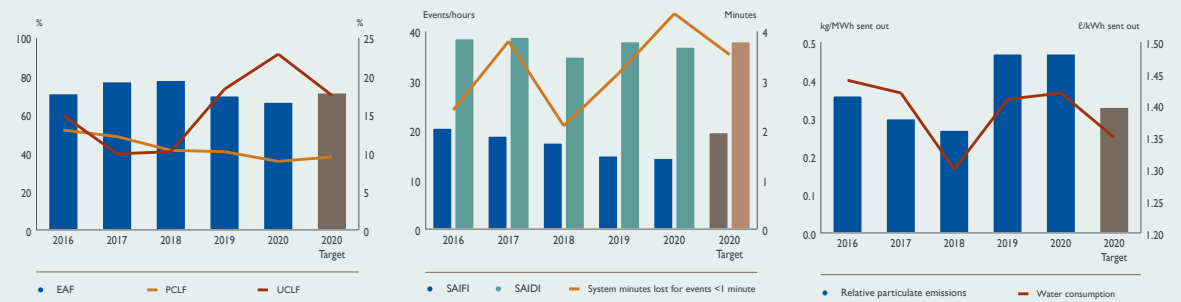
Eskom has not been immune to the effects of the COVID-19 pandemic, despite instituting appropriate measures to protect critical staff, as well as minimising the number of employees on site wherever possible. At 28 October 2020, we had recorded 2 096 positive COVID-19 cases, comprising 1 761 employees and 335 contractors, with 2 057 recoveries. Sadly, 27 employees and three contractors have succumbed to the disease. All affected employees and their families receive our best medical care and psychosocial support.

Looking ahead

Our top priority is to address Eskom's financial and operational challenges and return to a growth trajectory. Failure to turn the organisation around is not an option. Nonetheless, this will require extraordinary efforts from every Eskom employee, and continued support from Government and all South Africans.

We intend to remain a critical player in the electricity sector and make a vital contribution to economic growth, job creation, socio-economic development and the creation of a stable, equitable and cohesive South Africa.

Although our ageing generation fleet is susceptible to unpredictable breakdowns due to legacy issues of neglect and omitted maintenance, apathetic behaviour by some management staff has exacerbated the situation. For this reason, I have recently suspended some power station managers, pending disciplinary inquiries. The COO and I have had engagements with other power station managers to ensure that the previous culture of weak consequence management will no longer be tolerated at Eskom.



The majority of cost-plus mines require significant investment or recapitalisation to increase production and/or maintain existing production. Nevertheless, we will only consider recapitalisation for those mines where long-term benefits can be demonstrated through increased volumes of acceptable quality coal, thereby limiting the amount of coal required on expensive short- and medium-term contracts.

As older power stations such as Hendrina, Grootvlei and Komati approach their economic end of life, we are investigating the impact on surrounding communities when the time comes for retiring or repurposing existing coal-fired units or stations; this will inform plans for shutting down these power stations. The use of operational units at these stations is being reviewed for extended use beyond 2025 or until sufficient new capacity comes online.

We are considering a repurposing programme to investigate projects that may provide alternative employment, and potentially create opportunities and jobs to support economic activity using the available power station land and infrastructure. Conceptual mitigation plans are being investigated, such as repowering with renewables or gas, repurposing or extension of existing services. To this end, we are implementing our Just Energy Transition Strategy, specifically regarding the repurposing of power stations, and pursuing the Just Energy Transition Transaction.

We are pleased to note that NERSA has concurred with the ministerial determination under the IRP 2019 for the procurement of 11 813MW of electricity generation infrastructure. Given existing supply constraints, the additional generation capacity is urgently required, and will be an important contribution towards ending loadshedding and ensuring energy security for the country. However, given the retirement profile of our end-of-life power stations over the next decade, further capacity should be procured without delay.

Under existing bid windows, 8 500MW of renewable energy is expected to come online before 2025, of which 4 201MW is in operation. In response to the energy supply challenges, DMRE launched the Risk Mitigation Independent Power Producer Procurement Programme (RMIPPPP) for the emergency procurement of an additional 2 000MW from IPPs by 2022. While this is a step in the right direction, we would like to stress the immediate need to urgently accelerate the procurement of at least 3 000MW of further generation capacity to help ease the country's supply constraints, which is critical to powering the rebuilding of an economy devastated by the COVID-19 pandemic.

Implementing the emissions reduction plan and installing more efficient emission control technology will reduce our environmental impact. Shutting down older stations and increasing the use of the newer, lower emitting stations – Medupi and Kusile – and renewable IPPs will also result in a substantial decrease in Eskom's and South Africa's emissions over time. It is projected that our relative particulate matter emissions will reduce by 51% by 2030, SO₂ by 22% and NO_x by 27%, compared to a 2020 baseline.

We remain committed to the construction of the Medupi flue gas desulphurisation (FGD) retrofit project, in line with the World Bank's loan agreement. DEFF also emphasised that Eskom's power plants must comply with regulations and applicable law, which remains a key priority.

Given our aim of resurrecting a high-performance culture at Eskom, it is critical that we address the low employee morale due to Eskom's poor reputation, lack of incentive bonuses combined with no or restricted salary increases at managerial level over recent years, and continued uncertainty around the impact of divisionalisation and restructuring. We want to drive pride, passion, a sense of belonging and connectedness to the business, while developing agility and resilience to cope with ongoing ambiguity, instability and change. Furthermore, we need to maintain a productive relationship with organised labour.

The points above cover some of the factors, which will influence our strategic trajectory, set out in "Our operating context" from page 45

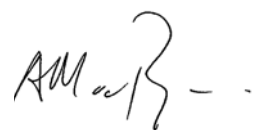
Conclusion

I look forward to working with our executive team, including the senior executives recently appointed in our ongoing journey to stabilise and strengthen our leadership team. I have every confidence that working with a strong, focused leadership team we will be able to transform and drive Eskom's turnaround.

As more South Africans get back to work after the initial stages of lockdown, the role of Eskom in supporting the economy to grow and thrive is undeniable. We have an opportunity to serve our country and resuscitate our damaged economy by ensuring the security of electricity supply.

Despite many of us being discouraged and saddened by what has transpired at Eskom in the recent past, we have an opportunity to seize the challenge and restore the trust that we need to rebuild this great organisation. Each one of us must be ready and energised for the journey ahead.

Eskom has been a proud pillar of South Africa's economy throughout its history. We are the guardians of this legacy, and it is up to us to ensure that we do not fail ourselves or the country. After all, as Ben Okri says, "Our future is greater than our past". We have to turn these words into reality. The price of failure will be unbearably high not only for Eskom, but more importantly, for our country. I rely on your continued hard work and support to make sure that we succeed, and that we can all take pride in being members of the Eskom team.



André de Ruyter
Group Chief Executive


OUR OPERATING CONTEXT

Our operating context includes many factors that could affect our ability to achieve our strategic goals. Among others, we are affected by some critical documents and strategies which set out the shareholder's broad approach, policies and expectations, including:

- The National Development Plan 2030, which envisions an energy sector that is reliable, efficient and competitive, expands access for consumers of electricity and will be environmentally sustainable
- The legislative framework provided by the National Energy Act, 2008 and supporting legislation
- The Integrated Energy Plan and Integrated Resource Plan 2019 (IRP 2019), which provide a broad framework for the growth and future direction of the energy sector

- *The Roadmap for Eskom in a Reformed Electricity Supply Industry*, released by DPE in October 2019 (DPE's Roadmap). This defining document positions the company within the broader energy context and identifies bold actions for the transformation of Eskom

In addition to these regulatory and policy matters, various other themes affect our operating context. These are depicted below, some of which will be discussed in more detail. These aspects have been grouped into those affecting the economic environment and utility-specific factors; those factors presenting opportunities have been highlighted. Nevertheless, the COVID-19 pandemic is considered the most dominant factor affecting the global and local economy, as well as our business, now and into the foreseeable future.



COVID-19 PANDEMIC

<div style="border: 1px solid #0070C0; padding: 5px; margin-bottom: 5px;"> <div style="text-align: center; font-weight: bold; font-size: 0.8em;">ECONOMIC ENVIRONMENT</div> <ul style="list-style-type: none"> Economic recession and impact on debt Commodity prices Economic structural reform Regional integration and access to local markets Role and sustainability of SOCs * Localisation efforts * </div>	<div style="border: 1px solid #0070C0; padding: 5px; margin-bottom: 5px;"> <div style="text-align: center; font-weight: bold; font-size: 0.8em;">UTILITY-SPECIFIC</div> <ul style="list-style-type: none"> Move to renewable energy * Regulatory shifts and municipal generation * Delay in new build by utilities Shift from coal to gas Increased competition Cyber-based trading * </div>
* Opportunities	

It must be noted that our strategy, as set out in this integrated report, was developed prior to the outbreak of the COVID-19 pandemic. As such, it did not include the impact of the following, among other changes:

- The impact of COVID-19 on demand for electricity
- The potential for a global and local recession, and associated impacts on demand, cost of funding and lender sentiment
- The impact of the reduction in the value of the Rand against foreign currencies towards the end of March 2020, and the expected impact that this will have on inflation, interest rates and other macroeconomic variables
- The impact of the sudden and dramatic drop in the price of oil during March 2020, and the potential associated impacts on other commodities, including those produced by some of our major Eskom customers, as well as the price of internationally traded steam coal

These, and other factors, have since been considered and taken into account to determine the impacts of the above and other variables. Accordingly, we have updated elements of our Corporate Plan and outlook for the 2021 financial year to take account of the impact of the COVID-19 pandemic and the national lockdown, and embedded changes for the planning horizon to the 2023 financial year, where necessary.

Macroeconomic climate

In January 2020, emerging markets were already showing weaker economic growth than the International Monetary Fund (IMF) had anticipated in its World Economic Outlook issued late in 2019. South Africa in particular was affected by structural constraints and deteriorating public finances, which were negatively affecting business confidence and private investment. The IMF forecast gross domestic product (GDP) growth of 0.8% for 2020 and 1% for 2021.

The National Budget Speech in February 2020 set out a weak economic outlook. National Treasury expected real GDP growth of 0.9% in 2020, 1.3% in 2021 and 1.6% in 2022. However, higher economic growth was expected to require far-reaching structural reforms.

COVID-19 has occurred in the midst of a global economic slowdown and recessionary environment, pushing the economy into unprecedented territory that will require extraordinary resilience and action to emerge bruised but not ruined. The IMF revised global growth downwards by 6.3% from its January 2020 estimates, with the implication that lockdowns implemented in most countries to deal with the pandemic would lead to the worst recession since the Great Depression during the 1930s, even surpassing the 2008 global financial crisis.

Moody's downgrade of the Sovereign rating to sub-investment grade at the end of March 2020 is likely to have a material impact on Eskom's financial sustainability, specifically when international investors such as pension funds – whose mandates limit them to investment-grade bonds – will have to start divesting out of South African issued bonds. This will trigger an anticipated outflow of up to USD8 billion, placing pressure both on the local currency and our ability to raise capital. This downgrade means that the country now has a sub-investment grade rating from all three major credit rating agencies, further hampering the response to the pandemic and the prevailing socio-economic conditions.

More recently, StatsSA indicated that “the second quarter of 2020 will become known as the pandemic quarter”. Under the national lockdown restrictions imposed in response to the COVID-19 pandemic, GDP contracted by 16% during April, May and June 2020 compared to the first quarter of the prior year. This translates to an annualised negative GDP growth of 51%. In comparison, the country recorded annualised negative growth of just over 6% in the first quarter of 2009, at the height of the global financial crisis. Based on historical data from the South African Reserve Bank, the second quarter of 2020 experienced the biggest decline in GDP since 1960.

Nearly all sectors experienced a massive reduction in output in the second quarter of 2020, with the construction sector being the biggest loser. Manufacturing output dwindled by almost 75%. Particularly, factories specialising in metals and machinery were severely affected due to the lower demand for steel. The ban on alcohol sales had a significant impact on the food and beverage side of manufacturing. Wholesalers and motor vehicle traders also experienced significant declines. Even relatively resilient sectors, such as finance and personal services, were severely affected, declining by close to 29%. Agriculture is the only industry that appears to have been relatively unaffected.

The World Bank expects South Africa's economy to contract by up to 8%. With the national lockdown in effect, South Africa stands to lose a large share of its annual GDP, with losses estimated at R300 billion or more during the extended lockdown. Government spending to limit the negative impact of COVID-19 and to provide much-needed relief and stimulus funds will put the already constrained fiscus under severe pressure. This is exacerbated by businesses curtailing operations, entering

business rescue or closing down, resulting in greater job losses. South Africa's already unacceptable unemployment rate is expected to grow, with some analysts predicting a loss of around one million formal jobs.

Although the Rand has recovered some of the ground lost in March 2020, the IMF still expects South Africa to record negative GDP growth of 8% for 2020, as noted in its June 2020 World Economic Outlook. This considers additional government spending and forgone revenue of about 5% of GDP. Nevertheless, the forecast for 2021 has improved to 3.5%, coming off the lower base.

The implementation of national lockdowns around the world – to flatten the curve of COVID-19 infections and lessen the mortality rate – has stalled the global economy. The pandemic has highlighted international risks around healthcare systems, the movement of people and goods and the overdependence on single source supply chains, all of which have both social and financial impacts. Also emerging are protectionist policies and, in some instances, xenophobia and human rights violations. This pandemic is forging the world into a “new normal” which is laden with both risks and opportunities.

The long-term effects of the COVID-19 pandemic and the ratings downgrade is likely to have dire consequences for the South African economy, with some economists predicting a decline in economic growth of up to 6% in the current fiscal year. Any decrease in economic activity will have a significant negative impact on Eskom's financial and operational sustainability.

South Africa's electricity supply industry of the future

Roadmap for Eskom

DPE's Roadmap provides a range of longer term solutions which will inform the separation of Eskom into Generation, Transmission and Distribution entities.

The solutions envisaged include:

- A revision of the current situation in which Eskom acts as a single buyer. Recent announcements by the shareholder point to a new approach in the electricity market which will allow customers to build their own generation plants and municipalities to purchase electricity directly from IPPs. This will effectively open the market for future competition. However, this will require tariffs to be split between capacity (network) and energy components to ensure that appropriate prices are charged for the wheeling of energy across Eskom networks
- The wholesaler will continue to perform the function of a central purchasing agency that takes ownership of electricity purchased from Eskom power stations and independent producers, and sells a bundled product to Eskom Distribution and other wholesale customers
- The introduction of Eskom Dynamic Energy Markets was approved and will include a day-ahead market and a balancing mechanism

- The participation of IPPs will result in an external competitive environment. In the longer term, the dynamic operation of customer choice will allow for improved competition with improved efficiencies in the market
- The Distribution entity must be restructured to separate the “wires business” from the “retail function”. A future distribution network may need to incorporate struggling municipal infrastructure to ensure sustainable supply to direct customers

Integrated Resource Plan

The IRP 2019 was issued by DMRE in October 2019, thereby providing more certainty around our future role in the electricity supply industry up to 2030.

The IRP 2019 sets out nine supply and demand side policy decisions intended to ensure the security of South Africa's electricity supply and support a diverse energy mix:

1. Execute the power purchase programme to acquire capacity to supplement Eskom's declining plant performance and reduce diesel usage
2. Undertake technical and regulatory work for the 20-year extension of the life of Koeberg Nuclear Power Station beyond 2024
3. Support Eskom's compliance with the MES over time
4. Consolidate the various Just Energy Transition initiatives to ensure coherent policy development for a Just Energy Transition plan
5. Retain the current annual build limits on renewables until the Just Energy Transition plan is finalised
6. South Africa should not sterilise the development of its coal resources for power generation. Instead, all new coal power projects must be based on high efficiency, low emission technologies and other cleaner coal technologies
7. Support the development of gas infrastructure and, in addition to new gas capacity, convert existing diesel-fired power stations to gas
8. Commence preparation for a nuclear build programme up to 2 500MW as a no-regret option in the long term, at a pace and scale that South Africa can afford
9. South Africa will participate in strategic power projects that enable the development of cross-border infrastructure needed for regional energy trading

While the release of the IRP 2019 is certainly a positive step, a number of issues have been identified that may have a material impact on the delivery of the plan.

Notably, there has been a significant delay since the promulgation of the previous IRP 2010, in March 2011, potentially resulting in outdated assumptions. Additionally, the impact of the MES on Eskom's coal fleet was not considered in the modelling – a concern, given the impact that the implementation of the MES may have on the cost and availability of generating capacity. Based on prior experience, the timelines outlined in the plan are also considered optimistic.

The 513MW to be generated from energy storage sources, which were assumed to be in relation to Eskom's battery storage project, has been allocated to IPPs. While the plan has identified a shortfall of between 2 000MW and 3 000MW in short-term capacity, our own assessment is that the gap could be as high as 4 000MW. The DMRE has launched the Risk Mitigation Independent Power Producer Procurement Programme (RMIPPPP) for the emergency procurement of an additional 2 000MW from IPPs by 2022. However, the capacity to close the gap may take another few years to accomplish, leading to a shortfall in the initial and most critical phase of the planning period.

Furthermore, we remain concerned about the apparent delays in the implementation of the plan. To ensure the timely implementation of the IRP 2019 and clarify the extent of Eskom's participation in the development of new capacity, ministerial determinations must be gazetted urgently in concurrence with NERSA.

NERSA has concurred with the ministerial determination for the procurement of 11 813MW of electricity generation infrastructure issued by the Minister of Mineral Resources and Energy in February 2020. This forms part of the power infrastructure to be procured under the IRP 2019 during the period to 2030.

Proposed regulatory changes

The Electricity Regulation Amendment Bill provides for the licensing of electricity resellers and addresses different categories of electricity trading. A section will be inserted into the Electricity Regulation Act, 2006 outlining the procurement framework for IPPs. In developing the Bill, DMRE is in constant consultation with DPE to ensure alignment with the restructuring of Eskom.

The National Energy Regulator Amendment Bill seeks to amend the National Energy Regulator Act, 2004 to clarify NERSA's new governance structure, while maintaining its integrity and independence.

Licensing electricity resellers and associated categories of electricity trading affects the future of Transmission and Distribution, both from a competitive perspective and also a market rules view. We have made submissions to DPE regarding our preferred position on the transmission and distribution sectors although detailed discussions around rules, tariffs and ensuring affordable supply are required.

Moving towards cost-reflective electricity tariffs

The average electricity price that we charge our customers is lower than the efficient cost to produce that electricity. While recent tariff increases awarded by NERSA have narrowed the gap slightly, prices are still far from adequate, resulting in a significant revenue shortfall.

Refer to “Our finances – Eskom's tariff path compared to the IRP price paths” on page 79 for more information



Independent analysis, which compared the average electricity tariffs of 100 countries using data from Bloomberg's Climatescope 2019 report, found that South Africa's electricity price ranks affordably across residential, commercial, and industrial segments. South Africa's average residential price of 133.67c/kWh at the time ranked 47th cheapest out of 100 countries, while the average commercial price of 122.96c/kWh and average industrial price of 76.32c/kWh ranked 29th and 20th respectively. It should be noted that the analysis considered the average price to the end consumer in South Africa, which is higher than Eskom's tariffs due to the markup added by municipalities and metros.

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Throughout the 1980s and 1990s, Eskom was implicitly subsidised by Government as it was exempt from paying dividends and tax on profit; additionally, Eskom did not have to bear the full economic opportunity cost of debt financing, including risk and uncertainty, for its investments. Due to surplus generation capacity, Government allowed real electricity prices to decline throughout the 1990s. By the end of the decade, prices were well below full-economic and cost-reflective levels. Low electricity prices attracted further investment by energy-intensive industries, which were often able to secure pricing contracts at well below the already underpriced average tariff.

By 2006, Eskom's heavily subsidised industrial and household electricity tariffs were among the lowest in the world. In 2006, tariffs for industrial consumers in South Africa were about one-fifth of the equivalent Organisation for Economic Co-operation and Development (OECD) Europe average, and the lowest of all countries included in an International Energy Agency (IEA) comparison. Similarly, tariffs for household consumers in South Africa were about one-third of the OECD Europe average, and were the second lowest of all countries included in the IEA analysis.

A more recent comparison of energy prices by the IEA showed that in 2017, South Africa's residential electricity tariffs of around USD10c/kWh were still relatively low by global standards, although no longer the lowest in the sample.

Another comparison of average electricity prices across 44 emerging and developing countries, published by the International Energy Consultants in 2016, found that South Africa's average electricity price was the lowest in the sample. The study further estimated that South Africa's tariffs were subsidised, or underpriced, by nearly 50%.

Migrating away from implicit tariff subsidies

Economic analysis indicates that, while it is both necessary and socially desirable to mitigate the impact of energy prices on vulnerable groups, there are more efficient and effective ways to achieve this than through implicit subsidies in the average tariff.

The challenges caused by implicit energy price subsidies are well documented in international literature, finding that they:

- Crowd out pro-poor spending, such as education and healthcare
- Discourage private investment in the energy sector
- Encourage wasteful energy consumption
- Result in a variety of harmful economic and market distortions
- Tend to disproportionately benefit energy- and capital-intensive firms and higher-income households due to the higher volumes consumed

There are several more appropriate and economically efficient ways to shield the poor and other vulnerable groups from the impact of rising electricity prices than an implicit subsidy, including:

- Improving the implementation and extent of targeted electricity price subsidies
- Facilitating a gradual transition to cost-reflective prices and making implicit subsidies more explicit
- Introducing policy and regulation to promote the uptake of energy-efficient technologies
- Promoting competition and reform in the electricity supply industry over the medium to long term

The existing free basic electricity grant is a targeted subsidy that meets most of the requirements of a "good subsidy", although it could be improved and/or extended to offer increased protection to poor and vulnerable households. Well-designed, targeted and time-limited subsidies could also be used to protect vulnerable, trade-exposed and electricity-intensive industries.

Converting an implicit subsidy into an explicit subsidy would increase transparency and help to facilitate a more gradual transition to cost-reflective tariffs. NERSA, in collaboration with other stakeholders such as DMRE, could further introduce initiatives to promote the uptake of energy-efficient technologies.

Refer to "Our finances – Tariff structures of the future" on page 69 for more information



Our view is that arbitrarily limiting increases in Eskom's average tariff through an implicit subsidy is not an effective way to protect consumers or the economy from the negative impact of rising electricity prices. Furthermore, analysis has shown that an increase in electricity prices in South Africa does not correlate to a corresponding decrease in demand for electricity.

The impact of the electricity price on demand

Several factors influence electricity demand including price, economic output (measured by GDP), population growth, weather patterns and technological change. International literature hypothesises that growth in economic activity (income) is usually the dominant driver of electricity demand – that is, demand is generally more responsive to income than to price.

A study on electricity demand in South Africa from 1986 to 2005 found that income was the dominant driver of demand over the period, and that electricity income elasticity was close to 1 (that is entirely income-elastic) for most of the period beyond 1990. From the mid-1980s to 2007, there was a steady decline in real electricity prices and, over this period, price had increasingly less influence on consumption. A more recent study suggests that electricity demand in South Africa is still relatively price-inelastic; for the five-year period after 2007, where South Africa experienced the most significant real electricity price increases, estimates of electricity price elasticity ranged from roughly negative 0.2 to negative 0.5 (or price-inelastic).

From 2007 to 2019, real electricity prices have increased by a cumulative 143%, with most of the increase occurring between 2009 and 2012, through annual increases of between 14.8% and 20.7%. There has been no increase in the real electricity price since 2016, until the most recent increase awarded for 2020.

In contrast, our total local sales volumes have decreased by only 4.2% between 2007 and 2019. The impact of the sharp increase in real prices on electricity demand would have been partly offset by the increase in economic activity, but growth in GDP was subdued over this period, rising by a cumulative 24% or average annual rate of 2.1%.

This analysis proves that, despite the sharp increases in real prices over the last decade, electricity demand in South Africa has remained relatively unresponsive to price, which lends support to the findings that electricity demand in South Africa is price-inelastic.

Despite the decrease in sales by an average of 1% per year since 2014, the decline in demand could be due to a number of factors. These include efficiency gains, a reduction in economic activity, reduced electricity intensity due to structural changes, or a permanent loss

of customers due to grid defection or other factors. It is not possible to infer from a simple analysis of high-level trends to what extent the decline in demand is due to any or all of these factors. One plausible explanation for the reason why electricity demand in South Africa has been only mildly responsive to price is that the initial tariff was artificially low.

In an attempt to address the revenue shortfall resulting from the implicit price subsidy, we have historically resorted to external debt funding as well as equity support from the shareholder, ultimately funded by the taxpayer. We have also made an effort to pursue operational efficiencies to narrow the revenue shortfall. However, given the sheer size of the gap, efficiencies alone will never be sufficient – the electricity price has to rise to a level where efficient costs can be recovered and a reasonable margin of return can be earned.

One way to address the shortfall in a given year is through the RCA mechanism, a retrospective application which considers the efficient cost of producing electricity after the actual costs have been incurred. It considers changes in the operating environment during the year, such as the exchange rate, the energy availability factor, sales volumes or other factors not being realised as originally determined by NERSA. However, this respite is temporary, as RCA liquidation values are once-off adjustments, which fall away after the year in which they are recouped, thereby reverting to the "suppressed" tariff.

Regrettably, NERSA's recent revenue and RCA determinations have not been consistent with the MYPD methodology. We are pursuing review applications through the High Court to challenge these decisions, on the path to cost-reflective tariffs.

A summary of the various review applications are discussed in "Our finances – Price applications to support revenue requirements" from page 77



OUR STRATEGY AND TURNAROUND PLAN

Strategic context

Eskom is the lifeblood of the South African economy. As pointed out earlier, our mandate is to provide a stable electricity supply in a sustainable and efficient manner, to assist in lowering the cost of doing business in South Africa and to enable economic growth.

However, in recent years we have experienced major financial, operational and structural challenges which have had an impact on vital national priorities such as economic growth, job creation and efforts to combat poverty. Our current capital structure and the poor performance of the generation business present systemic risks to the South African economy. In response, we have introduced far-reaching measures to mitigate loadshedding, implemented a proactive maintenance programme at existing power stations and appointed new executives in strategic positions.

Our top priority is to address these operational issues and return to a growth trajectory. Failure to turn the organisation around is not an option. Nonetheless, this will require extraordinary efforts from every Eskom employee, continued backing from Government and the support of all South Africans.

Our strategy remains aligned to the key areas set out in DPE's Strategic Intent Statement (SIS), namely:

- Provide reliable, predictable and affordable electricity
- Ensure and maintain a financially viable and sustainable company
- Reduce our impact on the environment through the application of low-carbon technologies
- Align our socio-economic contribution to national transformation imperatives
- Continue to strengthen and enhance our governance and reporting processes
- Ensure that our company is responsive to the demands of a dynamic energy landscape and pricing structure

The strategic objectives in the SIS are broadly aligned to integrated reporting's six capitals.

As part of our strategic trajectory, we need to:

- Reshape Eskom's business and operating models and establish an agile organisation that is able to respond to rapid changes without disrupting daily services
- Commit to greater efficiencies across the organisation
- Cut wasteful expenditure, optimise revenue, improve corporate governance and act against corruption and mismanagement

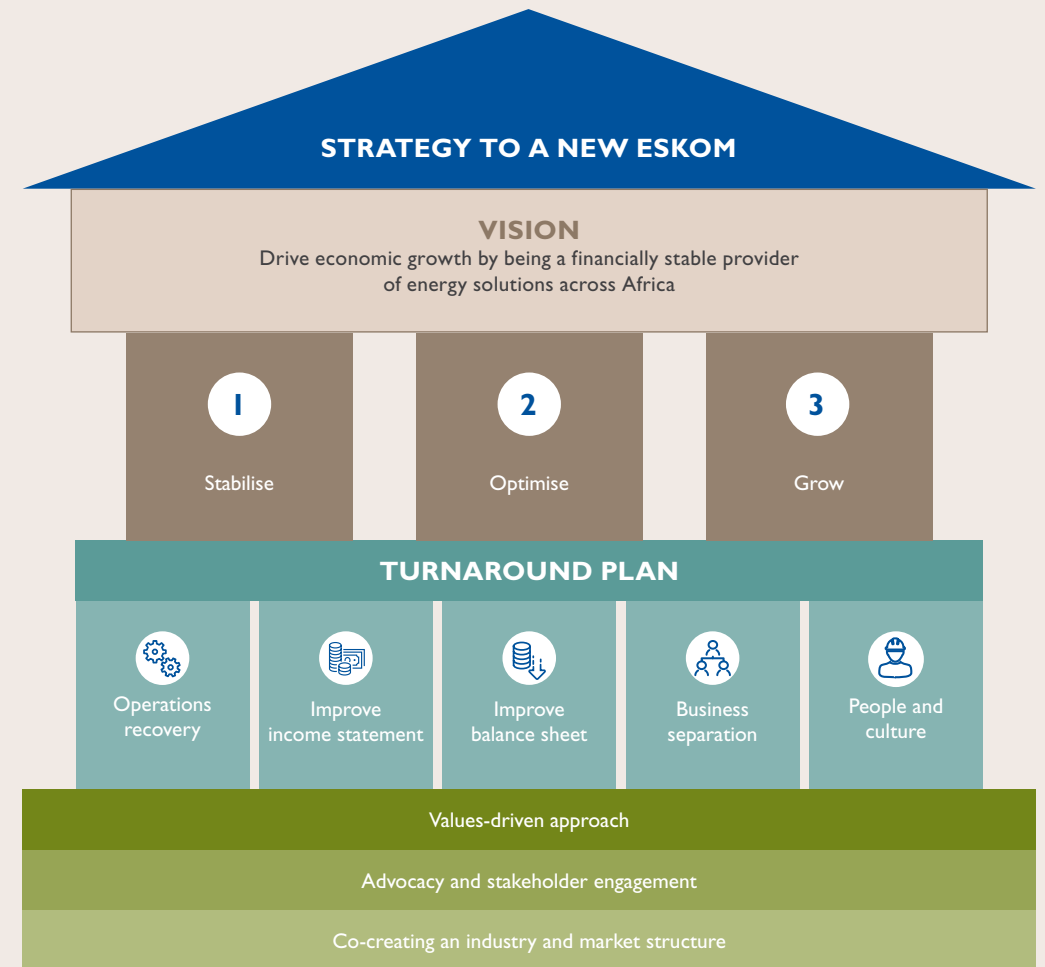
- Ensure greater transparency in the governance of Eskom and its subsidiaries
- Transition from our dependence on fossil fuels towards a mix of generation sources
- Embrace new trends in the global energy sector and introduce technologies that will contribute towards higher levels of efficiency, reduced costs to consumers and a cleaner environment
- Accelerate a "just transition" towards a low-carbon emission economy which strikes a balance between South Africa's rich endowment of natural resources, the protection of jobs and the adoption of cleaner processes
- Protect jobs, retrain and reskill workers and create new opportunities in the energy sector and downstream value chains
- Extend and strengthen relationships with customers, suppliers, financial institutions and communities who live close to our power stations
- Communicate more effectively with all stakeholders and foster productive partnerships with all spheres of Government, partners, the business sectors, labour, communities and consumers

Strategy overview

Over the past few years, we have focused on cleaning up governance issues, stopping the bleeding and re-energising the business in order to set a firm foundation for growth. At the same time, we have been concentrating on strengthening our financial position through demand stimulation, cost curtailment and efficiencies, as well as striving to achieve a cost-reflective price of electricity. This was supported by the equity support from Government, which commenced in the 2020 financial year.

The overall organisational strategy is enhanced by a revised set of assumptions, factoring in the current operating environment as well as addressing difficulties in executing the previous Corporate Plan. Our strategy also factors in recommendations of the Presidential Task Team and the Ministerial Review Task Team, specifically towards achieving operational stability.

The turnaround strategy outlines a phased approach, which will lead to the emergence of a new, viable Eskom. It is underpinned by three pillars which aim to "stabilise, optimise and grow" the business.



Our strategic context

All three pillars will be actioned in tandem to ensure short-term opportunities are leveraged and risks are managed effectively.

Our turnaround strategy continues the focus on five key areas, namely operational recovery, improving our income statement, addressing our balance sheet, accelerating the restructuring of Eskom into three divisions, and building a high-performance organisation through addressing our corporate culture by energising our Eskom colleagues.

The strategy is enabled by:

- The organisation being values-driven to embrace a high-performance culture
- Successfully pursuing key advocacy initiatives
- Co-creating a new electricity industry with stakeholders

The successful execution of our turnaround strategy, and the divisionalisation project in particular, will result in an Eskom that is agile and positioned to deliver value within the broader national efforts to drive reform in the electricity supply industry, through the execution of DPE's Roadmap.

Stabilise

The "stabilise" pillar focuses on actions designed to rehabilitate the income statement and strengthen the balance sheet. It aims to deliver improvements in governance, a reliable electricity supply and a cost-reflective tariff path.

Operational challenges within the organisation have an impact on our ability to stabilise the business. More than half of the generation fleet is almost 40 years old and has been run at very high utilisation factors, above the international norm, for many years. There has been a chronic underinvestment in regular planned maintenance and capital refurbishments. Furthermore, municipal arrear debt continues to escalate and stood at R28 billion at 31 March 2020. Sales volumes are trending below budget; this places pressure on our financial sustainability.

The distribution business is implementing actions to curb energy losses, which are aggravated by illegal connections to the network, the theft of and tampering with meters, ghost vending and a culture of non-payment.

We revised our approach to the maintenance and continued improvement of the Quality Management System under ISO 9001:2015. The decision was influenced by our financial situation, the operating model and structural changes, efficiencies and optimisation. Some divisions and business units will retain formal certification, while other areas will conform to the standard requirements. Nevertheless, the focus remains on entrenching quality principles in the business.

Optimise

The “optimise” pillar ensures the alignment of the business and operations with the broad expectations defined in DPE’s Roadmap, while ensuring that optimisation is achieved through the implementation of appropriate revised business models.

The first phase will be to finalise the divisionalisation of the business, entrench transparency and accountability, and optimise our organisational capabilities. This approach gives Government sufficient time to develop an enabling legislative environment and would serve to alleviate financial concerns related to loan conditions, should a staggered implementation of separation occur.

Each of the three separate entities will continue to fall under Eskom Holdings SOC Ltd, but will eventually have separated assets, debt, employees and financial statements. The corporate centre will be the functional leader where strategic direction is provided, policies are set, and service functions are located to ensure economies of skill and scale.

Eskom will be comprised of divisions and functions that work together towards common goals and objectives.

Divisional boards have been appointed to hold each entity accountable on strategy implementation, business performance and functional compliance. Each division will have its own balance sheet, income statement and cash flow statement. Divisional managing directors and executive committees will be accountable to their respective boards and the Eskom GCE.

It should be noted that our master plan for separation indicates that the implementation timelines envisaged in DPE’s Roadmap can be met for Transmission, although the legal separation of Generation and Distribution will take somewhat longer. This delay is due to legal and regulatory

changes which are beyond Eskom’s control, as well as the time required to engage on and align multiple systems, data, workflows and relinking of people.

Legal unbundling will commence after the completion of divisionalisation, once the required legal framework is in place. This will culminate in the establishment of three subsidiaries, wholly owned by Eskom Holdings SOC Ltd. We are not yet in a position to commit to the time required for legal unbundling, as it will be dependent on the regulatory and policy environment at that point.

We have also decided to accelerate the legal separation of Transmission, to create the required certainty for prospective investors in generation capacity that their bids will be fairly adjudicated relative to Eskom generation. We have committed to establishing a Transmission subsidiary by December 2021. In view of this, we are comfortable with progress towards achieving the milestones envisaged in DPE’s Roadmap.

Managing Eskom’s turnaround

The Turnaround Management Office, which reports directly to the GCE, will drive the implementation of our turnaround initiatives. Among the immediate next steps to be introduced are:

- Eskom and Government to align on the equity injections and debt transfers (where practical), and the timing thereof
- Continuous engagement on the implementation of a phased plan to separate and create three separate entities, with the first phase being divisionalisation
- The co-creation of a future industry structure with clearly defined roles for Eskom and its subsidiaries

Grow

The “grow” pillar recognises that we face a rapidly changing energy market and positions the company to identify opportunities to prepare for growth. The new operating model will become a platform for growth readiness and enable Eskom to achieve efficiencies as well as quick and profitable returns. However, this is heavily dependent on a correction in the tariff levels to cover prudent operating costs and allow a fair return.

Conclusion

Constraints in electricity generation have created supply shortages that compelled us to introduce loadshedding and restrictions on the use of electricity by consumers. This has had a negative impact on broad economic activity within the country, and has also negatively affected our reputation.

Our restructuring takes place against the backdrop of a rapidly changing local and international energy environment. Emerging technologies, changing consumption patterns, global economic trends and the impact of climate change are reshaping the energy landscape. Eskom, as the leading power utility on the African continent, must be at the leading edge of these developments.

The Board provides oversight of the effectiveness of stakeholder engagement through SES, with the management of stakeholder relationships being delegated to Exco.

We are determined to deliver long-term sustainable business performance and growing stakeholder confidence. Restoring stakeholder trust in Eskom is of paramount importance to our future success.

Given the changing nature of the electricity industry and our role therein, we have to be inclusive when making decisions that affect sustainability and our broader operating environment. Understanding and adequately responding to stakeholder needs, interests and expectations are crucial to achieving our objectives. Responsible advocacy and clear communication are important parts of our stakeholder engagement.

Our interaction with stakeholders

We recognise that our ability to sustain the organisation and create value for the country depends on strong and productive relationships with stakeholders – Government, the financial sector, business, labour and consumers. Advocacy and stakeholder engagement remain key enablers of our strategy and turnaround plan and, as such, our engagements with stakeholders are carefully planned in terms of the approach, scope and intended outcome.

Public trust in Eskom remains at an all-time low. The ongoing financial and operational challenges that we face continue to have a negative impact on our reputation. In response, we strive to improve transparency of reporting to our shareholder and the broader public to restore trust in the company.

Our stakeholder engagement strategy

The right level of advocacy and clear communication with our stakeholders are necessary to educate them on the challenges and conflicting priorities we are facing, and the trade-offs required to respond effectively to these challenges. It also provides the opportunity for dialogue, to give us insight into what matters to our stakeholders.

In addition, we need to communicate more effectively with all stakeholders, and strengthen relationships with all spheres of Government, financial institutions, the business sector, customers, suppliers, labour and communities who live close to our power stations, to foster productive partnerships.

As discussed earlier, our turnaround plan has five focus areas for implementation, two of which are largely dependent on key external stakeholder support – we require support from Government and NERSA to assist in addressing the areas of debt relief and revenue management through tariff adequacy.

Even operational matters require community and stakeholder support, from issues like access to land to build power lines, to dealing with equipment and electricity theft, to the safety of our staff during the performance of their duties. Moreover, we rely on continued support and cooperation from all spheres of Government and other stakeholders to manage the growing municipal arrear debt problem.

Looking ahead, we are engaging with national and international financing and investment stakeholders to provide assurance of our commitment to climate change and a Just Energy Transition. While we are committed to transition from coal to lower carbon technologies such as renewables, we are compelled to ensure that this transition occurs in a “just” manner, so that socio-economic development is not hindered or eroded. On that point, we have to engage with communities and other affected stakeholders on the repurposing of power stations once these reach the end of their useful life.

We are creating a department concerned with Government and Regulatory Affairs, which is aimed at improving our ability to interface with Government, various regulators, as well as domestic and international stakeholders. The department will play an overarching role in integrating and coordinating regulatory interfaces and approaches, with responsibility for the following areas:

- Government relations
- Parliamentary affairs
- Regulatory relations
- Stakeholder relations
- International relations

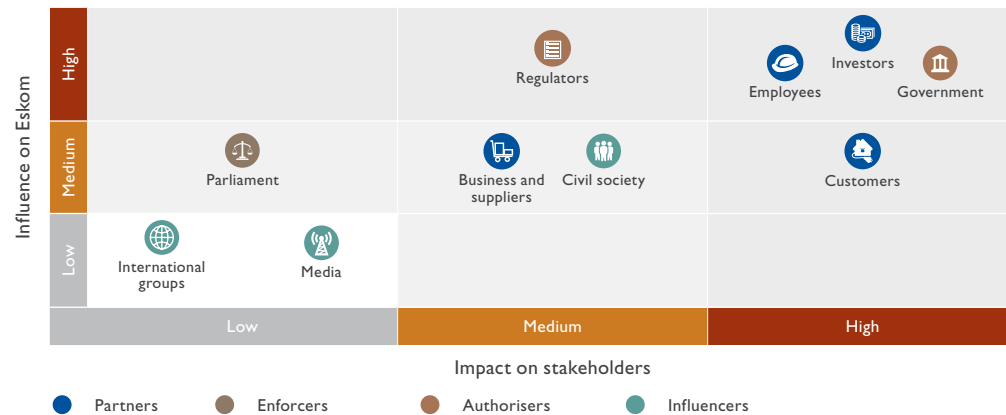
Regulatory aspects pertaining to NERSA will continue to be handled by the Finance team. Similarly, engagements with DEFF will remain the responsibility of the Risk and Sustainability team.

Ultimately, if we fail to garner the support of all our stakeholders, we will not succeed in turning around the organisation and ensuring a sustainable electricity supply industry to power South Africa into the future.

Stakeholder groups

Various functions within Eskom are responsible for engagements with different stakeholder groups, under the oversight of Exco. Our stakeholder landscape remains complex, involving a multitude of stakeholders with divergent needs, interests and expectations.

The diagram that follows provides an overview of our key stakeholder groups, which have been classified as authorisers, influencers, partners or enforcers. Stakeholder groups have been categorised based on their perceived influence on Eskom, and our impact on them.



Quality of relationships

Our reputation has shown a steady decline over recent years. During the past year, our poor financial performance and perceived leadership challenges were the biggest contributors to the continued decline. Our need for significant Government support, effectively funded by the taxpayer, and above-inflation tariff increases contribute to our poor reputation. This is coupled with continued operational challenges, which periodically result in loadshedding and disrupt the economy.

Investors' primary concern is our ongoing financial and operational sustainability. Both rating agencies and investors have raised concerns about our very high levels of indebtedness, limited revenue growth combined with the impact of the insufficient tariff and tariff uncertainty over the longer term, poor plant performance, escalating municipal arrear debt, as well as the capital investments required to address new build defects and our ageing fleet.

Many employees are concerned first and foremost with job security, with the restructuring process giving rise to uncertainty and negatively affecting morale. Other issues of concern are employee benefits and employee wellness, as well as leadership stability and governance challenges. Customers require quality and reliability of supply of affordably priced electricity, as well as certainty on the longer term electricity price path to enable forward planning. The impact of loadshedding on customers' business and the economy as a whole is a source of great concern to customers and the business sector.

Matters of importance to our stakeholders very often have a direct impact on our ability to create value and to execute our strategic objectives. As such, these matters are considered in our strategic planning, and influence the determination of material matters.

Refer to "Our role in communities – Our reputation" on page 125 for more information

Now more than ever, we recognise the importance of rebuilding and strengthening confidence and trust in the organisation by implementing our turnaround plan and improving our performance, to ensure that we are able to deliver on our mandate and DPE's Roadmap. As part of that process, we need the continued support and commitment of our employees as we transition towards a more desirable future for Eskom.

Issues raised by stakeholders

As a state-owned entity, the requirements of the South African Government are paramount to what we do. The Government acts as our shareholder through DPE, setting out the mandate on which we must deliver, with other departments setting policy or providing oversight of our operations. Alignment with DPE and other government departments is key to facilitate the best possible future for Eskom, and ultimately the country, through the implementation of the objectives set out in DPE's Roadmap.

MATERIAL MATTERS

Material matters are those that affect our ability to create, preserve or erode value in the short, medium and long term, or that influence or are likely to influence the decisions, actions and behaviour of either stakeholders or Eskom.

Materiality determination process

The first step in our annual materiality determination process is to identify relevant matters based on their ability to affect our value creation process. We start by considering those matters reported in the prior year. Those are updated based on a review of changes in the strategic and operating environment since the previous review.

As part of the review, we consider topics discussed at Board level, the outcome of the risk management process, as well as issues raised through various stakeholder platforms – lenders and investors, key customers, customer surveys, matters raised in

Parliament or by Parliamentary oversight committees and the media, and more generally via the Stakeholder Relations Department.

We evaluate the impact of these matters on the ability to execute our strategy and thereby create value by considering the effect of the matter, considering both the likelihood of the matter occurring and the magnitude of its impact. Matters are prioritised based on their relative importance. Those deemed to be material matters are covered in detail in this integrated report, while other matters are dealt with at a high level in the report or through other channels or platforms.

Current year material matters

The material matters reported in our previous integrated report remain applicable, although the level of importance may have changed. The following have been identified as material matters in this report.

1 Financial sustainability	6 Safety
2 Operational stability	7 Divisionalisation
3 Environmental performance and compliance	8 Governance clean-up, ethics and values
4 Climate change and future energy mix	9 Reputation and trust
5 Adequate skills and a high-performance culture	10 COVID-19 pandemic

Financial sustainability comprises our financial results; the revenue outlook based on the tariff trajectory and stagnant or declining sales volumes; cost curtailment initiatives; funding, liquidity and municipal arrear debt; Government support and Eskom's status as a going concern. Operational stability covers both Generation and network performance, including loadshedding, coal and water security, and progress on the new build programme.

the way we operate, and the impact on sales through economic activity. We discuss how we have responded to the situation, and our efforts to support South Africa's fight against the pandemic.

Our major risks, categorised in terms of Board-approved risk appetite categories which are largely aligned to the material matters, are discussed from page 56

As far as the COVID-19 pandemic is concerned, we evaluate the impact of both the pandemic and the resulting national lockdown on the country and on our business, particularly how it has affected our staff and

By and large, the material matters are all relevant over the short, medium and long term, and will have a negative impact on our ability to create value if not managed properly.

RISKS AND OPPORTUNITIES

Enterprise risk management process

Our Integrated Risk Management Standard describes a structured approach to risk management to ensure that we are able to formulate and execute our strategy effectively and operate efficiently as a business with minimum disruption and enhanced value creation. All business areas and divisions are responsible for identifying and reporting risks and response plans every quarter. Risks and treatment plans are continually monitored and reviewed. Risks are regularly shared with the relevant governance structures to approve their applicability and robustness. In doing so, we follow both a top-down and bottom-up approach to risk management.

The Board is ultimately responsible for the governance of risks and opportunities in Eskom and sets the direction for how they should be managed through our policies and frameworks. The Board approves the organisation's risk appetite and tolerance levels, which set out the amount and type of risk that Eskom is prepared to accept in order to achieve its objectives. These levels are reviewed annually.

The responsibility to implement and execute effective risk and resilience management has been delegated to Exco in order to support the organisation in achieving its strategic objectives. Exco and its Risk and Sustainability Committee as well as ARC review the key priorities and deliverables in our Risk and Resilience Management Plan annually.

Although Eskom's risk management process is considered sound and compares favourably against independent benchmarks, we have identified room for improvement. In June 2019, this concern was presented to the Board and support was received on proposed solutions to change the behaviour of risk owners in the implementation of effective risk management. These proposals included more accountability, the introduction of key risk indicators (KRIs), and more effective risk governance across all levels, among others.

Assessment of risk

The effective management of risk and resilience is essential for Eskom, particularly given the role we play in the South African economy, our impact on society and the environment, and the transition that the energy sector is undergoing.

The objective of managing risk and resilience is to ensure that we are able to formulate and execute our strategy effectively, to operate our business efficiently with minimum disruption, to proactively leverage opportunities as these arise, and to be able to respond rapidly and recover effectively from disruptions should these materialise. It is therefore important that risks that affect our objectives are identified, effectively managed and continuously monitored.

Emerging risks

Our Strategy and Planning Department, among others, undertakes an enviroscan on a regular basis to monitor changes in our broader operating environment. The identification of emerging risks are becoming more important as it will sensitise management to possible future risks and uncertainties which could face the organisation. These emerging risks are tracked and reported on quarterly.

The intelligence gathered is used to highlight emerging risks due to global and local developments; these are covered in strategic discussions at Exco and Board.

Disaster risks

Disaster risks are those that are inherent to our operations and would have a significant consequence should they materialise. Due to their relatively low likelihood of materialising as well as the adequacy of controls, they are generally managed through our resilience programmes for emergency preparedness and disaster management. National disaster priorities have been identified and accountability for risk and response planning for each has been assigned to individual Exco members.

We have identified the following national disaster risks. This excludes those at provincial or site level:

- Nuclear incident
- National blackout
- Severe supply constraint
- Economic or financial collapse
- National industrial action
- Cyber-attack or catastrophic IT system failure
- Solar or geomagnetic storm
- National drought or floods
- Worldwide pandemic of infectious disease
- Terrorism or political instability
- Environment and climate issues

Organisational risks

Risks affect the achievement of objectives and may influence the execution of divisional business plans. Risks are classified from Priority I risks at the highest level to Priority IV risks at the lowest. Risk levels are based on the quantification of risk in terms of consequence and likelihood. Consequences consider the potential impact of a risk, ranging from financial and operational sustainability, sustainable asset creation, environment and climate change, legal and compliance, reputation, health and safety, and information management.

Management is responsible for the identification and treatment of all risks, although Priority I risks are reported to Exco and ARC for oversight. The reported risks affect Eskom on many levels, including operational performance as well as our turnaround plan, Corporate Plan targets and shareholder compact KPIs.

When multiple disaster risks materialise at the same time...

We have identified 11 national disaster priorities. Of those, three disaster contingency plans were activated simultaneously in March 2020, namely our Severe Supply Constraint Plan to deal with stage 4 loadshedding, the Catastrophic IT Systems Failure Response Plan in response to a major failure of our national data centre at Megawatt Park, and our Pandemic Disaster Response Plan.

Severe supply constraint

A severe supply constraint arose, with loadshedding up to stage 4 being implemented from 9 March 2020 for seven days. The COVID-19 national lockdown has since resulted in a significant reduction in demand, reducing the need for loadshedding during the earlier stages of the lockdown, and allowing short-duration opportunity maintenance to be conducted during this period.

Catastrophic IT system failure

Multiple critical IT applications were affected when a backup generator in Eskom's national data centre at Megawatt Park failed on 11 March 2020. This resulted in the failure of the air-conditioning system and an extended common-mode failure of multiple virtual servers. The incident involved 261 business applications on 2 298 servers, with over 600TB of storage affected. In power utility terms, this can be equated to a full grid failure, not just a multi-unit plant breakdown.

Several critical applications were affected, including our ERP system (SAP), customer billing and customer self-service channels, such as the Eskom website, CS Online and the MyEskom Customer App. However, neither power station control systems nor National Control were affected. Recovery operations were extensive – the replacement of damaged storage and the restoration followed a systematic process to mitigate further damage and reduce the risk of data loss.

Another unrelated incident occurred on 30 March 2020, when a storage failure affected a large number of

Windows and Linux servers, causing various systems to fail. The incident involved 72 business applications on 638 servers, with 236TB of storage affected.

One of the most significant lessons learnt was that previous disaster recovery testing had been performed on individual systems or a small number of systems – no simulation of an event of a similar size or integrated system testing had ever taken place. A project, led by the General Manager: Information Technology and the CFO, is under way to address the data centre vulnerabilities.

Furthermore, we have experienced numerous incidents of distributed denial-of-service attacks since October 2019; these are attacks meant to shut down a machine or network, making it inaccessible to its intended users by flooding the target with traffic. These have intensified during the lockdown period and have caused intermittent interruption of the IT network. Group IT is working with service providers to implement effective solutions to combat these attacks.

Worldwide pandemic

The COVID-19 outbreak was declared a pandemic by the World Health Organisation on 11 March 2020. The President subsequently declared a National State of Disaster on 15 March 2020, and a national lockdown was implemented in South Africa from 27 March 2020.

We invoked our Pandemic Disaster Response Plan in February 2020. Divisional and site-level risk assessments were concluded by mid-March 2020, which informed our response. Our Emergency Response Command Centre (ERCC) was activated in early March 2020 to coordinate our response to the pandemic.

In line with Government's priorities, our incident response objectives were to support Government in containing the spread of the virus, maintain the supply of electricity, maintain the safety of our people and contractors, and safeguard our reputation.

At 31 March 2020, we had 44 Priority I risks (2019: 47), with about 80% of these risks relating to Generation, Transmission, Group Capital, Finance, Group IT and Risk and Sustainability.

Priority I level risks at March 2020

Consequences	6	3	8	4	8	
	5			5	3	
	4			9	3	
	3				1	
	2					
	1					
		A	B	C	D	E
		Likelihood				

Priority I level risks at March 2019

Consequences	6	1	9	3	6	
	5			7	7	
	4			11	2	
	3				1	
	2					
	1					
		A	B	C	D	E
		Likelihood				

The Priority I risks have been classified into seven key risk categories, which are broadly aligned to integrated reporting's six capitals:

- Financial sustainability
- Operational sustainability
- Environment and climate change
- People
- Governance and compliance
- Information technology
- Stakeholder management



The risk categories above are aligned to our material matters, set out on page 55

Many of the risks reported have been carried over for a year or more. This may indicate that treatments (including controls) developed by management have not achieved the desired result and must be reconsidered. Nevertheless, some treatments are long-term focused, such as environmental and climate change-related risks, some of which are out of Eskom's control.

Risk appetite and tolerance

Risk appetite is the amount and type of risk an organisation is prepared to pursue or accept in achieving its objectives, while risk tolerance is the organisation's readiness to bear the risk after risk treatment.

As required by King IV™, the Board sets Eskom's risk appetite by approving risk appetite statements for the key categories set out above, to navigate Eskom through its current challenges.

This risk appetite and tolerance process serves as an early warning mechanism to alert the organisation when adverse risk trends reach unacceptable limits. This is done by developing management-approved KRIs for all major risks as an early warning signal (leading indicator), in an effort to manage risks proactively and prevent them from materialising. It is imperative that management tracks risks and KRIs to understand the direction risks are taking.

Our challenges have not improved over the past five years, but instead have become even more severe, with some risks materialising, at times simultaneously. Furthermore, we have already exceeded our risk appetite in many areas. This requires tougher decisions to manage the impact of materialised risks, as well as to prevent other risks from materialising.

Identifying and prioritising opportunities for growth

As part of its mandate to be a structure of sustainable, non-regulated businesses, providing mission-critical services to Eskom and the electricity industry as a whole, our subsidiary Eskom Enterprises established a Growth Office in 2018 to identify growth opportunities related to both our regulated and non-regulated business.

The Growth Office has developed operating models for fibre commercialisation in consultation with Broadband Infraco. A request for information was issued to the external market in January 2020 to obtain market-related

pricing for Eskom fibre – responses showed that there was interest in leasing Eskom fibre. However, the routes required and proposed rates for leasing were not in line with what we had originally envisaged. The project will likely be put on hold until the finalisation of the Eskom divisionalisation process.

Various other opportunities, including nuclear consulting and off-grid solutions, are being analysed and translated into business cases, with both internal and external stakeholder engagements in progress. The findings from external market engagements have shown that there is significant market interest in off-grid solutions, however, the market has raised concerns about the pricing and tariffs to be charged for the solution. We will investigate the feasibility of refining the pricing of the proposed solution in line with market expectations.

The commercialisation of fly and coarse ash remains an opportunity to lower both capital and operating expenditure associated with ash dams, as well as generate additional income. Ash sold amounts to less than 10% of total ash produced. Beneficiation of ash could include the use of ash in manufacturing bricks and cement, soil amelioration, road construction and mine backfilling.

Refer to "Our interaction with the environment – Ashing facilities and ash utilisation" from page 109 for more information



Enterprise resilience

The Enterprise Resilience Programme addresses our ability to respond to major threats and disruptions, as well as compliance with the Disaster Management Act, 2002. The programme focuses on the ongoing development of resilience capabilities at site, divisional, provincial and national levels. In addition to undertaking regular tests and simulation exercises, we continue to review our technical and non-technical vulnerabilities to prevent and recover from disaster incidents.

Our established integrated emergency response structures are activated through our incident command system based on the level of response required. When a functional response is required in a given division, our Tactical Command Centre structures are activated. When a coordinated response is required across several divisions in a particular province, our Provincial Joint Command Centres are activated. Our strategic ERCC is activated in the event of a threat or incident affecting the entire organisation at a national level.

The programme also facilitates business continuity management, which encompasses planning and preparation to ensure that the organisation can continue to operate in case of serious incidents or disasters, and is able to recover to an operational state within a reasonably short period.

The programme is designed to incorporate organisational learning, both as incidents occur and as the context in which Eskom operates changes. This learning is given effect in real-time, through strategic changes such as organisational design, and through post-incident and post-exercise reviews ("war games").

FINANCIAL REVIEW

Our financial modelling shows that with a significantly reduced debt balance of R200 billion, a cash balance of R30 billion and an EBITDA margin of at least 35%, Eskom would be in a position to achieve independent financial sustainability



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CHIEF FINANCIAL OFFICER'S REPORT

CALIB CASSIM
Chief Financial Officer



Eskom is facing several operational challenges that are exacerbated by liquidity and financial sustainability challenges. Added to the shortfall caused by the inadequate tariff increases awarded by NERSA, our operating cash flows have been further negatively affected by deteriorating Generation plant performance, necessitating the increased use of expensive Eskom and IPP OCGTs to avoid or minimise the impact of loadshedding; as well as by higher unplanned maintenance and the process of rebuilding coal stock levels at power stations under the Generation recovery plan.

Even though Eskom's level of debt is perceived as a systemic risk to both the fiscus and the country as a whole, it has to be emphasised that the debt was raised with the sole purpose of supporting our new build programme to increase generation and transmission capacity. Our borrowing at the time assumed cost-reflective tariffs including a reasonable and market-related rate of return; limited delays in the new build programme; prudent financial oversight; and sufficient economic growth to stimulate the desired demand for electricity. Those assumptions have either not materialised or have significantly underperformed, leading to a growing gap between revenue and expenditure, requiring higher levels of debt than previously envisaged. This culminated in the need for Government equity support of R49 billion for the year, as we had reached a limit on our borrowing capacity.

As stated before, we require a rate of return on assets at least equal to the weighted average cost of capital in order to ensure financial sustainability and remain a going concern. An adequate return will enable our surplus operational cash flows to meet liquidity requirements and service debt commitments. In the absence of an adequate return provided by NERSA's tariff determinations, Government's equity support is assisting us in servicing our debt commitments. Nonetheless, equity support only improves liquidity but will not resolve Eskom's financial viability.

Overview of performance

Financial results

We recorded a net loss after tax of R20.5 billion for the year (2019: R20.9 billion, restated), which is in line with what we had budgeted. Revenue grew to R199.5 billion due to the 13.87% tariff increase (2019: R179.9 billion). This resulted in the EBITDA margin increasing to 18.55% (2019: 17.46%, restated), with an EBITDA of R37 billion (2019: R31.4 billion, restated). The increase of R5.6 billion in EBITDA was eroded by an increase of R3.5 billion in net finance cost, resulting in an improvement of only R2.8 billion in net loss before tax of R26.6 billion (2019: R29.4 billion, restated). The unsustainable debt level of more than R480 billion has led to our gross interest cost becoming the second largest cost item after coal costs, higher than both employee benefit costs and capital expenditure.

However, sales volumes declined by 1.29% year-on-year, with local sales volumes declining by 5.4TWh due to depressed economic conditions and supply constraints, with the industrial sector being the most severely affected; that was offset by international sales increasing by 2.7TWh. Furthermore, primary energy costs increased significantly, driven by an unsustainable increase in the average purchase cost per ton of coal of 16.3% (2019: 14.1%). In addition, the cost of 11 958GWh energy purchased from IPPs increased to R29.7 billion (including a capacity charge) during the year (2019: 11 344GWh at R26.7 billion), at a weighted average cost of 248c/kWh (2019: 235c/kWh). We are locked into long-term contracts from earlier bid windows at much higher rates than that applicable to new IPP generation.

Nevertheless, we managed to reduce employee benefit costs through sub-inflation salary increases at managerial level coupled with headcount reduction. Other operating expenditure, including maintenance, was relatively contained at R18.7 billion (2019: R18.2 billion). A decline of approximately 19% was achieved for the year, largely

due to lower decommissioning provision costs. However, this was negated by the write-off of R4 billion of a portion of work under construction relating to potential overpayments to a number of contractors involved in the construction of Kusile Power Station. Decommissioning, mine closure and rehabilitation provision costs declined due to an increase in the long-term discount rate to 4.82% at 31 March 2020 (2019: 3.36%), with the rate change linked to the significant weakening of the Rand in March 2020. Additionally, our cost curtailment efforts have borne some results, primarily through reductions in sundry expenses. Net finance costs increased to R31.3 billion (2019: R27.7 billion, restated), due to higher levels of borrowings at a higher weighted average cost.

Funding

The debt service cover ratio improved slightly to 0.52 (2019: 0.47), although the cash interest cover ratio remained stable at 0.94 (2019: 0.94). These ratios indicate that cash generated from operating activities during the year is insufficient to fund even the interest component of our debt service requirements. The gross debt/EBITDA ratio improved to 14.39 (2019: 15.73, restated), while the debt/equity ratio improved to 2.45 (2019: 3.18, restated), mainly due to the Government equity support. However, Government support improves the ratios only in the short term, and ratios remain well below acceptable investment-grade levels.

We intended to raise R46 billion in funding in 2020. New funding of R35.9 billion was secured through cash drawdowns. The R15 billion credit facility agreement concluded in 2019 with a consortium of banks was extended, resulting in total debt raised of R50.9 billion for the year.

However, our access to funding in both the domestic and foreign markets has been restricted due to decreased investor confidence because of poor financial performance, saturated borrowing capacity and credit rating downgrades. Lenders require guarantees through the R350 billion Government Guarantee Framework Agreement (GFA) to offset the financial risks posed by Eskom, with tariff unpredictability being a key concern that necessitates the requirement for guarantees. With the GFA almost fully utilised, our capacity for further borrowing is limited.

Regrettably, the Sovereign credit rating downgrade by Moody's at the end of March 2020 has placed the country at sub-investment grade level by all three internationally recognised credit rating agencies. Subsequent to year end, Fitch downgraded Eskom's local currency credit rating with a negative outlook; Standard & Poor's affirmed their previous rating action but revised the outlook to negative. This is expected to increase our future marginal rate of borrowing. However, the impact on our existing debt is anticipated to be limited, as all transactions are hedged.

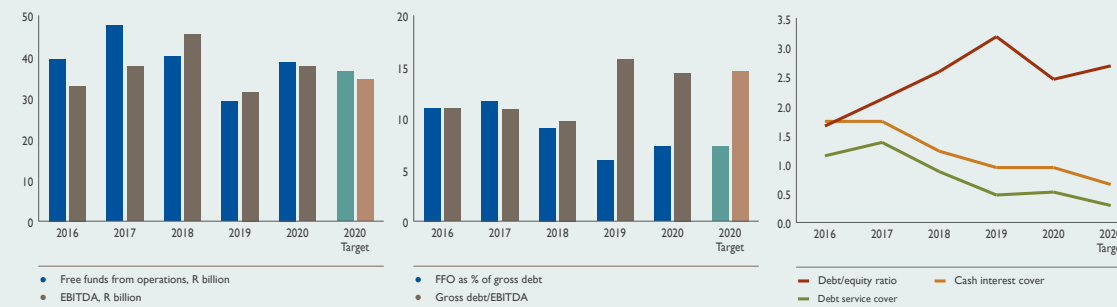
We welcome the appointment of Mr Richard Vaughan as General Manager: Treasury, with effect from 15 May 2020.

Managing liquidity

Net cash flows from operating activities for the year amounted to R36.2 billion (2019: R32.7 billion). Net cash flows used in investing activities amounted to R27 billion for the year (2019: R36.2 billion), reflecting stringent containment of capital expenditure because of our ongoing liquidity challenges. There is a risk that continued deferral of capital maintenance, refurbishment and replacement of infrastructure may lead to future operational challenges. Net cash flows generated from financing activities for the year were R11.7 billion, including Government support (2019: R10.9 billion outflow).

Cash and cash equivalents had improved markedly to R23 billion by year end (2019: R2 billion), due to the Government support of R49 billion received during the year. However, payments of R5.3 billion were delayed to 1 April 2020 due to technical issues, thereby inflating the year-end balance. Despite the improvement, cash flows remain severely constrained.

Liquidity remains one of our biggest short-term challenges, hampering our ability to achieve financial and operational stability, and posing a risk to our going concern. As noted above, access to cost-effective funding remains restricted, while inadequate price increases granted by NERSA as well as escalating municipal arrear debt further contribute to our liquidity constraints. To improve liquidity, we have restricted organisational cash requirements through targeted savings on operating and capital expenditure, to maintain the delicate balance between maintaining sufficient liquidity and supporting spend required to ensure future operational stability.



Our 2019 turnaround plan targeted four focus areas, three of which were finance-related, namely optimising our balance sheet through Government equity support, improving our revenue outlook through migrating towards cost-reflective tariff increases and growing sales volumes, as well as curtailing costs.

The full R49 billion for 2020 was received from National Treasury. As the Chairman indicated, the funds may only be used to settle debt and interest payments under the equity conditions attached to the support. A further R56 billion has been allocated for 2021 in accordance with the Government's Medium-Term Budget Policy Statement released in 2019.

Another of the focus areas of the 2019 turnaround plan centred on improving our revenue outlook through migrating to cost-reflective tariffs and growing sales. As discussed earlier, sales volumes declined further during the year. Despite applying for revenue based on prudent and efficient costs as well as a reasonable return in accordance with the MYPD methodology, the average standard tariff price increases and regulatory clearing account (RCA) determinations made by NERSA over recent years have not enabled the migration towards cost-reflectivity as envisaged in the Electricity Pricing Policy.

In response, we have submitted a review application for every revenue and RCA determination made by NERSA from December 2017 to March 2019, on the basis that NERSA's MYPD methodology has not been implemented rationally in their recent decisions.

The court judgment on the 2019 revenue decision determined that it was procedurally unfair, irrational, unreasonable and unlawful. It allowed Eskom to submit a supplementary tariff application to NERSA to recover costs had a lawful decision been made. As required by the judgment, we submitted the supplementary tariff application for approximately R5 billion to NERSA within the allotted 60 days from the RCA decision. NERSA will undertake a public consultation process; a final determination is expected by 26 February 2021.

The court set aside NERSA's MYPD 4 decision which deducted R23 billion annually for the equity support from 2020 to 2022. The judgment requires Eskom to recover the R69 billion in a phased manner over a three-year period, starting from the 2022 financial year. NERSA has been granted leave to appeal the judgment in the Supreme Court of Appeal. We have applied for execution of the order while awaiting the appeal process.

Reducing our annual cost base by R32.7 billion in 2023 constituted another of the focus areas of the 2019 turnaround plan. The target for 2023 has now been revised to R21.4 billion, due to the removal of aggressive headcount reduction initiatives, because of a lack of support from the shareholder for such measures. Savings of R16.3 billion were achieved against a target of R6.2 billion for the year. The main source was primary energy savings through optimising coal inventory by reducing coal deliveries to minimum contract levels, supported by an increase in international revenue and other income.

Total municipal arrear debt continued to escalate to unacceptably high levels, amounting to R28 billion at year end (2019: R19.9 billion), representing 75.7% of total invoiced municipal debt (2019: 71.7%). The top 20 defaulting municipalities constitute 81% of total invoiced municipal arrear debt (2019: 81%), with almost 41% of that owed by Free State municipalities (2019: 44%). At year end, 45 municipalities had total arrear debt of more than R100 million each (2019: 34), a number which has grown considerably during recent years and demonstrates the pervasive nature of the problem.

The Board approved a new municipal debt management strategy, which comprises three key objectives, namely to reduce and/or eliminate overdue debt; stop defaulting where it occurs; and prevent future defaulting by paying customers. To this end, we are enhancing and enforcing existing revenue and debt management processes, enforcing Eskom's rights through legal action and attaching assets where possible, and expediting Government interventions, the progress from which has been slower than anticipated.

Looking ahead

The "stabilise" pillar of our turnaround strategy focuses on actions designed to strengthen the balance sheet and rehabilitate the income statement, mainly through debt relief, revenue management and cost initiatives, as set out by the GCE.

To that end, we will focus on:

- Debt relief and long-term debt restructuring, with Government support
- Pursuing tariff increases migrating to cost-reflectivity and improving revenue collection
- Reducing costs by R21 billion per year by 2023

The successful execution of the strategy should enable Eskom to return to profitability by 2023, although it is dependent on fair regulatory tariffs, improved investor confidence, the ability to improve the balance sheet by effectively reducing current debt levels, coupled with successful restructuring. NERSA's regulatory processes, the ability to recover costs and earn appropriate returns remain a significant concern to investors and credit rating agencies, and are crucial to their assessment of the future trajectory of our financial and operational sustainability, which influences investment decisions.

The lack of diversification of funding sources and increased financing costs due to the current financial environment are constraints that pose a risk to the effective execution of the borrowing programme. Importantly, the execution of the plan will depend largely on Government support to reduce our reliance on debt and contain debt service costs. Discussions with Government to assist in the strategic reorganisation and strengthening of our balance sheet are ongoing.

Nevertheless, we are not oblivious to the part we have to play. It includes pursuing the recovery of prudent and efficient costs to ensure a cost-reflective tariff path; implementing targeted cost curtailment initiatives, to reach the target of cumulative savings of R62 billion for

the period from 2020 to 2023; executing the recently approved municipal debt management strategy and working with the Eskom Political Task Team to improve collection of municipal accounts and slow the growth in arrear debt; as well as exploring negotiated pricing agreements and other avenues to stimulate sales volumes.

An improved financial position will lead to more favourable credit ratings and ultimately better rates and tenures from lenders, in addition to reduced reliance on Government guarantees. We remain mindful of maintaining lower debt levels and are carefully monitoring future debt requirements. We depend on strong relationships with investors and credit rating agencies to secure funding under the borrowing programme.

Our borrowing programme caters for expansive and intensive capital expenditure requirements, as well as debt service costs. For the next three years, our target is to raise R122 billion from development finance institutions, export credit agencies, the issuance of bonds and notes, as well as structured projects. We plan to borrow R30.8 billion in 2021, given the expected Government support of R56 billion. Of the funding targeted, R19.6 billion (or 64%) was already committed by 30 September 2020.

The debt repayment profile, based on existing debt only, is still relatively pressured over both the short and long term, with debt repayments of R197 billion and interest payments of approximately R145 billion over the five years to 31 March 2025, with maturities extending to 2052. These redemptions and interest payments can only be met with Government support combined with a tariff correction that allows Eskom prudent and efficient costs and a fair return on assets.

Our financial results for the first half of 2021 have been severely affected by the COVID-19 pandemic and South Africa's national lockdown. This has had an adverse impact not only on our operations and finances, but also on the economy as a whole. The economic recession and continued uncertainty around the ultimate impact of COVID-19 is expected to threaten future sales volumes, the cost of production and customers' ability to pay. We expect to record a loss of approximately R25 billion for the 2021 financial year, with the impact of COVID-19 being a significant contributor to the unsatisfactory outlook.

Furthermore, Government's capacity to appropriate financial support beyond 2022 may be affected by the shift in national priorities required to support the economy in response to the COVID-19 pandemic. We will continue to monitor and assess the impact of COVID-19 on the economy as well as our financial performance and liquidity, to respond appropriately in order to mitigate associated risks.

Conclusion

We have to reduce our reliance on debt funding as a source of liquidity – equity injections by the shareholder will assist in reducing this reliance in the short term and help to improve liquidity. Although Government's equity support addresses our liquidity requirements, it does not adequately enhance our long-term financial sustainability. The only way to achieve financial sustainability is to improve operating cash flows that results in positive free cash flows, with a strong focus on moving to a prudent, cost-reflective tariff.

We acknowledge the importance of cost savings to improve liquidity, with a focused cost curtailment programme over the next three years. Nonetheless, as we've stated before, cost savings alone will not be sufficient to improve our financial health. For Eskom and the electricity supply industry to continue to operate and maintain its assets in a reliable state, the price of electricity must migrate towards cost-reflectivity to ensure Eskom's long-term financial sustainability. Without a cost-reflective tariff path, we will remain reliant on Government support, which implies that the taxpayer will continue to foot the bill for the revenue shortfall, which is contrary to the "user pays" principle.

Our overarching objective remains to return Eskom to financial and operational sustainability, while improving transparency of reporting to the shareholder and the broader public in order to regain trust.



Calib Cassim
Chief Financial Officer

CONDENSED ANNUAL FINANCIAL STATEMENTS

The group and company financial results set out in the condensed financial statements which follow have been extracted from the consolidated annual financial statements of Eskom Holdings SOC Ltd for the year ended 31 March 2020, which have been prepared in accordance with International Financial Reporting Standards (IFRS) and in the manner required by the Companies Act, 2008 and the PFMA, 1999.

The consolidated annual financial statements have been prepared under the supervision of the Chief Financial Officer, Mr Calib Cassim CA(SA), and were duly approved by the Board of Directors on 28 October 2020.

The consolidated annual financial statements have been audited by the group's independent auditors, SizweNtsalubaGobodo Grant Thornton Inc, in accordance with the Public Audit Act of South Africa, 2008, the *General Notice* issued in terms thereof and International Standards on Auditing. The independent auditors issued a qualified opinion relating to the completeness of irregular expenditure disclosed in note 53 in terms of the PFMA. Except for this qualification, the consolidated annual financial statements are fairly presented in terms of IFRS. Furthermore, the independent auditors reported a material uncertainty relating to Eskom's ability to continue as a going concern, as well as a key audit matter regarding the accounting treatment of the Eskom Pension and Provident Fund. However, these matters do not affect their opinion.

The consolidated annual financial statements, which detail the financial performance of the group and company, are available online

The financial statements may also be inspected at Eskom's registered office; limited hard copies are available on request.

Neither the future performance plans and/or strategies referred to in the integrated report, nor the potential impact of COVID-19, have been reviewed or reported on by the group's independent auditors.

Condensed income statements

for the year ended 31 March 2020

	Group		Company	
	2020 Rm	Restated 2019 Rm	2020 Rm	Restated 2019 Rm
Continuing operations				
Revenue	199 468	179 892	199 468	179 892
Other income	1 238	2 150	1 819	3 073
Primary energy	(112 119)	(99 488)	(112 119)	(99 488)
Employee benefit expense	(32 976)	(33 183)	(27 590)	(27 532)
Net impairment reversal	61	260	54	242
Other expenses	(18 674)	(18 214)	(26 251)	(27 019)
Profit before depreciation and amortisation expense and net fair value loss (EBITDA)	36 998	31 417	35 381	29 168
Depreciation and amortisation expense	(27 779)	(29 738)	(27 693)	(29 644)
Net fair value loss on financial instruments, excluding embedded derivatives	(6 890)	(5 266)	(6 525)	(5 225)
Net fair value gain on embedded derivatives	2 298	1 857	2 298	1 857
Profit/(loss) before net finance cost	4 627	(1 730)	3 461	(3 844)
Net finance cost	(31 252)	(27 732)	(32 541)	(28 888)
Finance income	2 610	2 722	1 468	1 679
Finance cost	(33 862)	(30 454)	(34 009)	(30 567)
Share of profit of equity-accounted investees after tax	63	35	–	–
Loss before tax	(26 562)	(29 427)	(29 080)	(32 732)
Income tax	6 060	8 497	6 740	9 341
Loss for the year	(20 502)	(20 930)	(22 340)	(23 391)

The statements of comprehensive income and statements of changes in equity are available in the consolidated annual financial statements

Condensed statements of financial position

at 31 March 2020

	Group		Company	
	2020 Rm	Restated 2019 Rm	2020 Rm	Restated 2019 Rm
Assets				
Non-current assets	697 893	683 956	698 596	684 381
Property, plant and equipment and intangible assets	657 189	654 365	657 953	654 742
Future fuel supplies	4 295	6 471	4 295	6 471
Investment in equity-accounted investees and subsidiaries	397	373	479	479
Derivatives held for risk management	33 918	20 582	33 918	20 582
Other non-current assets	2 094	2 165	1 951	2 107
Current assets	116 404	62 877	110 947	59 592
Inventories	33 573	26 482	33 330	26 251
Loans receivable	27	26	5 937	6 071
Derivatives held for risk management	23 718	2 080	23 718	2 080
Trade and other receivables	22 391	20 859	24 067	22 020
Insurance investments	11 981	9 563	–	–
Financial trading assets	152	162	152	162
Other current assets	1 572	1 674	1 429	1 491
Cash and cash equivalents	22 990	2 031	22 314	1 517
Non-current assets held-for-sale	8 642	8 871	–	–
Total assets	822 939	755 704	809 543	743 973
Equity				
Capital and reserves attributable to the owner of the company	185 863	149 978	169 421	135 399
Liabilities				
Non-current liabilities	502 684	495 996	501 364	495 046
Debt securities and borrowings	408 151	387 208	408 107	387 161
Embedded derivatives	5	1 365	5	1 365
Derivatives held for risk management	1 802	5 643	1 802	5 643
Deferred tax	3 678	7 138	2 724	6 601
Employee benefit obligations	13 530	15 560	13 232	15 224
Provisions	41 300	45 588	41 278	45 558
Lease liabilities	8 875	9 130	8 873	9 130
Contract liabilities and deferred income	22 577	21 295	22 577	21 295
Other non-current liabilities	2 766	3 069	2 766	3 069
Current liabilities	132 919	108 051	138 758	113 528
Debt securities and borrowings	75 531	53 402	80 107	57 886
Embedded derivatives	1 131	2 069	1 131	2 069
Derivatives held for risk management	1 139	1 397	1 143	1 397
Employee benefit obligations	3 293	3 244	3 018	2 976
Provisions	5 991	5 662	5 933	5 556
Trade and other payables	40 175	36 849	41 761	38 208
Payments received in advance	3 430	3 359	3 437	3 367
Other current liabilities	2 229	2 069	2 228	2 069
Non-current liabilities held-for-sale	1 473	1 679	–	–
Total liabilities	637 076	605 726	640 122	608 574
Total equity and liabilities	822 939	755 704	809 543	743 973

Condensed statements of cash flows

for the year ended 31 March 2020

	Group		Company	
	2020 Rm	Restated 2019 Rm	2020 Rm	Restated 2019 Rm
Cash flows from operating activities				
Loss before tax	(26 562)	(29 427)	(29 080)	(32 732)
Adjustment for non-cash items	65 364	58 991	66 090	60 255
Changes in working capital	(2 464)	3 693	(2 536)	4 800
Cash generated from operations	36 338	33 257	34 474	32 323
Net cash flows used in derivatives held for risk management	(81)	(172)	(78)	(174)
Finance income received	377	245	377	245
Finance cost paid	(60)	(277)	(59)	(276)
Income taxes paid	(367)	(313)	-	-
Net cash from operating activities	36 207	32 740	34 714	32 118
Cash flows used in investing activities				
Proceeds from disposal of property, plant and equipment	508	566	498	566
Acquisitions of property, plant and equipment and intangibles	(24 269)	(34 530)	(24 632)	(34 817)
Acquisitions of future fuel supplies	(1 261)	(548)	(1 261)	(548)
Payments made in advance	(2)	(9)	(2)	(9)
Cash used in provisions	(846)	(1 707)	(846)	(1 707)
Net cash used in derivatives held for risk management	(120)	(166)	(120)	(166)
Net acquisition of insurance investments	(2 742)	(1 356)	-	-
Net cash from loans receivable and finance lease receivables	66	54	204	125
Dividends received	105	83	46	35
Finance income received	1 550	1 411	511	506
Net cash used in investing activities	(27 011)	(36 202)	(25 602)	(36 015)
Cash flows from/(used in) financing activities				
Debt securities and borrowings raised	32 036	58 914	32 124	59 364
Payments made in advance to secure debt raised	(642)	(1 179)	(642)	(1 179)
Debt securities and borrowings repaid	(31 511)	(34 455)	(31 599)	(34 332)
Share capital issued	49 000	-	49 000	-
Net cash from derivatives held for risk management	1 843	1 219	1 843	1 219
Net cash from financial trading assets	9	10	9	10
Net cash used in finance lease payables and financial trading liabilities	(456)	(386)	(455)	(386)
Finance income received	597	858	558	820
Finance cost paid	(39 111)	(35 845)	(39 205)	(36 035)
Taxes paid	(84)	(69)	(84)	(69)
Net cash from/(used in) financing activities	11 681	(10 933)	11 549	(10 588)
Net increase/(decrease) in cash and cash equivalents	20 877	(14 395)	20 661	(14 485)
Cash and cash equivalents at the beginning of the year	2 031	15 823	1 517	15 379
Foreign currency translation	(22)	50	-	-
Effect of movements in exchange rates on cash held	136	620	136	620
Assets and liabilities held-for-sale	(32)	(67)	-	3
Cash and cash equivalents at the end of the year	22 990	2 031	22 314	1 517

OUR FINANCES



Highlights

- Cash and cash equivalents improved to R23 billion at year end (2019: R2 billion)
- Government support of R49 billion received; further support confirmed going forward
- Favourable judgments from the High Court allowing Eskom to recover revenue and RCA amounts unlawfully disallowed by NERSA



Improvements

- EBITDA margin increased to 18.55% due to revenue growth from the 13.87% tariff increase in 2020
- Limited growth in employee costs through negotiated salary increases and headcount reduction
- Cost curtailment efforts exceeded target, despite continued operational challenges and high organisational cash requirements
- Financial performance ratios improved compared to 2019, although remaining well below acceptable levels



Challenges

- Credit ratings downgrades affected by the negative Sovereign outlook, coupled with concerns around Eskom's operational and financial sustainability
- Lack of a cost-reflective tariff path hinders long-term financial sustainability, with operating cash flows insufficient to fund debt service requirements
- Sales volumes declined due to depressed economic conditions and supply constraints, with the industrial sector most severely affected
- The economic recession and uncertainty around the impact of COVID-19 is expected to further threaten future sales volumes and the cost of production, the ability of customers to pay, as well as Government's capacity to appropriate the remaining financial support for 2021 and beyond



Lowlights

- Net loss after tax of R20.5 billion for the year
- Significant escalation in municipal arrear debt to R28 billion (2019: R19.9 billion), coupled with delays in implementing recommendations of the Inter-Ministerial Task Team
- Inadequate revenue recovery through the RCA mechanism due to continued incorrect application of the MYPD methodology
- Unsustainable increase in the average coal purchase cost per ton

In order to fund our operations we require financial capital through either debt funding or equity. Equity can take the form of profit generated through sufficient revenue to cover our costs, or shareholder support through an equity injection.

Financial results of operations

The group recorded a net loss after tax of R20.5 billion for the year (2019: R20.9 billion, restated), and EBITDA of R37 billion (2019: R31.4 billion, restated). The EBITDA margin increased to 18.55% (2019: 17.46%, restated), mainly due to revenue growth arising from the tariff increase of 13.87% for 2020, combined with the results of our cost curtailment efforts. These improvements

were offset by a substantial increase in primary energy expenditure.

As a result of the net loss, no short-term performance bonus provision was raised for the year.

Refer to the consolidated annual financial statements available online, which detail the financial performance of the group and company



Our return on assets, using both historical valuation of assets and the replacement value, remains far below both the real and nominal weighted average cost of capital, continuing the trend discussed in prior years.

Profitability and working capital

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Company							
Electricity revenue per kWh (including environmental levy), c/kWh	143.60	110.63	102.44	101.86	90.01	85.06	▲
Electricity operating costs, R/MWh	1 042.22	951.96	845.62	802.12	729.26	634.69	●
Group							
EBITDA, R million ^{SC}	73 380	23 522	34 386	36 998	31 417	45 359	●
EBITDA margin, %	27.31	11.67	16.58	18.55	17.46	25.57	●
Current ratio	1.44	1.53	1.50	1.09	1.00	1.03	■
Free funds from operations (FFO), R million	81 659	29 704	36 332	38 671	29 047	40 022	●
FFO after net interest paid, R million	51 336	(6 677)	(2 506)	157	(5 940)	9 147	●

While the majority of financial performance ratios performed better than target and improved in comparison to the previous year, Eskom is still experiencing a number of challenges that prevent the organisation from achieving long-term financial sustainability. Key financial metrics remain well below levels acceptable to investors and credit rating agencies.

Sales and revenue

Revenue for the group amounted to R199.5 billion (2019: R179.9 billion). Electricity revenue of R197.3 billion (2019: R177.3 billion), excluding pre-commissioning revenue capitalised, increased by 11.28% year-on-year. This growth is lower than the allowed tariff increase of 13.87% granted by NERSA for 2020 (including the MYPD 3 RCA recovery) due to the continued trend of declining sales volumes, coupled with an amount of R6.1 billion not being recognised due to revenue collectability criteria not being met. The average electricity price of 101.86c/kWh reflects a year-on-year increase of 13.17%, slightly lower than the increase granted by NERSA due to differences in time-of-use tariffs, with consumption patterns varying from expectations.

For accounting purposes, revenue and the associated primary energy expense of production from Medupi and Kusile units, which have been synchronised to the grid and produce electricity but are not yet in commercial operation, are capitalised to the respective asset under construction. Pre-commissioning revenue capitalised and

excluded from net revenue for the year amounted to R5.7 billion (2019: R3.4 billion). The substantial increase is attributable to higher production volumes from these units while undergoing testing prior to commissioning, which has been delayed due to correction of the new build defects discussed elsewhere. Pre-commissioning production contributes to alleviating generation supply constraints.

Eskom has seen a trajectory of declining sales volumes in the recent past, with an approximate 1% reduction in sales volumes per annum. While our efforts to address the deterioration in sales volumes continue, the decline in electricity demand experienced due to the slowdown of the economy amidst the COVID-19 pandemic is a major concern. Average demand reduced by 5 680MW during the level 5 lockdown, by 3 300MW during level 4 and by 1 560MW since the beginning of level 3 to the middle of July 2020.

Overall, sales volumes for 2021 are expected to be 7.3% lower than this year. The reduction factored into the year-end projection is less severe than the 16.5% decline experienced in the first quarter of the 2021 financial year, due to the phased easing of the national lockdown and the return to operations of many sectors. However, it is deemed unlikely that electricity demand will recover to pre-COVID-19 levels by the end of 2021 due to the long-lasting effect of the economic recession. Longer term projections do not foresee any significant recovery to sales levels over the next three to five years.



Electricity sales of 205 635GWh were 1.29% lower than the previous year (2019: 208 319GWh). Industrial customers, particularly in the ferrochrome sector, were negatively affected by the economic downturn and depressed commodity prices, leading to many industrial customers curtailing operations, entering into business rescue or shutting down. This resulted in a decline of 3 107GWh (or 6.38%) in sales volumes to these customers.

International sales grew by 2 727GWh (or 21.88%) due to neighbouring countries increasing demand as a result of the drought in the region; we also re-established non-firm supply agreements with trading partners after they settled their arrear debt.



Refer to the fact sheet on pages 151 to 152 for the number of customers by customer segment, as well as electricity sales by customer category, both volumes and revenue

Despite the increase in overall customer numbers, largely linked to our electrification programme and growth in residential customers, the number of energy-intensive customers in the industrial, mining and agricultural sectors is slowly reducing. This contributed to the declining trend in sales volumes, which remains a significant concern for both Eskom and the economy, being indicative of a lack of economic growth.

“The Offer” was launched as a pilot programme in June 2018 to provide financial incentives for incremental sales above a customer-specific historical consumption baseline. It ended its second pilot year on 31 May 2020, with four customers having consumed an additional 709GWh. Regrettably, “The Offer” has been discontinued as it is not deemed beneficial due to the gap between Eskom’s short-run marginal cost in the original business case and current high marginal costs experienced due to poor plant performance.

In order to address deteriorating sales volumes, we are working with Government on identifying possible solutions to make the country and the electricity supply industry more reliable, sustainable and competitive; this includes incentive pricing to optimise electricity sales to energy-intensive customers and stimulate local sales.

The DMRE is in the process of formulating an amended short-term negotiated pricing agreement (NPA) framework and an interim long-term NPA framework to facilitate the approval of customised incentive pricing by NERSA. We have received numerous applications from customers expressing interest in NPAs but these require the necessary frameworks being in place.

Tariff structures of the future

Eskom’s tariff structures were last revised based on a cost-to-serve study conducted in 2012. Since then, there have been significant developments; most notably, the planned restructuring of the electricity supply industry, technology advancements and evolving customer needs. Existing tariff structures no longer accurately reflect the component costs for energy, network and retail requirements, and need to be modernised to reflect present circumstances. In addition, Eskom’s declining sales volumes have revealed the inappropriateness of recovering fixed costs through volume-based charges, with a larger proportion of revenue being lost when existing tariffs do not adequately charge for capacity and network availability.

Eskom’s unbundling will therefore require tariffs to separate the costs of generation, transmission and distribution of electricity appropriately, to avoid volume and trading risk and to account for cost drivers more accurately, with the ultimate objective of protecting and increasing competitiveness in the electricity supply industry.

We will be proposing the following amendments to retail tariffs in the coming years:

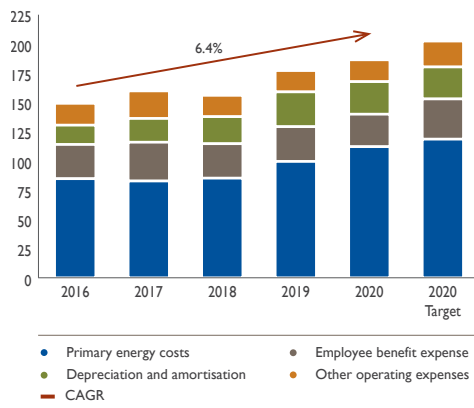
- Update all charges to cater for the separate costs of Eskom’s line divisions, based on approved MYPD values
- Revise network charges to reflect the latest transmission and distribution network costs
- Increase the fixed-charge component of the distribution network, with a corresponding

- reduction in the variable charge for all tariffs that include network charges
- Revise energy rates to reflect the latest wholesale energy costs, with changes to the time-of-use ratios and periods
- Rationalise municipal tariffs into three categories: for large power users (LPUs), small power users (SPUs) and a tariff for non-metered public lighting
- Increase low-voltage charges for urban LPUs to reduce the low-voltage subsidy
- Revise service charges based on the number of points of delivery rather than per account
- Discontinue the inclining block rate structure for the Homepower and Homelight tariffs
- Convert implicit subsidies to explicit targeted subsidies to increase transparency and prevent unintentional cross-subsidisation
- Introduce a new residential time-of-use tariff that includes a net-billing offset rate for customers with small-scale embedded generation

The next phase in tariff design may require annual revisions to rates and wholesale time-of-use ratios and periods to account for increases across each of Eskom’s unbundled line divisions, rather than applying a single standard average increase to all rates. Customers connected to the grid must pay for the services that are provided. Consequently, further work will be required to restructure energy and network charges to more appropriately balance fixed and variable components, and to refine use-of-system charges for generators.



Operating costs
Operating expenses, R billion



Primary energy

Primary energy costs (including coal, water and liquid fuels) increased significantly to R112.1 billion (2019: R99.5 billion). Our own generation costs (excluding the environmental levy) increased by 13.87% to R71.7 billion (2019: R63 billion), with coal usage costs being the major contributing factor. OCGT costs, IPP costs and international purchases also experienced growth due to increased production volumes from each of these sources, as well as associated price escalations. Total coal burn costs (excluding the environmental levy) increased by 13.9% to R66.6 billion (2019: R58.5 billion), despite a 4.24% decline in production volumes from coal-fired stations, due to an increase of 16.3% in the average coal purchase cost per ton from coal contract escalations combined with the use of more expensive coal from short- and medium-term sources. This was offset by a favourable change in the production mix, with increased burn at less expensive power stations.

Expenditure on OCGTs increased to R4.3 billion, with 1 328GWh generated during the year as a result of declining plant performance and supply constraints (2019: R3.8 billion spent producing 1 202GWh). The OCGT load factor increased to 6.28% (2019: 5.69%).

Expenditure on international purchases increased by 26.1% to R4.7 billion (2019: R3.7 billion) due to higher imports of 8 568GWh (2019: 7 355GWh). This was largely because of improved supply from Hidroeléctrica de Cahora Bassa.

IPP expenditure of R28.1 billion added 11 958GWh to the energy production mix (2019: R25 billion and 11 344GWh). This is due to increased usage of renewable IPPs during the year, as well as more extensive use of IPP OCGTs, particularly in the last few months of the year, to assist in ensuring system stability during periods of supply constraints. It was anticipated that with the introduction of IFRS 16: Leases, accounting adjustments on the Avon and Dedisa gas peakers would no longer be applied in 2020. However, in terms of accounting principles, these are still treated as arrangements containing a lease, thereby reducing expenditure on IPPs by R1.6 billion for the year (2019: R1.7 billion).

The total expenditure on IPP OCGTs (net of the lease accounting adjustment) amounted to R3.2 billion to produce 711GWh (2019: R2.7 billion to produce 522GWh), while R24.9 billion was spent on renewable IPPs to produce 11 247GWh (2019: R22.3 billion to produce 10 792GWh).

Refer to "Our infrastructure – Energy supplied by IPPs" from page 94 for further information

A comparison of the primary energy unit cost of the various generation categories is shown below:

Unit cost, R/MWh	2020	2019	% change
Coal ¹	397	339	17.1
Nuclear	100	103	(2.9)
Eskom OCGTs ²	3 231	3 128	3.3
IPPs ³	2 347	2 200	6.7
IPP OCGTs ⁴	4 049	4 344	(6.8)
Renewable IPPs	2 206	2 058	7.2
International purchases ³	550	509	8.1

1. Excludes pre-commissioning production of 8 751GWh from certain Medupi and Kusile units (2019: 6 374GWh).
2. The average cost is calculated on fuel and start-up costs only, excluding storage and demurrage.
3. Note that the unit cost of IPPs and international purchases is based on the full cost of operation, whereas the unit cost of Eskom-owned generation is based only on the primary energy cost. Given that IPP and international purchases are treated as a variable cost in Eskom's accounts, this treatment is considered appropriate.
4. The average cost is calculated on the net amount spent on energy, excluding maintenance, and after the lease accounting adjustment.

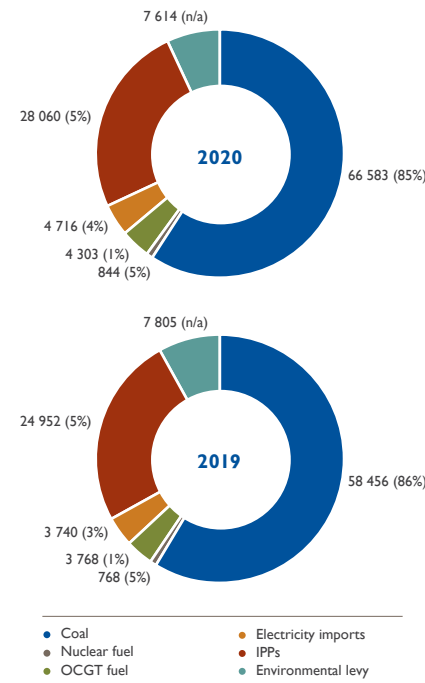
The majority of the increases in the R/MWh cost of production were due to inflationary and periodic contractual increases. The significant increase in the unit cost of coal is largely due to the 16.3% escalation in the average coal purchase cost per ton. Levels of coal cost increases are deemed unsustainable given our prevailing financial challenges.

The slight decline in the nuclear unit cost is due to an increase in production during the year, influenced by the timing of outages on the units. The IPP OCGT unit cost reduced as a result of once-off levies included in the prior year cost.

Primary energy costs are directly related to the volume of electricity generated from Eskom power stations as well as purchases from IPPs and international trading partners. In order to balance supply and demand, production volumes across these sources are managed to meet the anticipated demand for electricity in the region. Because of the significant decline in electricity demand during the national lockdown, we anticipate total GWh energy produced at the end of 2021 to be 5.48% lower than this year. In response, the cost of production is anticipated to increase as a result of market pressures, with supply chains severely affected by global lockdown restrictions. Therefore, despite the lower volumes, primary energy costs are expected to increase by about 7% year-on-year, including normal inflationary increases.

The following graphs set out the breakdown of primary energy costs, net of pre-commissioning expenditure capitalised and lease accounting adjustments, with the contribution of the particular source to total GWh energy produced provided in brackets.

Primary energy breakdown, R million



Other operating costs

The number of employees in the group (including fixed-term contractors) declined by 4.06% to 44 772 (2019: 46 665) due to natural attrition as well as compliance with the moratorium on external recruitment, with the exception of the Board-approved appointment of core, critical and scarce positions. The impact of voluntary separation packages on headcount will only be reflected in 2021. Net employee benefit costs for the year amounted to R33 billion, after capitalisation of costs to qualifying assets (2019: R33.2 billion, restated). Despite the reduction in headcount, employee costs have remained relatively stable as a result of a 7% salary increase for bargaining unit employees, in line with the three-year wage agreement concluded in the prior year, as well as a 2.8% salary increase for middle management/professionally qualified and senior management employees. Overtime costs were contained at R2.3 billion (2019: R2.2 billion).

A net impairment reversal of R61 million was effected during the year (2019: R0.3 billion, restated). Despite the escalation in the municipal arrear debt balance, a net reversal of impairment arose on trade and other receivables relating to prior year impairments. The cumulative impairment provision raised at year end for arrear customer debt (excluding interest) was R7.2 billion for all electricity debtors (2019: R9.3 billion, restated), with the reduction predominantly related to the write-back of "in duplum"

interest and prescribed Soweto debt, combined with improved payment levels on international trade debt.

The reversal on trade and other receivables was offset by impairments raised on property, plant and equipment. The most significant impairment relates to 366 residential flats, intended to provide accommodation for artisans in Ogies, Mpumalanga for the duration of the Kusile project. The development remains incomplete, resulting in an impairment of R918 million, and has been put up for sale in its current state. The responsible manager was dismissed; civil recovery measures and possible criminal sanctions are being sought. The matter was recorded as an incident of fruitless and wasteful expenditure in terms of the PFMA.

Other operating expenditure, including maintenance, was relatively contained at R18.7 billion (2019: R18.2 billion). A decline of approximately 19% was achieved for the year, largely due to lower decommissioning provision costs, however, this was negated by the write-off of a portion of work under construction. Decommissioning, mine closure and rehabilitation provision costs declined due to an increase in the long-term discount rate to 4.82% at 31 March 2020 (2019: 3.36%), with the rate change linked to the significant weakening of the Rand in March 2020. Additionally, our cost curtailment efforts have borne some results, primarily through reductions in sundry expenses.

Refer to "Our finances – Controlling expenditure to improve liquidity" on page 80 for further detail

In collaboration with the SIU, we have been investigating potential overpayments to a number of contractors involved in the construction of Kusile Power Station. As a result of our investigations, property, plant and equipment was written off by a net amount of R4 billion.

Maintenance expenditure remains a significant contributor to operating expenditure. However, the group's net repairs and maintenance for the year – including overhead costs, after capitalisation to qualifying assets but before eliminating intergroup transactions for work performed by ERI – remained relatively stable at R14 billion (2019: R14.1 billion). There was a slight reduction in planned and unplanned maintenance across Generation and Transmission due to the deferral of activities and outage constraints, which was offset by a slight increase in reliability maintenance and repairs performed in Distribution.

Depreciation and amortisation declined by 6.59% to R27.8 billion (2019: R29.7 billion, restated) due to units at Hendrina and Komati placed in cold reserve in the previous year.

Net fair value loss on financial instruments and embedded derivatives

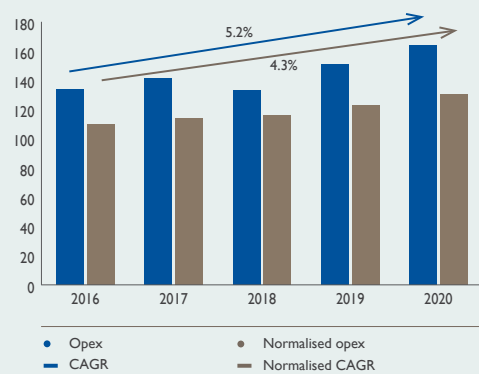
The net fair value loss for the group on financial instruments, excluding embedded derivatives, amounted to R6.9 billion (2019: R5.3 billion), and arose mainly due to credit risk adjustments on Treasury instruments and the significant weakening of the Rand in March 2020. A net fair value gain on embedded derivatives of R2.3 billion was recorded (2019: R1.9 billion), with the increase primarily influenced by time and volume movements as well as the strengthening of the US Dollar on a USD-denominated contract.



The results of Eskom's cost curtailment efforts
Eskom's financial health has deteriorated over recent years because of declining sales volumes and an electricity price that is not cost-reflective, threatening our long-term financial sustainability. To sustain our operations, it has been imperative that we operate in a prudent and efficient manner while ensuring security of supply.

Since 2014, we have implemented various cost curtailment programmes to reduce Eskom's cost base and improve productivity to close the revenue shortfall. The result of these stringent programmes is a sub-inflationary compound annual growth in operating costs of approximately 5.2%, or an overall increase of 23% over the last five years. This is comparable to the average annual consumer price index over the same period of close to 5%.

Operating expenditure, R billion



Operating costs include primary energy costs, employee benefit costs, net impairment charges and other operating expenditure. Normalised operating costs are adjusted for once-off events and those cost elements considered outside of management control. These include costs associated with performance bonus provisions (which have not been raised since 2018 due to Eskom's weakening financial position), the use of OCGTs to minimise loadshedding, movements in decommissioning, mine closure and rehabilitation provisions, as well as adjustments in respect of the Duvha Unit 3 insurance incident and the write-off of a portion of Kusile work under construction. Also excluded is IPP expenditure for contracts concluded under DMRE's RE-IPP Programme – a policy requirement where Eskom had no control over the awarding or pricing of contracts.

Normalised operating costs have recorded compound annual growth of approximately 4.3% over the last five years, emphasising the success of our cost curtailment efforts.

The higher than average growth in costs in the last two years was predominately due to more expensive coal being procured from short- and medium-term suppliers to build coal stockpiles, as well as the above-inflation wage settlement for bargaining unit employees concluded in the 2019 financial year.

While we acknowledge the importance of driving cost curtailment efforts to reduce Eskom's cost base, these initiatives alone will not ensure Eskom's financial sustainability. The price of electricity has to migrate to cost-reflectivity over time to guarantee long-term financial sustainability. Nevertheless, we take accountability for all matters under our control.

Net finance cost

The group earned gross finance income of R2.6 billion (2019: R2.7 billion), with the slight reduction resulting from high organisational cash requirements limiting cash available for investment, coupled with a decline in the average rate of investment to 6.81% (2019: 7.25%).

Gross finance cost for the group amounted to R48.4 billion (2019: R45.8 billion, restated), due to higher levels of borrowings at the commencement of 2020 at a higher weighted average cost. Borrowing costs capitalised to property, plant and equipment declined to R14.6 billion (2019: R15.4 billion) because borrowing costs are no longer capitalised as new build units enter into commercial operation. Net finance cost for the group amounted to R31.3 billion (2019: R27.7 billion, restated), an increase of 12.69%.

Taxation

The effective tax rate for the year was 22.81% (2019: 28.87%, restated), due to an increase in non-deductible expenditure.

Movement in assets and liabilities

The most significant balance sheet movements during the year were the growth in debt securities and borrowings, share capital, net derivatives held for risk management, inventories, trade receivables, and cash and cash equivalents.

While debt securities and borrowings has increased by R43.1 billion, we successfully limited growth in the nominal value of our debt, with debt raising activities mostly offset by repayments during the year. The increase in the balance is largely attributable to fair value movements, with foreign denominated borrowings most severely affected by the recent weakening of the Rand against major currencies. A similar overall movement is reflected in net derivatives held for risk management.

Share capital of R49 billion was issued in exchange for the Government support received, leading to a corresponding increase in equity.

Inventory balances increased by 26.78% year-on-year due to a substantial increase in coal stock levels together with the increase in the average coal purchase price per ton, leading to a higher weighted average cost of coal on hand. This was coupled with the acquisition of maintenance spares and consumables to address plant performance challenges.

Trade receivables (before collectability adjustments) increased by R8.9 billion year-on-year due to the substantial growth in municipal arrear debt. After accounting for impairments based on non-collectability criteria, the year-on-year increase was only R2 billion.

The growth in cash and cash equivalents will be discussed later under liquidity.



Refer to "Our interaction with the environment – Securing our coal requirements" from page 103 for more information on coal stock days

Credit ratings and funding

Solvency ratios

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Group							
FFO as % of gross debt, %	15.54	5.83	7.23	7.26	5.88	9.06	▲
FFO (after net interest) as % of gross debt, %	9.77	(1.31)	(0.29)	0.03	(1.20)	2.07	●
Cash interest cover, ratio ^{SC}	2.54	0.31	0.65	0.94	0.94	1.22	●
Debt service cover, ratio ^{SC}	1.11	0.11	0.29	0.52	0.47	0.87	●
Gross debt/EBITDA, ratio	7.16	21.65	14.61	14.39	15.73	9.74	●
Debt/equity (including long-term provisions), ratio	2.05	2.20	2.68	2.45	3.18	2.58	●
Gearing, %	67	69	73	71	76	72	●

The majority of our solvency ratios performed better than target during the year and improved when compared to the prior year due to our healthier liquidity position, although they remain well below acceptable investment-grade levels. Of concern is that our cash interest cover ratio remains below one, which means that operating cash flows are inadequate to fund even the interest component of our debt servicing requirements.

Restoring our profitability and solvency ratios to acceptable levels requires successful implementation of our turnaround plan, by improving our liquidity through cost-reflective tariffs, achieving cost curtailment measures and optimising our balance sheet.

Credit ratings

Eskom remains at sub-investment grade level, affecting our ability to access unguaranteed funding and increasing our cost of borrowing. While credit rating agencies have recognised Government's commitment to provide financial support to Eskom, they remain concerned about our very high levels of indebtedness, limited revenue growth, poor plant performance, escalating municipal arrear debt, as well as the capital investments required to address new build defects and our ageing fleet.

Recent rating actions have reinforced the intrinsic relationship between Eskom and the South African economy, with the quality of our credit affected by changes in the credit ratings and outlook of the Sovereign. This interdependence is going to be ever more apparent as we navigate the economic uncertainty of COVID-19, and may lead to an increase in our marginal rate of borrowing. Nevertheless, the impact on our current debt portfolio is expected to be minimal due to hedging of liabilities.

Summary of Eskom's credit ratings at 31 March 2020

Rating	Standard & Poor's	Moody's	Fitch: local currency
Foreign currency	CCC+	B3	n/a
Local currency	CCC+	B3	BB-
Standalone	ccc-	caa3	ccc-
Outlook	Stable	Negative	Negative
Last rating action	Affirmed	Downgrade	Downgrade
Last action date	26 Nov 2019	31 Mar 2020	30 Sep 2019

On 30 September 2019, Fitch affirmed our local currency credit rating with a negative outlook. The affirmation reflected the view that the commitment of Government support will assist in mitigating Eskom's weak liquidity position. However, Fitch downgraded our standalone credit rating due to an anticipated weakening in revenue and margin pressure resulting from the lower MYPD 4 tariff determination and higher primary energy costs than previously expected.

On 26 November 2019, Standard & Poor's affirmed our local and foreign currency credit ratings with a stable outlook. The stable outlook reflected the view that Government's commitment to provide direct financial support has reduced both the potential for funding shortfalls in the short term, as well as the uncertainty regarding Government's commitment and ability to provide timely support to Eskom.

On 5 November 2019, Moody's downgraded our unguaranteed credit rating with a negative outlook; this rating action followed Moody's change in outlook on the Sovereign from stable to negative. On 31 March 2020, Moody's affirmed the unguaranteed credit rating, indicating that despite a weakening in the Sovereign credit quality, Government's committed equity injections

continue to provide support to Eskom's credit quality. However, Moody's downgraded our guaranteed credit rating on notes which rely on the Government's Guarantee Framework Agreement (GFA). This was aligned to the downgrade of the Sovereign rating to sub-investment grade on 27 March 2020 as a result of COVID-19 and South Africa's negative economic outlook.

Regrettably, the Sovereign credit rating downgrade by Moody's has placed the country at sub-investment grade level by all three internationally recognised credit rating agencies. Subsequent to year end, Fitch downgraded our local currency credit rating from BB- to B+ with a negative outlook; Standard & Poor's affirmed their previous rating action but revised our outlook to negative.

In prevailing market conditions, Eskom's average cost of unguaranteed debt is approximately 200 to 450 basis points more than Government's cost of borrowing, while listed guaranteed debt is about 120 basis points more. Options are being considered to leverage Government's contingent liability, in the form of guarantees for Eskom's debt, to reduce the overall cost of borrowing to Eskom.

Funding activities for the year

The composition of our borrowing programme for 2020 was adjusted to accommodate alternate funding sources based on market appetite, although the total borrowing target of R46.2 billion for the year remained unchanged. We increased our funding requirements from structured products and domestic notes and reduced those from international bonds, development finance institutions and export credit agencies. By remaining flexible in our approach to funding we were able to adapt to the changing market appetite and pursue new funding opportunities as they arose, thereby ensuring the success of the borrowing programme.

Progress at 30 September 2020 on the execution of the 2020 and 2021 borrowing programme

Potential sources, R billion	2020		2021	
	Target	Committed to date	Target	Committed to date
Development finance institutions (DFIs)	22.2	15.5	12.5	11.7
Export credit agencies (ECAs)	1.4	0.3	0.6	0.6
International bonds	7.4	-	-	-
Domestic bonds and notes > one year	7.9	11.0	5.1	5.1
Domestic bonds and notes ≤ one year	4.4	7.9	2.9	1.2
Structured products	3.0	15.0	8.2	-
Bank funding	-	1.2	1.5	1.0
Total	46.2	50.9	30.8	19.6

1. Committed sources include funding raised or signed facilities with milestone drawdowns.
 2. Funding sources targeted for 2021 are subject to change.

We secured debt funding of R50.9 billion during 2020 (2019: R63.3 billion), exceeding our target for the year. A R15 billion structured consortium loan facility entered into in January 2019 was due to mature in January 2020; we were able to negotiate an extended maturity to accommodate liquidity requirements, with R7.5 billion settled in August 2020 and the remainder maturing in February 2021.

No international bonds were issued during the year. Although no international issuances are planned for the coming year, we have established the groundwork should the need arise to access the international bond market.

The international bond market remains a significant pool of liquidity based on access, potential size and diversity of funding sources. However, due to the higher cost of borrowing, we plan to access this market only when a suitable opportunity arises and the cost is justified.

During the year, we experienced an increase in demand for bonds in the local market, primarily as a result of Government's commitment to provide financial support to Eskom. Various investors purchased bonds across multiple maturities, with interest from both the offshore and local market. Unfortunately, demand for unguaranteed commercial paper remains limited.

At 31 March 2020, we have utilised R324 billion, or 93%, of the Government guarantees available under the R350 billion GFA (2019: R336 billion). Therefore, we are nearing the end of our capacity to raise guaranteed debt, until previously guaranteed debt is repaid and the guarantees become available once again. The availability period of the GFA expires on 31 March 2023, after which we will not be able to apply for new guarantees under the GFA.

Recent credit rating downgrades have increased investors' requirements for Government guarantees, as investor mandates typically restrict access to sub-investment grade arrangements unless they are guaranteed. With only 7% of the GFA available, there is a risk that the remaining allocation may not be sufficient to fully execute our funding plan for 2021. We are in discussion with Government to address this risk based on targeted guaranteed funding.

The average cost of debt increased to 9.58% (2019: 9.33%), based on a blend of fixed and floating rates. Given that fixed finance costs provide better hedging of interest rate exposures, 72% of our borrowings are based on fixed rates. The remainder is subject to floating rates linked to movements in short-term rates, such as JIBAR and LIBOR.

Due to our financial and operational challenges, the perceived risk of credit default has increased. Eskom automatically makes certain representations and warranties to lenders with each request to draw down from existing loan facilities and at each interest payment date. Any misrepresentation in this regard would constitute an event of default. An event of default could trigger a breach of loan covenants, cross-defaults and may result in Government guarantees being called up.

To mitigate this risk, we continually assess the potential for a breach of loan covenants and events of default and take appropriate, proactive action to prevent their occurrence. Despite our financial challenges, no events of default have occurred to date.

Future funding

The primary focus of our borrowing programme over the next five years is to secure cost-effective funding to ensure adequate liquidity reserves to meet cash flow requirements, while reducing Eskom's crippling debt burden. Our operational, capital and debt service requirements will be funded through a combination of debt, earnings from operations and Government equity support.

The Board has approved the following borrowing programme for the next five years.

Annual borrowing programme	R billion
2021	30.8
2022	25.6
2023	22.6
2024	22.9
2025	20.0
Total	121.9

When compared to the plan for the five-year period from 2020 to 2024, the borrowing programme has decreased by R85.5 billion, reflecting our intention to limit growth in debt securities and borrowings through Government support.

Investors are mainly concerned about our poor cash flows, which affects our ability to service debt obligations given high levels of debt and weak financial ratios; NERSA's inconsistent application of the regulatory methodology; perceived slow action on past corporate governance failures; and previous audit modifications. Most recently, the impact of COVID-19 and credit rating downgrades on Eskom and the South African economy have exacerbated concerns.

Action taken to address governance concerns, strengthen leadership and improve transparency, combined with Government's commitment to provide direct financial support, have contributed to alleviating investor concerns to some extent. However, the socio-economic uncertainty emanating from the COVID-19 pandemic, including the most recent Sovereign credit rating downgrade and the significant depreciation of the Rand against major currencies, is likely to have a negative effect on our financial and operational sustainability and our ability to raise cost-effective funding.

We plan to secure borrowings of R30.8 billion during 2021, of which R19.6 billion, or 64%, was already committed at 30 September 2020. The majority comes from DFI funding, which will be drawn down subject to requirements. We are targeting additional funding from DFIs and ECAs, and domestic bond and note issuances. The issuance of a Government-guaranteed Rand-denominated Sukuk bond is being considered to diversify funding sources. Suitable assets to match the planned issuance amount of R1 billion have been identified; the timing of the potential issuance has not been determined.

In order to borrow in international markets, we are required to maintain a prescribed foreign borrowing limit set by National Treasury. We had applied for an increase to the R308 billion limit for 2019, however, the request was denied and the limit for 2020 was reduced to R266 billion to contain foreign debt exposure.

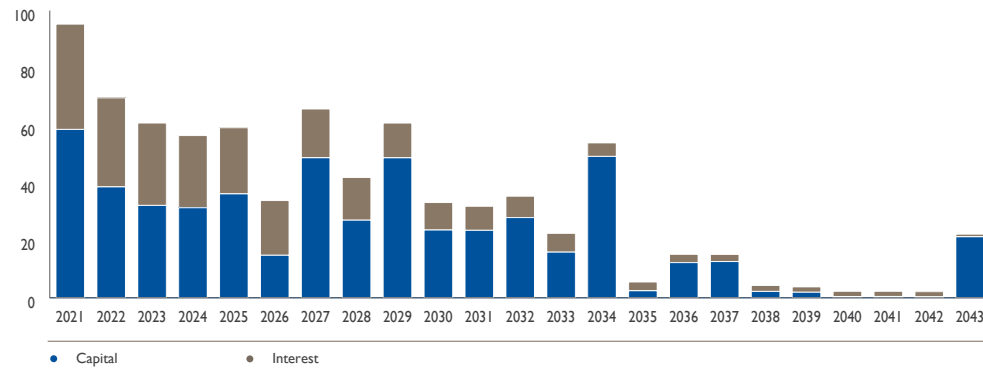
This limit was valid until the end of the year and, due to the reduction, posed a risk to our ability to draw down on foreign facilities. Anticipating this risk, in November 2019, we submitted an application for an increase in the limit and a period extension. By year end, the nominal value of our foreign currency debt amounted to R265 billion (2019: R207 billion against a R308 billion limit), close to exceeding the prescribed limit as a result of the weakening of the Rand against major currencies amidst the Sovereign credit rating downgrade. In April 2020, National Treasury approval was obtained to increase the limit to R310 billion and extend the period to 31 March 2021, thereby reducing the risk of exceeding the limit through foreign borrowings to be raised in 2021.

While DFI funding has historically been the preferred source of borrowing due to the developmental nature of their investment mandates and the low cost of borrowing, the requirement for Government guarantees is limiting our ability to secure funding from these sources. Additionally, DFIs and ECAs have adopted strict lending rules, typically requiring project-specific agreements and limiting the financing of non-renewable technologies.

To address this risk, we are diversifying funding sources to include alternate sources and new markets, such as the Middle East and Asia. We are in the process of establishing an ECA framework for maintenance and refurbishment programmes. Furthermore, we are identifying potential structured products to diversify our funding sources. Based on current market indications, there is a strong appetite for structured products and innovative financing solutions.

i

Anticipated capital and interest cash flows (including swaps) of the existing debt portfolio at 31 March 2020, R billion



Our debt repayment profile remains pressured over both the short and long term, with debt repayments of R197 billion and interest payments of approximately R145 billion over the next five years to 31 March 2025. Total anticipated debt service costs for 2021 amount to R95.3 billion, significantly higher than repayments of R70.6 billion during the current year.

Managing liquidity

Liquidity remains one of our biggest challenges, hampering our ability to achieve financial and operational sustainability. Access to cost-effective funding remains restricted due to decreased investor confidence because of continued poor financial performance, saturated borrowing capacity and recent credit rating downgrades. Inadequate price increases granted by NERSA as well as escalating municipal arrear debt further contribute to our liquidity constraints.

These liquidity and solvency risks pose an inordinate threat to Eskom’s ability to continue as a going concern. To improve liquidity, we have restricted organisational cash requirements through targeted savings on operating and capital expenditure. We had to rely on Government support to maintain a positive cash balance at year end, with equity of R49 billion received during the year.

We have always deemed it prudent to maintain a liquidity buffer that covers an average of three months of organisational cash flow requirements. Due to high debt servicing obligations, maintaining the liquidity buffer at acceptable levels continues to be a challenge. Our monthly cash flow needs are approximately R8 billion, requiring a buffer of between R20 billion to R25 billion.

By year end, cash and cash equivalents had improved markedly, with an available balance of R23 billion (2019: R2 billion), largely due to the Government support received during the year. However, the balance was bolstered by payments of R5.3 billion, scheduled for 31 March 2020, having been delayed to 1 April 2020 due to technical issues. Nevertheless, cash flows continue to be severely constrained.

Net cash flows from operating activities for the year amounted to R36.2 billion (2019: R32.7 billion). Solvency ratios have improved slightly compared to the prior year; however, these ratios remain well below the investment-grade levels required by credit rating agencies. The current ratio and debt service cover ratio improved slightly to 1.09 (2019: 1.00, restated) and 0.52 (2019: 0.47) respectively, although the cash interest cover ratio remained stable at 0.94 (2019: 0.94). These ratios indicate that operating cash flows remain inadequate to fund debt servicing requirements, highlighting the need for Government support.

Net cash flows used in investing activities amounted to R27 billion for the year (2019: R36.2 billion). A total of R25.5 billion was used for the acquisition of property, plant and equipment, intangible assets and future fuel, excluding capitalised borrowing costs (2019: R35.1 billion), mainly through capital expenditure on the new build programme, Generation outage and technical plan requirements as well as our network infrastructure. Capital expenditure for the year was stringently contained because of our ongoing liquidity challenges; however, there is a risk that continued deferral of capital maintenance, refurbishment and replacement of infrastructure may lead to future operational challenges.

For detail of capital expenditure incurred, refer to the table on page 98

Net cash flows generated from financing activities for the year were R11.7 billion, including Government support (2019: R10.9 billion outflow). Cash flows raised through debt securities and borrowings amounted to R32 billion, net of commercial paper (2019: R58.9 billion), while we repaid debt of R31.5 billion, net of commercial paper (2019: R34.5 billion). Funding raised through the borrowing programme was curtailed compared to the prior year, to reduce our reliance on debt as a source of liquidity and limit future debt servicing requirements. This was only possible through the Government support of R49 billion. Interest paid totalled R39.1 billion (2019: R35.8 billion), exceeding our capital repayments for the year.

Government support

The viability of our 2019 turnaround plan was based on four focus areas, one of which was Government support to enable us to reduce debt. The 2019 National Budget catered for Government support to Eskom of R230 billion over 10 years, or R23 billion per year, to support our balance sheet and restructuring. However, to address immediate liquidity and going concern challenges resulting from the shortfall in NERSA’s MYPD 4 revenue determination, the Special Appropriation Act, 2019 was promulgated in November 2019 to allocate a greater portion of the R230 billion Government support to earlier years. The Act appropriated an additional R26 billion for 2020 and R33 billion for 2021, thereby bringing the Government support to R49 billion for 2020 and R56 billion for 2021.

A total of 49 billion ordinary shares with a par value of R1 were issued in return for the equity received during the year.

i Section 1(2)(b) of the Special Appropriation Act, 2019 imposes certain conditions on the Government support package. In November 2019, the Minister of Finance approved the conditions applicable to the 2020 financial year. Eskom and the shareholder are obliged to comply with these conditions in order to authorise the transfer of funds. Non-compliance could lead to funds not being made available on time, or at all. Our Treasury Department has weekly meetings with National Treasury and DPE officials to discuss progress towards achieving the various conditions.

One condition is that the support may only be used to settle debt and interest payments; this is in an effort to strengthen Eskom’s balance sheet on the path to financial sustainability. In terms of the conditions, we are also required to submit financial, operational, governance and restructuring information that address certain matters on a once-off, monthly or quarterly basis. Additionally, no variable incentive remuneration may be awarded to executives in years where equity support is provided.

We have complied with all stipulated conditions for the 2020 financial year and received the full R49 billion appropriated for the year.

The added strain on the national fiscus, in the form of relief funds and the economic stimulus packages in response to the COVID-19 pandemic, may threaten the appropriation of future financial support.

Nevertheless, we are monitoring cash flows on a continuous basis to provide regular feedback on our liquidity position and current and forecast cash flows to National Treasury and DPE. We work closely with these departments to determine the timing of the support required.

Although the Government support addresses short-term liquidity requirements, it is clear that on its own, it does not adequately support long-term financial sustainability. The only way to achieve that remains through cost-reflective tariffs.

Unless the tariff challenges are resolved, further Government support will be required to alleviate our debt burden.

Price applications to support revenue requirements

Another of the focus areas of our 2019 turnaround plan centred on improving our revenue outlook through migrating to cost-reflective tariffs and growing sales. Despite applying for revenue based on prudent and efficient costs in accordance with the MYPD methodology, the average standard tariff price increases and RCA determinations made by NERSA over recent years have not enabled the migration towards cost-reflectivity as envisaged in the Electricity Pricing Policy.

In terms of the National Energy Regulator Act, 2004, any decision by NERSA to approve a tariff increase is an administrative action and therefore subject to judicial review in the High Court under the Promotion of Administrative Justice Act, 2000. This is the only avenue available to affected stakeholders who believe that due process was not followed or that NERSA made an irrational or unlawful decision.

We have submitted a review application for every revenue and RCA determination made by NERSA from December 2017 to March 2019. The basis of each of our review applications is that NERSA’s MYPD methodology has not been implemented rationally in their recent decisions. The specific legislative requirement that has been violated is the requirement of the Electricity Regulation Act, 2006 that prices, charges, tariffs and revenues set by the regulator “must enable an efficient licensee to recover the full cost of its licensed activities, including a reasonable margin or return”.

Refer to the table on page 78 for a summary of the review applications under way

In August 2019, we submitted an RCA application of R27.3 billion for the 2019 financial year. On 14 May 2020, NERSA approved an RCA balance of R13.3 billion, resulting in a shortfall of R14 billion. There is evidence of continued incorrect application of the MYPD methodology as well as further deviations. It is clear that the key guiding principles of the court judgment on the 2019 revenue decision have not been complied with, despite being available when NERSA made this RCA decision. The reasons for decision for the RCA determination have recently been published.

In accordance with the court judgment on the 2019 revenue decision, we submitted the supplementary tariff application to NERSA within the allotted 60 days from the RCA decision. The application amounts to approximately R5 billion to recover expended costs that would be due to Eskom had NERSA made the original revenue decision lawfully, and not covered in the RCA application. The recovery of the RCA balance and supplementary tariff adjustment will be through the annual tariff adjustment and will require a separate NERSA decision; however, the recovery can only be initiated from the 2022 financial year at the earliest. The Board will decide on the way forward once both the reasons for decision and the implementation plans for the recovery of the approved RCA balance and the supplementary tariff application are published by NERSA.

Background	Review application	Progress
RCA decisions for the 2015 to 2018 financial years (MYPD 3)		
In June 2018, NERSA approved an RCA balance of R32.7 billion against an application of R66.7 billion for years two to four of MYPD 3. In March 2019, NERSA approved an RCA balance of only R3.9 billion for 2018, the fifth and final year of MYPD 3, representing less than 20% of the R21.6 billion applied for.	In February 2019, we submitted a High Court application to review the decision for years two to four. After delaying for over a year, NERSA decided not to oppose the application. Due to practical constraints related to the COVID-19 pandemic, the parties agreed to forgo a hearing and the judge considered the case based on affidavits.	The judgment received in June 2020 sets aside the RCA decision for 2015 to 2017, finding that NERSA's failure to process the decisions within a reasonable time was inconsistent with the Constitution. In addition, it found fundamental factual errors and that NERSA's decisions were not rational. The judgment accepts that Eskom put forward a proper case for relief in those areas where NERSA did not implement its methodology and past precedent.
In each case, NERSA did not comply with the MYPD methodology, nor was it consistent with the precedent of the RCA decision made for the first year of MYPD 3. The RCA decision for 2018 contains even further deviations from the MYPD methodology than previous decisions.	In April 2020, we submitted the founding affidavit of our review for the 2018 RCA decision. NERSA served its notice to oppose, which is unexpected given that it withdrew its opposition to the review of the previous RCA decision.	Based on the judgment, NERSA is required to urgently reconsider its RCA balance decision for 2015 to 2017 and allow for adjustments in future tariffs to address prudent and efficient costs applied for. NERSA will undertake a public consultation process; a final determination is expected by 26 February 2021. It is anticipated that this judgment will further support Eskom's case regarding the 2018 RCA decision.
Revenue decision for the 2019 financial year		
In December 2017, NERSA announced its revenue decision for 2019, allowing revenue of R190.4 billion, or a standard tariff increase of 5.23%, against an application of R220 billion (an effective increase of 19.9%). This decision has had severe consequences on Eskom's financial sustainability, going concern status and ability to service debt commitments.	In June 2018, we lodged a review application to set aside this decision, on the basis that NERSA did not undertake its mandate of balancing the impact on Eskom's financial sustainability with the impact on consumers.	Judgment was delivered in March 2020, and determined that the revenue decision was procedurally unfair, irrational, unreasonable and unlawful. It allows Eskom to submit a supplementary tariff application to NERSA to recover costs had a lawful decision been made. The supplementary application is to include costs not already applied for through the 2019 RCA application, and is to be submitted within 60 days of the RCA decision. The judgment clarified a number of key guiding principles, which are to be applied by NERSA. NERSA will undertake a public consultation process; a final determination is expected by 26 February 2021.
Revenue decision for financial years 2020 to 2022 (MYPD 4)		
In March 2019, NERSA announced its MYPD 4 revenue decision, allowing revenue of R206 billion for 2020, R222 billion for 2021 and R233 billion for 2022, equating to standard tariff increases of 9.41%, 8.10% and 5.22%. Eskom had applied for a 15% average annual price increase. The decision resulted in a shortfall of R102 billion over MYPD 4. In determining the allowable revenue, NERSA deducted the annual R23 billion Government support from the return on assets, resulting in a negative return on assets. Prior to that, the allowed return was approximately 1.5%, far below our pre-tax real weighted average cost of capital of around 9.5%. This is also lower than the 4.7% and 4% return on assets determined by NERSA for the 2018 and 2019 financial years.	In October 2019, we submitted an urgent court application to reverse NERSA's decision related to the incorrect deduction of the R69 billion Government support over the MYPD 4 period, proposing recovery in a phased manner. The application was made on the basis that the MYPD methodology does not allow Government support to be considered in the revenue decision, nor is it consistent with the Government support received in 2014. The review application requested an urgent judgment for interim relief of the misappropriated equity. The second part of the application sought a review of the merits of deducting equity injections from allowable revenue, and requested the court to make a substitution decision for the recovery of the R69 billion over three years, from the 2022 financial year.	The judgment on the urgent application was issued in February 2020. Although not granted, the judge made it clear that the allocation of the equity support against revenue violated the basic principles of accounting and concluded that the decision by NERSA is open for review. After some delays, NERSA decided not to oppose the review of the merits of the second part of the case. The hearing only addressed the recovery of the misappropriated equity support. Judgment was delivered in July 2020, with the court ruling that the MYPD 4 determination made by NERSA is reviewed and set aside. It requires Eskom to recover the R69 billion in a phased manner over a three-year period, starting in the 2022 financial year. Therefore, recovery of the amounts will only commence two years after being incorrectly disallowed, with Eskom bearing the shortfall during this time.
		NERSA has been granted leave to appeal the judgment in the Supreme Court of Appeal. We have applied for execution of the order while awaiting the appeal process.

We welcome the various judgments of the High Court and await the implementation of our successful review outcomes, as well as the NERSA decision on the recovery of the 2019 RCA balance and the supplementary tariff adjustment.

Until that time, it is not possible to determine how the average tariff increases for 2022 and beyond will be affected until the judgments are fully implemented by NERSA.

Nevertheless, it is imperative that decisions around implementation are made timeously to allow Eskom to recover efficient and prudent costs on the path towards financial sustainability.

NERSA has initiated a public consultation process regarding the timing of the recovery of the 2019 RCA. A final decision is expected by 26 November 2020. It is envisaged that costs relating to 2019 will only be recovered from 1 April 2021 at the earliest.

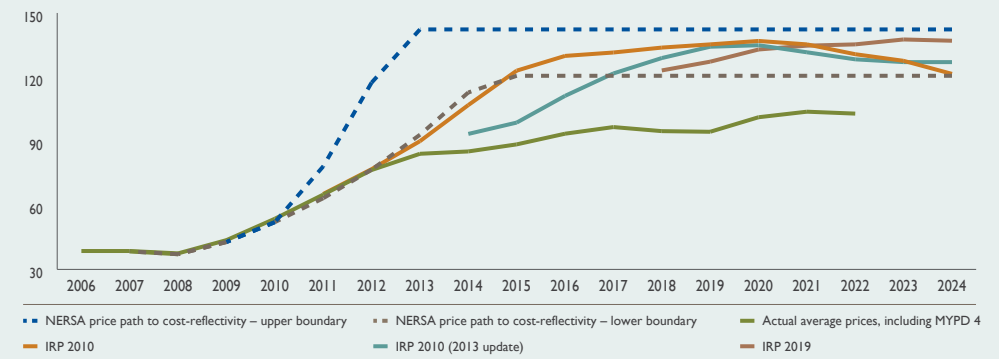
The RCA balance for 2020, calculated in accordance with the MYPD methodology and associated rules, is estimated at R10 billion. The RCA balance application will be submitted to NERSA after the publication of our 2020 consolidated annual financial statements.

Eskom's tariff path compared to the IRP price paths

The IRP is a development plan for electricity infrastructure, intended to balance least-cost electricity supply with future electricity demand by setting out decisions around future generation capacity and technology mix required for security of supply and to protect the environment.

Each IRP provides indicative price paths necessary to deliver on a range of possible scenarios. The graph below reflects the actual average Eskom tariff compared to the price paths outlined in the IRP 2010, the 2013 revision to the IRP 2010, and the recently gazetted IRP 2019. It is important to note that for the purposes of this analysis, the scenario selected for each IRP is that which is closest to what actually occurred. To enable comparison between the IRPs and other reference price paths, the analysis is converted to constant 2020 prices.

Price comparison, c/kWh (constant 2020 prices)



Relative to the original IRP 2010, the price path for the 2013 revision reflects an outwards shift of around 18 months. This is likely due to the 12 to 18 month delay in the construction of Kusile Power Station at the time. From 2018, the first year of IRP 2019, all three IRP price paths are within 8% of each other, with an average variance of around 5% up to 2023, indicating that the IRPs reflect very similar price paths within a very narrow band.

The National Development Plan 2030 (NDP) issued in August 2012 proposed that Eskom's average price should reach 120c/kWh by 2019, or around 127c/kWh in constant 2020 prices – this is within 4.7% of the IRP 2019 price. As indicated in the graph, all three IRP price paths, as well as the NDP's proposed price, fall within the upper and lower boundaries of NERSA's future price path from 2017 to 2024 (published in its reasons for decision in June 2009).

In a global context, the lowest IRP price for 2020 translates to less than USD 9c/kWh – one of the lowest electricity tariffs in the world, and below the USD 10c/kWh price for Eskom published in the 2016 World Bank report, at benchmark cost and technical performance.

The lowest IRP price for 2020 is around 30% higher than Eskom's actual average price, resulting in after-tax revenue loss of around R40 billion for the year. This trend continues every year. The difference between what tariffs should have been and what they were, has resulted in a cumulative after-tax revenue shortfall of over R300 billion since 2010.

Eskom has had to raise debt to cover this shortfall, leading to a significant growth in debt, to more than R480 billion at 31 March 2020. The revised IRP 2010 acknowledged that, due to the low tariff path awarded for MYPD 3, Eskom will exceed a debt:equity ratio of 80:20 by the end of MYPD 3. In reality, the modelling was not far off, with Eskom's financial gearing at 72% at that point.

For Eskom and the electricity supply industry to continue to operate and maintain its assets in a reliable state, and to be financially sustainable and meet its financial obligations related to existing and new capacity outlined in the IRP 2019, the average tariff has to migrate to cost-reflective levels indicated by the reference price paths discussed above.

Without a cost-reflective tariff path, Eskom will remain reliant on Government support, which implies that the taxpayer will continue to foot the bill for the revenue shortfall, which is contrary to the "user pays" principle.

Controlling expenditure to improve liquidity

Driving sustainable cost curtailment and efficiencies to improve liquidity and ultimately financial sustainability formed another focus area of our 2019 turnaround plan. Given prevailing socio-economic conditions, the shareholder has indicated a lack of support for aggressive headcount reduction. Therefore, cost savings associated with this initiative will no longer be pursued.

As a result, the savings target for 2023 has been reduced to approximately R21 billion, or a cumulative R62 billion to 2023. We had originally targeted to reduce Eskom's cost base by approximately R33 billion in 2023, or a cumulative R77 billion to 2023. Nevertheless, we will continue to drive alternative workforce optimisation levers, including limiting external recruitment and introducing voluntary separation packages, among others.

Cost savings over the past year

For the 2020 financial year, we did well to achieve savings of R16.3 billion against a target of R6.2 billion. Savings were achieved through initiatives across various areas of the organisation, with savings measured against an agreed baseline based on approved financial rules. The Turnaround Management Office, supported by the Results Management Office, is responsible for actively tracking and monitoring the implementation of initiatives to ensure that they yield the required value.

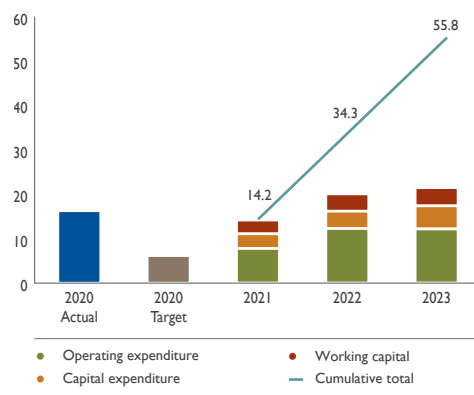
A significant portion of savings is attributable to coal inventory optimisation, complemented by savings in sundry expenses, as well as efficiencies achieved through revenue recovery initiatives and increased revenue from international customers. Coal-related savings are primarily working capital savings (not necessarily affecting the income statement) achieved by reducing coal deliveries to minimum contract levels – the associated benefit may not be permanent due to escalating coal prices.

Future cost savings

Cumulative cash savings targeted over the next three years amount to R55.8 billion, comprising operating expenditure of R32.3 billion, capital expenditure of R12.4 billion and working capital of R11.1 billion, as depicted in the following graph. Including the 2020 target of R6.2 billion, our overall savings target is R62 billion.

We have identified a number of initiatives to achieve our ambitious savings target by 2023. Some initiatives were already formulated and implemented in 2020 and will continue to deliver value going forward; work is under way to identify further initiatives, with increased focus on driving savings in procurement, working capital and capital expenditure efficiency. Procurement tools such as a price check tool and e-auction capabilities are being rolled out to ensure that Eskom derives optimum value from procurement activities. We have called on all of our employees to engage and share ideas that can lead to sustainable cost savings.

Planned and achieved cost savings, R billion



Managing arrear debt

Our customers' ability to settle their bills is influenced by local and global economic factors including commodity prices, exchange rates, business sentiment, unemployment rates, regulation and policy.

The COVID-19 pandemic only started affecting South Africa during the last month of the financial year under review. Nevertheless, the resulting national lockdowns in South Africa and many of our trading partners are expected to have a widespread and lasting negative impact on the economic climate. South Africa has entered into an economic recession, which is expected to lead to a significant reduction in demand for electricity over the next three to five years. Households and every sector of the economy have been affected by the slowdown in economic activity, job losses and businesses closing down or entering into business rescue. Therefore, the ability of customers to pay is expected to be fundamentally threatened.

Before COVID-19 became our new reality, systemic challenges in South Africa such as crime and social inequality, economic pressures on businesses as well as shifts to self-generation technology have led to declining electricity sales volumes over many years, coupled with persistent revenue recovery challenges. Despite our customer base growing over the past year, these challenges are likely to be exacerbated by the economic climate surrounding COVID-19, especially given the continued culture of non-payment in some sectors.

Average debtors days have deteriorated during the year and, with the exception of large power users consuming less than 100GWh per year, have deteriorated year-on-year across all customer categories. This is largely due to a significant escalation in municipal arrear debt and continued low payment levels in Soweto. Invoiced municipal arrear debt has experienced exponential growth of close to 50% every year since 2016. As a result, average municipal debtors days are unacceptably high as the trend of non-payment continues to worsen.

Key debt management indicators at 31 March 2020

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Arrear debt as % of revenue, %	3.08	3.73	3.14	3.69	4.30	2.73	■
Average debtors days (including Soweto and international), days	88.10	97.82	85.00	90.01	82.50	71.11	■
Debtors days – municipalities, average debtors days	155.28	143.13	113.14	116.05	94.28	76.63	▲
Debtors days – large power top customers excluding disputes, average debtors days	16.29	16.17	14.88	14.60	13.46	13.89	●
Other large power user debtors days (<100GWh p.a.), average debtors days	18.52	18.28	16.90	16.98	17.19	16.64	▲
Debtors days – small power users excluding Soweto, average debtors days	47.08	48.40	44.69	44.09	42.61	43.36	●
Payment levels excluding Soweto interest, % ^c	95.70	95.70	96.70	96.24	95.79	97.38	▲

i. Debtors days are based on amounts processed on our billing system, and shown before accounting adjustments relating to non-collectability.

In accordance with IFRS 15: *Revenue from Contracts with Customers*, we do not recognise revenue if it is not considered collectable at the date of sale, although we continue to bill all customers based on consumption. Customers that fail the collectability criterion are accounted for on a cash basis, with revenue only being recognised once payment is received. As a result, external revenue of R6.1 billion was not recognised during the year (2019: R6.4 billion).

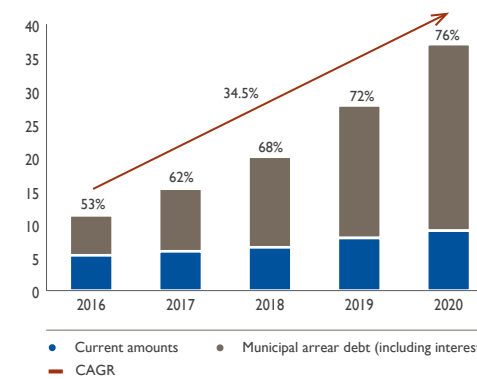


For details of debtors by category, including impairment and carrying values, refer to notes 6.1.1 and 20 in the consolidated annual financial statements

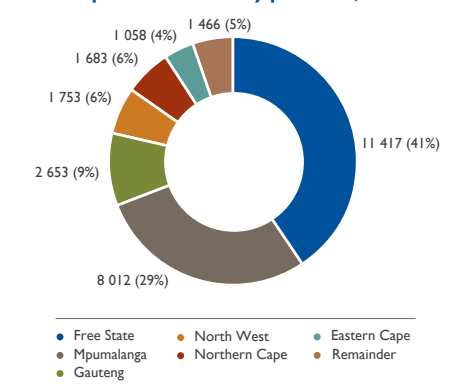
Municipal arrear debt

Total municipal arrear debt continued to escalate to unacceptably high levels, amounting to R28 billion (including interest) at year end (2019: R19.9 billion). The arrear portion represents 75.7% of total invoiced municipal debt (including interest). The top 20 defaulting municipalities constitute 81% of total invoiced municipal arrear debt (2019: 81%), with almost 41% of that owed by Free State municipalities. At year end, there were 45 municipalities with total arrear debt of more than R100 million each (2019: 34), a number which has grown considerably during recent years and demonstrates the pervasive nature of the problem.

Invoiced municipal arrear debt (including interest) and arrear debt percentage at 31 March 2020, R billion



Municipal arrear debt by province, R million



The top 10 defaulting municipalities owed a combined total of R19.6 billion in invoiced arrear debt (or 70% of total invoiced municipal arrear debt) at year end. The substantial growth over the year in arrear amounts owing is clear.

Municipality, R million	2020	2019
1. Maluti-a-Phofung Local Municipality, Free State	5 071	3 769
2. Emalahleni Local Municipality, Mpumalanga	3 587	2 487
3. Matjhabeng Local Municipality, Free State	3 025	2 199
4. Emfuleni Local Municipality, Gauteng	1 972	1 194
5. Govan Mbeki Local Municipality, Mpumalanga	1 768	1 082
6. Ngwatho Local Municipality, Free State	1 220	1 085
7. Lekwa Local Municipality, Mpumalanga	1 085	768
8. Thaba Chweu Local Municipality, Mpumalanga	708	546
9. Ditsobotla Local Municipality, North West	570	405
10. Modimolle-Mookgophong Local Municipality, Limpopo	549	370

Dealing with defaulting municipalities

In previous years, we implemented numerous measures to manage municipal arrear debt. Despite these efforts, limited success was achieved and arrear debt continues to grow to unsustainable levels. We have therefore reviewed our approach to dealing with this challenge and have developed a new municipal debt management strategy, approved by the Board in November 2019.

The strategy comprises three key objectives, namely to reduce and/or eliminate overdue debt; stop defaulting where it occurs; and prevent future defaulting by paying customers. To achieve this, we are enhancing and enforcing existing revenue and debt management processes, enforcing Eskom's rights through legal action and expediting Government interventions.

Interventions to enhance our revenue and debt management efforts include close monitoring of billing and payments for accuracy and timeliness, assisting municipalities in their revenue collection efforts through active partnering, as well as improved customer relationship management to proactively identify and mitigate the likelihood of defaulting. We are exploring the possibility of collecting municipal customer payments directly and arranging prepayment of accounts, as well as withholding services to defaulting customers.

We are investigating ways to better enforce payment agreements with municipalities. A total of 48 active payment agreements with defaulting municipalities were in place at year end, including 12 of the top 20 defaulters. However, of those, only 20 were being fully honoured, including only one of the top 20 defaulting municipalities. Furthermore, only two of the Free State municipalities were honouring their agreements. Non-adherence to payment agreements contributes significantly to the increase in municipal arrear debt.

Unfortunately, legal action is often necessary to enforce our rights to restrict, interrupt and terminate supply when services are not paid for. During the year, there were 29 legal cases under way in respect of amounts owed by defaulting municipalities. Regrettably, we were interdicted from interrupting supply to 16 of the top 20 defaulting municipalities, with applications by third parties – such as municipal customers and interest groups – or the municipalities themselves. During litigation, arrear debt continues to escalate as the municipalities take a payment holiday. We have issued summons for debt owed and are pursuing the attachment of moveable and immovable municipal assets, most recently in the case of Maluti-a-Phofung, Matjhabeng and Emfuleni, some of our largest defaulting municipalities.

As previously reported, an Inter-Ministerial Task Team (IMTT) was established to address the systematic and structural issues behind municipal debt as well as related operational challenges. Regrettably, there has been no significant progress on the IMTT recommendations

during the year. In December 2019, SCOPA was informed that the IMTT had been transferred to the Inter-Ministerial Committee on Service Delivery (IMCSD) led by the Deputy President and Leader of Government Business, but that the IMCSD had not been mandated to deal with Eskom's arrear debt challenges. SCOPA determined that it would devise a roadmap to resolve these intergovernmental challenges, to ensure that Eskom is enabled to turn around the situation.

Subsequently, a task team was commissioned by the Presidency to deal with matters pertaining to Eskom. The Eskom Political Task Team (PTT) is chaired by the Deputy President and held its inaugural meeting in February 2020. The PTT has established a Multidisciplinary Revenue Committee which will focus on the implementation of the recommendations of the former IMTT. Specifically, the committee is focusing on the rollout of the National Payment for Services Campaign, piloting the installation of prepaid smart meters in municipalities and, with support from National Treasury, will consider municipal budget compliance to ensure that current accounts are paid, including the restructuring of arrear debt owed by municipalities. We are fully participating in the work of the PTT, although improvements from these initiatives are yet to be seen.

Based on engagement with National Treasury, the allocation of a portion of municipalities' equitable share directly to Eskom is not permissible due to legislative restrictions. National Treasury may withhold the equitable share transfers to municipalities that do not practise good financial management but, by law, the share being withheld cannot be paid over to another party.

We continue to engage National Treasury on how to leverage their authority to ensure municipalities prioritise Eskom as a creditor.

In line with the recently approved municipal debt management strategy, we continue to pursue all available avenues to recover amounts due by defaulting municipalities. However, the situation cannot be solved by Eskom alone – continued support and cooperation from Government and other stakeholders are crucial to address the root causes of the problem and resolve these challenges.

Residential arrear debt

Compared to municipal arrear debt, which covers only a few hundred municipal customers, defaulting SPU customers, particularly in Soweto, comprise tens of thousands of residential customers, representing a much greater challenge in terms of managing and collecting individual outstanding debt. However, while municipal arrear debt has grown exponentially over the past few years, Soweto arrear debt has increased at a much slower rate. Nevertheless, Eskom is obligated to collect all amounts due, which requires a concerted effort to improve the low payment levels in Soweto.

Total invoiced Soweto SPU debt has decreased to R12.8 billion (including interest) at year end (2019: R13.6 billion), of which only R671 million is deemed collectable and reflected as trade receivables in the annual financial statements.

The Board approved the write-back of non-compliant "in duplum" interest and prescribed debt relating to Soweto accounts during the year. The total non-compliant debt component reversed amounted to R7.9 billion.

Payment levels on Soweto residential accounts have increased to approximately 20.7% (2019: 12.5%), but remain unacceptably low. Total Soweto SPU payments received during the year amounted to only R115 million, a shortfall of R442 million against amounts billed.

The improvement is largely attributed to the conversion of conventional meters in Soweto to prepaid meters, resulting in lower conventional (billed) sales, although the monthly average payments received from billed Soweto customers has increased only marginally. Community resistance, vandalism of equipment as well as financial constraints continue to hinder our progress in rolling out split meters and converting those to prepaid.

International arrear debt

As a result of our recovery efforts, the arrear debt of ZESCO of Zambia and ZETDC of Zimbabwe has been settled in full. Only EDM of Mozambique remains in arrears, with R550 million outstanding at year end, of which 91% is overdue. EDM is disputing R350 million of the balance. In April 2020, EDM concluded an acknowledgement of debt and repayment plan agreement. Regrettably, EDM is not complying with the terms of the agreement, which requires mediation to resolve the matter.

Future focus areas

- Strengthening the balance sheet through Government support, to reduce our reliance on debt and contain debt service costs
- Maintaining strong relationships with investors and credit rating agencies to secure funding under the borrowing programme
- Actively monitoring cash flows and partnering with National Treasury and DPE to ensure that the necessary financial support is received when needed, by meeting equity conditions
- Pursuing the recovery of prudent and efficient costs to ensure a cost-reflective tariff path and improve long-term financial sustainability
- Implementing targeted cost curtailment efforts, to reach the target of cumulative savings of R62 billion to 2023
- Executing the recently approved municipal debt management strategy, and working with the Eskom Political Task Team to improve collection of municipal accounts and slow the growth in arrear debt
- Exploring negotiated pricing agreements and other avenues to stimulate sales volumes
- Monitoring and assessing the impact of COVID-19 on the economy and our financial performance and liquidity, and responding appropriately to mitigate associated risks



OPERATING PERFORMANCE

The implementation of our future strategy requires a focus on strategic security of supply in the short, medium and longer term. Because of the constrained system, we have been deferring maintenance and mid-life refurbishments, contributing to loadshedding. Fleet performance will continue to deteriorate unless this is addressed. We have decided that prescribed maintenance can no longer be deferred to ensure that available capacity will adequately meet demand



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CHIEF OPERATING OFFICER'S COMMENTARY

JAN OBERHOLZER
Chief Operating Officer



We operate an ageing and hitherto poorly-maintained fleet of coal-fired stations; our two new coal-fired stations are not yet fully commissioned. Units at the new stations are in the "burn in" phase of plant life, where teething problems are to be expected, while the majority of units at the old stations are in the "wear out" phase. Very few units are in the phase where optimum performance is expected. Our transmission and distribution networks are also ageing, and starting to show the effects of underinvestment in refurbishment and strengthening over the years. The prevailing financial challenges, discussed in the CFO's report, have a knock-on effect on operational performance.

Performance review

Plant and network performance

Generation plant availability continued to deteriorate to 66.64% for the year (2019: 69.95%), well below our target of 71.50%. Planned maintenance of generation plant reduced slightly to 8.92% (2019: 10.18%), although slips against planned outages – where an outage is completed later than planned – remain a concern. Unplanned maintenance deteriorated further to 22.86% for the year (2019: 18.31%). To avoid or minimise loadshedding, we continue to operate our plant at load factors far outside acceptable norms, leading to high levels of unplanned breakdowns. Regardless, the peaking and nuclear generation plant continue to perform well.

Nevertheless, our Generation recovery plan implemented in November 2018 to improve plant availability has delivered noteworthy results. A number of key areas have been satisfactorily completed, with good progress being made in other areas. However, some areas have shown little improvement over the past year – incidents related to unit trips and full load losses, boiler tube leaks and partial load losses, as well as outage slips. These continue to receive attention.

All power station general manager and middle manager positions have been filled. The majority of 1 872 vacant Generation positions have been filled, mainly through internal appointments; 205 plant operators have also been appointed.

There has been a marked improvement in coal stock levels, with average coal stock (excluding Medupi and Kusile) at 50 days at year end (2019: 36 days), with no power stations below their minimum stock levels (2019: nine). Coal quality continues receiving attention. We have contracted adequate

coal supply to 2022 to meet coal burn estimates and maintain healthy coal stock levels at all stations.

Due to high levels of unplanned breakdowns, we had to implement loadshedding on 46 days during the year to maintain the stability of the power system (2019: 30 days). The implementation of stage 6 loadshedding on 9 December 2019 was undoubtedly the watershed point of the year.

Our own OCGTs were used extensively to supplement capacity during the year, to ensure grid stability and minimise or avoid loadshedding during periods of low generation plant availability. IPP OCGT peakers were also used to ensure system stability.

As we have reiterated on a number of occasions, it is likely that loadshedding will be required intermittently for a period of about 18 to 24 months, while we undertake much-needed planned long-term reliability maintenance as well as mid-life refurbishment to improve the reliability of our generation fleet. However, the success thereof is dependent on the availability of funds, especially for mid-life refurbishment.

Our transmission performance saw a marked decline over the year, with system minutes lost <1 of 4.36 minutes for the year, considerably worse than the target of 3.53 (2019: 3.16), with three major network incidents (2019: three). Line fault performance was relatively stable, although slightly worse than target. Vandalism of the transmission network affecting operations remains a challenge.

Both distribution network interruption duration (SAIDI) at 36.9 hours and network interruption frequency (SAIFI) at 14.4 events performed better than target and the prior year (2019: 38 hours and 14.9 events). Regrettably, distribution energy losses worsened to 8.79% (2019: 8.47%), largely due to declining sales and escalating electricity theft. In an effort to protect our infrastructure against damage due to overloading, mainly due to illegal connections, we have started implementing load reduction during peak times in areas with a high prevalence of illegal connections.

New build progress

Medupi Units 3 and 2 achieved commercial operation on 5 July and 26 November 2019 respectively, adding installed capacity of 1 588MW to the national grid. Likewise, Kusile Unit 3 and Medupi Unit 1 were

synchronised to the grid on 14 April and 27 August 2019 respectively, resulting in all Medupi units being connected to the grid. We expect a further two units to achieve commercial operation during the coming year.

The construction of high-voltage transmission lines did not achieve target due to various challenges, with 127.9km lines constructed against a target of 155km (2019: 378.7km). The target for installing new transformer capacity was met, with the commissioning of 250MVA (2019: 540MVA).

Environmental performance

Particulate emissions performance for the year was 0.47kg/MWhSO (2019: 0.47kg/MWhSO), significantly worse than the target of 0.33kg/MWhSO. The poor performance is mainly due to operating the significantly damaged and non-compliant Kendal units during times of generation capacity constraints. Kendal contributed 31% towards our annual particulate emissions. The stringent environmental requirements remains a risk to our ageing coal-fired fleet due to the significant capital investment required.

Power station water usage for the year was 1.42ℓ/kWhSO (2019: 1.41ℓ/kWhSO), also worse than the annual target of 1.35ℓ/kWhSO, largely due to the high number of unit trips as well as poor operational practices. Regrettably, environmental legal contravention incidents have increased significantly to 59 for the year (2019: 24, restated), with the majority being water-related incidents.

Societal impact

During the year, only procurement spend with black youth-owned suppliers achieved the target. Total preferential procurement spend, as well as spend with black-owned and black women-owned suppliers, qualifying small and exempted micro enterprises, and suppliers owned by black people living with disabilities, performed below target, mainly due to expired suppliers' B-BBEE certificates.

More positively, we completed 163 613 connections under DMRE's electrification programme (2019: 191 585), achieving the target set by DMRE. We also committed corporate social investment spend of R123.8 million to 208 projects during the year, assisting 1 479 395 beneficiaries (2019: R132.4 million to 933 139 beneficiaries).

Looking ahead

We will continue with the execution of the Generation recovery plan, paying particular attention to those areas that are yet to show improvement. We are implementing mid-life refurbishment scope and reliability maintenance to restore plant availability to acceptable levels. We have introduced a self-funded production bonus in the line divisions to incentivise employees to improve performance while ensuring more stringent cost control and efficiencies.

To manage the risk of our ageing networks, Board approved the Transmission sustainability improvement plan in April 2020 – it includes initiatives to replace assets in poor condition, expanding the network for growth and reliability, and actions to address leading risk indicators. Distribution's network development plan includes strengthening and refurbishment projects to support

future growth. However, implementation of both plans is affected by capital budget constraints due to inadequate tariff increases and limitations on borrowing.

The defect correction plan implemented to ensure that the new plant at Medupi, Kusile and Ingula achieve desired levels of performance and reliability is showing success. An integrated technical solution for the Medupi boiler, agreed with the contractor, was implemented on Medupi Unit 3. Once successfully tested, the solution will be rolled out to other units. The defect at Ingula has been resolved, enabling the station to operate at full capacity in dual-load mode. The programme to replace all the Koeberg steam generators and extend the nuclear licence is progressing well; this will extend the life of the station by 20 years.

Together with the SIU, we are investigating potential overpayments to a number of contractors involved in the construction of Kusile; the amount is being quantified. We will institute recovery processes where necessary once the investigation is completed.

The Kendal emissions recovery plan has been successful on units that have undergone repairs. Nevertheless, Kendal's environmental performance remains a significant concern, which receives continuous attention. We are working on a number of other emissions control projects to reduce particulate matter emissions, as well as sulphur and nitrogen oxides. Nevertheless, there are periods where power stations exceed emission limits in unplanned incidents, mainly during times of generation constraints.

The Generation Environmental Compliance Steering Committee was established in June 2020 to address continuous exceedances of atmospheric emissions and poor specific water usage in the coal-fired fleet.

Conclusion

Undeniably, our operating performance over the past year was largely disappointing. Nevertheless, we keep working on addressing the challenges identified. As discussed by the GCE, our immediate focus is on improving operational stability, and ensuring that we are in a position to improve the reliability and predictability of our system. Ultimately, our aim is to improve Eskom's long-term sustainability.

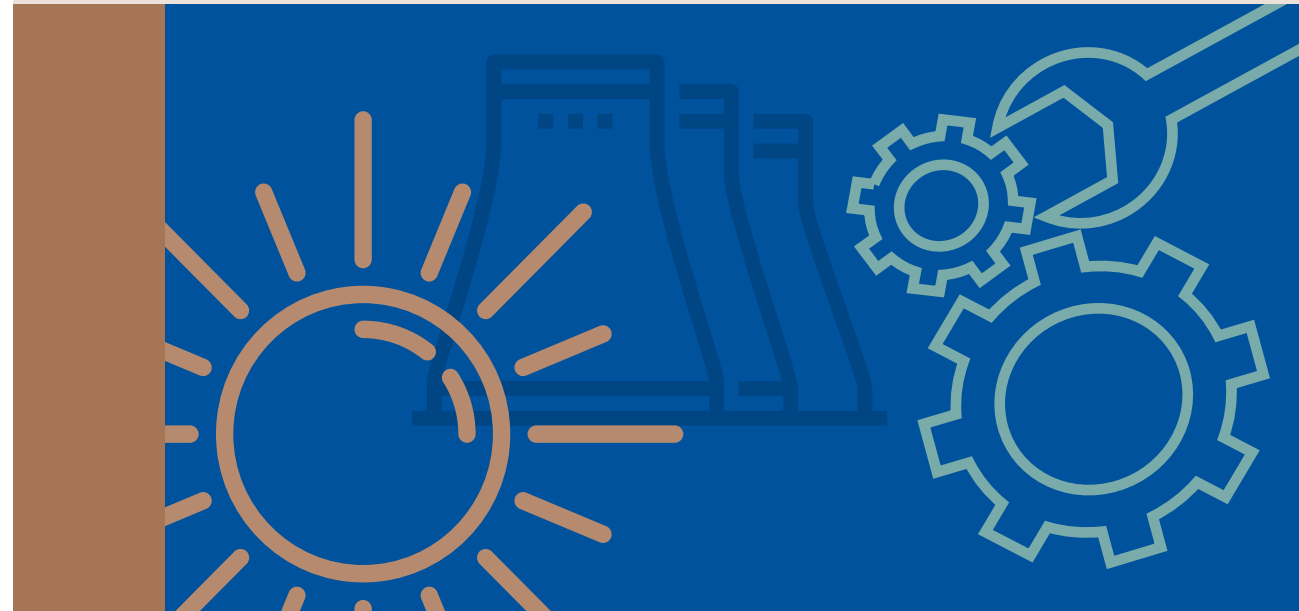
I would like to thank each member of our Operations team for significantly contributing to ensuring that we execute our mandate of providing a stable and sustainable electricity supply to South Africa. I appreciate your tireless contribution, courage, resilience and personal commitment to keeping the lights burning.

As Mahatma Gandhi said, "A small body of determined individuals fired by an unquenchable faith in their mission can alter the course of history". We need you now more than ever to be aligned and committed to support Eskom as we transition towards legal separation. It is up to us to turn Eskom around.



Jan Oberholzer
Chief Operating Officer

OUR INFRASTRUCTURE



Highlights

- Coal stock days have recovered to expected levels at all stations due to the Generation recovery plan
- Medupi Units 3 and 2 achieved commercial operation, adding installed capacity of 1 588MW to the national grid
- All six Medupi units were connected concurrently to the national grid for the first time on 3 September 2019
- The dual-load rejection defect at Ingula Pumped Storage Scheme was corrected successfully, with units now capable of 331MW sent-out capacity in dual-load operation



Improvements

- Implementation of the Generation recovery plan has led to several improvements, with some of the streams being completed
- Although UAGS trips were worse than target, Camden, Hendrina, Lethabo and Matimba Power Stations performed better than the target of no more than two trips per unit per year
- The regional drought affecting water levels in Lake Kariba represented an opportunity to increase international sales, although hampered by our supply constraints
- Customers have experienced shorter duration and lower frequency of network interruptions



Challenges

- Severe plant failures negatively affecting system reliability and system minutes <1 performance
- Ageing network assets remains a risk for future system performance
- Although improvements are being implemented, major design and construction defects at Medupi and Kusile Power Stations continue to affect plant performance, while the defects corrections are delaying the commercial operation of units
- Construction of new Transmission lines is behind schedule



Lowlights

- Further deterioration in plant availability due to unprecedented levels of unplanned losses
- Loadshedding required on 46 days during the year, with stage 6 loadshedding implemented for the first time ever
- Extensive use of both Eskom- and IPP-owned OCGTs during the year at a combined cost (excluding capacity charges) of R7.5 billion (2019: R6.2 billion)

Our manufactured capital consists of our infrastructure, comprising our generation fleet and transmission and distribution networks, and is supplemented by IPP capacity. It also includes new power stations and high-voltage transmission lines being constructed under our new build programme, as well as projects aimed at delivering customer and IPP connections, ensuring environmental compliance and refurbishing existing assets.

By effectively operating our infrastructure we ensure security of electricity supply to the country, while balancing the supply and demand of electricity to ensure the stability of the national grid.

Managing supply and demand

Role of the System Operator

The System Operator is responsible for balancing electricity supply from power stations and demand from customers within a range, as close as possible to 50Hz in real time, in order to protect the interconnected power system. We frequently test the various defence systems to maintain our capability to respond effectively to prevent a major system event, such as a regional or national blackout.


Two new generating units were commissioned this year, being Medupi Units 3 and 2, which added installed capacity of 1 588MW to the grid. Furthermore, Medupi Unit 1 as well as Kusile Units 2 and 3 are synchronised to the grid. These units contribute energy to the grid on an intermittent basis while they undergo testing in preparation for commissioning.

We expect a further two units to achieve commercial operation during the coming year.

Nominal capacity of 1 784MW relating to 14 units at Hendrina, Grootvlei and Komati Power Stations was in reserve storage at 31 March 2020, with another 760MW in extended inoperability, requiring major repairs.

We continued to make extensive use of peaking capacity, in the form of both Eskom- and IPP-owned OCGTs, as well as pumped storage stations and at times, hydro stations, to meet demand during periods of poor base-load generation availability, while high levels of planned and unplanned maintenance were being carried out. The high cost of diesel make OCGT stations expensive to run, but given the cost of loadshedding to the country, we make use of these stations where possible, within our financial constraints.

IPP renewable generation continues to support the power system, with wind generation of 335MWh in particular supporting the evening peak, with an average load factor close to 44% during evening peak. During the summer months, wind generation output aligns well with the country's demand profile, peaking in the evening and dropping to low levels overnight.



The implementation of a nationwide lockdown on 27 March 2020 to reduce the spread of COVID-19 resulted in a drastic reduction in demand. During the level 5 lockdown, the daily peak demand on the power system reduced by between 7 500MW and 11 000MW. The average demand reduction during level 5 was 5 680MW. During the level 4 lockdown period, the average demand reduction was 3 300MW. Since the beginning of the level 3 lockdown to the middle of July 2020, the average demand reduction has been 1 560MW.

Loadshedding implemented during the year

Loadshedding remains our last resort to maintain the supply/demand balance, or to ensure sufficient reserve capacity to respond to significant unplanned breakdowns or disruptions to supply, thereby protecting the power system. Loadshedding is required mostly when diesel fuel levels at OCGT stations or water levels at pumped storage stations are low, coupled with times of particularly high levels of unplanned breakdowns of our generating plant.

The Summer Plan, implemented in the second half of the financial year, was based on an assumption of unplanned maintenance (UCLF) – both partial and full load losses – at a maximum level of 9 500MW. Regrettably, UCLF often exceeded this level, requiring loadshedding and load curtailment to be implemented to stabilise the system. The 2020 Winter Plan assumes unplanned losses of 10 000MW.

Loadshedding was required on 46 days during the year (2019: 30 days) – four days during October 2019, two days during November, nine days during December, seven days during January 2020, 17 days during February and seven days during March. The majority of loadshedding was implemented in stages 1 and 2, with stages 3 and 4 being implemented about 20% of the time. On a number of occasions, particularly in February 2020, loadshedding was implemented around the clock.

We were forced to implement stage 6 loadshedding for the first time ever, on 9 December 2019.

We had hoped to limit loadshedding to two days during the past winter, but regrettably, we had to implement loadshedding in stages 1 and 2 on seven days during July 2020 and on five days in stage 2 during August 2020, due to high levels of unplanned breakdowns. Furthermore, we again had to implement loadshedding up to stage 4 on seven days in September, again due to high levels of unplanned breakdowns, combined with the need to conserve and replenish emergency reserves, while maintaining the stability of the power system.


As we have reiterated on a number of occasions, it is likely that loadshedding will be required intermittently for a period of about 18 to 24 months, while we undertake much-needed planned and reliability maintenance to improve the reliability of our generation fleet.

Stage 6 loadshedding – a perfect storm

On Monday, 9 December 2019, a severe supply constraint resulted from the loss of nine generating units, exacerbated by the risk of losing additional units at Medupi, Kriel and Kendal Power Stations due to low coal bunker levels because of persistent heavy rainfall (among other contributory causes). Furthermore, the actual national demand exceeded the forecast by approximately 1 000MW due to unpredictable load patterns (such as large industrial customers prioritising production before year end) and extreme weather conditions. This in turn led to higher usage of peaking generation resources.

Heavy rain had been prevalent across large portions of the country since 4 December, which contributed to an increase in national demand, which in turn led to additional use of peaking resources, both water and gas. The significant drop in temperature resulted in additional demand placed on the grid. In addition, the impact of the extended torrential rainfall had severely affected generation capacity and generation unavailability across the fleet. Wet coal, flooded power stations, flooded mines and compromised emissions performance (among other factors) all contributed to the largest UCLF figures ever observed on the Eskom network.

At 6:00 on that day, available generation capacity (including all peaking resources) was approximately 27 933MW. An average morning peak of 27 309MW was forecast for the day, and an average evening peak of 29 248MW. The evening instantaneous peak forecast was 30 753MW at 19:32. At 5:00, generation unavailability (PCLF + UCLF + OCLF) breached 17 000MW.



At 9:00 on that day, generation unavailability reached approximately 19 000MW after the loss of two large units. At 9:06, National Control implemented stage 4 loadshedding from 10:00 to 23:00. During the day, Kriel was forced to shut down two units (475MW each). Medupi Unit 5 (720MW) was taken off load due to low coal bunker levels; further units were deemed at risk due to low coal bunker levels. Kendal indicated that coal bunker levels were running low.

For the first time ever, generation unavailability breached 20 000MW between 15:00 and 16:00. At 16:48, National Control requested all key industrial customers to reduce to essential load with immediate effect. Six small gas turbines (totalling 342MW) at Acacia and Port Rex Power Stations were dispatched due to the shortage of generation. At 17:26, stage 4 loadshedding was escalated to stage 6 from 18:00 to 23:00 to maintain the stable operation of the network.

At approximately 18:10, a high-frequency incident (above 50.50Hz) was recorded and peaked at ±50.6Hz at 18:13. A number of Eskom generating units became unstable and disconnected from the grid. At 18:16, the 400kV Insukamini – Phokoje line between Eskom and Zimbabwe became increasingly unstable and tripped. At 18:28, Kendal Unit 2 (640MW) was taken off load due to low coal bunker levels; Medupi Unit 3 (720MW) tripped at 20:05. Matla Unit 4 (575MW) and Medupi Unit 2 (585MW at the time) also tripped at 20:25 and 20:52 respectively. At this stage, generation unavailability hit a record high of 21 407MW, reducing available capacity to approximately 26 000MW.

Access to System Operator data

We currently publish aggregated generation performance data on a weekly basis and air quality monthly reports on the Eskom website. This provides only basic performance indicators and system information at one-week resolution. In an effort to improve transparency and reporting of reliable data, as well as to bring the Eskom System Operator in line with international best practice, we will be making available data sets of operational, system performance and environmental data on our website.



The information can be accessed at www.eskom.co.za/sites/publicdata/Pages/default.aspx

Generation performance

Our aim is to meet the country's electricity demand by providing electricity at a reasonable price. To do this, Eskom operates 30 base-load, mid-merit, peaking and renewable power stations, with a total nominal capacity of 45 117MW. The four small hydroelectric stations are not considered for capacity management purposes. The median age of our coal-fired stations is approaching 40 years.



Detailed information on the installed and nominal capacity of each of our power stations, as well as IPP capacity, is set out in the fact sheet on pages 148 to 149

As older power stations such as Hendrina, Grootvlei and Komati approach their economic end of life, we are investigating the impact on surrounding communities when the time comes for retiring or repurposing existing coal-fired units and stations; this will inform further plans for shutting down these power stations. We are considering a "repurposing programme" to investigate projects that may provide alternative employment, and potentially create opportunities and jobs to support economic activity using the available power station land and infrastructure. Conceptual mitigation plans are being investigated, such as repowering with renewables or gas, repurposing or extension of existing services.

The repurposing of power stations is discussed in more detail in "Our interaction with the environment – Just Energy Transition Office" from page 113

Generation recovery plan

The Generation nine-point recovery programme was announced in November 2018 to allow for fast-tracked improvement in Generation performance and ultimately improved plant availability. The plan was revised and updated for changes and progress since then, and the updated Generation recovery plan was approved by Board in January 2020.

The extended operation beyond the previously approved shutdown dates of power stations at the end of their economic life was considered in the updated plan. The use of operational units at these stations is being reviewed for extended use beyond 2025 or until sufficient new capacity comes online.

Progress against the Generation recovery plan is discussed below. A number of areas have been satisfactorily addressed, and progress is being made in other areas. Nevertheless, three areas have shown little improvement over the past year.



✓ Item completed ↗ Progress made since 2019 ↔ Little progress during the year

1. Address major design and construction defects at new stations

As reported last year, the new plant at Medupi, Kusile and Ingula Power Stations have not achieved the desired levels of performance and reliability due to a combination of plant design deficiencies and operational and maintenance inefficiencies.

Medupi Unit 3, which achieved commercial operation on 5 July 2019, achieved commercial plant availability (EAF) of 54.51% to 31 March 2020; Medupi Unit 2, which achieved commercial operation on 26 November 2019, achieved commercial EAF of 81.92%.

An integrated technical solution for the Medupi boiler, agreed with the contractor, was implemented on Medupi Unit 3 during the general inspection outage which started in January 2020. The agreed solutions include modifications to the reheater spray flow, pulse jet fabric filter, gas air heater, milling plant, duct and reheater erosion protection, coupled with boiler optimisation and performance testing. The unit returned to service in April 2020. Evaluation of the modifications requires a minimum of three months of plant operation. Once successfully tested, the solution will be implemented on other units.

Regarding Kusile, modifications will be executed during the guarantee inspection on Unit 3, planned for January 2021.

Tests on Ingula dual-load rejection (when two turbines trip simultaneously) were completed, resulting in the maximum load per unit being increased to 300MW in dual-load operation.

A review was completed on the pressure design limits of the penstock (each feeding two water tunnels housing the turbines) to further increase capacity to 331MW per unit.

More detail of the design and construction defects, as well as the status of the plant defect correction plan for Medupi, Kusile and Ingula, are set out from page 99

2. Reduce the incidence of trips and full load losses to improve reliability of coal-fired power stations

Unit trips (UAGS) increased year-on-year. Due to their contribution to poor system performance and the associated cost of restarting the units in order to supply load to the grid, improving trips performance remains a key focus area.

Over the past year, trip reduction strategies focused primarily on Duvha, Kriel, Majuba and Tutuka. Medupi, Kusile, Arnot and Matla will receive attention in 2021. These stations have already shown an improvement in trip performance during the first quarter of the new financial year.

Full load losses increased mainly due to outage slips (refer to point 5) and significant incidents (refer to point 3).

3. Accelerate the return to service of units on long-term forced outages

The following units on long-term forced outages were successfully returned to service during the year:

- Duvha Unit 1 (575MW) returned to service on 28 February 2020, after tripping on generator protection on 17 July 2019

- Lethabo Unit 5 (593MW) returned on 16 February 2020, after a high-pressure steam pipe failure in October 2018
- Kendal Unit 5 (640MW) was taken out of service on 23 January 2020 due to its high emissions. The planned outage for repairs to the electrostatic precipitators to comply with emissions limits commenced on 20 July 2020. The unit is expected to return to service in April 2021
- Hendrina Unit 6 (190MW), which failed on 23 April 2019 due to high turbine vibrations, was returned to service on 18 May 2020

4. Decrease partial load losses and boiler tube leaks that prevent units from operating at full capacity

Performance on partial load losses has deteriorated further from the previous financial year. While identified partial losses have been reduced, some of these gains were not always sustainable. Steam and water chemistry control on stations remains a long-term sustainability issue, which impacts partial load losses. Plans have been put in place to address the most common contributors to partial load losses. Nevertheless, outage readiness remains a concern, and partial load loss gains from units post outage are being monitored. UCLF related to partial load losses for the first quarter of the new financial year has shown some improvement.

There were 170 boiler tube failures for the year under review, contributing 2.06% to UCLF (2019: 154 failures contributing 1.77%), indicating that performance on boiler tube failures has not improved. In managing boiler tube failures, there is a clear distinction between preventable failures and total failures. This differentiates between areas of failure which would have been prevented had the required outage intervention taken place, implying a persistent backlog in reliability maintenance. The maintenance backlog at 31 March 2020 resulted in 62 failures (or 36.47%). The increased interval between planned long-term reliability outages, which can exceed 24 months in certain instances, requires additional planning to perform a greater scope of work during the limited duration of planned maintenance. The results of the latest annual boiler tube failure compliance reviews indicate a high number of findings and areas of improvement to ensure compliance with the boiler tube failure reduction programme; non-compliance with the programme negatively affects boiler tube failure performance. Greater emphasis is being placed on improving compliance to achieve sustainable future performance.

5. Reduce outage due date slips and duration

The effective execution of an outage is measured based on the reliability of the unit after it has been returned to service. The focus is on units that implemented interim repairs, mini general overhauls and general overhauls. Post-outage UCLF has worsened since the prior year. The Outage Centre of Excellence team is reviewing outage planning and

execution measures in order to improve outage readiness and unit performance after an outage.

Due date performance is calculated for units that were on outage for more than 21 days, and measures whether the unit is returned to service by the planned completion date. For the year, 35.90% of outages achieved the due date target, compared to an average of 47.50% in the previous year, but still significantly below the target of 70%.

6. Fill critical staff vacancies and enable the training of key staff

All power station general manager and middle manager positions have been filled. Furthermore, approval was granted to fill 1 872 vacant positions, including 205 plant operators at various stations. Significant progress has been made in the recruitment process, with the majority of these positions already having been filled, mainly through internal appointments. All plant operators have been appointed.

7. Maintain sufficient diesel stocks to enable the open-cycle gas turbines to perform for extended periods

A five-year diesel purchasing agreement was approved by the Board, thereby ensuring security of diesel supply to OCGT stations. Diesel tank levels are maintained well above target.

During the early stages of the national lockdown, the possibility of the shutdown of refineries created a risk to diesel supply. To mitigate the risk, enabling contracts were put in place to ensure that urgent demand could be met.

8. Ensure a 14-day buffer of dry coal at power stations during the rainy season

With coal stock restored to acceptable levels, this point in the plan is considered to be concluded and will now be driven as part of normal business unit operation outputs.

9. Rebuild coal stockpiles at power stations

At the beginning of the financial year, there were five power stations with coal stock levels below the Grid Code requirement, and one power station with coal stock below 10 days. By 31 March 2020, average coal stock levels (excluding Medupi and Kusile) stood at 50 days (2019: 36 days). Significant improvements were achieved with stock days recoveries, with 14 of the 15 coal-fired power stations at their expected level at year end, and no power station below the Grid Code requirement. Although not at its expected level, Arnot Power Station exceeded its minimum requirement.

The recovery in stock days was slightly slower than projected due to the cost curtailment initiative, with certain coal contract deliveries having been reduced to contractual minimum volumes, coupled with a delay in placing new contract. Nevertheless, the situation was closely monitored to ensure that recovery of stock days was not at risk.

By 30 September 2020, average coal stock levels (excluding Medupi and Kusile) stood at 58 days, with all power stations at expected levels.

Coal supply was not affected by the national lockdown, as mines and logistic operators were allowed to operate and supply stations under the lockdown regulations. Nevertheless, the situation was monitored daily.

10. Improve emissions performance

Given the recovery in coal stock levels, it was decided to focus attention on environmental issues, and particularly power station emission levels. The focus of this stream is to expedite projects and oversee operational issues to reduce emissions.

Refer to "Our interaction with the environment – Particulate and gaseous emissions" from page 106 for more information on emissions performance

Refer to "Our interaction with the environment – Securing our coal requirements" from page 103 for more information on coal stock days

Coal-related load losses coincided with periods where our generating plant was also experiencing significant capacity constraints. Coal quality issues at Kriel and Matla Power Stations account for a large component of the coal-related OCLF. A number of initiatives are being implemented to address these issues at these stations.

Technical performance

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Energy availability factor (EAF), % ^{SC}	72.00	69.00	71.50	66.64	69.95	78.00	■
Planned capability loss factor (PCLF), % ^{SC}	12.00	10.00	9.50	8.92	10.18	10.35	■
Unplanned capability loss factor (UCLF), %	14.50	18.70	17.50	22.86	18.31	10.18	■
Other capability loss factor (OCLF), %	1.50	2.30	1.50	1.58	1.56	1.47	■
Partial load losses, average MW ^{SC}	2 552	3 150	3 500	4 651	3 443	2 158	■
Post-philosophy outage UCLF, % ^{SC}	14.00	16.00	17.00	29.91	17.05	18.49	■
Unplanned automatic grid separations (UAGS trips), number ^{SC}	322	448	560	594	517	333	■

Our Generation fleet continues to perform significantly below expectation, with plant availability measured by EAF. Plant availability has declined to below 70%, compared to levels consistently above 90% in the late 1990s. In order to avoid or minimise loadshedding, the plant has to be operated far outside acceptable norms – as evidenced in the high utilisation factor discussed below – leading to the high level of unplanned breakdowns.

The energy utilisation factor (EUF) for the entire generation fleet has increased further to 78.98% (2019: 77.79%), thereby placing stress on units which ultimately affects their reliability, leading to the significant increase in UCLF compared to the prior year. The high average fleet EUF was largely due to coal-fired stations running at an average EUF of 93.33% (2019: 90.23%), with all 15 of the coal-fired stations with an EUF greater than 90%. This is well above the international industry standard of around 75% over the long term.

Generation will be focusing on maintenance recovery by re-baselining to reliability maintenance. A maintenance base plan was defined in February 2020, covering the period to March 2021. Every effort will be made not to compromise this plan.

In the short to medium term, we cannot continue to defer outages due to the constrained system. In particular, outages to address the design defects at Medupi and Kusile as well as outages to implement mid-life refurbishments at older stations will have to be accommodated, in addition to the required reliability outages at all stations.

The national lockdown from 27 March 2020 resulted in a significant reduction in demand, which led to excess generation capacity. In order to optimise the excess capacity, we undertook higher short-term maintenance particularly during levels 5 and 4 of the national lockdown, with some units being placed in cold reserve during that time.

Koeberg performance

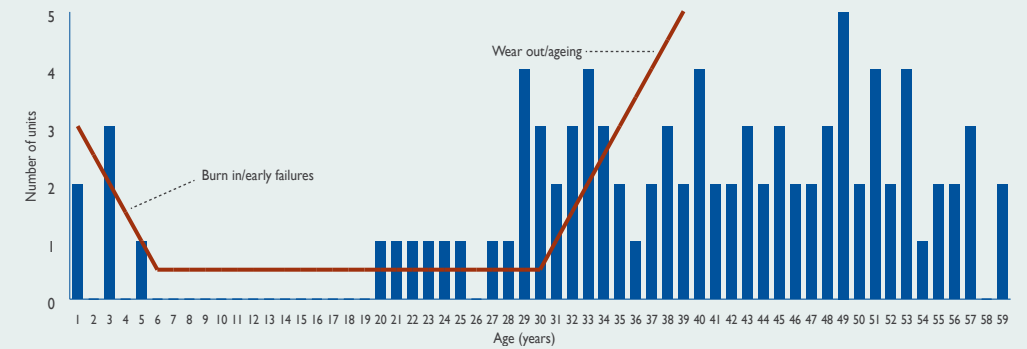
Koeberg Unit 1 was shut down for a refuelling and maintenance outage on 20 September 2019, and synchronised to the grid again on 6 January 2020. On 10 March 2020, the turbine was manually tripped after one of the main pumps in the seawater circulating cooling water system tripped; the secondary system cooling was inadequate due to a clogged heat exchanger. An automatic reactor scram was sustained while the turbine was being run down. The necessary repairs were effected, and the unit returned to service on 14 March 2020. The unit remains online and is operating safely.

Unit 2 remained online since returning from a refuelling and maintenance outage on 26 December 2018. The next refuelling outage was planned to start at the end of April 2020, but this was delayed due to the national lockdown and international travel ban restricting required resources. Due to the reduced demand during the national lockdown, the unit was shut down on 4 April 2020. The unit was brought back to service on 11 July 2020; the two-month refuelling outage commenced on 11 August 2020.

Generation performance and the "bathtub" curve

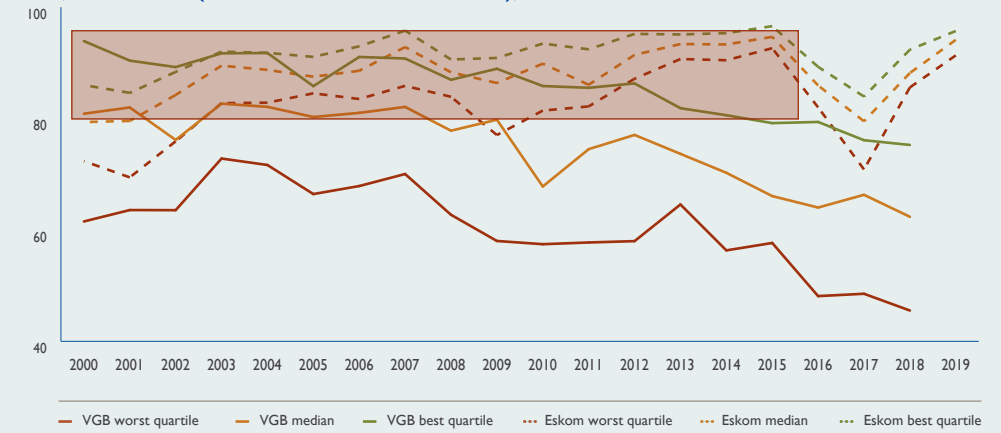
We operate a generally ageing fleet as well as two new coal-fired stations that are not yet fully commissioned. This means that the new units are in the "burn in" phase of generating plant life, where one may expect teething problems, while the majority of the units are in the "wear out" phase. Very few units are in the phase where one can expect optimum plant performance.

Reliability "bathtub curve" compared to the age of Eskom's coal-fired units



The performance of Eskom's generating fleet is undeniably below aspiration. Although there are many contributing and aggravating factors, the root cause can be linked to Government's decision in the 1990s that Eskom would not build any more power stations. This led to the late start of the build programme and severe capacity constraints. It required that existing plant had to be operated at exceptionally high levels to meet demand, accelerating wear and tear on the ageing units. The following graph illustrates how Eskom's coal-fired units were operated at an EUF far higher than the international benchmark, in the so-called "red zone", for a period of about 15 years. In particular, for four years from 2012, Eskom's lowest quartile units were operated at higher levels than the top quartile of the benchmark stations.

EUF, all coal sizes (VGB units exclude Eskom units), %



At the same time, financial and capacity constraints meant that Eskom was not able to execute most of the mid-life refurbishment required to maintain and improve the performance of stations as they age.

Although performance challenges in newly commissioned stations is to be expected, the performance of Medupi and Kusile as well as the Ingula Pumped Storage Scheme was below aspiration. Once again, a major contributor (if not the root cause) is capacity constraints due to the late start to the build programme. This led to a condensed design phase to accelerate the programme. Together with the exceptionally long period since the design of the previous build programme in the 1980s, the related loss of skills and institutional knowledge contributed to the design faults that have resulted in an unacceptably high level of failures in the new plant. As discussed, these are being addressed through plant and procedure modifications – an improvement in performance is anticipated.

Use of open-cycle gas turbines

Eskom's own open-cycle gas turbines (OCGTs) were used extensively during the year, largely due to higher than expected unplanned losses affecting generation

plant availability. OCGTs recorded a load factor of 6.28% during the year (2019: 5.69%). OCGT production was lower than target due to the decrease in demand coupled with loadshedding implemented during the year.

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
OCGT production, GWh	1 175	712	2 174	1 328	1 202	118	●
OCGT diesel usage, R million ²	4 862	2 907	6 975	4 303	3 768	320	●

- The 2023 target is the cumulative target over the next three years.
- The OCGT cost includes diesel storage and demurrage costs of R59 million (2020), R51 million (2019) and R52 million (2018), incurred as a result of not utilising the OCGTs.

The two IPP-owned OCGTs also had to be used extensively, producing 711GWh (2019: 552GWh) at a cost of R4.8 billion to Eskom (2019: R4.1 billion), including a fixed capacity charge of R1.6 billion (2019: R1.7 billion).



Refer to "Energy supplied by IPPs" below for further information on the use of IPP-owned OCGTs

Update on Duvha Unit 3 over-pressurisation incident
Duvha Unit 3 (575MW) suffered an over-pressurisation incident on 30 March 2014, destroying the boiler. A court judgment in June 2017 interdicted Eskom and Dongfang from executing the contract. In June 2020, a court order set aside Eskom's decision in March 2017 to award the tender to rebuild the boiler to Dongfang, as well as the resulting contract between Eskom and Dongfang. Consequently, an amount of R1.7 billion that had been dependent on a contract being concluded by March 2017 was repaid to the insurers.

Subsequent to year end, the rebuild of Duvha Unit 3 was no longer deemed economically viable, given that the station is scheduled to be decommissioned in 2034 and there is no formal plan to extend the station's life beyond that point. Furthermore, since the IRP ends in 2030, there is no clear direction beyond this. IFC approved the cancellation of the project. An amount of R1.3 billion was written off, relating to amounts incurred on the unit since the over-pressurisation incident.

**Benchmarking
Coal-fired power stations**

We continue to benchmark the performance of our coal-fired power stations against those of the members of VGB (Vereinigung der Großkesselbesitzer e.V.), a European-based technical association for electricity and heat generation industries. When interpreting the results of the benchmarking study, it must be borne in mind that the operating regimes of other utilities contributing to the VGB database may not be the same as those of Eskom.

The results of the benchmarking for the 2000 to 2018 calendar years indicate the following:

- The trend in Eskom's performance remains worse than the VGB benchmark
- Eskom units generally compare favourably with the VGB benchmark units with respect to planned maintenance in the median and low quartiles. The PCLF of Eskom's best performing units remained

significantly higher than that of VGB benchmark units in recent years

- Since 2012, Eskom's UCLF performance showed a significant deterioration compared to the VGB benchmark in all quartiles
- Using EUF as a measure, all Eskom coal-fired units are performing at levels close to, and in many cases above, the VGB best quartile, indicating that Eskom is running its power station units much harder than the VGB benchmark units, accelerating the decline in plant condition and availability

Koeberg Nuclear Power Station

Eskom remains affiliated to the World Association of Nuclear Operators (WANO) and the Institute of Nuclear Power Operations (INPO); South Africa is a member of the International Atomic Energy Agency (IAEA). These affiliations enable us to benchmark performance, conduct periodic safety reviews, define standards, share best practice and train personnel at our nuclear power station. The next routine WANO peer review of Koeberg is scheduled for December 2020.

For the review period, Koeberg's mean performance has improved in approximately half of the range of 15 WANO performance indicators. Performance was affected negatively by an extended refuelling outage due to plant modifications (including replacement of the refuelling water storage tank) on Unit 1. The same work was carried out on Unit 2 during the previous year.

Energy supplied by IPPs

We procure renewable energy from IPPs under DMRE's RE-IPP Programme, which is derived from ministerial determinations. Under existing bid windows, 8 500MW of renewable energy is expected to come online before 2025. The RE-IPP Programme has 4 201MW in operation (2019: 3 976MW). In response to the energy supply challenges in South Africa, DMRE has recently launched the RMIPPPP for the emergency procurement of an additional 2 000MW from IPPs by 2022.

During the year, 225MW of renewable IPP capacity in the form of solar photovoltaic (PV) energy was commissioned, against a target of 447MW. We expect 1 000MW of renewable capacity to be commissioned during the coming year, with slightly more expected from wind than from solar PV energy.

Energy capacity and purchases

IPP capacity available and the actual energy procured under various IPP programmes for the year to 31 March 2020 is set out in the following table.

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Total capacity, MW	7 286	6 206	5 428	5 206	4 981	4 779	▲
Total energy purchases, GWh	52 353	14 343	12 395	11 958	11 344	9 584	▲
Total spent on energy, R million	114 117	33 314	32 466	29 694	26 655	21 300	●
Lease accounting adjustment, R million ²	(4 894)	(1 631)	(1 631)	(1 631)	(1 703)	(1 983)	n/a
Total expenditure, R million	109 223	31 683	30 835	28 063	24 952	19 317	●
Weighted average cost, c/kWh ³	209	221	249	248	235	222	●

- The 2023 target is the cumulative target over the next three years.
- For accounting purposes, the capacity charges for the Avon and Dedisa IPP gas peakers are treated as arrangements that contain a lease in terms of IFRS 16. Refer to note 2.8 in the annual financial statements for the related accounting policy.
- The weighted average cost is calculated on the total amount spent on energy, before the IFRS 16 lease adjustment.

IPP operational capacities by type at 31 March 2020

	Total contracted	Total operational
Wind	3 357	1 980
Solar PV	2 292	1 669
Gas turbines	1 005	1 005
Concentrating solar power	600	500
Hydro, biomass and landfill	57	22
Total MW	7 311	5 206

Utilisation of IPP OCGT peakers increased during the year, aiding Eskom-owned OCGTs in ensuring system stability to minimise or avoid loadshedding during a shortage of plant capacity. The IPP OCGT peakers recorded an annual load factor of 8.05% (2019: 6.27%), against a target of 4.24%, while renewable IPPs attained an average load factor of 32% (2019: 32.3%).

The weighted average cost of all IPPs (before the lease adjustment) amounted to 248c/kWh (2019: 235c/kWh), while the weighted average cost for renewable IPPs amounted to 221c/kWh (2019: 207c/kWh).

Cross-border sales and purchases of electricity

The Southern African Power Pool (SAPP) exists to provide reliable and economical electricity supply to its members, nine of which are interconnected, with the remaining three countries targeting to be connected by 2022. South Africa is the country with the highest levels of access to electricity in the region, and one of only three with access levels above 60%. Access levels in other SAPP countries is below 45%.

International sales and purchases

GWh	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
International sales	36 678	12 876	13 028	15 189	12 461	15 268	●
International purchases	26 185	9 270	8 481	8 568	7 355	7 731	▲
Net sales	10 493	3 606	4 547	6 621	5 106	7 537	●

- The 2023 target is the cumulative target over the next three years.

The regional drought affecting water levels in Lake Kariba along the Zambezi River represented an opportunity for Eskom to grow international sales, as international trading partners relied more on Eskom for energy. Nevertheless, generation constraints hampered the realisation of opportunities to retain and grow sales on a contractually committed basis.

Other factors contributing to the increase in international sales were:

- Botswana Power Corporation (BPC) increased their off-take from Eskom from June 2019 due to the commencement of the refurbishment at Morupule Power Station. The refurbishment is expected to be completed in 2023

- The resumption of sales to ZETDC of Zimbabwe in August 2019 after they settled their arrear debt, as well as the conclusion of a non-firm power supply agreement with ZESCO, Zambia's power utility, for three months

Cross-border purchase volumes for the year were in line with the target.

Export growth strategy

Our export growth strategy is aimed at maximising cross-border electricity sales through existing transmission infrastructure, as well as by constructing additional transmission lines with the support of regional partners. However, our ability to exploit opportunities to increase sales is severely hampered by generation constraints due to the unpredictable and volatile performance of the coal-fired fleet. As a result, only

non-firm contracts can be concluded. The strategy also focuses on strengthening interconnectors in the region, given the historical lack of investment in transmission lines in the key electricity corridors north of our borders.

Network performance

Our power network comprises our transmission assets, which evacuate energy from our power stations, and our distribution network, which sends electricity from the high-voltage transmission network to customers, including municipalities that manage their own distribution networks.

Detail of our transmission and distribution network power lines and transformers is set out in the fact sheet on page 150



Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Number of system minutes lost <1, minutes ^{SC.1}	3.53	3.53	3.53	4.36	3.16	2.09	■
Number of major incidents >1 minute, number	2	2	2	3	3	-	■
System average interruption duration index (SAIDI), hours ^{SC}	38.0	38.0	38.0	36.9	38.0	34.9	●
System average interruption frequency index (SAIFI), events	19.6	19.6	19.6	14.4	14.9	17.5	●
Restoration time, % ²	90.0	90.0	85.0	93.5	66.8	75.7	●
Distribution energy losses, % ^{SC}	9.44	9.71	8.00	8.79	8.47	7.73	■

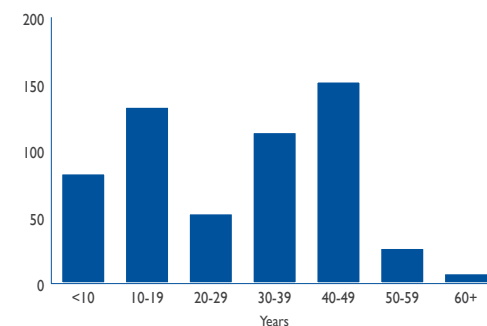
1. One system minute is equivalent to interrupting the whole of South Africa at maximum demand for one minute.
 2. Restoration time analyses the time it takes to restore supply during an unplanned outage by measuring the percentage of dispatched work orders restored within 7.5 hours.

The system minutes performance for the transmission network was significantly worse than both target and the prior year, influenced by three major incidents. A major incident occurred in June 2019 at Apollo Substation in Johannesburg, affecting supply to Tshwane Metro for approximately 95 minutes. Another two major incidents occurred due to high-voltage plant failures, which affected customers in Fordsburg, Johannesburg as well as the East Rand of Gauteng.

Performance risks affecting the transmission network are increasing, with ageing assets and financial constraints limiting our ability to maintain and refurbish assets. Nevertheless, asset condition assessments of the transmission transformer fleet concluded that assets are generally in a fair to good condition. However, the transformer age profile highlights that the fleet is ageing, and will require increased replacement investment going forward.

In addition, ongoing incidents of tower member and substation theft continue to pose risks for asset failures and transmission network availability. During August 2019, two towers on the Princess Westgate 275kV line collapsed due to tower steel member theft, thereby creating risk for supply to the West Rand of Gauteng.

Transformer age distribution, number



Both the duration and frequency of interruptions on the distribution network performed better than target and improved compared to the prior year. Particularly, the focus on high-impact feeders that influence technical performance, to improve the elements that contribute significantly to unplanned SAIDI, has yielded positive results.

Our distribution network is similarly affected by illegal connections that overload the network, equipment theft and vandalism of network assets due to socio-economic conditions, thereby affecting network performance and the time to restore supply to customers.

i Load reduction explained
 In an effort to protect electrical infrastructure against damage due to overloading, we have started implementing load reduction in high-density areas associated with illegal connection practices, meter bypasses and tampering. These practices affect electricity infrastructure with repeated failure and explosions from network overloading specifically during peak periods, threatening the overall security of supply.
 The load on networks is actively monitored and, once demand increases beyond a certain threshold, areas are proactively switched off to avoid transformers overloading and exploding – replacing a transformer costs R80 000 and a mini-sub R350 000. Load reduction is done in the morning and evening peak periods.
 It is employed mainly in high-density areas with a high number of illegal connections and non-payment (electricity theft) with the sole purpose of protecting Eskom's assets from failing and exploding, primarily in the Free State, Gauteng, Mpumalanga and KwaZulu-Natal. Customers in areas that are likely to be affected are informed in advance to prepare for a possible interruption, where demand forecasts suggest that overloading may occur.

To manage the risk to our networks, Board approved the Transmission sustainability improvement plan in April 2020. It includes initiatives for the replacement of assets in poor condition, system expansion for growth and reliability, security upgrades and improvement actions for leading risk indicators. Implementation of this plan is affected by capital budget constraints, with a shortfall relating to network expansion to accommodate IPPs required by the IRP 2019, as well as N-I network investments. Distribution's network development plan is based on planning needs identified for the period from 2019 to 2024. It includes strengthening and refurbishment projects that will support future growth which are being prioritised despite budget constraints.

Energy losses and equipment theft

Overall energy losses on our networks have increased to 9.89% (2019: 9.71%), of which 8.79% relates to the distribution environment, and 2.20% from transmission lines. Transmission lines produce technical losses only, where some of the energy is lost in the form of heat, as energy is transmitted.

Distribution losses are due to both technical and non-technical losses. As reported in previous years, the fact that IPPs connect directly to the distribution network increase technical distribution losses, while reducing transmission losses. Our ageing networks, which are often constrained and overloaded, further contribute to technical losses.

Non-technical revenue losses for the year are estimated at R1 977 million (2019: R1 741 million). These relate mainly to electricity theft through illegal connections, tampering and bypassing of electricity meters as well as the purchase of electricity tokens from unregistered or illegal vendors, but also includes meter reading and billing errors. We have observed a marked increase in electricity theft during the national lockdown period, despite a decline in demand.

The management of non-technical losses focuses on ensuring that all energy supplied is accounted for, energy supplied and not invoiced is identified, lost revenue is calculated and any lost revenue stemming from energy losses is pursued. During the year, 74 241 meter audits were conducted on large, small and prepaid users, leading to:

- R318 million in historically unbilled revenue being billed to large and small power customers (2019: R399 million), of which R213 million was recovered
- Approximately R33 million in tamper fines being recovered from prepaid customers who had tampered with their electricity meters (2019: R19 million)
- An estimated reduction of 250GWh in energy losses following the correction of problems found during meter audits

Additional interventions to reduce non-technical energy losses include:

- Reconciling the energy delivered and energy sold (or energy balancing) at various levels of the network to prioritise high-loss feeders for normalisation. Investigations have found that approximately 92% of the medium-voltage feeders with multiple customers are appropriately balanced
- Identifying high revenue risk using exception reports to pinpoint metering installations at risk
- Auditing and repairing faulty customer meter installations
- Converting customers from post-paid to prepaid supply
- Removing illegal connections, repairing faulty or tampered meters and imposing penalties

As explained earlier, equipment theft has a severe impact on local network performance. It leads to loss of revenue to Eskom, but more significantly, poses an increased risk of loss of life or injury to the public and employees. Theft and vandalism of network equipment is still driven by external socio-economic conditions, with conductor theft constituting the highest number of incidents.

Losses due to conductor theft, cabling and related equipment amounted to R115 million for the year (2019: R105 million), and involved 4 798 incidents (2019: 5 150 incidents). Actions to combat these losses are managed in collaboration with other affected SOCs, industry role players, the National Prosecuting Authority and the South African Police Service. These resulted in 120 arrests (2019: 119) and recovery of R4 million worth of stolen material (2019: R2 million).

Delivering capacity expansion

We started a capacity expansion programme in 2005 to build new power stations and reinstate mothballed stations to increase installed generation capacity by 17 384MW, as well as increase high-voltage transmission power lines by 9 756km and transformer capacity by 42 470MVA; it is expected to be completed by 2024.

Since inception of the programme to 31 March 2020, installed generation capacity has increased by 12 338MW, transmission lines by 7 976km and transmission substation capacity by 37 690MVA. Excluding capitalised borrowing costs, the programme has cost R396.7 billion to date (2019: R383.4 billion), while the total cost to completion of the programme is R558.1 billion (2019: R558.5 billion).

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Generation capacity installed and commissioned (commercial operation), MW ^{SC}	4 794	1 594	1 588	1 588	–	2 387	●
Transmission lines installed, km ^{SC}	412.5	92.5	155.0	127.9	378.7	722.3	▲
Transmission transformer capacity installed and commissioned, MVA ^{SC}	2 000	500	250	250	540	2 510	●

1. The 2023 target is the cumulative capacity to be commissioned and/or installed over the next three years.

Medupi Units 3 and 2 achieved commercial operation on 5 July and 26 November 2019 respectively, adding installed capacity of 1 588MW to the national grid (nominal capacity of 1 440MW). In addition, Kusile Unit 3 and Medupi Unit 1 were first synchronised to the grid on 14 April and 27 August 2019 respectively. We expect a further two units to achieve commercial operation during the coming year.

The target for the installation of transmission lines was not achieved due to a variety of factors, such as site instability, poor contractor performance, construction and contractual issues. We continue to engage with contractors to address performance to maximise the construction of transmission lines.

Group funded capital expenditure (excluding capitalised borrowing costs) per division

Division, R million	Target 2020	Actual 2020	Actual 2019	Actual 2018
Group Capital	23 566	9 902	19 613	29 278
Generation	11 132	8 580	8 704	9 746
Transmission	535	800	782	807
Distribution	4 074	2 675	3 810	5 170
Subtotal	39 307	21 957	32 909	45 001
Future fuel (coal and nuclear)	2 936	1 031	550	1 226
Eskom Enterprises	510	161	137	476
Other areas including intergroup eliminations	944	267	314	1 300
Total Eskom group funded capital expenditure	43 697	23 416	33 910	48 003

1. Capital expenditure includes additions to property, plant and equipment, intangible assets and future fuel, but excludes strategic spares, construction stock and capitalised borrowing costs.

Capital expenditure for the year was just over R20 billion lower than budget, mainly in Group Capital Division due to various commercial and project delays. The deferral of outages in Generation due to system constraints and delays in executing future fuel projects, specifically investment in cost-plus mines, further contributed to the underspend.

In addition, pre-commissioning revenue of R5.7 billion for the year, related to electricity generated by units after being synchronised to the grid but before being commissioned, was capitalised to the projects and excluded from net revenue, while the associated primary energy cost of R3 billion was set off against revenue capitalised. This is due to higher production volumes from these units while undergoing testing prior to commissioning, which has been delayed due to correction of the new build defects.

Medupi and Kusile project performance

The commissioning of Medupi Unit 1 is progressing well, with control and instrumentation (C&I) optimisation in progress. The contractor responsible for the dust handling plant is in business rescue, therefore construction is delaying the commissioning and optimisation of the unit. As an interim solution, the manual removal of ash via vacuum trucks is in progress. The unit underwent a 90-day outage from 17 April 2020 for the construction of the dust handling plant, plant optimisation and correction of major plant defects.

In May 2020, a letter of agreement was signed between Medupi and Eskom Rotek Industries (ERI), the newly appointed contractor, for the construction of the dust handling plant. Engagements are under way to prepare for staff mobilisation, ahead of the construction work.

Due to the defects correction process, Kusile Units 2 and 3 did not attain commercial operation (CO) during the year as originally expected.

Kusile Unit 2 experienced an induced draft fan failure in June 2019, necessitating major repairs for six months, negatively influencing the commissioning schedule. However, the unit is on load, intermittently supporting the grid. In June 2020, the 72-hour test run and capability tests were completed; all efforts are focused on optimisation testing. The automatic voltage regulators tests are complete and Grid Code compliance is in progress. The unit is progressing well towards CO.

Unit 3 is on load, intermittently supporting the grid. Unit optimisation tests are in progress. On Units 4 to 6, limited construction activities have resumed in level 3 of the national lockdown.

Correcting major design and construction defects at Medupi, Kusile and Ingula Power Stations

Based on international engineering best practice for plant performance, it typically takes anything between three to seven years to achieve the optimum plant design performance and reliability levels in new units of this technical complexity and magnitude. This is the “burn in” phase referred to earlier.

Minor defects are typical on any new plant and generally contribute minimally to MW lost during operation; resolution requires minimal plant outages. Major plant defects significantly affect availability factors and MW losses, and usually require equipment redesign, manufacturing and installations that could require extended plant outages, thereby making resolution more difficult and time consuming.

As reported previously, six major defects have been identified at Medupi Power Station, six at Kusile, and one at Ingula. Nevertheless, the availability and reliability of the synchronised units at Medupi, Kusile and Ingula are steadily improving. This is because of the interventions implemented by the project teams to correct the major plant defects and improve identified operational inefficiencies.

The major plant defects common to Medupi and Kusile Power Stations are:

- Pulse jet fabric filter plant
- Mill defects
- Dust handling plant, ash silos and conditioning plant
- Furnace exit gas temperatures, gas air heater performance and boiler erosion

A further major plant defect at Medupi is C&I repeated distributed control system card failures on Units 6, 5 and 4 as well as balance of plant. A further major plant defect at Kusile is the western fill water treatment plant laboratory and demineralised water storage tanks.

As noted earlier, the dual-load rejection defect at Ingula has been resolved.

Since December 2018, a defect correction plan is being executed and closely monitored to resolve all the major plant defects and reduce the inefficiencies in the operation and maintenance of the new units.

The estimated total cost to execute the plan is R7.2 billion (at March 2019) over the next five years. Contractors responsible for defects are being held liable within the provisions of the contract.

We have entered into a contractual consultation process with the boiler contractor in order to determine the liability for the modifications to correct the defects. It is estimated that implementation of the modifications will require an outage duration of 75 days per unit. Medupi Unit 3 was identified as a test case to implement the defects resolutions and establish root cause analysis, before implementing all the solutions on the other units. It is the first unit on which solutions for most of the major defects have been installed.

Unit 3 was returned to service in April 2020, following a 75-day outage to repair major plant design defects. The major focus of the outage was to implement the technically agreed solutions for the boiler, these being the boiler plant modifications of the reheater spray flow, pulse jet fabric filter plant, gas air heater, milling plant, duct erosion and reheater erosion protection. The unit reached generation capacity of 793MW after successful correction of the major plant defects. The modifications relating to the four common defects are being tested, and will be rolled out to the other units once proven successful.

The engineering recommendation is to replace the distributed control system on Medupi Units 6, 5 and 4 and balance of plant to match that of Units 3, 2 and 1. The monitoring of the Kusile demineralised water storage tanks has shown no new settlement, which means that the foundations are now stable. A technical specification for the correction of the defect will be issued to the market in due course.

Other projects and future new build Majuba Rail

The project will ensure security of coal supply to Majuba Power Station through a 68km dedicated rail logistics solution, resulting in the achievement of positive economic, environmental and social benefits by switching the transportation of coal from road trucks to rail transportation. The project is expected to be commissioned during the coming financial year.

Koeberg steam generator replacement

The current steam generators have been in operation at Koeberg Nuclear Power Station since the first unit was connected to the national grid in 1984. These steam generators are due to be replaced during each unit's next refuelling and maintenance outage, as part of the programme to extend Koeberg's operating life from 40 to 60 years. Extending the station's operating life is our best investment into sustainable and less carbon-intensive electricity generation infrastructure. Once removed, the current steam generators will be stored on the Koeberg site, where they will be packaged and dismantled for final disposal at a national nuclear waste repository.

Assembly of the new steam generators is progressing well, in support of key installation milestones in 2021 and 2022. The first of the six new replacement steam generators arrived at Koeberg at the end of September 2020.

i **An overview of new build defects**

As mentioned before, the new build plant at Medupi, Kusile and Ingula has not performed consistently as expected. The contracts for new build plant cater for mechanisms to identify and remedy issues and defects throughout the project lifecycle of design, construction, commissioning and operation. Although many of the issues and defects have been resolved already, the remaining major issues related to specific areas referred to above, such as certain operating difficulties, excessive wear, premature failure of equipment or durability of materials could only have been identified after extended periods of plant operation.

These major issues collectively contribute significantly to the overall poor performance and unreliability of the Medupi and Kusile units. Finding solutions to these major issues and defects are complex and time consuming, requiring technical specialists to perform specific plant tests and analyse vast amounts of data to determine the root causes and to modify designs. The manufacturing and construction of the modified design is mostly extensive and can have manufacturing lead times of six months; implementation usually requires long duration outages of the plant of up to 75 days.

Full load on the Medupi and Kusile units can be achieved by changing the maintenance and operating regime, however, this comes at an increased operational cost of more than R200 million per station per year, for increased pulse jet fabric filter bags and mill maintenance

only. In addition, replacing the bags every year instead of every three years requires an additional planned outage of more than 21 days every year.

During the initial operation and optimisation phase of Medupi Unit 6, the exit temperature of the furnace (boiler) was measured and found to exceed the required temperature by more than 150°C. This resulted in the spray water required to keep the reheater within its operating temperature to exceed the requirement up to four times. Further optimisation and analysis of the furnace proved ineffective in reducing the exit temperature. Eskom in-house and third-party analysis and simulations indicated that the furnace evaporative surface is insufficient to absorb the required heat from the burner fires; this could have been remedied by increasing the height of the furnace.

When the furnace was designed in 2008, Eskom did not have furnace design expertise or modelling tools, and utilised a third-party furnace designer to assist in the reviews of the contractor's designs. The complexity of a furnace design in relation to coal specifications and intellectual property of different designers made it very difficult to detect design problems in another contractor's design. Therefore, the issue was only identified during the operation of the first unit.

There is no remedy for the excess furnace exit temperature. The contractor's solution to reduce the required reheater spray flow was implemented on two Medupi units and is undergoing performance testing.

Battery storage

The distributed battery storage project is to be situated at remote sites with limited access to our distribution networks, but close to renewable IPP plant. Phase 1 of the project consists of 800MWh of distributed battery storage. DEFF granted environmental authorisation approvals for all but one of the phase 1 distribution sites located in the Western Cape, Eastern Cape and KwaZulu-Natal.

Bidding documents for package 1 (Skaapvlei site) are being reviewed by the funders; we are addressing their comments before receiving a "no objection" from the funders, in order to engage the market. No other activities can continue before a "no objection" has been received. The project team is finalising package 2 (Melkhout, Pongola and Elandskop sites) and package 3 (Hex, Paleisheuwel and Graafwater sites) for market engagement.

The project procurement strategy document and procurement plan have been approved by the funders. The memorandum of understanding has been compiled and is in the process of being signed by the funders, namely the World Bank and African Development Bank, with the New Development Bank being included to fund phase 1.

Construction completion of the first site is forecast for November 2021, subject to receiving a "no objection" from the funders.

Medupi FGD retrofit

We remain committed to the construction of the Medupi flue gas desulphurisation (FGD) retrofit project, as confirmed in correspondence to the World Bank in June 2020. This is in line with the World Bank's loan agreement. DEFF also emphasised in June 2020 that Eskom's power plants must comply with regulations and applicable law. Compliance with environmental regulations for emissions control remains a key priority.

It should be noted that the FGD retrofit at Medupi is expected to cost up to R40 billion over the next 10 years, depending on the option being implemented. We are investigating various alternatives to meet the requirements.

Any further delays in the Mokolo Crocodile Water Augmentation Project (MCWAP) Phase 2 water supply may negatively affect the FGD retrofit timelines. Furthermore, the FGD will create a single point of failure for the Medupi plant, which poses a significant risk to the operation of the plant.

Refer to "Our interaction with the environment – Securing our water requirements" on page 105 for further information



Gas-fired capacity

As reported previously, various gas strategy programmes are under way. Although there is an allocation in the IRP 2019, no determination has yet been made; therefore, we are limited to upfront development work.

Future focus areas

- Continuing to drive execution of the Generation recovery plan to improve plant performance over the medium to long term
- Implementing mid-life refurbishment scope and reliability maintenance to restore EAF performance to acceptable levels. A strong focus on outage readiness will ensure that the resources are in place to execute outages successfully
- Carrying out technical solutions and short-term interventions to fix new plant, although dependent on the availability of outages and commercial agreements with contractors
- Connecting RE-IPP Bid window 4 and 4B projects to the grid in line with grid connection schedules, and processing applications for the DMRE small, base coal, cogeneration and RE-IPP Bid window 5 project applications and budget quotes
- Reviewing, negotiating and extending existing agreements to support cross-border sales retention and growth while mitigating credit risk
- Implementing Transmission sustainability improvement objectives focused on asset condition renewal, system expansion, security and managing leading risk indicators
- Reviewing the Transmission business model and advancing the business separation project aligned to DPE objectives
- Prioritising capital investment in distribution assets that support network access and performance, to deliver reliable performance at appropriate customer service levels, combined with an effective maintenance regime to reduce plant failures and optimise outage management
- Completing Medupi Power Station (4 764MW) by 2021 and Kusile (4 800MW) by 2024 based on the latest forecast, while correcting all major defects to improve the availability of new plant
- Successfully executing the Koeberg steam generator replacement project to extend the life of the station
- Driving completion of the battery storage project to deliver 1 440MWh storage capacity



OUR INTERACTION WITH THE ENVIRONMENT



Highlights

- Recovery in coal stock days through the Generation recovery plan, with 14 of 15 power stations at expected levels by year end
- Coal optimisation savings exceeded target, resulting in savings to working capital
- Ash and gypsum from our facilities no longer classified as waste, creating additional utilisation opportunities

Improvements

- Coal requirements have been largely secured for the next 18 to 24 months
- Retrofitting of low NO_x burners on seven of eight units at Camden Power Station completed
- Execution of several emission retrofit projects are able to proceed
- No environmental legal contravention incidents incurred by Transmission or Distribution Divisions

Challenges

- High coal demand from more expensive power stations due to generation constraints
- Reduction in coal production from cost-plus mines due to delays in capital expansion projects
- Lack of new coal mining investment and execution of current mining rights, with investors preferring clean energy, with minimal funding for carbon-intensive technology
- MES postponement, suspension and exemption applications submitted in August 2020 may affect available capacity and financial commitments
- Despite performance improvements, Kendal Power Station continues to operate one or more units in non-compliance with emission limits

Lowlights

- Continuing poor environmental performance, with specific water use, relative particulate emissions and environmental legal contraventions well outside tolerance levels
- Constraints at ash disposal facilities at Camden curtailed operation of the station
- Poor operational practices at power stations resulted in 39 water-related legal contraventions for the year

The effect of our current activities on the environment is more negative than positive, as we rely heavily on the use of mainly non-renewable or scarce resources such as coal, water, nuclear fuel and diesel to power our generation fleet. Furthermore, emissions from our power stations and waste generated in the form of ash and nuclear waste also have a detrimental impact on the environment, if not properly managed, thereby potentially destroying natural capital to create value for stakeholders.

Through our value of Zero Harm, we strive to limit damage to the environment through our activities. Environmental compliance plays an important role in retaining our licence to operate and supporting security of electricity supply.

We continue to strive to reduce our environmental footprint, for example through the reduction of particulate emissions through retrofit projects, using less water with several less efficient units being shut down and Medupi and Kusile being dry-cooled. Similarly, Medupi and Kusile have been commissioned with fabric filter plants to reduce particulates as well as low NO_x burners, while Kusile is being commissioned with FGD.

We are committed to integrating biodiversity into our business by mitigating the impact of power lines on red data bird species and large mammals. We have one wind facility and implemented several small solar PV projects. Going forward, our focus will be on the Just Energy Transition and the introduction of more renewable capacity.

Securing our resource requirements

To support our power stations, we have to source, procure and deliver the necessary amounts of primary energy of the required quality to our power stations, at the right time and at optimal cost. It includes coal, nuclear fuel, liquid fuels, diesel, gas, limestone (used in FGDs) and water.

Securing our coal requirements

Coal supply strategy

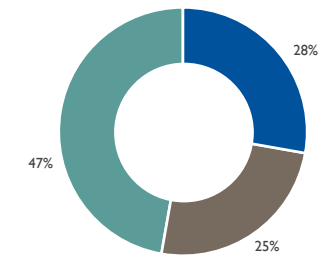
Last year, the Board approved a revised coal strategy, which favours dedicated long-term coal contracts with coal delivered by conveyor, to ensure security of supply to our coal-fired stations while minimising coal transport by road. It includes investing in cost-plus mines to support contractual supply, thereby ensuring optimal cost of coal and security of coal supply from dedicated coal resources.

In terms of both volumes and value, coal from short- and medium-term contracts has increased slightly against the prior year, but overall, the split between the various categories is in line with the previous year.

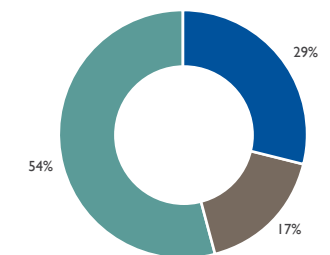
We have secured coal volumes required until 2021, and have contracted adequate coal supply up to 2022 to meet estimated coal burn requirements and maintain healthy coal stock levels at all stations. This provides an opportunity to implement our long-term coal strategy to source 0.9 billion tons of uncontracted coal to cover the life of all coal-fired power stations.

The volumes and value of coal purchased over the past year were made up as follows:

Coal volumes



Value of coal purchased



• Cost-plus
• Short/medium-term contracts
• Fixed price

We have formulated a long-term coal procurement strategy for the supply of coal to Arnot, Camden, Grootvlei, Hendrina, Kendal, Kriel, Majuba, Matla and Tutuka for the life of these power stations. Coal requirements for the next 18 to 24 months have been largely secured.

Our top 10 coal suppliers are set out below. Some changes have occurred since last year.

Supplier	Contract type
Exxaro Coal	Mix of cost-plus and fixed-price
Seriti Coal	Cost-plus
South32	Mix of cost-plus and fixed-price
Universal Coal	Fixed-price
Iyanga Mining	Fixed-price
Wescoal (new)	Fixed-price
Glencore	Fixed-price
Mzimkhulu Mining (new)	Fixed-price
HCI Coal (new)	Fixed-price
Mbuyelo (new)	Fixed-price

Coal quality

Our newer coal supply agreements contain rigorous quality clauses to provide us with greater recourse in the event of poor quality coal being supplied. We continue to evaluate the feasibility of a number of cost-effective technologies to improve coal quality, such as de-stoning, additional washing and screening of coal.

We are engaging the cost-plus mines on ways to improve coal qualities, such as selective mining of good quality mining blocks, studies for coal processing plants or sourcing coal from sister mines, where the previous two measures are not feasible.

Determining coal quality at the point of delivery remains our long-term goal. As part of designing real-time processes and systems to sample and analyse coal consignments upon arrival at power stations, we have begun using equipment to conduct quantitative electron microscope scanner analysis of coal. Power stations are also rolling out commercially available online analysers on conveyors feeding coal to units as a second measuring point.

Work on coal characteristics to determine what drives the ash content of coal has been completed; results will be published in due course.

Investment in cost-plus mines

The majority of cost-plus mines still require significant investment or recapitalisation to

increase production and/or maintain existing production. Until then, lower production is to be expected from these mines.

Nevertheless, we will only consider recapitalisation for those mines where long-term benefits can be demonstrated though increased volumes of acceptable quality coal, thereby limiting the amount of coal required on expensive short- and medium-term contracts. We will consider financing the expansion at cost-plus mines to access remaining contracted reserves, to support contract extensions through increased production.

Initial investments for the Matla Colliery have been approved; negotiations are commencing for the extension of the Matla coal supply agreement (CSA) that expires in 2023. The initial investment for the opening of new coal blocks at the Kriel Colliery has been approved. The procurement strategy for coal supply to Kendal, Lethabo and Tutuka has been approved by Eskom's governance committees and is being submitted to National Treasury for approval.

Technical performance

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Coal burnt, Mt ^{1,2}	n/a	n/a	110.49	108.61	113.76	115.49	n/a
Coal purchased, Mt ²	n/a	n/a	131.44	119.25	118.25	115.25	n/a
Coal purchase R/ton, % increase ^{3C}	10.0	11.0	20.0	16.3	14.1	3.8	●
Coal stock days	n/a	n/a	31	81	67	68	●
Normalised coal stock days, budgeted standard daily burn ³	n/a	n/a	31	50	36	n/a	●
Road-to-rail migration (additional tonnage transported on rail), Mt ^{3C,4}	33.5	10.5	10.6	7.5	8.2	11.6	■

1. The current year coal burnt figure excludes 4 910kt burnt during the commissioning of Medupi Units 3 and 2 and Kusile Unit 2 (2019: 3 085kt for pre-commissioning burn).
2. Future targets shown as n/a are dependent on system requirements.
3. Normalised coal stock days exclude coal at Medupi and Kusile.
4. The 2023 road-to-rail target is the cumulative target over the next three years.

Although better than target, the average increase in the coal purchase price was higher than last year, due to the continued need to purchase greater volumes of short- and medium-term contract coal to rebuild coal stock levels at numerous stations, coupled with contractual price increases and lower production at cost-plus mines. Coal optimisation savings exceeded the target for the year, contributing to our 2019 turnaround plan by reducing our annual cost base. This working capital saving will need to be supplemented by further coal cost optimisation in order to derive permanent savings.

The initiative – part of the Generation recovery plan – to rebuild coal stock levels to acceptable levels at all coal-fired stations has been successful. At 31 March 2020, no station had stock below its individual station minimum stockholding levels (based on budgeted standard daily burn), which is a remarkable improvement from the nine stations below minimum levels at March 2019. Only Arnot was below its expected level at year end; however, the station has since recovered to expected levels. By 30 September 2020, average coal stock levels (excluding Medupi and Kusile) stood at 58 days, with all stations at expected levels.

Coal stock days remains significantly higher than target largely due to more coal than needed being delivered to Medupi, Kusile and Lethabo Power Stations. Coal requirements at Medupi and Kusile are lower than originally anticipated due to delays in the commissioning of units, although we continue to receive coal in terms of take-or-pay coal supply contracts. There is no financial benefit to reducing production by the cost-plus mine supplying Lethabo; the low quality of coal supplied to Lethabo also makes it unsuitable for use by any other station.

Coal-related load losses during the year coincided with a period where our generating plant experienced significant capacity constraints. Coal-related losses contributed 0.73% OCLF for the year, the majority being recorded by Kriel and Matla Power Stations. At Kriel, some of the issues were due to the shortage of good quality underground coal – we are working with the tied colliery to improve coal quality using a processing plant. At Matla, we are working with the tied colliery to evaluate a beneficiation plant to improve coal qualities from low-grade sections, as well as a plant to remove stone contamination from coal.

Implementing coal haulage and the road-to-rail migration plan

We transport coal on rail to three power stations, namely Grootvlei, Majuba and Tutuka. We did not achieve the shareholder compact target for the year.

The majority of coal on rail is delivered to Majuba, which experienced a fire on 18 December 2019, destroying the rail tippler take-out conveyor and silo. As a result, Majuba was unable to receive coal on rail for the remainder of the financial year. This is one of the main reasons for not meeting the target. Nevertheless, at the time of the fire, Majuba was already behind target, mainly due to operational issues and cable theft affecting Transnet Freight Rail (TFR) performance. Completion of the recovery of the rail infrastructure at Majuba is expected between December 2020 and March 2021; achievement of the KPI for the 2021 financial year will therefore also be negatively affected.

We continue to work closely with TFR to optimise existing rail operations at Grootvlei and Tutuka, as well as fast-tracking new rail opportunities at Arnot and Camden, in conjunction with moving excess coal from Medupi to Mpumalanga stations. These rail opportunities will only commence in the new financial year.

Contracts with free carrier arrangements (FCAs) ended on 30 September 2019 and were converted to delivery by coal suppliers. Board approved the conclusion of new FCA contracts in November 2019. The new FCA contracts (with 54 different transport companies) were concluded by 17 December 2019, leading to the resumption of FCA operations.

Regrettably, road logistics recorded six public fatalities during the year (2019: 21), as well as two contractor fatalities (2019: one). Due to the effect of our coal haulage operations on road safety and road conditions, we continue to promote road safety and participate in road safety awareness campaigns with the Mpumalanga government.

Securing our water requirements

Water security risks relating to Eskom's existing needs

Water levels in the Integrated Vaal River System (IVRS) stood at 65% for June 2020 (June 2019: 72%) due to lower dam levels at Katse, Mohale, Vaal and Sterkfontein and delayed water transfers from Tugela River to Sterkfontein Dam. Dam levels are expected to continue to drop during the winter months, due to the lack of rainfall in the region. The IVRS will remain in deficit until Lesotho Highlands Water Project Phase 2 is commissioned by 2026.

Detailed engineering work on the Lesotho Highlands Project has commenced, with commissioning scheduled for February 2026 (expected by 2025 a year ago). However, construction has been delayed due to travel restrictions under the national lockdown. Water conservation and demand management initiatives have to be implemented by all sectors and the Department of Human Settlements, Water and Sanitation (DHSWS) to mitigate against future water security risks in the IVRS.

To mitigate against droughts, long-term water supply to power stations are managed through inter-basin water transfers according to the DHSWS annual operating analysis

rules, power stations water demand management and dual water supply sources. Power stations have to update resilience plans to manage the infrastructure and water footprint impacts arising due to excessive rainfall and flooding.

Water curtailments and restrictions will continue for low priority water users, although Eskom's assurance of water supply is not at risk at the moment due to our status as a strategic user. Business continuity plans are in place at Eskom facilities and sites to cater for possible water restrictions by municipalities and water boards.

For a discussion of our water usage, refer to "Reducing water consumption" on page 110 in this section

DHSWS continues to experience severe budgetary, financial and resource constraints, affecting its ability to manage existing operations, maintenance and implementation of new bulk water infrastructure to ensure future water security to Eskom. A joint task team between DHSWS, Eskom and Sasol has yielded some success on critical plant availability.

Mokolo Crocodile Water Augmentation Project (MCWAP) Phase 2

As previously reported, Medupi Power Station's FGD retrofit requires additional water from the MCWAP by the revised date of May 2027. We have had to delay the execution of FGD and applied to the Minister of Environment, Forestry and Fisheries for postponement and alternative limits. Although the water delivery from MCWAP Phase 2A has moved out to October 2025 (expected by April 2025 a year ago), it is unlikely at this stage to affect the FGD project, which is also delayed.

Refer to "Our infrastructure – Delivering capacity expansion" from page 98 for further information

The implementation agreement and water supply agreements have been signed by DHSWS. The Trans Caledon Tunnel Authority and Eskom have signed the implementation agreement. We expect to conclude the water supply agreement soon.

Securing our nuclear fuel requirements

Existing contracts for the supply of nuclear fuel fabrication services and the delivery of fabricated nuclear fuel to Koeberg Nuclear Power Station are sufficient to cover Koeberg's demand until 2025. During the year, we entered into new contracts for the supply of enriched uranium product, which is used as feed for the nuclear fuel fabrication, until 2028. The previous contract, entered into during 2010, will expire at the end of 2020.

See note 11 on future fuel supplies and note 21 on inventories in the consolidated annual financial statements for further information on nuclear fuel balances

Reducing our environmental footprint

We track several key performance indicators to measure our environmental performance. These include relative particulate emissions, specific water consumption and the number of reported legal contravention incidents.

Refer to the fact sheet on page 139 for information on the environmental implications of using or saving electricity

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Relative particulate emissions, kg/MWh sent out ^{SC, 1, 2}	0.30	0.32	0.33	0.47	0.47	0.27	■
Specific water consumption, ℓ/kWh sent out ^{SC, 1}	1.32	1.34	1.35	1.42	1.41	1.30	■
Net raw water consumption, Mℓ	n/a	n/a	n/a	286 553	292 344	276 335	n/a
Environmental legal contraventions in terms of the Operational Health Dashboard, number ³	1	1	1	5	2	2	■
Carbon dioxide (CO ₂), Mt	n/a	n/a	n/a	213.2	220.9	205.5	n/a
Sulphur dioxide (SO ₂), kt ⁴	n/a	n/a	n/a	1 721	1 853	1 802	n/a
Nitrogen oxide (NO _x as NO ₂), kt ⁵	n/a	n/a	n/a	851	890	859	n/a
Particulate emissions, kt	n/a	n/a	n/a	94.9	99.9	57.1	n/a

1. Relative particulate emissions values and specific water consumption include Medupi Units 4, 5 and 6 as well as Kusile Unit 1, but exclude units synchronised but not yet in commercial operation. Units are only included in calculations one year after achieving commercial operation.
2. Particulate emissions reported at Kendal frequently exceeded the atmospheric emission licence (AEL) limit during the year. The monitors are set up to measure emissions within a calibrated range for the unit-specific correlation function. In instances where these ranges are exceeded, particulate emissions will be reported at the maximum of the monitor range. From February 2019, it is possible that actual emissions exceeded reported emissions based on measurements, which is reflected in the monthly AEL reports.
3. In defined circumstances where the management of an environmental legal contravention indicates specific management issues or failings, it is recorded on the Eskom Operational Health Dashboard.
4. Our sulphur dioxide performance figures are calculated based on coal characteristics and power station design parameters using coal analysis and coal burnt tonnages. Figures include coal-fired and gas turbine power stations, as well as oil consumed during power station start-ups. For carbon dioxide emissions, it also includes the underground coal gasification plant.
5. NO_x reported as NO₂ is calculated using average station-specific emission factors (which are measured intermittently) and tonnages of coal burnt.

Particulate and gaseous emissions

Four major pollutants in the form of emissions are produced when we burn coal to produce electricity: particulate matter (PM), carbon dioxide (CO₂), sulphur dioxide (SO₂) and nitrogen oxides (NO_x). The National Environmental Management: Air Quality Act, 2004 (NEMAQA), which succeeded the Atmospheric Pollution Prevention Act, 1965, requires the installation of technology to reduce emissions, focusing on particulate matter. We have been implementing pollution reduction technology since the early 1980s, successfully reducing particulate matter emissions by more than 80%.

Unfortunately, particulate emission performance in 2019 was the worst in 20 years, primarily because of challenges experienced at Kendal Power Station. Although the situation at Kendal is improving, emissions performance for the year remained disappointing.

Subsequent to year end, some opportunity maintenance was undertaken during level 5 of the national lockdown.

Further details of particulate and gaseous emissions are available in the technical statistics table on pages 142 to 143



Managing emissions at Kendal Power Station

Kendal Power Station's electrostatic precipitators and flue gas conditioning were designed to emit well below the existing plant limit of 100mg/Nm³ for particulate matter. During the strike action experienced in 2018, we continued to run the units at Kendal to avoid failure of the system during that winter; operating with ash backlogs led to significant damage to some of the units and the inability to operate units within legal limits.

Interventions to repair the damage have been implemented, but have not been as successful as anticipated. There has been some success, with Units 1 and 2 operating within the licence conditions since February 2020. Unit 5, the worst performing unit, was taken out of service in January 2020 and went on outage in July 2020 for repairs to the electrostatic precipitators; this is expected to be completed in April 2021. Unit 5 will be closely followed by Unit 6. Similar refurbishments are planned for the remaining units. In addition, high-frequency power supplies will be installed on all six units over the next few years to further reduce particulate emissions.

In September 2019, Eskom was served notice of criminal charges in respect of alleged contravention of the

National Environmental Management Act, 1998 (NEMA) and NEMAQA at Kendal Power Station.

In December 2019, Kendal was issued with a compliance notice in terms of section 31L of NEMA for failure to comply with provisions of the law. The directive required the station to cease operation of Units 1 and 5 on 10 January 2020 until approved by DEFF. We objected and applied for a variation of the notice. In response, Minister Barbara Creecy of DEFF suspended the compliance notice pending a review thereof.

Minister Creecy responded to our objection in May 2020, upholding DEFF's decision to issue the notice but allowing Eskom to operate either Unit 1 or 5 in non-compliance with the AEL limits, given the generation system constraints.

At that time, Unit 1 had already undergone maintenance and was complying with its AEL emission limits – the unit's emissions have improved from an average of 283mg/Nm³ in December 2019 to 71mg/Nm³ in March 2020, against a limit of 100mg/Nm³. As indicated above, Unit 5 was taken out of service in January 2020. Therefore, we are in general compliance with the notice, as Unit 1 has been rectified and Unit 5 taken out of service.

Relative particulate emissions

Relative particulate emission performance has not improved since the previous financial year, and remains the worst performance since 1997.

The poor performance can be attributed mainly to the decision to operate the significantly damaged and non-compliant Kendal units given the generation capacity constraints. Kendal reported emissions of 29.4kt (or 31%) of Eskom's total annual particulate emissions of 94.9kt, although Kendal only produced 9.26% of energy supplied by coal-fired power stations during the year. Emission performance improved slightly towards the end of the year, when a decision was taken to take Kendal Unit 5 off load for repairs to its electrostatic precipitators. In addition, the repairs earlier in the year to Kendal Units 1 and 2 in terms of its recovery plan led to an improvement in the performance of these units. Kendal's average monthly emissions improved from 477mg/Nm³ in December 2019 to 249mg/Nm³ in March 2020. DEFF approved our action plan for the return to compliance of Kendal's units on 8 August 2020.

Additionally, Duvha, Kriel, Lethabo and Matla also experienced periods of poor performance, which contributed to the very high emission levels for the year. Increased focus on emissions management and opportunity maintenance has seen improvements in station performance during 2020.

Minimum Emission Standards

The MES are published under Government Notice 893 in November 2013, and amended in Government Notice 1207 in October 2018. The MES stipulate emission limits, which require Eskom to reduce gaseous emissions of sulphur dioxide and nitrogen oxides, in addition to particulate matter. At the time of publication of the initial and subsequent amendments to the MES limits, we submitted comprehensive comments to the authorities, indicating that the proposed legislation was onerous and would negatively affect the provision of electricity, among other elements.

We proposed that existing stations should not be required to comply with new plant standards but rather allow decommissioning at 50 years in terms of the IRP. This approach would result in a steady reduction in emissions, leading to an improvement in ambient air quality in the relevant air sheds. Furthermore, it would not force the retrofitting of older power stations or the early decommissioning of stations.

In 2014 and again in 2019, we committed to retrofitting several power stations to reduce emissions. Full compliance with the new plant standards requires all coal-fired power stations to implement emission reduction technologies, such as fabric filter plant (FFP), low NO_x burners and/or FGD. The total capital expenditure required to retrofit our coal-fired power stations with emission reduction technologies was estimated at R187 billion in 2019, based on overnight cost excluding interest.

Between 2014 and 2015, we applied for and were granted postponements. The then Department of Environmental Affairs granted previous postponement applications, some until 2020 and others until 2025, on condition that we implement committed improvements at several power stations, and develop and implement an environmental offset programme to improve ambient air quality in communities close to our power stations. Between 2018 and 2020 we lodged applications to the National Air Quality Officer for further postponement and/or suspensions, and in some cases alternative emission limits for some power stations.

Over the past year, emissions were added as one of the areas dealt with in the Generation recovery plan. We have carried out work during the year to ensure the timely delivery of the emission reduction projects – such as electrostatic precipitators (ESP) upgrades, high-frequency transformer and/or low NO_x burner installations – committed to in the 2014 and 2019 MES applications. It was estimated that we would only be able to meet 72% of the 2014 and 90% of the 2019 MES project commitments by March 2020. However, the majority of projects have experienced significant delays.

We considered it necessary to apply for further exemption from the MES as well as revise the emissions reduction plan. This was based on our existing financial status; the implications of our financial status on the South African economy and the impact of our operations on the national ambient air quality standards (NAAQS); and our approach of enabling a Just Energy Transition. Therefore, updated postponement, suspension or exemption applications were submitted for the Highveld and Free State power stations – Arnot, Camden, Duvha, Grootvlei, Hendrina, Kendal, Komati, Kriel, Lethabo, Majuba, Matla and Tutuka – as well as the peaking gas stations, Acacia and Port Rex.

Implementing the emissions reduction plan and installing more efficient emission control technology will reduce our emissions. Shutting down older stations and increasing the use of the newer, lower emitting stations – Medupi and Kusile – and the renewable IPPs, will also result in a substantial decrease in Eskom's and South Africa's emissions over time.

It is projected that our relative particulate matter emissions will reduce by 51% by 2030, SO₂ by 22% and NO_x by 27%, compared to a 2020 baseline. The estimated reduction is based on units running at the allowable limit value and changes following an upgrade or retrofit, or unit shutdown. By 2039, Eskom's relative particulate matter emissions are expected to reduce by 70%, SO₂ by 54% and NO_x by 56%.

Our 2019 atmospheric emission reduction plan was estimated to cost R46 billion based on overnight cost, or nominal cost of R67 billion over the next 10 years. The 2020 emission reduction plan, if approved by DEFF, will reduce the cost to an overnight cost of R15 billion over the next 10 years.

Minister Creecy granted Eskom an extension until August 2020 to comply with the new stricter MES limits that came into effect on 1 April 2020. The extension allowed Eskom to continue to operate power stations in compliance with pre-April 2020 licence limits, thereby allowing the continued legal operation of the affected stations. Final MES postponement applications were submitted in September 2020; we await a response from the authorities and the Minister. A decision on these matters may affect our operations in terms of available capacity and financial commitments.

Compliance with atmospheric emission licences

Under NEMAQA, atmospheric emissions include any emission that results in air pollution. Therefore, it covers particulate and gaseous emissions. Eskom is required to obtain an atmospheric emission licence to allow it to emit atmospheric pollutants within certain limits.

At 31 March 2020, 11 coal-fired units were operating in non-compliance with average monthly emissions limits: one unit at Duvha, four units at Kendal, three at Lethabo, two at Matla and one at Medupi. This placed 6 858MW at risk of censure or closure by the authorities. Initiatives to improve the level of compliance have been implemented, reducing the capacity at risk to 3 153MW at 30 September 2020, relating to four units at Kendal and one at Lethabo.

While power stations generally comply with legal requirements in terms of emission limits, there are periods where these limits are exceeded in unplanned incidents, in many instances during times of generation constraints. These are legally referred to as NEMA

section 30 incidents. A total of 33 section 30 incidents were reported during the year (2019: 88, restated).

Between January 2019 and May 2020, Kendal Power Station reported exceedances of particulate emissions above the set AEL emissions limit in monthly emissions reports to the licensing authority. However, these were labelled as exceedances in terms of section 30. The exceedances should have been reflected as non-compliance in terms of the AEL. These reports were subsequently rectified and reissued to the licensing authority in May 2020.

It is estimated that all coal-fired units combined have exceeded their allowable daily particulate matter emission limits on 2 466 days during the year (2019: 1 688 days). While many of these are permissible in terms of AEL provisions, about 900 of these were non-compliances to the stations' AELs, with 850 of these being recorded at Kendal Power Station.

Offset programmes

Implementation of an air quality offset programme to reduce particulate matter emissions to improve ambient air quality in communities adjacent to our power stations is a requirement of the 2015 MES postponement decision. The offset plan has a nominal cost in excess of R2 billion (determined in 2019) over the next five to eight years. Proposed offset interventions include switching households from using coal to electricity in combination with liquid petroleum gas, insulating homes with ceilings and addressing the burning of waste as a source of local air pollution.

One of our key environmental KPIs is particulate matter emissions per MWh of electricity sent out to the national grid, and is tracked in our annual shareholder compact with DPE. Our power stations monitor compliance to their emissions limits specified in their AELs on a continuous basis.

We employ a number of technological solutions to manage air quality, such as fabric filters bags and ESPs which reduce particulate matter; and FGD (currently only at Kusile Power Station) and low NO_x burners that treat SO₂ and NO_x emissions respectively.

We have an emission reduction plan to reduce Eskom's emissions over the next 20 years through retiring stations combined with particulate technology retrofits or enhancements. Part of this plan is to ensure accountability and that power stations operate and maintain the technologies installed to reduce pollution. We are also implementing offset programmes in local communities.

We continue work to reduce particulate emissions and other pollutants on a sustainable and cost-effective basis.

Implementation of the project was delayed over the past year, this was further exacerbated by the COVID-19 outbreak, but the necessary procurement approvals have since been obtained and contracts have been awarded. Commencement of the lead implementation programme is planned for the second half of the 2020 calendar year. Good progress was made with the health study carried out by the South African Medical Research Council in support of the offset programme, with the first round of community sampling completed by March 2020.

Gaseous emissions

SO₂ emission limits

SO₂ exceedances have been recorded by all coal-fired power stations on 449 days in total during the year (2019: 139). Of those exceedances, 203 occurred at Medupi, which is now operating under a monthly AEL limit rather than a daily one. Matimba, which also operates on a monthly AEL limit, reported 142 exceedances on its units. The poor SO₂ emissions performance at these stations is due to the generally higher sulphur content of Waterberg coal.

NO_x emission limits

Exceedances of allowed NO_x emissions have been recorded by all coal-fired power stations on 409 days in total during the year (2019: 304). Lethabo reported 51 exceedances during the year (2019: 112), with the reduction due to initiatives to address combustion issues which affect NO_x exceedances. The remainder of the exceedances were generally due to monitoring issues.

Emission reduction projects

We remain at risk of not meeting commitments made in previous minimum emission postponement applications due to project delays and constraints on available funding. The consequences of non-compliance could be the withdrawal of licences to operate, DEFF not granting further postponements, or not meeting specific loan agreement conditions, such as the World Bank's Medupi FGD loan conditions.

Emissions control projects consist of refurbishment of existing plant and retrofitting new technologies to reduce particulate matter emissions, as well as sulphur and nitrogen oxides. Projects are lagging behind the 2019 MES exemption. Given the risk to our licence to operate, there is heightened focus on the execution of a number of emission-related projects, the majority of which are in the contracting and pre-contracting phases. A steering committee has been established to monitor progress and review plans to address commercial and resource issues.

Emission abatement technology already installed at our power stations includes:

- ESPs at Kendal, Komati, Kriel, Lethabo, Matimba, Matla, Tutuka and three of the six units at Duvha. In addition, SO₃ flue gas conditioning plants have also been installed at those stations with ESPs, except at Tutuka, to improve the efficacy of the ESPs
- FFPs at Arnot, Camden, Grootvlei, Hendrina, Kusile, Majuba, Medupi and three units at Duvha
- Boilers with low NO_x design at Kendal and Matimba

- Low NO_x burners at Medupi, Kusile and seven units at Camden
- FGD at Kusile
- Ankerlig and Gourikwa are a low NO_x design OCGT plant
- Acacia and Port Rex are of an older OCGT design that complies with existing plant NO_x limits

The following emission reduction projects are being undertaken:

- Lethabo Power Station is busy with the first phase of a particulate emissions reduction solution through the installation of high-frequency power supply (HFPS) on all six units. The second phase is being developed; this will cover the refurbishment of the ESPs and upgrading the SO₃ flue gas conditioning plant. The HFPS project has made progress, and will be installed on the first unit in the second half of the 2020 calendar year
- Development work continues for low NO_x burner replacement or retrofits at Majuba, Matla and Tutuka. The NO_x projects have been put on hold, while we engage with authorities on an alternative emission plan, which focuses on particulate emission reduction
- Tenders for the Tutuka FFP and dust handling plant retrofits are being evaluated. An application for postponement of the station's MES and AEL limits applicable from 1 January 2019 was submitted to the authorities in November 2018; a decision on the matter is awaited
- The Kriel ESP and SO₃ project is progressing according to plans and will begin execution in 2021
- As indicated, the units at Kusile are being constructed with the FGD plant included. The Medupi FGD retrofit project has been delayed. We are seeking alternative, more cost-effective technology options given financial constraints

Ashing facilities and ash utilisation

The most significant waste is ash produced from the combustion of coal by our power stations. Ash sold from five stations in terms of our ash utilisation strategy increased slightly to 2 920kt for the year (2019: 2 785kt), or just over 9% of total ash produced. DEFF approved our application for the exclusion of ash and gypsum from the definition of waste when extracted for beneficial use at our sites. This provides additional opportunities to increase ash beneficiation – such as the use of ash in bricks, cement, soil amelioration, road construction and mine backfilling – without having to apply for a waste management licence. Nevertheless, the disposal of ash and gypsum must continue to comply with all the legal requirements associated with a hazardous waste.

Since late April 2020, all eight Camden units (totalling 1 481MW nominal capacity) were shut down due to the safety risk resulting from ash dam capacity constraints. This accounted for other load losses of 2.32% during the first quarter of 2021.



Air pollution and Eskom's impact on air quality

No matter the source, there are two ways pollution can enter the air. Point source pollution occurs when air pollutants come from a single source of origin, such as smokestacks at a single factory. Non-point source pollution occurs when air pollutants come from many sources, such as all of the cars on the road and veld fires.

Just as not all sources of pollution are the same, pollutants also vary in their effects. Primary pollutants are those that cause direct harm or that can react to form harmful substances in the atmosphere. Secondary pollutants are those harmful substances that are created from the reactions between primary pollutants and the components of the atmosphere.

Generating electricity from fossil fuels releases pollutant emissions that include SO₂, NO_x, and particulate matter (PM10 and PM2.5). Dust from ash facilities and our sites also have an impact on local air quality. While we are not the only source of emissions affecting air quality in the areas in which our power stations operate, we recognise that our emissions contribute to air quality issues that affect the health of individuals and communities. Given that we are the single largest emitter in the country, air quality is a high priority for Eskom.

The current ash dam had reached its maximum height and therefore posed a safety risk to personnel on site and neighbouring communities; it could also cause an environmental impact. Mitigation plans to continue ashing in future include moving ash to a lower dam, as well as utilising alternative capacity, such as backfilling a nearby mine. Construction of the new ash dam is in progress, but has been delayed. To extend the ashing capacity, further extension of the water-use licence will be pursued beyond April 2021 as further mitigation.

Seven of the units will be returned to service from 27 August over a period of about two months, with the last unit remaining on outage for a general overhaul. We have already removed 795 000m³ of ash from the dam, with a further 800 000m³ to be excavated by the end of November 2020.

Reducing water consumption

We are implementing a comprehensive water strategy for all coal-fired power stations, based on maintaining our strategic user status and complying with applicable legislation. Furthermore, all power stations have developed water strategy implementation plans to reduce water use and ensure compliance. Regrettably, the water strategy implementation plans implemented to date have not resulted in reduced water usage at coal-fired power stations. Water performance remains unsatisfactory, caused by coal-fired station technical performance, ageing plant and long lead times to address root causes of high water consumption, such as leaks from the plant and fixing key areas that contribute to poor water management on site.

Specific water usage

Specific water use for the generation of electricity for the year is worse than target, but deteriorated only slightly compared to the prior year.

Due to continuous exceedances of atmospheric emissions and poor specific water usage in the coal-fired fleet, the Generation Environmental Compliance Steering Committee (GESC) was established in June 2020 with a specific focus on water management, including other environmental aspects.

The GESC is chaired by the Group Executive: Generation to monitor and closely track the implementation of water actions at power stations to reduce specific water usage and address the increase in water spillages that result in environmental legal contraventions.

Reducing environmental legal contraventions

There were five Operational Health Dashboard contraventions (as defined earlier) reported during the year (2019: two), two of which related to particulate emission exceedances and the others to water issues. Furthermore, 59 environmental legal contravention incidents were recorded against a tolerance level of 18 (2019: 24, restated). Of these, 39 were water-related incidents, 17 related to air quality, and three to waste.

Phasing out polychlorinated biphenyls

DEFF published regulations prescribing requirements to phase-out the use of polychlorinated biphenyls (PCB) materials, previously used as coolant fluids, and PCB-contaminated materials (>49ppm) by 2023. In 2015, we submitted a PCB phase-out plan to DEFF, which was approved. A total of 158 pieces of PCB equipment have to be disposed. To date, 82 have been phased out. The remaining 76 will be phased out by 2023, although there is some concern about the slow progress over the past year.

Information on the disposal of ash, asbestos, PCB-containing material, as well as nuclear waste and used nuclear fuel is set out in the technical statistics table on pages 142 to 143

Provisions for environmental restoration and rehabilitation

We provide for the following obligations:

- Estimated decommissioning cost of nuclear plant, including rehabilitation of the associated land
- Management of spent nuclear fuel assemblies and radioactive waste
- Decommissioning of other generating plant and rehabilitation of the associated land
- Estimated cost of closure at the end of the life of cost-plus mines, together with pollution control and rehabilitation of the land, where a constructive or contractual obligation exists to pay coal suppliers

The following provisions have been raised in respect of environmental rehabilitation and restoration:

R million	Actual 2020	Actual 2019	Actual 2018
Power station-related environmental restoration – nuclear plant	16 203	17 797	15 928
Power station-related environmental restoration – other power plant	11 932	14 460	13 375
Mine-related closure, pollution control and rehabilitation	14 291	13 906	12 737
Total environmental provisions	42 426	46 163	42 040

Refer to note 30 in the consolidated annual financial statements for more information on these provisions

Biodiversity

Red data bird mortalities on Eskom's infrastructure deteriorated to 392 mortalities for the year (2019: 331), the majority involving distribution infrastructure. During the year, Eskom's Envirotech Care Group released best practice approaches that will contribute significantly towards achieving a reduction in wildlife interactions on Eskom infrastructure. These include those related to bird electrocution, mitigation of giraffe electrocutions and mitigation against wood pole damage by large game like buffalo.

i In recognition of the interdependency between Eskom and the environment, we contribute to an improved natural environment through our responsibility to protect, manage and mitigate the impact of our activities on the biodiversity of all land on which we operate. In 2019, the Eskom Ingula Partnership won the Stewardship category at the South African Wetland Society Awards. The Ingula Partnership between Eskom, BirdLife South Africa and Middelpunt Wetland Trust was rewarded for the work completed in the declaration of the Ingula Nature Reserve and the securing of vital wetland habitats.

Investing in renewable energy

The Eskom-owned Sere Wind Farm contributed 283GWh to the national grid during the year (2019: 328GWh), with an average load factor of 30.67% and an average availability factor of 97.40% (2019: 35.69% and 98.88% respectively).

The eight rooftop and ground-mounted PV sites in operation at Eskom facilities produced total energy sent out of 3.8GWh during the year (2019: 4GWh).

One of the ways in which we can reduce our carbon footprint is through the purchase of renewable energy from IPPs, coupled with our own investment in renewables. Renewable energy sources include wind, solar power, biomass, landfill gas and small hydro technologies.

ii For capacity provided by renewable IPPs, refer to page 95

Regrettably, no additional renewable energy capacity has been allocated to Eskom under the IRP 2019, effectively preventing our investment in renewable technology in the foreseeable future.

Based on the need to shut down ageing power stations and develop new revenue and employment pathways, coupled with a desire to reduce our carbon footprint, we aspire to expand our renewables portfolio significantly through large-scale grid-connected wind and PV plants at selected greenfield sites, as well as at power stations and offices. Additionally, we will investigate rooftop PV on a commercial basis and adopt energy storage solutions to provide balance to the system.

Dealing with climate change

Eskom's climate change policy

Our climate change policy supports South Africa's decarbonisation target to have South Africa's national greenhouse gas (GHG) emissions peak by 2025, plateau for up to a decade, and then decline in absolute terms from 2036. Historically, electricity accounts for around 42% of national CO₂ emissions.

The South African Government has issued a number of regulations to address climate change and the associated risks, including:

- Declaration of GHGs as criteria pollutants, which are carbon monoxide, ground-level ozone, lead, nitrogen dioxide, particulate matter and sulphur dioxide
- Mandatory reporting of GHG emissions
- Requiring pollution prevention plans in five-year cycles, with annual progress reports
- Pilot carbon budget process

We comply with all these regulations. We measure and track carbon dioxide emissions every month; the annual data is externally audited. We submit an annual report to Government on progress against our initiatives to reduce emissions. We are participating in the DEFF voluntary carbon budget process running from 2016 to 2020; emissions are projected to remain within the budget. We anticipate that mandatory company-level carbon budgets will come into effect once the proposed Climate Change Bill is promulgated; the latest revision of the Bill is expected to be submitted to NEDLAC during September 2020.

Our carbon footprint

i A carbon footprint is a calculation, reported over a period of 12 months, of the total GHG emissions caused by an organisation, both directly and indirectly, expressed in tons of carbon dioxide equivalent (tCO₂e). The calculation of a carbon footprint covers a different scope and may utilise different assumptions to regulated reporting.

Direct GHG emissions are those from sources that are owned or controlled by the reporting entity. Indirect GHG emissions are a consequence of the activities of the reporting entity, but occur at sources owned or controlled by another entity, such as flights used by employees travelling for business.

We conducted a carbon footprint study to calculate our annual carbon footprint for 2019, to provide insights into the sources and magnitude of our GHG emissions and allow us to better manage our GHG emissions.

The full report is available on our website, at www.eskom.co.za/OurCompany/SustainableDevelopment/Pages/Sustainable_Development.aspx

Our last carbon footprint study was conducted in 2011. The 2019 footprint was calculated in line with the globally recognised *GHG Protocol: A Corporate Accounting and Reporting Standard*. Using the newly developed GHG calculation tool, we will calculate our carbon footprint annually from 2020.

The results of the carbon footprint study are presented in the following table.

Source	GHG emissions, tCO ₂ e
Scope 1	
Stationary combustion	212 192 077
Eskom motor vehicle fleet	81 797
Fugitive emissions	36 212
Waste disposal	3 468
Non-combustion product use	9
Scope 2	
Electricity and heat purchased ¹	Not applicable
Scope 3	
Coal delivery to site	269 963
Use of employee vehicles	12 627
Air travel	3 368
Vehicle rental	1 903
Total²	212 601 425

- As electricity generation is Eskom's main activity, Scope 2 indirect emissions are in principle accounted for as Scope 1 direct emissions under the GHG Protocol.
- Due to different scopes and input assumptions, the results are not directly comparable with our reported CO₂ emissions in the table on page 142.

Total GHG emissions for 2019 amounted to 212 601 425tCO₂e. The majority of these emissions were caused by the burning of fossil fuels at our power stations for the generation of electricity, with coal, diesel and kerosene consumption contributing 99.81% of our GHG emissions. A second significant source of GHG emissions was the use of Eskom-owned vehicles and delivery of coal to power stations by third-party trucks. Combined, these two categories led to 351 760tCO₂e, or 0.17% of GHG emissions. The remaining categories contributed 57 588tCO₂e to the carbon footprint.

Task Force on Climate-Related Financial Disclosures

We recognise and support the need to disclose clear, comparable and consistent climate-related information. In our 2019 integrated report, we expressed our intent to implement the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) recommendations as best practice. We then initiated the process of aligning our climate-related reporting with the TCFD recommendations to build a better understanding of our climate-related risks, opportunities and financial impacts. We will disclose qualitative data to start and subsequently include more granular quantitative data over time. We aim to implement the TCFD recommendations in full over three years.

Governance

The Board is responsible for the governance of Eskom's climate-related risks and opportunities. The Board sets the direction for how risks and opportunities should be managed; it is supported by committees that govern climate-related issues, namely ARC, SES and IFC.

The GCE and Exco are responsible for approving, implementing and executing effective risk and resilience management of climate change risks. Board committees

and Exco are regularly updated on climate-related risks and opportunities. In the 2020 financial year, 16 climate-related issues were submitted to the highest governance levels for approval. Both Exco and SES approved the alignment of Eskom's climate change reporting with the TCFD recommendations and disclosure in the 2020 integrated report.

The Climate Change and Sustainable Development Department is responsible for developing and implementing our climate change-related strategies and policies, based on best practice and national and international trends. The department is also responsible for identifying and assessing climate-related risks, opportunities, controls and treatment plans. Key climate-related issues are reported to the Risk and Sustainability Exco subcommittee, responsible for supporting and monitoring priority climate change risks and reporting to Exco and Board as necessary.

Strategy

Eskom climate-related risks and opportunities

We have identified three climate-related risks and five climate-related opportunities with the greatest relevance and highest likelihood of affecting our business, strategy, and financial planning in the short, medium and long term.

RISKS

Short term (<1 year)

Potential damage to Eskom assets and operations due to extreme weather events

Medium term (1-3 years)

Failure to transition and implement low carbon initiatives

Long term (3+ years)

Potential loss of Eskom's social licence to operate

OPPORTUNITIES

Short term (<1 year)

Opportunity to invest in more modular plant that is less vulnerable, such as solar PV plants

Medium term (1-3 years)

Repurposing existing coal sites

Development of new assets such as bulk energy storage solutions

Implementation of micro- and mini-grid solutions

Long term (3+ years)

Reskilling and retraining employees

Climate-related scenarios

Publicly referenced IEA scenarios, country-specific assumptions (such as National Determined Contribution (NDC), the IRP 2019 and the GHG pathways report) and company-specific assumptions were considered when developing climate change scenarios for Eskom.

Two scenarios have been developed, namely "soft decarbonisation" and "ambitious decarbonisation". The soft decarbonisation scenario is built on the NDC and the IRP 2019. This scenario reflects our present situation.

The ambitious decarbonisation scenario considers initiatives beyond the IRP, including further increasing renewable energy sources and green technologies, which requires strong external and internal leadership, financial support, capacity building and policy adjustments.

Parameters	Soft decarbonisation	Ambitious decarbonisation
Expected temperature changes	3-4°C (6-8°C locally) change by 2030	2-3°C (4-6°C locally) change by 2050
Expected carbon neutrality date	Achieved around 2070	Achieved around 2050
Risk exposure	Equal exposure to physical risks and transition risk	Reduced exposure to physical risks as a result of improved adaptation to climate change, but maximum exposure to transition risk
Policies	Implementation of mandatory company-level carbon budgets in line with the proposed Climate Change Bill	Full compliance with the Climate Change Bill (i.e. carbon budgets and sectoral emission targets or SETs), and emission reduction beyond the limits contained in the IRP 2019
Carbon pricing	High carbon tax liability	Reduced carbon tax liability due to reduced emissions
Electricity demand	Reduced electricity demand (i.e. decline in electricity sales)	Increased electricity demand (i.e. increase in electricity sales)
Power station shutdown	All coal-fired power stations remain until the end of their planned economic life of 50 years, with some repurposing of coal-fired stations	Potential early shutdown of power stations, and repurposing of all coal-fired stations
New technologies	Limited implementation of new technologies due to financial resource constraints	Mobilisation of funds to implement new technologies such as large-scale renewables, the eMobility (electric vehicle) programme, smart solar-powered micro- and mini-grid solutions, and battery storage programme; hydrogen economy
Energy mix	Continued maintenance of the current fleet with limited investment in renewable energy due to IRP allocations	Mobilisation of funds for Eskom sustainable projects such as repowering with gas, deployment of small- and large-scale renewables and repurposing of coal-fired stations
Desired CO ₂ emissions	Emitting between 190 to 200MtCO ₂ e by 2025	Emitting 80 to 90MtCO ₂ e (excluding new gas) by 2040, and net zero by 2050

Additional disclosures required by the TCFD are covered in Eskom's 2020 sustainability report, available online

Just Energy Transition Office

The changing energy landscape globally and domestically plays an important role in our plans for medium- to long-term sustainability. Given South Africa's vulnerability to climate change and its commitment to the Paris Agreement and the United Nations' Sustainable Development Goals, our approach is to address climate change holistically in a just manner.

We are mindful of Eskom's role in supporting the Just Energy Transition, not only through supplying electricity, which is the economic backbone of the country, but also through the impact of our environmental footprint, as well as our social responsibility towards those affected by our operations. Our Just Energy Transition Strategy is geared towards having a positive impact on our finances, the society in which we operate and the environment.

For this reason, we have established a Just Energy Transition Office, a first among businesses in South Africa, with a determined focus on developing Eskom's Just Energy Transition Strategy detailing:

- Our commitment to a lower carbon future
- How repurposing and renewables plans contribute to meeting this goal

- The impact of this approach on all environmental goals – air quality, carbon emissions and water, with no compromise on environmental integrity
- The impact of this approach on socio-economic factors, including dealing with shutting down coal-fired stations
- Medium- to long-term technology requirements and the associated financing and policy enablers
- How to attract and sustain financing for initiatives

Based on a life of plant of 50 years, approximately 12 000MW of coal-fired capacity is expected to be shut down by 2030. However, the pace of this transition must consider the capacity of the electricity supply system, elements of the value chain, employees, suppliers and communities surrounding the power station to adapt. Our strategy is to redeploy and reskill affected employees, support local municipalities and actively pursue economic opportunities for local communities. Moreover, we are not able to rely solely on the redeployment of people from one coal supply/generation community to another coal supply/generation area in order to ease the process of transition – at least not beyond what the operations at Medupi and Kusile can be expected to absorb.



For this reason, we are developing comprehensive socio-economic impact studies for each power station that will be shut down. We started with the three stations to be shut down first, being Hendrina, Grootvlei and Komati, after which we will extend this work to all stations in the Generation fleet.

Furthermore, we are engaged in a concerted effort to determine how to repurpose these power plants and/or sites, including through the deployment of renewables, repurposing with gas and assessing the use of the sites for other industry.

Broadly, our repurposing work includes, but is not limited to:

- Conversion to renewables or gas
- Biomass – converting municipal waste to energy
- Battery storage sites
- Facilities to process mine rejects and coal fines
- Converting coal stock yards to coal-blending facilities
- Facilities to process acid mine water
- Bulk water supplier for farmers and communities

In looking at the various options and the development of our overall Just Energy Transition Strategy, we are also assessing the options for alternative financing, including climate financing.

Risk management

Two priority I risks relate to climate change, namely the failure to transition and implement low-carbon initiatives and potential loss of Eskom’s social licence to operate; and one priority II risk, being potential damage to Eskom’s assets and operations due to extreme weather events. These risks are managed by our Climate Change and Sustainable Development Department.

Metrics and targets

Refer to the earlier discussion under “Eskom’s climate change policy” and “Our carbon footprint”.

Carbon mitigation mechanisms

The purpose of the Carbon Tax Act, 2019 (CTA) is to levy a carbon tax on GHG emissions, to send a price signal to the market to reduce consumption of carbon-intensive products. The CTA came into effect on 1 June 2019, after a protracted period of stakeholder engagements since the first discussion paper was released by National Treasury in 2010.

The CTA provides details on the persons subject to carbon tax, the tax base and rate, the tax period, calculation of the amount of tax payable and the various types of tax-free allowances. It also allows “generators of electricity from fossil fuels” two additional deductions to 31 December 2022, being phase one of the implementation period. The stated intention is for these deductions to ensure that there is no impact on electricity prices during phase one of the implementation of carbon tax. However, after these deductions fall away in phase two, a significant contribution to electricity price increases can be expected from 2023, as the carbon tax liability is a pass-through to electricity consumers under the regulated electricity pricing principles.

Implementation of the CTA has been challenging, with various proposed amendments, delayed regulations on the use of carbon offsets, as well as proposed amendments to the GHG reporting regulations and supporting guidelines. Development of the South African Greenhouse Gas Emissions Reporting System continues. SARS has announced a three-month delay to October 2020 for the first filing and payment of carbon tax relating to the 2019 calendar year, in line with Government’s economic stimulus package announced in response to the COVID-19 pandemic.

We are committed to addressing the challenge of climate change and support carbon pricing as a tool to assist in lowering the cost of reducing emissions. A transition from coal to lower carbon technologies underpins our comprehensive climate change strategy. We have committed to participating in discussions on solutions to support the country’s transition to a lower carbon future that does not hamper socio-economic development.

Future focus areas

- Implementing the long-term coal strategy to solve two main objectives, namely the optimal cost of coal and security of coal supply
- Extending cost-plus contracts to match the remaining life of linked power stations and utilising dedicated coal reserves for supply to other power stations. This includes reinvesting in cost-plus mines to enable contractual supply
- Extending existing long-term fixed-price contracts for designated power stations with the option to supply other power stations
- Sourcing uncontracted coal for the remaining life of power stations through open tender, while managing coal cost within targeted parameters
- Moving coal as economically as possible, by prioritising a tied colliery model that delivers coal by conveyor, followed by rail, with road transportation as lowest priority
- Developing mobile unit-based online analyser technology, to conduct sampling and analysis of truck deliveries to improve coal quality, combined with work on other coal parameters
- Improving operational practices at power stations to reduce water use and decrease emissions
- Increasing volumes of ash beneficiated at power stations
- Addressing non-compliance and shortcomings to ensure full compliance with licences and permits
- Implementing our Just Energy Transition Strategy, specifically regarding the repurposing of power stations, and pursuing the Just Energy Transition Transaction



Just Energy Transition Transaction

The Just Energy Transition Transaction (JETT) is an opportunity being explored to crowd in funding from the domestic and international markets to support our transition towards cleaner energy, thereby also supporting South Africa’s energy transition. This large-scale investment will be conditional on a significant reduction in carbon dioxide emissions over the next 30 years, in line with national and international commitments.

The JETT proposal is twofold. Firstly, to obtain funding to assist our transition to renewable energy in order to achieve a significant carbon emission reduction. Secondly, to secure transition finance aimed at promoting the socio-economic development of affected communities and workers as we transition from coal-fired electricity generation to a renewable energy-based energy system.

The JETT is part of Eskom’s overarching Just Energy Transition Strategy, which describes a suite of policies, projects and initiatives that contribute to our goals of decarbonisation and socio-economic development.



OUR PEOPLE



Highlights

- Eskom recorded no employee fatalities for the first time in at least 15 years



Improvements

- Employee benefit costs reduced to below budget as a result of headcount decreasing through natural attrition and limited replacement of vacancies
- Approval of the People Plan to support Eskom's turnaround plan



Challenges

- Ensuring an adequately skilled workforce while meeting transformation and learner intake targets, given the moratorium on external recruitment
- Achieving disability equity at all occupational levels, and reasonable accommodation of people with disabilities
- Maintaining a productive relationship with organised labour
- Containing overtime costs given continued poor plant performance
- Limiting the number of serious incidents resulting in injuries and/or fatalities, including public incidents due to illegal connections and tampering
- Minimising the number of lost-time incidents, given our value of Zero Harm



Lowlights

- Fatalities recorded among contractors and members of the public
- Low employee morale as a result of Eskom's poor reputation, lack of incentive bonuses and continued uncertainty around the impact of the restructuring
- The second phase of income differential adjustments has not yet been implemented

Our people remain critical to successfully executing our strategy and delivering on our mandate. Consequently, we need to recruit and retain a skilled workforce and adequately reward our people for their efforts.

Our core values are crucial to driving a culture of performance and accountability. Effective employee engagement, our employee value proposition, consequence management and accountability, all support our desired organisational culture.

The Board requested a review of our people management strategy as the existing strategy was no longer believed to support Eskom's current challenges or the new strategic direction. As such, a People Plan was developed and approved by Board in June 2019, to respond to the current challenges while supporting Eskom's turnaround plan.

The People Plan focuses on five key thrusts to enable and support organisational transformation through:

- Driving a culture of performance and accountability
- Building critical capabilities
- Increasing employee productivity
- Managing employee benefit costs
- Ensuring shareholder targets are achievable given financial constraints and recruitment restrictions

These thrusts will serve as a catalyst for the development and sourcing of leadership and critical skills, by developing and training our people, maintaining a diversified learner pipeline and enabling advancement opportunities.

We further need to ensure we place and retain skilled people in the appropriate positions by continuously performing skill audits; adequately rewarding employee efforts through employee value proposition initiatives; and keeping our finger on the pulse of employee sentiment through targeted employee engagement.

We remain committed to fostering a culture of Zero Harm to promote excellence in safety performance in all our operations, by providing a safe working environment to our employees, contractors and members of the public that supports strict occupational hygiene, mitigates safety risks and is free of incidents. We take protecting the public from exposure to the hazards of our operations and infrastructure seriously, and continue to implement training and awareness initiatives to educate the public on the safe use of electricity.

Our workforce

The group headcount at year end, including permanent staff and fixed-term contractors, stood at 44 772 (2019: 46 665), consisting of 37 765 Eskom employees and 7 007 Eskom Rotek Industries (ERI) employees (2019: 39 292 and 7 373 respectively). Of these, approximately 85% were covered by collective bargaining agreements.

The group headcount is declining, mainly through natural attrition. Our ability to fill vacancies is limited by the moratorium on external appointments driven by significant financial constraints. However, the moratorium can be relaxed for core, critical and scarce skills, subject to approval. We are targeting a group headcount of 42 894 by the 2023 financial year.

As part of the Eskom turnaround plan, Exco approved the implementation of voluntary cash separation packages (VSPs) to a maximum cumulative value of R400 million. The process was open to managerial employees in non-core and non-critical roles, to minimise the impact of separation on critical operations, maintenance, outages or regulatory requirement skills. Employees aged between 60 and 62 were also eligible, regardless of being core or critical.

A total of 367 applications were received, of which 235 were approved. A total of 185 applicants accepted their offers – 163 completed their service in March 2020, 21 in April and one in June. The separations are not reflected in the headcount reconciliation below, as employees are deemed to have left Eskom's service on 1 April. The total cost of the VSPs was R286 million, with a payback period of just over one year.

Our staff turnover rate during the past year was approximately 5.2%, with the movement in our headcount shown below.

Number of employees	2020	2019
Headcount at 1 April	46 665	48 628
Add: Appointments	524	469
Less: Resignations	(1 188)	(1 135)
Retirements	(960)	(874)
Deaths in service	(161)	(215)
Dismissals	(127)	(120)
Absconded	(10)	(5)
Separation packages ¹	–	(8)
Other	29	(75)
Headcount at 31 March	44 772	46 665

1. Voluntary separation packages became effective on 1 April 2020, therefore related staff movements are not included in the turnover analysis for 2020.

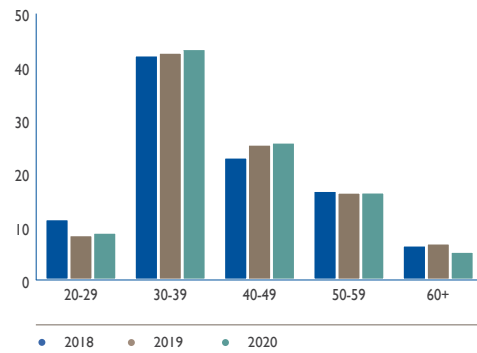
Employee benefit costs form the second largest component of operating costs before depreciation, interest and fair value adjustments, constituting about 20% of operating costs. Therefore, a reduction in employee benefit costs is required to fulfil our strategic focus on cost containment to build a more sustainable organisation.

For a discussion of employee benefit costs, refer to "Our finances – Other operating costs" on page 71

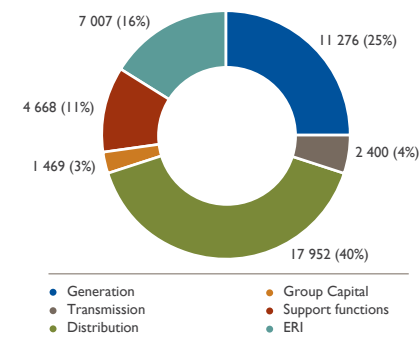
Natural attrition, overtime management and enhanced productivity levels remain key levers to achieving a reduction in employee benefits costs. Progress has been made to reduce our headcount through natural attrition, while initiatives to manage manpower cost drivers and employee productivity levels continue. Although overtime is considered a discretionary expenditure, the high UCLF levels over the past year necessitated extensive maintenance work and repairs, thereby limiting the opportunity to reduce overtime cost. Unfilled critical vacancies contribute to the challenge, as employees take on additional shifts.

The composition of our employee benefit costs is set out in note 36 of the consolidated annual financial statements

The breakdown of our workforce at 31 March based on age is shown below.



The divisional breakdown of our workforce at year end is shown below. About 70% of employees are directly involved in the generation, transmission and distribution of electricity to customers, with the remainder employed in the new build programme, support functions and our subsidiary ERI, which focuses on supporting the electricity business. The decrease in the headcount in support functions over the year is a result of relinking support staff to the line divisions as part of the divisionalisation process.



For information on the racial and gender breakdown of our workforce, refer to "Improving internal transformation" from page 121

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Learner intake: Artisans, number ^{SC}	300	100	92	91	-	n/a	▲
Learner intake: Engineers, number ^{SC}	150	50	16	16	10	n/a	●
Learner intake: Technicians, number ^{SC}	150	50	11	11	3	n/a	●
Training spend as % of gross employee benefit costs ^{SC}	3.75	2.56	3.75	3.67	3.85	5.21	▲

1. The 2023 target for learner intake is the cumulative figure targeted over the next three years.
 2. From the 2019 financial year, learner intake numbers reflect only new learner contracts awarded.

In line with the Board approval granted to appoint core, critical and scarce skills, only learner plant operators could be appointed as permanent employees.

Building and retaining strong skills

Commitment to skills development is essential to guarantee that we have the required skills for the organisation's needs, especially considering the financial constraints we continue to face. Accordingly, we endeavour to build a strong pipeline of leaders that can execute the organisation's strategy and champion our values. We have focused our efforts on ensuring that our existing workforce is adequately supported in their developmental needs and managing talent in a sustainable manner, thereby retaining critical skills using a targeted employee value proposition.

We use internal talent boards to identify high-performing individuals as well as developmental needs among staff; perform succession planning for critical workforce segments; and actively manage talent pools and careers in line with our workforce plan and transformation objectives. This seeks to reduce the need for external recruitment.

We will implement an overall skills strategy that will serve as the foundation for a skills audit to influence a resourcing plan, now and in the future.

In addition to our own business needs, skills development also supports the skills development strategy of the NDP, which aims to eliminate poverty and reduce inequality by 2030. In support of the NDP, we continue to recruit learners and manage a learner pipeline to address the requirements of the business and those of Government, as articulated in our shareholder compact.

Learner pipeline

Our learner pipeline included a total of 1 517 learners at year end (2019: 2 988), comprising 1 449 in technical disciplines and 68 non-technical. The majority of learners are being developed within the Distribution and Generation environment, which accounts for 65% of our existing workforce, as indicated earlier. The learner pipeline represents 4% of company headcount – below our desired level of 6% but considered sufficient for existing business needs.

Although no new artisan learners were permanently appointed during the year, our pipeline contains a sufficient number of artisans to meet future skills requirements.

Learning and development

We use both internal and external training to provide learning and development opportunities for our people. Training expenditure of R1.1 billion for the past year constituted 3.67% of gross employee benefit costs (2019: R1.2 billion). We curtailed training expenditure due to our current financial challenges.

Eskom supports further study programmes where employees seek to obtain qualifications related to their line of work. This enables building skills for future sourcing pools and the expansion of leadership potential within our workforce.

A total of 182 employees are enrolled with various academic institutions to obtain qualifications related to Eskom's line of work (2019: 854). Approximately 50% of those enrolled are women. New applications for masters and doctoral further studies are not eligible for approval due to financial constraints.

The Eskom Academy of Learning (EAL) meets Eskom's in-house training needs across 24 venues nationwide. Continuous assessments are carried out to ensure that training offerings deliver the required competencies at an optimal level. Quality digitised learning content is used for remote learning opportunities, and to achieve cost efficiencies. The EAL has integrated software that will allow employees with disabilities to enjoy the benefits of digitised learning.

Furthermore, the EAL is collaborating with our Research, Testing and Development (RT&D) Department to strengthen implementation of learning opportunities from flagship programmes, as well as registering programmes with professional bodies for continuous professional development accreditation.

Remuneration and benefits

Our approach to remuneration and benefits is designed to attract and retain skilled, high-performing employees. We aim to provide market-related remuneration structures, benefits and conditions of service, within the guidelines set by the shareholder in order to remain competitive.

Guaranteed package

Managerial employees receive a guaranteed package, which includes compulsory benefits such as medical aid, pension, dread disease cover, group life and death benefits included in cost-to-company. To keep remuneration in line with market trends based on an appropriate comparison group, the guaranteed amount is reviewed annually, with any resulting increases awarded in October each year. Annual increases are approved by Exco and ratified by the PGC.

Bargaining unit employees receive a basic salary which includes a thirteenth cheque (known in Eskom as an annual bonus), as well as other benefits, such as pension, medical aid, death benefit, a housing allowance, cell phone allowance and car allowance (subject to qualifying criteria). Basic salaries and conditions of service are negotiated through the collective bargaining process, to keep remuneration in line with market trends based on appropriate comparative groups, with any resulting

increases awarded in July each year. These annual increases are also approved by Exco and ratified by the PGC.

Based on the wage negotiations during 2018 at the Central Bargaining Forum, bargaining unit employees are entitled to an inflationary wage increase of 7% for the 2020 and 2021 financial years. Middle and senior management received an inflationary salary increase of 2.8% for 2020. The dispute lodged with the Council for Conciliation, Mediation and Arbitration (CCMA) regarding the decision to award no increases to senior management for 2019 remains unresolved.

Executive remuneration is discussed under "Governance, leadership and ethics – Executive remuneration and benefits" on page 31

The second phase of adjustments relating to unjustifiable race- and gender-based income differentials, due to be implemented in 2019, is still pending, due to prevailing financial constraints. No process of income differential adjustments has been implemented for senior managers.

Performance bonuses

Performance management enables Eskom to drive a culture of performance and accountability, with emphasis on productivity and operational excellence. Employees agree on individual performance objectives and targets for the coming year through a performance contract with their direct manager or supervisor. The assessment of individual performance happens on a six-monthly and annual basis, thereby providing regular feedback on employee performance, also identifying any developmental needs as they arise. The assessments also inform succession planning through our internal talent boards.

Our short-term incentive scheme aims to align individual performance with strategic organisational objectives. The performance measurement formula is weighted based on an employee's contribution to individual, team, divisional and organisational objectives. The short-term incentive scheme rewards individual performance against predetermined objectives and is linked to the shareholder compact, subject to the achievement of defined organisational gatekeepers.

The current incentive scheme will be reviewed to align with the People Plan. Furthermore, line divisions will implement a production bonus scheme in the coming year, which will reward employees for improved productivity resulting in a financial benefit to Eskom.

Given the operating loss for the 2020 financial year, no short-term incentive bonus is payable to employees. Furthermore, no incentives were paid out in 2018 or 2019.

NUMSA lodged a dispute with the CCMA challenging the decision not to pay incentive bonuses to employees based on organisational performance in the 2018 financial year. They allege that the decision was unfair on the basis that Eskom had unilaterally changed the performance targets without proper consultation. In 2019, the CCMA issued an arbitration award dismissing NUMSA's claim. NUMSA has filed a review application in the Labour Court.

Employee engagement

Discussions between leadership, employees and organised labour are facilitated to ensure sound relations in the workplace. Our leaders are integral to supporting meaningful engagement through the Eskom employee engagement programme. In times of uncertainty, clear communication and effective engagement is crucial to ensuring that our people feel a sense of connection and alignment to the business in order to restore and build trust. Our relationship with organised labour is well regulated, with agreements and formalised processes in place. Nevertheless, the quality of the relationship could be improved.

Initiatives are in place to rebuild employee morale and give employees an opportunity to provide feedback to our leadership. These include face-to-face meetings, employee engagement surveys and regular messages from the GCE to all employees, with communication channels open to all employees. The *Eskom News*, an internal newsletter to all employees, was relaunched during the year.

Our employee value proposition is employee-centred and focuses on the value and benefits provided by the organisation in return for the skills, capabilities and experiences contributed by employees. The “Attitude of Gratitude” initiative is designed to create awareness and appreciation among employees of the benefits which they have access to. The Eskom Nkanyezi Programme is gaining traction as it offers loyalty benefits and discounted rates on products and services to employees through external partners.

Health and wellness

In order to maintain a healthier and more productive workforce, we place considerable emphasis on the health and wellness of our people. We seek to improve work attendance and productivity as well as the health and wellbeing of every employee, through the prevention of occupational diseases and injuries, early detection of occupational and lifestyle diseases (such as hypertension, diabetes and HIV), medical surveillance, fitness for duty assessments and other wellness programmes.

Our physical wellness programme utilises sports, recreation and cultural activities to promote employee wellbeing. Our employee assistance programme (EAP) offers counselling, financial wellness and various other psychosocial support programmes. The top five problems presented to the EAP during the year were emotional issues, trauma, legal matters, work-related complaints and relationship problems. In response, our focus on improving mental health and reducing stress has continued, through awareness and education programmes to assist employees with counselling and skills to manage psychosocial challenges. Employees with financial challenges are offered financial awareness support and referral to external resources for assistance with debt management if needed.

Levels of sick leave within the organisation remain a concern. The sick absenteeism frequency rate (SAFR) – measuring the number of absences due to illness per employee over a 12-month rolling period – of 2.33% (2019: 2.23%) is much higher than the target of 2.04%

and labour market norms. However, the gross sick absenteeism rate (GSAR) – reflecting the days lost due to illness as a percentage of total potential work days – of 2.88% (2019: 2.75%) remains well within the target of 3.50%. All employees with high SAFR and GSAR rates are referred to Eskom clinics for fitness-for-duty assessments and managed accordingly.

Employees who are too ill to continue working are advised to apply for ill-health retirement and receive appropriate assistance. Lifestyle diseases remain the main cause for approved ill-health retirement. Targeted wellness programmes have been developed to increase awareness of lifestyle diseases, including early and adequate medical management of all chronic conditions.

Industrial relations

It is our policy to implement and promote sound and fair labour practices and deal with grievances, disciplinary action, disputes and suspensions appropriately. A grievance dealt with quickly will have less of a negative effect on employee morale and will enhance labour stability.

Targets for grievances resolved and disciplinary action with sanctions were achieved, with close to 80% of grievances being resolved and more than 90% of disciplinary actions resulting in sanctions. This indicates that employees are not being subjected to unwarranted disciplinary measures. Approximately 84% of disputes referred to external institutions, such as the CCMA and Labour Court, were ruled in Eskom’s favour, slightly below our target of 90%.

In terms of our disciplinary procedures, when it is suspected that an employee may have committed misconduct and an employee’s continued presence at the workplace might cause interference with an investigation to determine the facts, or interfere with the disciplinary process itself, the employee may be suspended. Labour law principles require that precautionary suspensions must be instituted with full pay, pending the outcome of the investigation or disciplinary process.

A total of 114 employees were placed on suspension with pay during the year, of which 42 were still suspended at year end. Due to prolonged investigations and delays in the disciplinary process, 27 employees have been on suspension with pay for a period longer than the prescribed three months. Follow-ups are done to ensure that investigations and disciplinary processes are expedited.

In the previous year’s report we discussed a number of industrial relations matters involving our recognised trade unions – NUM, NUMSA and Solidarity – that had progressed to the CCMA and had the potential to adversely affect our financial and operational sustainability. Updates to the matters are discussed below.

Eskom instituted a review application to challenge the arbitration award issued by the CCMA in April 2018, which recommended that the existing bargaining unit should be extended to include certain levels of professionals and middle management employees. The review application remains pending in the Labour Court.

The Essential Service Committee (ESC) investigated in 2019 whether the designation of the generation, transmission and distribution of power as an essential service should be varied or withdrawn. In May 2020, the ESC issued a ruling to the effect that the gazetted designation should not be withdrawn or varied, and directed the parties to conclude a Minimum Services Agreement. The effect of the ruling is that Eskom employees are not entitled to embark on industrial action; this would pose a significant risk to the stability of the national grid, as demonstrated during the industrial action experienced during June and July 2018.

Our people are critical to delivering on our mandate and strategic objectives. The value of the partnership between Eskom, our people and our trade unions can therefore not be overstated.

Improving internal transformation

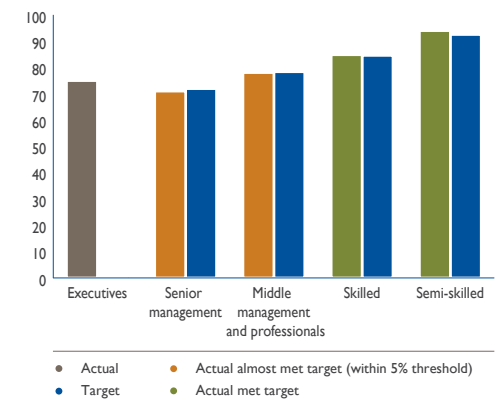
Employment equity remains one of the key initiatives through which meaningful transformation can be realised. We continue to make progress in ensuring equitable representation of the workforce at all occupational levels which truly reflects the demographics of the country.

Our group and company employment equity performance at senior management level, as well as at professional and middle management levels, is set out in the statistical tables on pages 144 to 147

Racial equity at senior management level as well as racial and gender equity at middle management/professionally qualified levels have shown improvement over the past year, although targets have not been achieved.

Despite transformation being a strategic business imperative, our financial challenges continue to hinder the achievement of our transformation targets, and particularly ensuring fair representation of people living with disabilities at all levels.

Racial equity by level of employment



Supporting our people during the national lockdown

As part of Eskom’s comprehensive COVID-19 response strategy, a change management and engagement plan was developed to ensure Eskom employees, contractors, communities, organised labour and other key stakeholders are timeously informed and engaged, while building resilience and driving behaviour modification to address the COVID-19 pandemic.

Communication from the GCE is sent to employees every few days. The main driver of these communiques is to ensure that Eskom’s employees are equipped with accurate and reliable information that will drive appropriate behavioural change.

In an effort to keep employees engaged, an Eskom COVID-19 hotline was established. If employees are aware of a potential COVID-19 exposure at Eskom, or have any questions, concerns or suggestions about COVID-19, the hotline is available for them to share their thoughts and experiences. Moreover, a number of guidelines were developed by the Office of Eskom’s Chief Medical Officer and shared with the organisation.

In a short space of time, Group IT enabled a large amount of the workforce to work remotely during the national lockdown. Managers are maintaining contact with their team members at home.

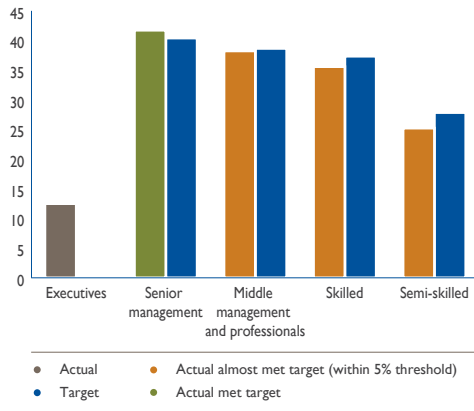
Eskom has compiled a national register of critical staff who may be required to commute or live at site, specifically for the COVID-19 response. This national lockdown register has been submitted to the National Joint Operational Centre overseeing the country’s disaster management response, and distributed to the provinces. Staff identified as essential on this register were issued with permits to commute during the national lockdown. Overall, Eskom’s aim is to have minimal employees and contractors on site.

The register identifies approximately 10 554 essential staff who are required at site on a daily basis; approximately 15 213 critical staff required to remain at home on standby; and approximately 19 162 employees who are not required to work on site, the majority of whom can work at home. All required permits have been issued accordingly. Standby staff may be called to site at short notice to respond to emergencies and ensure business continuity. The majority of essential staff required to be on site are in the Generation, Eskom Rotek Industries, Distribution and Group Capital environments.

The risk of multiple power stations or other key operations having to shut down due to infections and fatalities remains a significant concern. These include Koeberg Nuclear Power Station, National Control, Telecoms Control, Apollo Converter Station, Distribution control rooms, Resource Management Centres and some Generation sites.



Gender equity by level of employment



While no targets are set at executive level, gender and disability equity at this level are lagging far behind other occupational levels.

Eskom has 67% male and 33% female employees at all occupational levels. Vacancies that arise due to natural attrition will be targeted and reserved for women under the Eskom Women Advancement Programme wherever possible. Openings in senior management and middle management or professionally qualified occupational levels will continue to be ring-fenced for employment equity purposes.

We were unable to meet the target for overall representation of people with disabilities for the year. Although the proportional representation of employees with disabilities is still not appropriate, with an over-representation at lower levels, some progress has been made in identifying employees who can be added to and prepared for our leadership pipeline.

Progress has been made towards providing reasonable accommodation for people with disabilities to make it easier for those employees to meet their job requirements. Implementation of recommendations to ensure that all Eskom buildings and facilities are accessible and accommodate people with disabilities is ongoing.

Sessions on disability management and disability awareness continue; furthermore, a disability culture survey is being developed. Research to inform the development of a manager's toolkit for disability management has been completed.

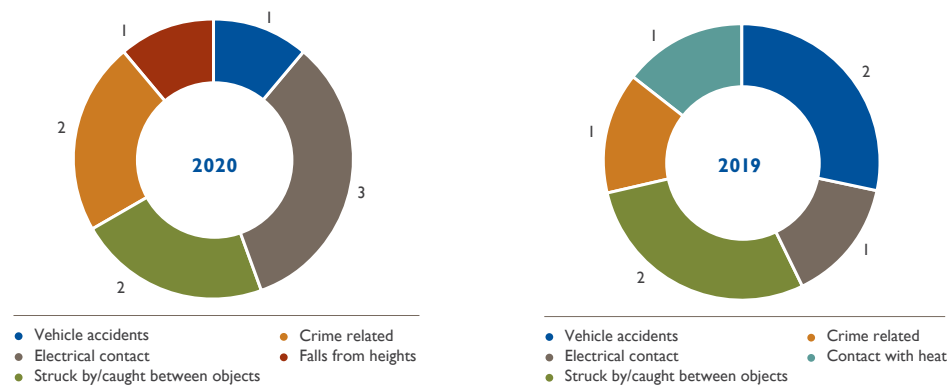
Focus on safety

Eskom is subject to legal, regulatory and licence conditions surrounding occupational hygiene, safety and environmental compliance. We continue to assess our safety performance based on the lost-time injury rate (LTIR), which is a proportional representation of the occurrence of lost-time injuries per 200 000 working hours over a 12-month period, together with the number of fatalities among employees and contractors. The LTIR target reflected in the table below indicates Eskom's tolerance levels. In accordance with the value of Zero Harm, the true target is zero.

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Fatalities (employees and contractors), number	-	-	-	9	7	14	■
Fatalities (public), number ¹	-	-	-	17	22	26	■
Lost-time injury rate, index (including occupational diseases) – group ^{2c}	0.32	0.32	0.34	0.30	0.31	0.24	●

1. A Generation contractor employee involved in a motor vehicle accident on 25 December 2018 regrettably passed away on 26 December 2019, leading to an additional contractor fatality being reported for the 2019 financial year.

Eskom recorded no employee fatalities (2019: three) for the first time in at least 15 years. Despite our commitment to safety and focus on Zero Harm, we recorded nine contractor fatalities during the year (2019: four, restated). The causes of all fatalities are shown below.



In memoriam
We extend our heartfelt condolences to the families, friends and colleagues of the following people who lost their lives in service to Eskom and our customers:

Contractors	
Martin Barnard	Bongani Magxala
Steven Mnisi	Shadrack Mofokeng
Ndumiso Mthatha	Christopher Lebetse Sekwele
Gugulethu Portia Selepe	Nalamotse Daniel Tshehla
Sisabelo Yawathe	

Similar to the causes of fatalities, the major reasons for lost-time incidents are motor vehicle accidents, slips, trips and falls, incidents related to being struck by or caught between objects, as well as falls from heights.

A total of 19 occupational diseases incidents have been confirmed for the group for the year under review (2019: 38). As in the past, these incidents relate mainly to noise-induced hearing loss incidents, which account for approximately 80% of cases.

At 28 October 2020, Eskom had recorded 2 096 positive COVID-19 cases, comprising 1 761 employees and 335 contractors, with 2 057 recoveries. Sadly, 27 employees and three contractors have succumbed to the disease. All affected employees and their families are offered psychosocial support. Initially, more confirmed cases were being recorded in the Western Cape, with Koeberg Nuclear Power Station being the epicentre. However, a rise in cases has been seen in Mpumalanga, Gauteng, KwaZulu-Natal and the Eastern Cape.

We continue to pursue safety initiatives and manage our activities to reduce the number of fatalities and injuries, while ensuring compliance with statutory requirements. These include training and awareness interventions, proactive safety assessments and active management of areas requiring improvement.

We are concerned about an increase in incidents where our employees or contractors are intimidated or injured, and in some instances, even held hostage while attending to network faults or removing illegal connections. In other cases, Eskom-branded vehicles have been stoned or set alight. We condemn, in the strongest possible terms, violent behaviour against our people while they provide an essential service to our customers and the larger public.

Public fatalities and public safety programmes are discussed under "Our role in communities – Public safety" on page 127

Safety programmes

Eskom, in collaboration with the Department of Employment and Labour (DEL), is continuously looking for opportunities to enhance the knowledge of both our occupational health and safety professionals as well as DEL inspectors through training and workshops.

The focus on the benefits of behavioural safety observations has been renewed. In support of this, an organisation-wide safety climate survey is planned. This will assess the prevailing safety climate, highlight opportunities for improvement and assist with developing appropriate corrective plans.

A gap assessment was conducted at OHSAS 18001 certified sites to determine their readiness for the migration to ISO 45001. During the year, more than 1 800 Eskom personnel attended ISO 45001 training.

Contractor management

Contractor safety management remains a priority due to the vital role that contractors play in our operations. To this end, contractor management awareness initiatives have been launched to reiterate the importance of supervision of contractor employees. All contractors conducting critical or high-risk activities are required to have written safe work procedures in place. In addition, site visits are conducted across the organisation to assist business units in understanding and implementing legislative and Eskom-specific requirements for contractor safety management to ensure compliance and improve contractor safety performance.

We continue to assess all safety-related incidents in order to identify root causes and share learnings on safety best practice. Before being registered as vendors, new contractors are assessed for compliance with SHEQ requirements. Contractors that have experienced safety-related incidents are required to develop and implement improvement plans. Compliance is monitored through inspections and audits to improve our contractor safety.

Future focus areas

- Successfully implementing the People Plan in the following areas: driving a culture of performance and accountability; building critical capabilities; increasing employee productivity; managing employee benefit costs; and aligning shareholder targets to financial sustainability
- Continuing to align divisional resourcing plans to turnaround initiatives to ensure financial sustainability, combined with ensuring shareholder targets are achievable given financial constraints and recruitment restrictions
- Assessing the safety climate through an organisation-wide safety survey, highlighting improvement opportunities and developing appropriate corrective plans
- Investigating alternative ways in which we can safeguard the lives of our employees and contractors as they perform work in our communities
- Supporting all business units in complying with the COVID-19 health and safety regulations

OUR ROLE IN COMMUNITIES



Highlights

- The target for local content of procurement spend was achieved
- The Eskom Expo for Young Scientists won the National Science and Technology Forum Award for Non-Governmental Organisations, for an outstanding contribution to science, engineering, technology and innovation in South Africa over the last decade



Challenges

- Procurement spend with the majority of supplier categories remains below target
- Financial challenges limit the effective implementation of CSI programmes



Lowlights

- Eskom's reputation is in the poor or lowest tier based on the international RepTrak® Pulse reputation survey, scoring the lowest among 78 global energy utilities

Our role in communities considers our relationships with direct customers and suppliers; beneficiaries of our electrification efforts and corporate social investment (CSI) activities; the communities in which we operate; as well as the public in general, which constitutes our indirect customers. Due to the significant impact of stakeholder relationships on our business, we aim to collaborate with communities for the benefit of all. Our reputation with stakeholders is strongly influenced by the level of trust in our organisation.

Eskom strives to be a customer-centric organisation that delivers world-class customer service across all customer segments. We place great importance on the value we add to the lives of ordinary South Africans. Our developmental responsibilities cover building and maintaining power stations and networks to supply households, schools and industries with electricity, supporting local enterprises and stimulating skills and job creation.

We play a critical role in skills development and economic empowerment to transform society through our supplier development and localisation drive as well as by investing in community education, health and developmental projects. The rollout of Government's electrification programme still forms our most direct contribution to transforming our society.

Customer service performance

We aim to put the customer at the centre of our business towards our overall objective of achieving fully satisfied and serviced customers. Our primary objectives in this area are sales growth, revenue collection and customer satisfaction.

We measure customer satisfaction by employing a range of statistical perception and interaction-based customer surveys, conducted by independent research organisations.

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Key Customer Delight, %	80.0	80.0	80.0	81.5	81.7	79.5	●
Customer Delight, %	75.0	75.0	75.0	73.6	72.7	72.0	▲
CustomerCare, index	8.2	8.2	8.2	8.5	8.5	9.9	●

1. The Key Customer Delight and Customer Delight measures have replaced Eskom KeyCare and Enhanced Maxicare respectively, and are based on a 12-month moving average.

Key Customer Delight, which measures the satisfaction of large industrial customers, has remained above target but has declined marginally compared to the previous year. The price of electricity and unreliability of supply are the main reasons for dissatisfaction among our key customers. In particular, the unpredictable nature of load curtailment and loadshedding is making it difficult for key customers to plan around supply interruptions.

Customer Delight, which measures perception among residential, small- and medium-sized customers, showed slight improvement over the period although still performing below expectations. This is due to delayed resolution of supply interruptions and poor performance on quotes, connections and billing.

CustomerCare measures customer satisfaction on a transactional basis, and has remained stable. Nevertheless, customer dissatisfaction with unplanned interruptions, loadshedding and inadequate staffing leading to delayed response times to customer queries remain areas of concern.

Our reputation

A company's reputation signifies the emotional bond it has with society, and is largely influenced by perception. Reputation affects an organisation's licence to operate, its ability to attract top talent, the extent to which customers will prefer its products and services, and the level to which outsiders are willing to advocate on behalf of or defend the company.

Using the international RepTrak® Pulse reputation study, our reputation has shown a steady decline over recent years. The survey is scored along seven dimensions, namely products and services, innovation, workplace, governance, citizenship, leadership and performance. An organisation's sector affects the score, with the energy sector having a poor (and declining) reputation globally. Governance as well as products and services contribute the most to the overall score, followed by citizenship, or an organisation's contribution to society.

The 2019 study again ranked Eskom the lowest out of the top 50 South African companies surveyed, with a score of 20.8, down from 26.7 the year before, ranking us in the poor or lowest tier. Eskom also ranked lowest out of 78 global energy utilities. Eskom's poor financial performance and perceived leadership challenges were the biggest contributors to the decline over the past year. Media coverage also plays a strong role in forming the public's perception of Eskom.

Rebuilding and strengthening the public's confidence and trust in Eskom remains one of our key priorities. Despite the steady decline in our reputation, we target a RepTrak® score of 50 (in the "weak to vulnerable" range) in the medium term.

Our contribution to supplier development

We aim to contribute to sustainable local development by leveraging our procurement spend in a manner that also allows flexibility within the business, while accommodating Government's local development initiatives and policies.

During the year under review, Eskom awarded a total of 1 737 contracts worth R120 billion. Of these contracts, R111.4 billion (or 92.84%) was committed to local content. Of those, 83 contracts worth R2.4 billion were awarded in the new build programme, of which R2.1 billion (or 88.53%) was committed to local content. Since inception of the new build programme, contracts to the value of R229 billion have been awarded, and total local content committed by suppliers amounted to R139.1 billion, representing 60.74% of the total contracted value.



The group and company procurement equity performance is set out in the non-technical statistical tables on pages 144 to 147 at the back of the report

Total measured procurement spend (TMPS) for the group on all active contracts amounted to R154.2 billion for the year, of which 65.97% was spent with B-BBEE compliant suppliers. Procurement spend with black youth-owned suppliers achieved 2.65% of TMPS, exceeding the target of 2%. However, procurement spend targets in the following categories were not met: B-BBEE compliant suppliers; black-owned and black women-owned suppliers; companies owned by black people with disabilities; and qualifying small and exempted micro enterprises. The poor performance is due to an increase in previously compliant suppliers not renewing their B-BBEE certificates.

Maximising our socio-economic contribution

Measure and unit	Target 2023	Target 2021	Target 2020	Actual 2020	Actual 2019	Actual 2018	Target met?
Total electrification connections, number ^{SC}	285 428	85 428	177 000	163 613	191 585	215 519	■
Corporate social investment committed spend, R million	610.2	153.8	132.6	123.8	132.4	192.0	■
Corporate social investment, number of beneficiaries	2 000 000	750 000	800 000	1 479 395	933 139	1 116 044	●

I. The 2023 target is the cumulative target over the next three years.

Electrification

The electrification programme funded by DMRE allows us to connect previously disadvantaged households in our licensed areas of supply. Challenges experienced in certain areas include criminal activity and community unrest, coupled with delayed contract modifications and approvals.

The target for electrification connections set by DMRE was lowered to 157 900 due to a reduction in the funding provided, and therefore actual connections (which include rollover connections of 45 292) exceeded the revised target. However, the shareholder compact target was not adjusted.

Corporate social investment

The Eskom Development Foundation NPC (the Foundation) is responsible for our CSI initiatives to improve the quality of life for communities where we operate. It is an Eskom subsidiary and solely funded by Eskom. Initiatives focus on education, support for small and medium enterprises, farming, community development, as well as energy and environmental projects through a number of national programmes.

TMPS includes spend against IPP contracts which were concluded in terms of DMRE's RE-IPP Programme over which we had no control. If IPP expenditure were excluded from TMPS, overall procurement performance would improve, particularly preferential procurement from B-BBEE compliant suppliers.

Initiatives to improve procurement performance include:

- Insisting on valid B-BBEE certificates when a contract is awarded and throughout the duration of the contract
- Encouraging joint ventures where no black-owned entities are able to tender
- Incorporating black-owned qualifying small enterprises and micro enterprises as incubates in all supplier panels where possible

The supply chain recovery programme, which was implemented to address historical issues leading to previous audit modifications, together with improving compliance through proactive monitoring, was concluded in July 2019.

Progress on the supply chain recovery programme is discussed under "Ethics and progress on governance clean-up – Improvement process to address irregular expenditure" on page 35



The Foundation approved 208 projects, grants and donations to the value of R123.8 million during the year, assisting 1 479 395 beneficiaries. A selection of flagship projects and initiatives are discussed below.

Eskom Business Investment Competition

The Eskom Business Investment Competition (BIC) encourages small and medium black-owned enterprises to thrive and contribute to the country's economic development and rewards outstanding work in entrepreneurship. It has been operating for more than two years in several sectors, such as engineering and construction, agriculture and agri-processing, manufacturing, as well as trade and services.

With prizes worth approximately R1.3 million, the competition plays a part in strengthening sectors that are important to South Africa's ability to meet its economic growth targets. BIC also supports the development of these businesses through training and business skills enhancement.

Eskom Expo for Young Scientists

The Eskom Expo for Young Scientists (EEYS), supported by Eskom as title sponsor for almost 20 years, strives to inspire young scientists and researchers to conduct research projects in science, technology, engineering, mathematics, and innovation. It also seeks to provide promising young scientists with opportunities to develop their passion for the sciences, while enhancing their depth of knowledge. A robotics session took finalists through the entire process of building and programming robots.

Projects submitted for exhibition are carefully judged in terms of originality, scientific rigour, creativity and presentation. About 500 projects are selected for the final event from 35 regional expos; a number of winning projects participate at various international science fairs around the world.

Simama Ranta

The programme was initiated 10 years ago in partnership with the Education With Enterprise Trust. Simama Ranta means "empowering the South African economy". It is aimed at identifying and acknowledging South African schools that are leading the way in education initiatives aimed at entrepreneurship.

Skills development through our new build projects

A total of 13 318 people were employed at the Medupi and Kusile new build sites and on large transmission projects at 31 March 2020 (2019: 23 982). As various packages in the new build projects are concluded, the number of contractor employees on site continues to decline. Nevertheless, we remain committed to driving skills development and transfer with our construction partners. Before demobilisation can take place, affected workers have to provide proof of upskilling to skills development committees.

Public safety

In accordance with our commitment to Zero Harm, we continue to conduct public safety awareness campaigns at schools, communities, agricultural forums and to various other stakeholders in an effort to reduce electricity-related injuries and fatalities. Members of the public are educated on how to use electricity safely and correctly, by raising awareness on the hazards of overloading electricity plugs, illegal connections and purchasing prepaid electricity from ghost vendors. We continue to encourage the public to report low-hanging power lines, meter tampering and vandalism to electrical infrastructure in their communities.

There were 17 public fatalities during the year (2019: 22), which included 12 incidents linked to electrical contact. Despite ongoing initiatives and campaigns, public incidents due to illegal connections and tampering by members of the public persist. Of further concern is an increase in physical threat to our employees and contractors working in public areas as a result of community unrest.

Nuclear safety

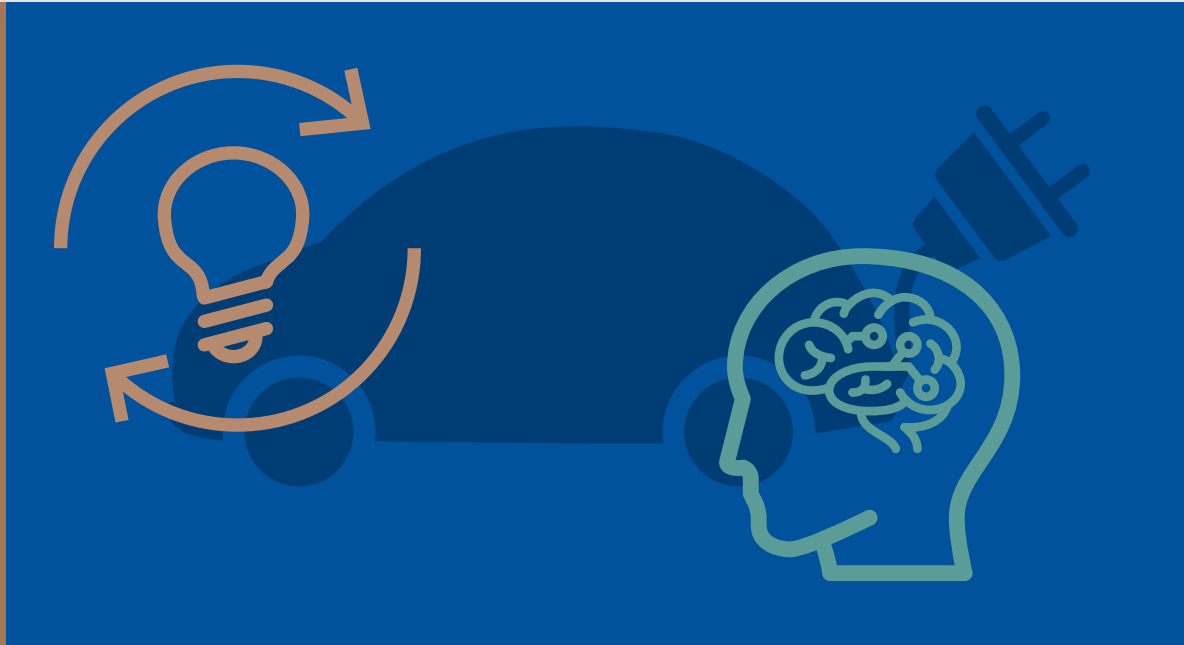
Koeberg Nuclear Power Station's plant design and the assessment of risk to the public is maintained within licensing limits and recommended international standards. No unacceptable risk to the public exists due to the design or operational practices at Koeberg, and both units continue to be operated safely.

Future focus areas

- Enhancing the customer experience, given the negative impact of loadshedding on customers
- Rebuilding and strengthening the public's confidence and trust in Eskom
- Increasing procurement spend with underrepresented supplier categories
- Monitoring compliance with improved governance principles around procurement transactions
- Maintaining support for Government's development initiatives through our electrification and CSI activities
- Continuing with initiatives to educate the public on safe electricity usage



OUR KNOW-HOW



Highlights

- Our RT&D Department employed its intellectual capital to develop innovative solutions in the fight against COVID-19



Improvements

- In support of the Generation recovery plan, our coal logistics and characterisation project is assisting power stations in identifying and reducing load losses due to poor coal quality

Our know-how embodies the knowledge acquired over our 97-year history and is integral to everything that we do. It encompasses Eskom's intellectual capital, comprising our intellectual property, such as patents, copyrights, software, rights and licences; and our institutional knowledge, whether tacit knowledge – skills, experience, insights and ideas of our people – or explicit knowledge, such as systems, policies and procedures.

Investing in appropriate technologies



For information on future new build projects, refer to "Our infrastructure – Other projects and future new build" from page 99

Research, testing and development

The mandate of our RT&D Department is to:

- Research, select and develop next horizon technologies that support our strategic objectives
- Create new knowledge and apply this knowledge to practical business challenges by demonstrating selected technologies, and develop new revenue streams
- Provide specialised technical consulting, testing and inspection services to support operational decision-making

During the year, we spent R422 million, including allocated overhead costs, on approved research projects, specialised testing, development and consulting work (2019: R443 million).

Grand Challenges

Our RT&D portfolio supports our 13 "Grand Challenge" focus areas, directed at ensuring long-term operational sustainability as well as early adoption of new technologies and innovative solutions to address our challenges.

For extensive information on the 13 Grand Challenges, please refer to our Research Direction Report 2019-2024 (RaDaR) published by Eskom RT&D in 2019. The document is available at www.eskom.co.za/OurCompany/SustainableDevelopment/Pages/ResearchDirection.aspx



Flagship and other high-priority projects

Work continues on the five flagship projects identified to address our future customer, coal, distribution and transmission asset management Grand Challenges. Over the past year, we have also achieved good progress on existing high-priority projects. Together, these projects are critical enablers to our ability to adapt to the changing energy landscape over the long term.

Research project	Our progress
Flagship projects	
eMobility (electric vehicles)	Eskom's perspective on eMobility was presented at the African Utility Week in May 2019. The business case is in the execution phase, with advocacy, platform and product initiatives on track. Our simulation model, eMobiSim, has been applied to national electric vehicle forecasts; results indicate that the projected uptake is lower than expected. South Africa's environmental targets will not be achieved through a reduction in transportation emissions alone
Coal logistics and characterisation	A revised minimum coal quality specification was implemented to ensure that the quality of coal used mitigates against load losses and adverse emissions. In conjunction, assessments of 56 new coal sources were conducted to improve coal stockpiles. Boiler leakage tests were conducted at the majority of power stations to reduce the likelihood of boiler tube leaks due to poor quality coal. Furthermore, a model has been developed to assist power stations in determining the effect of coal quality on plant performance and quantifying coal-related load losses. Water retention tests have commenced on coal fines (dust) to determine the feasibility of using this by-product in the generation process
Distributed energy resources	Project execution has been separated into two phases, with the first phase focusing on construction of a pilot embedded generation plant, followed by research and testing. This phased approach is expected to shorten the overall project timeline by two years. Market evaluations have commenced; these will be used to determine the component costs of a distributed solar plant and identify key strategic partnerships required across the supply chain
Rural microgrid smart community	As highlighted in last year's report, a rural off-grid smart community pilot in Wilhelmina, Free State was completed in November 2018. Monitoring of seasonal performance and integrity of the pilot system continues to identify areas for optimisation
Business model for technical development of black-owned suppliers	Our focus is on business development of technical services that cannot be sustained in-house due to resource and financial constraints. We have partnered with the CSIR's Enterprise Creation for Development for the development of entities to support Eskom, the South African electricity supply industry and other industries. We are targeting development of at least one sustainable business plan by the end of 2021
Other high-priority projects	
High-voltage direct current (HVDC) test facilities	The critical path and projections for delivery have been revised, but will need to be revisited in the coming year due to contractual challenges and cable theft incidents on site. Due to the cost involved, we are examining alternate funding sources and the possibility of extending the facility to a national level; engagement with the South African Bureau of Standards (SABS) is under way
Energy storage (battery storage)	We operate the largest testing facility for large-scale energy storage in the southern hemisphere. We are exploring bulk energy storage solutions for grid strengthening as well as small-scale, behind-the-meter storage solutions for customers to store their own generated power. The knowledge gained from research and testing in this area is being applied to our battery storage project that is under way. An Eskom position paper on battery storage technology as well as a web-based tool to ensure standardised selection and sizing of suitable energy storage technologies have also been developed

Research project	Our progress
Line inspection and maintenance using robotics and drones	Three remotely piloted aircraft systems (RPAS) have been delivered for testing at the high-voltage laboratory of the SABS' National Electrical Test Facility. A team of Eskom engineers have undertaken RPAS pilot licence training. Tenders have been issued for the development of a proof of concept in the use of RPAS for transmission and distribution live-line inspections
Commercialisation of underground coal gasification	As discussed in last year's report, the project will remain in care and maintenance until May 2021. Nevertheless, we have started engaging with the Central Energy Fund to collaborate on the project
Smart electricity platform	The project is aimed at developing a smart information technology and operational technology platform that integrates customer-centric products, including eMobility, distributed energy resources, energy storage, smart metering and other emerging technologies. A research report and business operating plan have been developed, to strategically position Eskom as a digital utility in the evolving energy landscape

Using our resources in the fight against COVID-19

In an effort to assist Government with its COVID-19 response plan, Eskom made its Academy of Learning (EAL), based in Midrand, Johannesburg, available to the Gauteng Department of Health to use as a quarantine site. The EAL has 416 beds available for this purpose. Medupi Power Station has also provided accommodation to 148 South African National Defence Force members and military police deployed to Lephalele, Limpopo Province, during the national lockdown.

Staff from our RT&D Department developed innovative solutions to address challenges arising from the COVID-19 pandemic, including the following initiatives:

- Investigated the cost of hand sanitiser and formulated a less costly, but equally effective, option. RT&D laboratories have produced thousands of bottles of sanitiser for distribution to various Eskom sites, including outlying areas where access to sanitiser is limited
- Designed five non-invasive and relatively low-cost ventilators, two of which met Department of Health requirements
- A low-cost, reusable mask with removable N95 filter was developed for frontline staff and the healthcare sector. The design reduces the commercial cost of N95 masks by approximately 70% over a four-month period. Initial tests were favourable and mass production on the first 40 000 masks has been completed
- Developed a hands-free method to dispense sanitiser through a foot pedal. The sanitiser has been distributed to rural and peri-urban schools as part of our CSI initiatives
- Initiated a COVID-19 system dynamics model study, which makes provision for the testing of Eskom employees. Accelerated testing commenced in the Western Cape during June 2020. The model assesses the risk to staff in critical plant areas, considering variables such as rate of infection, age profile and job description
- Investigating ways to adapt existing breathalysers, which are required at access points to Eskom sites, to enable infection screening



Dr Heena Madhav and Dr Kelley Reynolds-Clausen formulated and produced cost-effective hand sanitiser from the Applied Chemistry and Microbiology Laboratory in Eskom's RT&D Department.

Knowledge management, systems and process

Refer to pages 151 to 154 of our 2019 integrated report for detail on how we manage knowledge and intellectual property, as well as the systems, processes and technical structures that govern our operations



Future focus areas

- Focusing research and development efforts on projects to address our Grand Challenges and develop new revenue streams, to improve operational efficiency and explore technologies to future-proof Eskom amidst the evolving energy landscape and digital revolution
- Managing and commercialising intellectual property through Eskom's Intellectual Property Office
- Continuing to develop innovative solutions to ensure security of supply while fighting COVID-19

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ABBREVIATIONS

AEL	Atmospheric emissions licence	kWhSO	Kilowatt-hour sent out
ARC	Audit and Risk Committee	LPU	Large power user
B-BBEE	Broad-based black economic empowerment	LTIR	Lost-time injury rate (see glossary)
CAGR	Compound annual growth rate	MES	Minimum Emission Standards
CCMA	Council for Conciliation, Mediation and Arbitration	Mℓ	Megalitre = 1 million litres
CFO	Chief Financial Officer	MOI	Memorandum of Incorporation
COGTA	Department of Cooperative Governance and Traditional Affairs	mSv	Millisievert
COO	Chief Operating Officer	Mt	Million tons
CSA	Coal supply agreement	MVA	Megavolt-ampere
CSI	Corporate social investment	MW	Megawatt = 1 million watts
DEFF	Department of Environment, Forestry and Fisheries (previously known as Department of Environmental Affairs)	MWh	Megawatt-hour = 1 000kWh
DFI	Development finance institution	MWhSO	Megawatt-hour sent out
DHSWS	Department of Human Settlements, Water and Sanitation (previously known as Department of Water and Sanitation)	MYPD	Multi-year price determination
DMRE	Department of Mineral Resources and Energy (previously known as Department of Energy)	NDP	National Development Plan 2030
DoA	Delegation of authority	NERSA	National Energy Regulator of South Africa
DPE	Department of Public Enterprises	NNR	National Nuclear Regulator
EAF	Energy availability factor (see glossary)	OCGT	Open-cycle gas turbine (see glossary)
EBITDA	Earnings before interest, taxation, depreciation and amortisation and fair value adjustments	OCLF	Other capability loss factor
ECA	Export credit agency	OHS	Occupational health and safety
ERI	Eskom Rotek Industries SOC Ltd	PAIA	Promotion of Access to Information Act, 2000
ESP	Electrostatic precipitator	PAJA	Promotion of Administrative Justice Act, 2000
EUJ	Energy utilisation factor (see glossary)	PCLF	Planned capability loss factor
Exco	Executive Management Committee	PFMA	Public Finance Management Act, 1999
FFP	Fabric filter plant	PGC	People and Governance Committee
FGD	Flue gas desulphurisation	PPA	Power purchase agreement
GCE	Group Chief Executive	PV	(Solar) photovoltaic
GDP	Gross domestic product	RCA	Regulatory clearing account
GE	Group executive	RE-IPP	Renewable energy independent power producer
GW	Gigawatt = 1 000 megawatts	RMIPPP	Risk Management Independent Power Producer Procurement Programme
GWh	Gigawatt-hour = 1 000MWh	SADC	Southern African Development Community
IEA	International Energy Agency	SAIDI	System average interruption duration index
IFC	Investment and Finance Committee	SAIFI	System average interruption frequency index
IFRS	International Financial Reporting Standards	SALGA	South African Local Government Association
IPP	Independent power producer (see glossary)	SAPP	Southern African Power Pool
IRP	Integrated Resource Plan	SARS	South African Revenue Service
King IV™	King IV Report on Corporate Governance for South Africa, 2016	SCOA	Standing Committee on Appropriations
kℓ	Kilolitre = 1 000 litres	SCOPA	Standing Committee on Public Accounts
KPI	Key performance indicator	SES	Social, Ethics and Sustainability Committee
kt	Kiloton = 1 000 tons	SIU	Special Investigating Unit
kV	Kilovolt	SOC	State-owned company
kWh	Kilowatt-hour = 1 000 watt-hours (see glossary)	SPU	Small power user
		TMPS	Total measured procurement spend
		UAGS	Unplanned automatic grid separations
		UCLF	Unplanned capability loss factor (see glossary)
		WANO	World Association of Nuclear Operators

GLOSSARY OF TERMS

Base-load plant	Largely coal-fired and nuclear power stations, designed to operate continuously
Cash interest cover (ratio)	Provides a view of the company's ability to satisfy the interest burden on its borrowings by utilising cash generated from operating activities. It is calculated as net cash from operating activities divided by net interest paid (interest paid on financing activities less interest received from financing activities)
Current ratio	(Inventory plus the current portion of payments made in advance, trade and other receivables and taxation assets) divided by (the current portion of trade and other payables, payments received in advance, provisions, employee benefit obligations and taxation liabilities)
Daily peak	Maximum amount of energy demanded by consumers in one day
Debt/equity including long-term provisions	Net financial assets and liabilities plus non-current retirement benefit obligations and non-current provisions divided by total equity
Debt service cover (ratio)	Cash generated from operations divided by (net interest paid from financing activities plus debt securities and borrowings repaid)
Decommission	To remove a facility (e.g. reactor) from service and either store it safely or dismantle it
Demand side management	Planning, implementing and monitoring activities to encourage consumers to use electricity more efficiently, including both the timing and level of demand
EBITDA margin	EBITDA as a percentage of revenue (excluding revenue not recognised due to uncollectability)
Electricity operating costs per MWh	Electricity-related costs (primary energy costs, employee benefit costs plus net impairment loss and other operating expenses, less other income) divided by total electricity sales in GWh multiplied by 1 000
Electricity revenue per kWh	Electricity revenue (including electricity revenue not recognised due to uncollectability) divided by total kWh sales multiplied by 100
Embedded derivative	Financial instrument that causes cash flows that would otherwise be required by modifying a contract according to a specified variable such as currency
Energy availability factor (EAF)	Measure of power station availability, taking account of energy losses not under the control of plant management and internal non-engineering constraints
Energy efficiency	Programmes to reduce energy used by specific end-use devices and systems, typically without affecting services provided
Energy utilisation factor (EUF)	Ratio of actual electrical energy produced during a period of time divided by the total available energy capacity. It is a measure of the degree to which the available energy capacity of an electricity supply network is utilised. Available energy capacity refers to the capacity after all unavailable energy (planned and unplanned energy losses) has been taken into account, and represents the net energy capacity made available to the System Operator or national grid
Fatality	A fatality is an incident occurring at work, or arising out of or in connection with the activities of persons at work, or in connection with the use of plant or machinery, in which or in consequence of which, any person (an employee, contractor, or member of the public) dies, regardless of the time intervening between the injury and/or exposure to the cause and death. The date of the incident will reflect the date on which the incident occurred, irrespective of the date of death
Forced outage	Shutdown of a generating unit, transmission line or other facility for emergency reasons or a condition in which generating equipment is unavailable for load due to unanticipated breakdown
Free basic electricity	Amount of electricity deemed sufficient to provide basic electricity services to a poor household (50kWh per month)
Free funds from operations	Cash generated from operations adjusted for working capital
Gross debt	Debt securities and borrowings plus finance lease liabilities plus the after-tax effect of provisions and employee benefit obligations
Gross debt/EBITDA ratio	Gross debt divided by earnings before interest, taxation, depreciation, amortisation and fair value adjustments
Independent non-executive director	A director who: <ul style="list-style-type: none"> • Is not a full-time salaried employee of the company or its subsidiary • Is not a shareholder representative • Has not been employed by the company and is not a member of the immediate family of an individual who is or has been, in any of the past three financial years, employed by the company in any executive capacity • Is not a professional advisor to the company • Is not a significant supplier or customer of the company • Is not receiving remuneration contingent on the performance of the company
Independent power producer (IPP)	Any entity, other than Eskom, that owns or operates, in whole or in part, one or more independent power generation facilities
Kilowatt-hour (kWh)	Basic unit of electric energy equal to one kilowatt of power supplied to or taken from an electric circuit steadily for one hour

Load	Amount of electric power delivered or required on a system at any specific point
Load curtailment	Typically larger industrial customers reduce their demand by a specified percentage for the duration of a power system emergency. Due to the nature of their business, these customers require two hours' notification before they can reduce demand
Load management	Activities to influence the level and shape of demand for electricity so that demand conforms to the present supply situation, long-term objectives and constraints
Loadshedding	Scheduled and controlled power cuts that rotate available capacity between all customers when demand is greater than supply in order to avoid blackouts. Distribution or municipal control rooms open breakers and interrupt load according to predefined schedules
Lost-time injury (LTI)	A work injury which arises out of and in the course of employment and which renders the injured employee or contractor unable to perform his/her regular/normal work on one or more full calendar days or shifts other than the day or shift on which the injury occurred. It includes occupational diseases
Lost-time injury rate (LTIR)	Proportional representation of the occurrence of lost-time injuries over 12 months per 200 000 working hours. It includes occupational diseases
Major incident	An interruption with a severity ≥ 1 system minute
Maximum demand	Highest demand of load within a specified period
Non-technical losses	Energy losses due to electricity theft through illegal connections, tampering and bypassing of electricity meters as well as the purchase of electricity tokens from unregistered or illegal vendors. It includes meter reading and billing errors
Occupational disease/illness	Any confirmed disease/illness arising out of, and in the course of, an employee's employment, that is listed in Schedule 3 of the Compensation for Occupational Injuries and Diseases (COID) Act, 1993, or any other condition as determined by an occupational medical practitioner
Off-peak	Period of relatively low system demand
Open-cycle gas turbine (OCGT)	Liquid fuel turbine power station that forms part of peak-load plant and runs on kerosene or diesel. Designed to operate in periods of peak demand
Outage	Period in which a generating unit, transmission line, or other facility is out of service
Peak demand	Maximum power used in a given period, traditionally between 7:00 and 10:00 as well as 18:00 to 20:00 in summer; and 6:00 to 9:00 as well as 17:00 to 19:00 in winter
Peaking capacity	Generating equipment normally operated only during hours of highest daily, weekly or seasonal loads
Peak-load plant	Gas turbines, hydroelectric or a pumped storage scheme used during periods of peak demand
Primary energy	Energy in natural resources, e.g. coal, liquid fuels, sunlight, wind, uranium and water
Pumped storage scheme	A lower and an upper reservoir with a power station/pumping plant between the two. During off-peak periods the reversible pumps/turbines use electricity to pump water from the lower to the upper reservoir. During periods of peak demand, water runs back into the lower reservoir through the turbines, generating electricity
Reserve margin	Difference between net system capability and the system's maximum load requirements (peak load or peak demand)
Return on assets	EBIT divided by the regulated asset base, which is the sum of property, plant and equipment, trade and other receivables, inventory and future fuel, less trade and other payables and deferred income
System minutes	Global benchmark for measuring the severity of interruptions to customers. One system minute is equivalent to the loss of the entire system for one minute at annual peak. A major incident is an interruption with a severity ≥ 1 system minute
Technical losses	Naturally occurring losses that depend on the power systems used
Unit capability factor (UCF)	Measure of availability of a generating unit, indicating how well it is operated and maintained
Unplanned capability loss factor (UCLF)	Energy losses due to outages are considered unplanned when a power station unit has to be taken out of service and it is not scheduled at least four weeks in advance
Used nuclear fuel	Nuclear fuel irradiated in and permanently removed from a nuclear reactor. Used nuclear fuel is stored on site in used fuel pools or storage casks
Watt	The watt is the International System of Units' (SI) standard unit of power. It specifies the rate at which electrical energy is dissipated (energy per unit of time)

LEADERSHIP QUALIFICATIONS AND DIRECTORSHIPS

Board of Directors

at 31 March 2020

PROF. MALEGAPURU (MW) MAKGOBA (67)

Interim Chairman
Independent non-executive director

Appointed to the Board in December 2017

Qualifications

MB ChB (University of Natal)
D Phil (University of Oxford)
Fellowship of the Royal College of Physicians of London
Fellow of the Royal Society of South Africa
Member of the Academy of Science of South Africa
Advanced Management Program (INSEAD)

Skills

Science, engineering and technology
Legal, governance and risk management
Social and human sciences

Directorships

None

MR ANDRÉ (AM) DE RUYTER (52)

Group Chief Executive
Executive director

Appointed to the Board in January 2020

Qualifications

BA English and Psychology (University of Pretoria)
B Civil Law (University of Pretoria)
LLB (Unisa)
MBA (Nyenrode University)

Skills

Commerce and industry
Legal, governance and risk management
Finance, accounting and economics

Directorships

Schulder Property Investments
Tuisbaai

MR CALIB (C) CASSIM (48)

Chief Financial Officer
Executive director

Appointed to the Board in July 2017

Qualifications

B Com (University of Natal)
B Accounting Sciences (Unisa)
Chartered Accountant (SA)
Master of Business Leadership (Unisa)

Skills

Commerce and industry
Finance, accounting and economics

Directorships

Escap SOC Ltd
Eskom Enterprises SOC Ltd
Eskom Finance Company SOC Ltd

DR ROD (RdeB) CROMPTON (67)

Independent non-executive director
Appointed to the Board in January 2018

Qualifications

BA (University of Natal)
Diploma in Higher Education (University of Natal)
BA Hons (University of Natal)
Ph D Humanities (University of Natal)

Skills

Commerce and industry
Finance, accounting and economics

Directorships

None

MR SIFISO (RSN) DABENGWA (61)

Independent non-executive director
Appointed to the Board in January 2018

Qualifications

B Sc (Hons) Engineering (University of Zimbabwe)
MBA (University of Witwatersrand)
Executive Program (University of Michigan)

Skills

Science, engineering and technology
Commerce and industry
Finance, accounting and economics

Directorships

Channel VAS Investments Ltd BVI
Deng Capital LLC
Long Street Property Development (Pty) Ltd
Megapro Holdings (Pty) Ltd
Metallon Corporation (Pty) Ltd
Ndlovu Investment Holding One Company
Sigma Capital (Pty) Ltd
Sigma Private Equity Fund I
Sigma Private Equity Fund Managers (Pty) Ltd

MS NELISIWE (NVB) MAGUBANE (54)

Independent non-executive director

Appointed to the Board in January 2018

Qualifications

B Sc Electrical Engineering – Heavy Current (University of Natal)
Postgraduate Diploma in Business Administration (University of West London)
MBA (Milpark Business School)

Skills

Science, engineering and technology

Directorships

AngloGold Ashanti (Pty) Ltd
Consulting Engineers South Africa (CESA)
DLO NBV
Enerugi 243 Holdings
Just Energy Projects (Pty) Ltd
Magubane Consulting Engineers cc
Matleng Energy Solutions (Pty) Ltd
Mofisto Foundation
Musina Flair Generation (Pty) Ltd
Product Development and Management Association (Sub-Saharan Africa)
Thebe Energy Resources Advisory Council
Trakprops 40
Trinergi Advisory

DR BANOTHILE (BCE) MAKHUBELA (35)

Independent non-executive director

Appointed to the Board in June 2017

Qualifications

B Sc (University of Zululand)
B Sc Hons (University of Cape Town)
M Sc (University of Cape Town)
Ph D (University of Cape Town)

Skills

Science, engineering and technology

Directorships

Chemical Industry Education and Training Authority (CHIETA)

MS BUSISWE (B) MAVUSO (41)

Independent non-executive director

Appointed to the Board in January 2018

Qualifications

B Compt (Unisa)
Postgraduate Diploma in Management (GIBS)
Master of Business Leadership (Unisa)
Association of Chartered Certified Accountants (ACCA)

Skills

Finance, accounting and economics

Directorships

Business Leadership of South Africa
Business Unity South Africa (BUSAs)
Resultant Finance (Pty) Ltd

DR PULANE (PE) MOLOKWANE (43)

Independent non-executive director

Appointed to the Board in June 2017

Qualifications

B Sc Physics and Chemistry (University of North West)
Postgraduate Diploma in Applied Radiation Science and Technology (University of North West)
M Sc Applied Radiation Science and Technology (University of North West)
Ph D Chemical Technology – Environmental Engineering (University of Pretoria)
Pr Sci Nat (South African Council of Natural Scientific Professions)

Skills

Science, engineering and technology

Directorships

Endulo Resources
Litestone Mzansi (Pty) Ltd
Nzuri Resources (Pty) Ltd
Oloenviron (Pty) Ltd
Tinungu (Pty) Ltd

PROF. TSHEPO (TH) MONGALO (46)

Independent non-executive director

Appointed to the Board in December 2017

Qualifications

B Proc (University of Natal)
LLB (University of Natal)
LLM Commercial Law (University of Cambridge)
Ph D Commercial Law (University of Cape Town)

Skills

Commerce and industry
Legal, governance and risk management
Social and human sciences

Directorships

Bolemo Kgango Enterprises (Pty) Ltd
Effective Drafting Solutions (Pty) Ltd
Hope City Investment (Pty) Ltd

Ages are shown at 31 March 2020.

Only active directorships are reflected.

Executive Management Committee

at 31 March 2020

MR ANDRÉ (AM) DE RUYTER (52)

Group Chief Executive

Appointed to the Board in January 2020

<1 year in Eskom

Qualifications

BA English and Psychology (University of Pretoria)
B Civil Law (University of Pretoria)
LLB (Unisa)
MBA (Nyenrode University)

Skills

Commerce and industry
Legal, governance and risk management
Finance, accounting and economics

Directorships

Schulder Property Investments
Tuisbaai

MR CALIB (C) CASSIM (48)

Chief Financial Officer

Appointed to Exco in July 2017

18 years in Eskom

Qualifications

B Com (University of Natal)
B Accounting Sciences (Unisa)
Chartered Accountant (SA)
Master of Business Leadership (Unisa)

Skills

Commerce and industry
Finance, accounting and economics

Directorships

Escap SOC Ltd
Eskom Enterprises SOC Ltd
Eskom Finance Company SOC Ltd

MR JAN (JA) OBERHOLZER (61)

Chief Operating Officer

Appointed to Exco in July 2018

27 years Eskom experience (including from 1983 to 2008)

Qualifications

B Sc Electrical Engineering (University of Pretoria)
Master of Business Leadership (Unisa)
Executive Program (University of Michigan)

Skills

Science, engineering and technology
Commerce and industry

Directorships

Jafram Projects
Wild Senna Investments

MS ELSIE (EM) PULE (52)

Group Executive: Human Resources

Appointed to Exco in November 2014

22 years in Eskom

Qualifications

BA Social Work (University of the North)
BA Hons Psychology (University of Pretoria)
M Sc Business Engineering (Warwick University)

Skills

Social and human sciences

Directorships

Eskom Finance Company SOC Ltd

MR BARTLETT (NB) HEWU (44)

Acting Group Executive: Legal and Compliance

Appointed to Exco in April 2018

2 years in Eskom

Qualifications

B Juris (Unisa)
LLB (University of Pretoria)
Higher Diploma in Tax (Rand Afrikaans University)
Higher Diploma in International Tax (University of Johannesburg)
Certificate in Advanced Corporate Law and Securities Law (Unisa)
Finance Programme for Non-Financial Managers (University of Cape Town)

Skills

Legal, governance and risk management

Directorships

Graziglo
Hewu Energy
Hewu Inc trading as Hewu Attorneys
Hewu Resources
NBH Investment Holdings
Nicomate
The Twelve Apostles Church

MR SOLOMON (MS) TSHITANGANO (58)

Chief Procurement Officer

Appointed to Exco in January 2019

1 year in Eskom

Qualifications

B Com (Hons) (University of Venda)
University Education Diploma (University of Venda)
Higher Diploma in Accounting (University of Western Cape)

Skills

Commerce and industry
Legal, governance and risk management

Directorships

Tshitangano Property Development
Baobab Resources
Riverside Park Extension 8

MR NICO (ND) HARRIS (60)

Acting General Manager: Information Technology

Appointed to Exco in May 2019

38 years in Eskom

Qualifications

B Com (Education) (Rand Afrikaans University)
Diploma in Datametrics (Unisa)
MBA (Henley Management College UK)

Skills

Science, engineering and technology
Finance, accounting and economics
Social and human sciences

Directorships

New Order Investments

Ages are shown at 31 March 2020.

Only active directorships are reflected.

BOARD AND EXCO MEETING ATTENDANCE

Attendance at Board and committee meetings

for the year ended 31 March 2020

Members	Board	Audit and Risk	Investment and Finance	People and Governance	Social, Ethics and Sustainability	Board Strategy Committee
Total number of meetings	16	10	8	6	4	3
Current directors						
Non-executive directors						
Prof. Malegapuru Makgoba (Interim Chairman)	11/16*	3/5*		4/5	4/4	
Dr Rod Crompton	16/16	10/10				3/3*
Mr Sifiso Dabengwa	15/16		7/8*			3/3
Ms Nelisiwe Magubane	10/16		4/4			3/3
Dr Banothile Makhubela	13/16				3/4*	
Ms Busisiwe Mavuso	12/16		3/8	6/6	2/2*	
Dr Pulane Molokwane	12/16	4/5*			2/2	1/1*
Prof. Tshepo Mongalo	15/16		4/4*	6/6*		
Executive directors						
Mr André de Ruyter	6/6	<1/1>	<1/2>	<0/1>	<1/1>	<1/1>
Mr Calib Cassim	13/16	<10/10>	<7/8>	<5/6>		
Previous directors						
Mr Jabu Mabuza	10/10	<0/3>	<0/3>	5/5		
Ms Sindi Mabaso-Koyana	12/12	10/10				
Mr Phakamani Hadebe	5/5	<6/6>	<2/3>	<1/1>	<2/2>	

Attendance as reflected above refers to directors who were members of that committee during the year to 31 March 2020 and reflects changes in committee composition during the year.

* denotes the chairmanship of the Board or committee at 31 March 2020.

+ denotes attendance as a member during the year, where no longer a member at 31 March 2020.

<> denotes meetings attended as an official.

Attendance at Exco meetings

for the year ended 31 March 2020

Members	Divisional responsibility	Number of meetings attended
Total number of meetings		36
Current executives		
Mr André de Ruyter	Group Chief Executive	7/7
Mr Calib Cassim	Chief Financial Officer	28/36
Mr Jan Oberholzer	Chief Operating Officer and acting Group Executive: Group Capital	28/36
Mr Bartlett Hewu	Acting Group Executive: Legal and Compliance	28/36
Ms Elsie Pule	Group Executive: Human Resources	28/36
Mr Nico Harris	Acting General Manager: Information Technology	29/32
Mr Solomon Tshitangano	Chief Procurement Officer	34/36
Previous executives		
Mr Phakamani Hadebe	Group Chief Executive	14/16
Mr Jabu Mabuza	Acting Group Chief Executive	12/13
Mr Jerome Mthembu	Acting co-Group Executive: Legal and Compliance	25/29

ENVIRONMENTAL IMPLICATIONS OF USING OR SAVING ELECTRICITY

Factor 1

Figures are calculated based on total electricity sales by Eskom, which is based on the total available for distribution (including purchases), after excluding losses through Transmission and Distribution (technical losses), losses through theft (non-technical losses), our own internal use and wheeling. Thus to calculate CO₂ emissions, divide the quantity of CO₂ emitted by electricity sales:

$$213.2\text{Mt of CO}_2 \div 205\ 635\text{GWh sales} = 1.04 \text{ tons per MW}$$

Factor 2

Figures are calculated based on total electricity generated, which includes coal, nuclear, pumped storage, wind, hydro and gas turbines, but excludes the total consumed by Eskom. Thus the quantity of CO₂ emissions, divided by (electricity generated less Eskom's electricity consumption):

$$213.2\text{Mt of CO}_2 \div (214\ 968\text{GWh generated less } 6\ 629\text{GWh own consumption}) = 1.02 \text{ tons per MWh}$$

Figures represent the 12-month period from 1 April 2019 to 31 March 2020.

	Factor 1 (total energy sold)	Factor 2 (total energy generated)	If electricity consumption is measured in:			
			kWh	MWh	GWh	TWh
Coal use	0.53	0.52	kilogram	ton	thousand tons (kt)	million tons (Mt)
Water use ¹	1.39	1.38	litre	kilolitre	megalitre (Ml)	thousand megalitres
Ash produced	156	154	gram	kilogram	ton	thousand tons (kt)
Particulate emissions	0.46	0.46	gram	kilogram	ton	thousand tons (kt)
CO ₂ emissions ²	1.04	1.02	kilogram	ton	thousand tons (kt)	million tons (Mt)
SO _x emissions ²	8.37	8.26	gram	kilogram	ton	thousand tons (kt)
NO _x emissions ³	4.14	4.08	gram	kilogram	ton	thousand tons (kt)

1. Volume of water used at all Eskom power stations.

2. Calculated figures based on coal characteristics and power station design parameters. Sulphur dioxide and carbon dioxide emissions are based on coal analysis and using coal burnt tonnages. Figures include coal-fired and gas turbine power stations, as well as oil consumed during power station start-ups and, for carbon dioxide emissions, the underground coal gasification pilot plant.

3. NO_x reported as NO₂ is calculated using average station-specific emission factors, which have been measured intermittently, and tonnages of coal burnt.

Multiply electricity consumption or saving by the relevant factor in the table above to determine the environmental implication.

Example 1: Water consumption	Example 2: CO ₂ emissions
Using Factor 1 Used 90MWh of electricity $90 \times 1.39 = 125.1$ Therefore 125.1 kilolitres of water used	Using Factor 1 Used 90MWh of electricity $90 \times 1.04 = 93.6$ Therefore 93.6 tons CO ₂ emitted
Using Factor 2 Used 90MWh of electricity $90 \times 1.38 = 124.2$ Therefore 124.2 kilolitres of water used	Using Factor 2 Used 90MWh of electricity $90 \times 1.02 = 91.8$ Therefore 91.8 tons CO ₂ emitted

For CDM-related Eskom grid emission factor information, please go to the following link: www.eskom.co.za/OurCompany/SustainableDevelopment/Pages/CDM_Calculations.aspx or via the Eskom website: Our Company > Sustainable Development > CDM calculations



TECHNICAL STATISTICS

Measure and unit	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Customer statistics										
Arrear debt as % of revenue, %	3.69	4.30 ^{RA}	2.73 ^{RA}	2.42	1.14	2.17	1.10	0.82	0.53	0.75
Debtors days – municipalities, average debtors days	116.1	94.3 ^{RA}	76.6 ^{RA}	53.3 ^{RA}	42.9	47.6	32.7	22.4	–	–
Debtors days – large power top customers excluding disputes, average debtors days	14.6	13.5 ^{RA}	13.9 ^{RA}	15.3 ^{RA}	15.5	16.8	14.5	12.3	14.4	15.5
Debtors days – other large power users (<100 GWh p.a.), average debtors days	17.0	17.2 ^{RA}	16.6 ^{RA}	16.8 ^{RA}	16.2	17.0	16.9	18.3	–	–
Debtors days – small power users (excluding Soweto), average debtors days	44.1	42.6 ^{RA}	43.4 ^{RA}	48.8 ^{RA}	48.2	49.1	50.2	48.2	42.9	45.1
Key Customer Delight, % ¹	81.5	81.7	79.5	107.0	104.3 ^{RA}	108.7	108.7	105.8	105.9	101.2
Customer Delight, % ¹	73.6	72.7	72.0	95.8	96.5 ^{RA}	99.8	92.7	93.2	90.7	89.4
CustomerCare, index	8.5	8.5	9.9	9.8	8.4	8.0	8.3	8.4	8.2	8.1
Sales and revenue										
Total sales, GWh ²	205 635	208 319	212 190	214 121	214 487	216 274	217 903	216 561	224 785	224 446
(Reduction)/growth in GWh sales, %	(1.3)	(1.8)	(0.9)	(0.2)	(0.8)	(0.7)	0.6	(3.7)	0.2	2.7
Electricity revenue, R million	197 307	177 312	174 905	175 094	161 688	146 268	136 869	126 663	112 999	90 375
Growth in revenue, %	11.3	1.4	(0.1)	8.3	10.5	6.9	8.1	12.1	25.0	29.4
Electricity output										
Power sent out by Eskom stations, GWh (net)	214 968	218 939	221 936	220 166	219 979	226 300	231 129	232 749	237 289	237 430
Coal-fired stations, GWh (net)	194 357	200 210	202 106	200 893	199 888	204 838	209 483	214 807	218 210	220 219
Hydroelectric stations, GWh (net)	688	1 029	709	579	688	851	1 036	1 077	1 904	1 960
Pumped storage stations, GWh (net)	5 060	4 590	4 479	3 294	2 919	3 107	2 881	3 006	2 962	2 953
Gas turbine stations, GWh (net)	1 328	1 202	118	29	3 936	3 709	3 621	1 904	709	197
Wind energy, GWh (net)	283	328	331	345	311	1	2	1	2	2
Nuclear power station, GWh (net)	13 252	11 580	14 193	15 026	12 237	13 794	14 106	11 954	13 502	12 099
IPP purchases, GWh	11 958	11 344	9 584	11 529	9 033	6 022	3 671	3 516	4 107	1 833
Wheeling, GWh ³	2 491	2 750	2 266	2 910	3 930	3 623	3 353	2 948	3 099	3 423
Energy imports from SADC countries, GWh ³	8 568	7 355	7 731	7 418	9 703	10 731	9 425	7 698	9 939	10 190
Total electricity available (generated by Eskom and purchased), GWh ²	237 985	240 388	241 517	242 023	242 645	246 676	247 578	246 911	254 434	252 876
Total consumed by Eskom, GWh ⁴	(6 629)	(5 981)	(6 031)	(4 808)	(4 046)	(4 114)	(3 862)	(4 037)	(3 982)	(3 962)
Total available for distribution, GWh	231 356	234 407	235 486	237 215	238 599	242 562	243 716	242 874	250 452	248 914
Supply and demand										
Total Eskom power station capacity – installed, MW	49 517	48 029	48 039	46 407	45 075	44 281	44 189	44 206	44 115	44 145
Total Eskom power station capacity – nominal, MW	45 117	44 172	45 561	44 134	42 810	42 090	41 995	41 919	41 647	41 194
Total IPP power station capacity – nominal, MW	5 206	4 981	4 779	5 027	3 392	2 606	1 677	1 135	1 008	803
Peak demand on integrated Eskom system, MW	32 948	34 256	35 301	34 122	33 345	34 768	34 977	35 525	36 212	36 664
Peak demand on integrated Eskom system, including load reductions and non-Eskom generation, MW	34 510	35 345	35 613	34 913	34 481	36 170	36 002	36 345	37 065	36 970
National rotational loadshedding	Yes	Yes	No	No	Yes	Yes	Yes ^{RA}	No ^{RA}	No ^{RA}	No ^{RA}
Demand savings, MW ⁵	–	15.0	40.2	236.9	214.9	171.5 ^{RA}	409.6 ^{RA}	595.0 ^{RA}	365.0 ^{RA}	354.1
Internal energy efficiency, GWh ⁵	–	0	1.4	6.0	1.7 ^{RA}	10.4 ^{RA}	19.4 ^{RA}	28.9 ^{RA}	45.0 ^{RA}	26.2 ^{RA}
Asset creation										
Generation capacity installed and commissioned, MW	1 588 ^{RA}	0 ^{RA}	2 387 ^{RA}	1 332 ^{RA}	794 ^{RA}	100 ^{RA}	120 ^{RA}	261 ^{RA}	535 ^{RA}	315 ^{RA}
Transmission lines installed, km	127.9 ^{RA}	378.7 ^{RA}	722.3 ^{RA}	585.4 ^{RA}	345.8 ^{RA}	318.6 ^{RA}	810.9 ^{RA}	787.1 ^{RA}	631.3 ^{RA}	443.4 ^{RA}
Substation capacity installed and commissioned, MVA	250 ^{RA}	540 ^{RA}	2 510 ^{RA}	2 300 ^{RA}	2 435 ^{RA}	2 090 ^{RA}	3 790 ^{RA}	3 580 ^{RA}	2 525 ^{RA}	5 940 ^{RA}
Total capital expenditure – group (excluding capitalised borrowing costs), R billion	22.0	33.9	48.0	60.0	57.4	53.1 ^{RA}	59.8 ^{RA}	60.1	58.8	47.9
Safety										
Employee lost-time injury rate (LTIR) – company, index ^{6,7}	–	0.33	0.25	0.43	0.29	0.36	0.31 ^{RA}	0.40 ^{RA}	0.41 ^{RA}	0.47 ^{RA}
Employee lost-time injury rate (LTIR) – group, index ^{6,7}	0.30 ^{RA}	0.31 ^{RA}	0.24	0.39	0.30	0.33	0.31	–	–	–
Fatalities (employees and contractors), number ⁸	9	7	14	10	17	10	23 ^{RA}	19 ^{RA}	24 ^{RA}	25 ^{RA}
Employee fatalities, number	–	3	3	4	4	3	5 ^{RA}	3 ^{RA}	13 ^{RA}	7 ^{RA}
Contractor fatalities, number ⁸	9	4	11	6	13	7	18 ^{RA}	16 ^{RA}	11 ^{RA}	18 ^{RA}

1. These measures replace Eskom KeyCare and Enhanced MaxiCare, respectively, and are calculated on a 12-month moving average. The comparatives provided are for Eskom KeyCare and Enhanced MaxiCare.

2. The difference between electricity available for distribution and electricity sold is due to energy losses.

3. Prior to 2010, wheeling was combined with the total imported for the Eskom system.

4. Used by Eskom for pumped storage facilities and synchronous condenser mode of operation.

5. The Integrated Demand Management programme is on hold as of 2020.

6. The employee LTIR includes occupational diseases.

7. Prior to 2014, only company numbers were reported. From 2020, only group numbers are reported.

8. A Generation contractor involved in a motor vehicle accident in the 2019 financial year subsequently passed away in the 2020 financial year. The figures for 2019 have been restated to include this fatality.

RA Reasonable assurance provided by the independent assurance provider. Refer to pages 153 to 156 of the integrated report.

Measure and unit	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Primary energy										
Coal stock, days	81	67	68	74	58	51	44 ^{RA}	46 ^{RA}	39 ^{RA}	41 ^{RA}
Road-to-rail migration (additional tonnage transported on rail), Mt	7.5 ^{RA}	8.2 ^{RA}	11.6 ^Q	13.2 ^Q	13.6 ^{RA}	12.6 ^{RA}	11.6 ^{RA}	10.1 ^{RA}	8.5	7.1
Coal purchased, Mt	119.3	118.3	115.3	120.3	118.7	121.7	122.0	126.4	124.3	126.2
Coal burnt, Mt	108.6	113.8	115.5	113.7	114.8	119.2	122.4	123.0	125.2	124.7
Average calorific value, MJ/kg	19.08	19.24	19.81	20.05	19.57	19.68	19.77	19.76	19.61	19.45
Average ash content, %	29.65	30.98	30.92	28.62	28.19	27.63	28.56	28.69	28.88	29.03
Average sulphur content, %	0.78	0.84	0.87	0.84	1.07	0.80	0.87	0.88	0.79	0.78
Overall thermal efficiency, % ¹	30.6	31.0	31.2	31.2	31.1	31.4	31.3	32.0	31.4	32.6
Diesel and kerosene usage for OCGTs, Mℓ	426.2	385.0	37.8	10.0	247.8	178.6	148.5 ^{RA}	609.7 ^{RA}	225.5 ^{RA}	63.6 ^{RA}
Plant performance										
Unplanned capability loss factor (UCLF), % ²	22.86	18.31	10.18	9.90	14.91 ^{RA}	15.22 ^{RA}	12.61 ^{RA}	12.12 ^{RA}	7.97 ^{RA}	6.14 ^{RA}
Planned capability loss factor (PCLF), % ²	8.92 ^{RA}	10.18 ^{RA}	10.35 ^{RA}	12.14 ^{RA}	12.99	9.91 ^{RA}	10.50 ^{RA}	9.10	9.07	7.98
Energy availability factor (EAF), % ²	66.64 ^{RA}	69.95 ^{RA}	78.00 ^{RA}	77.30 ^{RA}	71.07 ^{RA}	73.73 ^{RA}	75.13 ^{RA}	77.65 ^{RA}	81.99 ^{RA}	84.59 ^{RA}
Unit capability factor (UCF), % ²	68.22	71.51	79.47	78.00	72.10	74.87	76.90 ^{RA}	78.80 ^{RA}	83.00 ^{RA}	85.90 ^{RA}
Generation load factor, % ²	52.6	54.4	55.9	57.9	58.8	61.5	62.8	63.6	65.1	66.4
OCGT load factor trend, %	6.3	5.7	0.6	0.1	18.6	17.6	19.3 ^{RA}	10.4 ^{RA}	3.9	1.1
Unplanned automatic grid separations (UAGS trips), number	594 ^{RA}	517	333	444	469	575	527	409	329	376
Integrated Eskom system load factor (EUF), % ²	79.0	77.8	71.6	75.0	82.7	83.4	83.6	81.9	79.4	78.5
Network performance										
Total system minutes lost for events <1, minutes	4.36 ^{RA}	3.16 ^{RA}	2.09 ^{RA}	3.80 ^{RA}	2.41 ^{RA}	2.85 ^{RA}	3.05 ^{RA}	3.52 ^{RA}	4.73 ^{RA}	2.63 ^{RA}
Major incidents, number	3	3	0	0	1	2	0 ^{RA}	3 ^{RA}	1 ^{RA}	0 ^{RA}
System average interruption frequency index (SAIFI), events ³	14.4 ^{RA}	14.9 ^{RA}	17.5 ^{RA}	18.9 ^{RA}	20.5 ^{RA}	19.7 ^{RA}	20.2 ^{RA}	22.2 ^{RA}	23.7 ^{RA}	25.3 ^{RA}
System average interruption duration index (SAIDI), hours ³	36.9 ^{RA}	38.0 ^{RA}	34.9 ^{RA}	38.9 ^{RA}	38.6 ^{RA}	36.2 ^{RA}	37.0 ^{RA}	41.9 ^{RA}	45.8 ^{RA}	52.6 ^{RA}
Total energy losses, %	9.9	9.7	9.1	8.9	8.6	8.8	8.9	9.1	8.7	8.3
Transmission energy losses, %	2.2	2.2	2.0	2.2	2.6	2.5	2.3 ^{RA}	2.8 ^{RA}	3.1 ^{RA}	3.3 ^{RA}
Distribution energy losses, %	8.8 ^{RA}	8.5 ^{RA}	7.7 ^{RA}	7.6 ^{RA}	6.4	6.8	7.1 ^{RA}	7.1 ^{RA}	6.3 ^{RA}	5.7 ^{RA}
Environmental statistics										
Emissions										
Relative particulate emissions, kg/MWh sent out ^{4,5}	0.47 ^{RA}	0.47 ^{RA}	0.27 ^{RA}	0.30 ^{RA}	0.36 ^{RA}	0.37 ^{RA}	0.35 ^{RA}	0.35 ^{RA}	0.31 ^{RA}	0.33 ^{RA}
Carbon dioxide (CO ₂), Mt ⁴	213.2 ^{RA}	220.9 ^{RA}	205.5 ^{RA}	211.1 ^{RA}	215.6 ^{RA}	223.4	233.3 ^{RA}	227.9 ^{RA}	231.9 ^{RA}	230.3 ^{RA}
Sulphur dioxide (SO ₂), kt ⁴	1 721	1 853	1 802	1 766	1 699	1 834	1 975 ^{RA}	1 843 ^{RA}	1 849 ^{RA}	1 810 ^{RA}
Nitrous oxide (N ₂ O), t ⁴	2 826	2 844	2 642	2 782	2 757	2 919	2 969	2 980	2 967	2 906
Nitrogen oxide (NO _x) as NO ₂ , kt ⁴	851	890	859	885	893	937	954 ^{RA}	965 ^{RA}	977 ^{RA}	977 ^{RA}
Particulate emissions, kt	94.92	99.87	57.13	65.13	78.37	82.34	78.92 ^{RA}	80.68 ^{RA}	72.42 ^{RA}	75.84 ^{RA}
Water										
Specific water consumption, ℓ/kWh sent out ²	1.42 ^{RA}	1.41 ^{RA}	1.30 ^{RA}	1.42 ^{RA}	1.44 ^{RA}	1.38 ^{RA}	1.35 ^{RA}	1.42 ^{RA}	1.34 ^{RA}	1.35 ^{RA}
Net raw water consumption, Mℓ ²	286 553	292 344	276 335	307 269	314 685	313 078	317 052	334 275	319 772	327 252
Waste										
Ash produced, Mt	32.04	33.23	31.65	32.61	32.59	34.41	34.97 ^{RA}	35.30 ^{RA}	36.21 ^{RA}	36.22 ^{RA}
Ash sold, Mt	2.9	2.8	2.7	2.8	2.7	2.5	2.4	2.4	2.3	2.0
Ash (recycled), %	9.1	8.4	8.6	8.5	8.3	7.3	7.0 ^{RA}	6.8 ^{RA}	6.4 ^{RA}	5.5 ^{RA}
Asbestos disposed, tons	59.8	464.1	144.9	383.0	274.5	991.0	458.0	374.6	448.1	611.5
Material containing polychlorinated biphenyls thermally destroyed, tons	238.3	43.1	26.3	61.9	59.8	0.0	10.2	0.9	14.3	422.9
Nuclear										
Public individual radiation exposure due to effluents, mSv ⁷	0.0004	0.0026	0.0012	0.0005	0.0006	0.0010	0.0012	0.0019	0.0024	0.0043
Low-level radioactive waste generated (steel drum), cubic metres	159.3	188.3	164.2	162.9	176.1	164.1	180.7 ^{RA}	188.2 ^{RA}	184.7 ^{RA}	165.3 ^{RA}
Low-level radioactive waste disposed of, cubic metres	98.3	99.0	118.8	108.0	213.1	377.6	324.0 ^{RA}	54.0 ^{RA}	53.8 ^{RA}	81.0 ^{RA}
Intermediate-level radioactive waste generated (concrete drum), cubic metres	22.3	20.8	20.8	11.4	33.4	27.6	28.7 ^{RA}	35.7 ^{RA}	25.4 ^{RA}	39.3 ^{RA}
Intermediate-level radioactive waste disposed of, cubic metres	38	0	0	0	0	138	178 ^{RA}	0 ^{RA}	128 ^{RA}	0 ^{RA}
Used nuclear fuel, number of elements discharged ⁸	48	56	116	60	56	112	48	56	60	112
Used nuclear fuel, number of elements discharged, cumulative figure	2 509	2 461	2 405	2 289	2 229	2 173	2 061	2 013	1 957	1 897
Legal contraventions										
Environmental legal contraventions ⁹	59	24	30	29	20	20	34 ^{RA}	48	50	63
Environmental legal contraventions reported in terms of the Operational Health Dashboard, number ¹⁰	5	2	2	0	1	1	2 ^{RA}	2	5	4

1. Only power stations where all units have achieved commercial operation are included in the calculation. Therefore, Medupi and Kusile Power Stations are excluded from this KPI.
 2. Medupi Units 4 and 5 and Kusile Unit 1, having completed their first year after commissioning, have been included in the calculation of KPIs from 2019.
 3. SAIDI and SAIFI are reported after allowing for exclusions defined in the National Regulated Standards adopted from 1 April 2018. The comparatives for 2018 have been restated.
 4. Calculated figures based on coal characteristics and power station design parameters based on coal analysis and using coal burnt tonnages. Figures include coal-fired and gas turbine power stations, as well as oil consumed during power station start-ups and, for carbon dioxide emissions, includes the underground coal gasification pilot plant.

5. Particulate emissions reported at Kendal Power Station have frequently exceeded the AEL limit during 2020. The monitors are set up to measure emissions within a calibrated range for the unit-specific correlation function. In instances where these ranges are exceeded, particulate emissions will be reported at the maximum of the monitor range. From February 2019, it is possible that actual emissions exceeded reported emissions based on measurements.
 6. NO_x reported as NO₂ is calculated using average station-specific emission factors (which are measured intermittently) and tonnages of coal burnt.
 7. The limit set by the National Nuclear Regulator is ≤0.25mSv.
 8. The gross mass of a nuclear fuel element is approximately 670kg, with Uranium mass typically between 462kg and 464kg.
 9. Three incidents which occurred in 2019 were finalised in the current year. The figure for 2019 has been restated.
 10. Reported in terms of the 2002 definition of the Operational Health Dashboard, including repeat legal contraventions.
 RA Reasonable assurance provided by the independent assurance provider. Refer to pages 153 to 156 of the integrated report.
 Q Qualified by the independent assurance provider.

NON-TECHNICAL STATISTICS: GROUP

Measure and unit	2020	2019	2018	2017	2016	2015	2014	2013	2012
Finance¹									
Electricity operating costs, R/MWh	790.14	712.87	622.41	651.98	617.02	587.97	528.70	495.31	363.30
EBITDA margin, %	18.55	17.46	25.57	21.19	20.29	16.54	17.23	16.98	29.37
EBITDA, R million	36 998 ^{RA}	31 417	45 359	37 532	32 811	24 186	23 586	21 511	33 183
Cash interest cover, ratio	0.94 ^{RA}	0.94	1.22	1.73	1.73	1.75	2.15	3.84	7.29
Debt service cover, ratio	0.52 ^{RA}	0.47	0.87	1.37	1.14	0.91	1.24	1.93	3.49
Current ratio	1.09	1.00	1.03	0.85	0.83	0.81	0.71	0.68	0.76
Gross debt/EBITDA, ratio	14.39	15.73	9.74	10.84	10.95	13.60	11.77	10.48	6.07
Debt/equity (including long-term provisions), ratio	2.45	3.18	2.58	2.11	1.65	2.50	2.00	1.84	1.57
Gearing, %	71	76	72	68	62	71	67	65	61
Free funds from operations, R million	38 671	29 047	40 022	47 571	39 443	36 179	31 158	25 277	38 180
Free funds from operations after net interest paid, R million	157	(5 940)	9 147	21 148	17 927	20 564	20 139	18 074	32 897
Free funds from operations as % of gross debt, %	7.26	5.88	9.06	11.69	10.98	11.00	11.22	11.22	18.97
Building skills									
Headcount (including fixed-term contractors)	44 772	46 665	48 628	47 658	47 978	46 491	46 919	47 295	44 432
Transformation									
Socio-economic contribution									
Corporate social investment committed spend, R million	123.8 ^{RA}	132.4 ^Q	192.0 ^{RA}	225.3	103.6	115.5	132.9 ^{RA}	194.3 ^{RA}	87.9 ^{RA}
Corporate social investment, number of beneficiaries	1 479 395	933 139	1 116 044	841 845	302 736	323 882	357 443 ^{RA}	652 347 ^{RA}	531 762
Procurement equity									
B-BBEE attributable expenditure, R billion	101.7	84.5	102.3	127.7	125.0	116.0	119.4 ^{RA}	96.0 ^{RA}	–
Black-owned expenditure, R billion	46.9	52.1	57.6	53.9	52.9	49.4	45.8 ^{RA}	–	–
Black women-owned expenditure, R billion	15.6	18.8	20.9	19.4	30.8	9.3	9.8 ^{RA}	6.0 ^{RA}	–
Black youth-owned expenditure, R billion	4.1	3.5	3.9	2.0	1.4	0.9	1.3 ^{RA}	–	–
Procurement from B-BBEE compliant suppliers, % ²	65.97	58.66	80.25	98.25	81.65	89.39	91.80 ^{RA}	82.10 ^{RA}	–
Procurement from black-owned (BO) suppliers, %	30.38	36.17	45.20	41.49	33.61	34.41	35.30 ^{RA}	–	–
Procurement from black women-owned (BWVO) suppliers, %	10.10	13.07	16.41	14.92	19.30	6.49	7.50 ^{RA}	5.10 ^{RA}	–
Procurement from black youth-owned (BYO) suppliers, %	2.65	2.41	3.05	1.52	0.94	0.63	1.00 ^{RA}	–	–
Procurement spend with suppliers owned by black people living with disability (BPwD), % of TMPS	0.17	0.22	0.20	0.02	0.01	0.00	0.00	–	–
Procurement spend with qualifying small enterprises (QSE), % of TMPS	4.08	5.17	8.86	8.91	4.62	6.75	15.09	–	–
Procurement spend with exempted micro enterprises (EME), % of TMPS	9.77	14.01	10.21	11.24	5.89	5.78	–	–	–
Employment equity									
Disabilities, number of employees	1 348	1 416	1 441	1 396	1 311	1 325	1 305 ^{RA}	1 137 ^{RA}	1 032 ^{RA}
Employment equity – disability, %	3.01	3.03	2.96	2.93	2.73	2.89	2.77 ^{RA}	2.43 ^{RA}	2.36 ^{RA}
Racial equity in senior management, % black employees	71.00	69.80	68.31	65.80	61.06	61.70	59.30 ^{RA}	58.40	–
Racial equity in professionals and middle management, % black employees	78.04	76.22	75.27	73.50	71.68	71.77	70.60 ^{RA}	69.00	–
Gender equity in senior management, % female employees	41.73	39.85	38.20	36.58	28.13	29.82	28.80 ^{RA}	28.50	–
Gender equity in professionals and middle management, % female employees	38.24	37.89	37.47	35.98	35.11	35.29	34.90 ^{RA}	34.00	–

1. Ratios impacted by the restatements in the annual financial statements were restated where possible.

2. This measure was renamed to "Preferential procurement" in the shareholder compact from 2020.

RA Reasonable assurance provided by the independent assurance provider. Refer to pages 153 to 156 of the integrated report.

Q Qualified by the independent assurance provider.

NON-TECHNICAL STATISTICS: COMPANY

Measure and unit	2020	2019	2018	2017	2016	2015	2014	2013	2012
Finance¹									
Electricity revenue per kWh (including environmental levy), c/kWh	101.86	90.01	85.06	83.60	76.24	67.91	62.82	58.49	50.27
Electricity operating costs, R/MWh	802.12	729.26	634.69	662.98	628.00	600.72	535.08	487.92	367.05
EBITDA margin, %	17.74	16.21 ^{RA}	24.48	20.32	19.13	16.28	16.15	17.48	28.69
EBITDA, R million	35 381	29 168	43 428	35 989	30 932	23 811	22 101	22 147	32 414
Cash interest cover, ratio	0.90	0.91 ^{RA}	1.18 ^{RA}	1.73	1.64	1.62	2.14	3.97	7.36
Debt service cover, ratio	0.49	0.46	0.84	1.37	1.09	0.82	1.28	1.98	3.52
Current ratio	1.09	0.99	1.04	0.86	0.86	0.82	0.70	0.67	0.76
Gross debt/EBITDA, ratio	15.17	17.09	10.26	11.39	11.71	13.84	12.59	10.09	6.15
Debt/equity (including long-term provisions), ratio	2.69	3.51 ^{RA}	2.77 ^{RA}	2.22 ^{RA}	1.71	2.67	2.12	1.96 ^{RA}	1.69 ^{RA}
Gearing, %	73	78	73	69	63	73	68	66	63
Free funds from operations, R million	37 250	27 318	39 064	46 336	37 954	36 032	29 528	26 124	37 578
Free funds from operations after net interest paid, R million	(1 397)	(7 897)	8 017	19 776	16 260	20 343	18 455	19 090	32 343
Free funds from operations as % of gross debt, %	6.94	5.48 ^{RA}	8.77 ^{RA}	11.30 ^{RA}	10.48 ^{RA}	10.93	10.61	11.69	18.86
Building skills									
Headcount (including fixed-term contractors)	37 765	39 292	41 316	41 940	42 767	41 787	42 923	43 402	41 341
Training spend as % of gross employee benefit costs	3.67 ^{RA}	3.85 ^{RA}	5.21 ^{RA}	4.89 ^{RA}	4.45 ^{RA}	6.18 ^{RA}	7.87 ^{RA}	–	–
Total engineering learners in the system, number ²	16 ^{RA}	10	1 241	1 480	895	1 315	1 962 ^{RA}	2 144 ^{RA}	2 273 ^{RA}
Total technician learners in the system, number ²	11 ^{RA}	3	838	1 209	415	826	815 ^{RA}	835 ^{RA}	844 ^{RA}
Total artisan learners in the system, number ²	91 ^{RA}	0	1 815	2 155	1 955	1 752	2 383 ^{RA}	2 847 ^{RA}	2 598 ^{RA}
Learner intake ²	118	21	726 ^Q	3 048 ^Q	1 370	–	–	–	–
Transformation									
Socio-economic contribution									
Job creation on new build projects, number	13 318	23 982	38 111	39 277	23 169	25 875	25 181 ^{RA}	35 759	28 616
Total number of electrification connections, number ³	163 613 ^{RA}	191 585 ^{RA}	215 519	207 436	158 312	160 933	202 780	139 881	154 250
Procurement equity									
Local content contracted (Eskom-wide), %	92.84 ^Q	91.51 ^{RA}	87.16 ^{RA}	73.37 ^Q	75.22 ^Q	25.13	40.80 ^{RA}	–	–
Local content contracted (new build), %	88.53	81.14 ^{RA}	85.59 ^{RA}	85.78 ^Q	84.04 ^{RA}	33.62 ^{LA}	54.60 ^{RA}	80.20 ^{RA}	77.20 ^{RA}
B-BBEE attributable expenditure, R billion	97.1	80.3	97.0	137.3	132.0	120.8	125.4 ^{RA}	103.4 ^{RA}	72.13 ^{RA}
Black-owned expenditure, R billion	43.7	48.8	53.5	50.4	51.0	47.5	43.6 ^{RA}	26.47 ^{RA}	14.38 ^{RA}
Black women-owned expenditure, R billion	14.6	18.1	19.7	17.3	30.2	8.9	9.6 ^{RA}	5.7 ^{RA}	3.3 ^{RA}
Black youth-owned expenditure, R billion	3.7	3.1	3.4	1.7	1.3	0.9	1.3 ^{RA}	1.20 ^{RA}	–
Procurement from B-BBEE compliant suppliers, % ⁴	61.57 ^{RA}	54.41 ^Q	74.24 ^{RA}	100.75 ^{RA}	83.08 ^{RA}	88.89 ^{RA}	93.90 ^{RA}	86.30 ^{RA}	73.20 ^{RA}
Procurement from black-owned (BO) suppliers, %	27.70	33.08 ^Q	40.93 ^{RA}	36.98 ^{RA}	30.98 ^{RA}	34.91	32.70 ^{RA}	22.10	14.60
Procurement from black women-owned (BWO) suppliers, %	9.27	12.28 ^Q	15.08 ^{RA}	12.67 ^{RA}	17.72 ^{RA}	6.61	7.20 ^{RA}	4.70 ^{RA}	3.30 ^{RA}
Procurement from black youth-owned (BYO) suppliers, %	2.32	2.10 ^Q	2.58 ^{RA}	1.25 ^{RA}	0.82 ^{RA}	0.64 ^{LA}	1.00 ^{RA}	1.00	–
Procurement spend with suppliers owned by black people living with disability (BPwD), % of TMPS	0.12	0.15 ^Q	0.11 ^{RA}	0.02 ^{RA}	0.01 ^{RA}	0.00	0.00	–	–
Procurement spend with qualifying small enterprises (QSE), % of TMPS	3.37	4.47 ^Q	7.80 ^{RA}	7.67 ^{RA}	4.03 ^{RA}	6.74	11.90	–	–
Procurement spend with exempted micro enterprises (EME), % of TMPS	9.12	13.32 ^Q	9.32 ^{RA}	10.15 ^{RA}	4.81 ^{RA}	5.12	–	–	–
Employment equity									
Disabilities, number of employees	1 198	1 265	1 292	1 263	1 271	1 294	1 283 ^{RA}	1 126 ^{RA}	1 022 ^{RA}
Employment equity – disability, %	3.16 ^{RA}	3.22 ^{RA}	3.13 ^{RA}	3.01 ^{RA}	2.97 ^{RA}	3.12 ^{RA}	2.99 ^{RA}	2.59 ^{RA}	2.49 ^{RA}
Racial equity in senior management, % black employees	70.72 ^{RA}	69.44 ^{RA}	67.97 ^{RA}	65.77 ^{RA}	60.90 ^{RA}	61.58 ^{RA}	59.50 ^{RA}	58.30 ^{RA}	53.90 ^{RA}
Racial equity in professionals and middle management, % black employees	78.06 ^{RA}	76.25 ^{RA}	75.35 ^{RA}	73.60 ^{RA}	71.98 ^{RA}	72.28 ^{RA}	71.20 ^{RA}	69.60	65.69
Gender equity in senior management, % female employees	41.71 ^{RA}	39.90 ^{RA}	38.25 ^{RA}	36.69 ^{RA}	28.07 ^{RA}	29.83 ^{RA}	28.90 ^{RA}	28.20 ^{RA}	24.31 ^{RA}
Gender equity in professionals and middle management, % female employees	38.99 ^{RA}	38.63 ^{RA}	38.06 ^{RA}	36.65 ^{RA}	36.01 ^{RA}	36.10 ^{RA}	35.80 ^{RA}	34.60	32.43

- Ratios impacted by the restatements in the annual financial statements were restated where possible.
- The definition of learners was changed from 1 April 2018, to account for learners only once when they sign up, and not continuously for the duration of their contract.
- Electrification connections for 2018 includes farmworker connections. Comparatives for the previous years have been adjusted to include farmworker connections.
- This measure was renamed to "Preferential procurement" in the shareholder compact from 2020.

RA Reasonable assurance provided by the independent assurance provider. Refer to pages 153 to 156 of the integrated report.

Q Qualified by the independent assurance provider.

LA Limited assurance provided by the independent assurance provider.

POWER STATION CAPACITIES

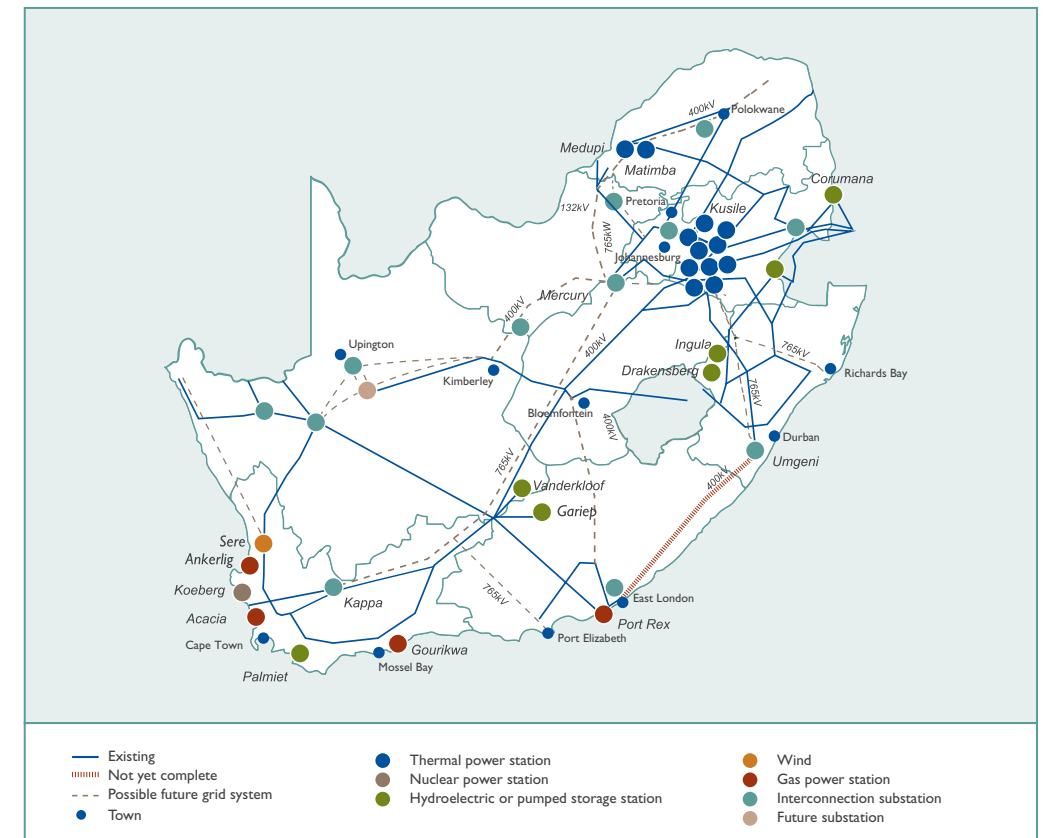
AT 31 MARCH 2020

The difference between installed and nominal capacity reflects auxiliary power consumption and reduced capacity caused by the age of the plant.

Name of station	Location	Years commissioned, first to last unit	Number and installed capacity of generator sets MW	Total installed capacity MW	Total nominal capacity MW
Base-load stations					
Coal-fired (15)				41 658	37 424
Arnot	Middelburg	Sep 1971 to Aug 1975	6x370	2 220	2 100
Camden ¹	Ermelo	Mar 2005 to Jun 2008	3x200; 1x196; 2x195; 1x190; 1x185	1 561	1 481
Duvha ²	Emalahleni	Aug 1980 to Feb 1984	5x600	3 000	2 875
Grootvlei ^{1,2}	Balfour	Apr 2008 to Mar 2011	4x200; 2x190	1 180	570
Hendrina ²	Middelburg	May 1970 to Dec 1976	6x200; 2x195; 1x170	1 760	1 135
Kendal ³	Emalahleni	Oct 1988 to Dec 1992	6x686	4 116	3 840
Komati ^{1,2}	Middelburg	Mar 2009 to Oct 2013	4x100; 4x125; 1x90	990	205
Kriel	Bethal	May 1976 to Mar 1979	6x500	3 000	2 850
Kusile ³	Ogies	Aug 2017	1x799	799	720
		Under construction	5x800	–	–
Lethabo	Vereeniging	Dec 1985 to Dec 1990	6x618	3 708	3 558
Majuba ³	Volksrust	Apr 1996 to Apr 2001	3x657; 3x713	4 110	3 843
Matimba ³	Lephalale	Dec 1987 to Oct 1991	6x665	3 990	3 690
Matla	Bethal	Sep 1979 to Jul 1983	6x600	3 600	3 450
Medupi ³	Lephalale	Aug 2015 to Dec 2019	5x794	3 970	3 597
		Under construction	1x794	–	–
Tutuka	Standerton	Jun 1985 to Jun 1990	6x609	3 654	3 510
Nuclear (1)					
Koeberg	Cape Town	Jul 1984 to Nov 1985	2x970	1 940	1 860
Peaking stations					
Gas/liquid fuel turbine stations (4)				2 426	2 409
Acacia	Cape Town	May 1976 to Jul 1976	3x57	171	171
Ankerlig	Atlantis	Mar 2007 to Mar 2009	4x149.2; 5x148.3	1 338	1 327
Gourikwa	Mossel Bay	Jul 2007 to Nov 2008	5x149.2	746	740
Port Rex	East London	Sep 1976 to Oct 1976	3x57	171	171
Pumped storage schemes (3)⁴				2 732	2 724
Drakensberg	Bergville	Jun 1981 to Apr 1982	4x250	1 000	1 000
Ingula	Ladysmith	Jun 2016 to Feb 2017	4x333	1 332	1 324
Palmiet	Grabouw	Apr 1988 to May 1988	2x200	400	400
Hydroelectric stations (2)⁵				600	600
Gariep	Norvalspont	Sep 1971 to Mar 1976	4x90	360	360
Vanderkloof	Petrusville	Jan 1977 to Feb 1977	2x120	240	240
Total used for capacity management purposes				49 356	45 017
Renewable energy					
Wind energy (1)⁶					
Sere	Vredendal	Mar 2015	46x2.2	100	100
Total capacity including renewable energy				49 456	45 117
Other hydroelectric stations (4)⁶				61	–
Colley Wobbles	Mbashe River		3x14	42	–
First Falls	Umtata River		2x3	6	–
Ncora	Ncora River		2x0.4; 1x1.3	2	–
Second Falls	Umtata River		2x5.5	11	–
Total Eskom power station capacities (30)				49 517	45 117
Available nominal capacity – Eskom-owned					91.11%

Name of station	Total nominal capacity MW
Nominal capacity of Eskom-owned power stations	45 117
Independent power producers (IPP) capacity	5 206
Concentrating solar power	500
Gas/liquid fuel	1 005
Hydroelectric	14
Landfill	8
Solar PV energy	1 699
Wind	1 980
Total nominal capacity available to the grid – Eskom and IPPs	50 323

- Former moth-balled power stations that have been returned to service. The original commissioning dates were:
 - Camden was originally commissioned between August 1967 and September 1969
 - Grootvlei was originally commissioned between June 1969 and November 1977
 - Komati was originally commissioned between November 1961 and March 1966
- Due to technical and/or financial constraints, the following units have been placed in reserve storage or extended inoperability and their capacity removed from the nominal base:
 - Duvha Unit 3 (575MW nominal)
 - Grootvlei Units 4, 5 and 6 (550MW nominal)
 - Hendrina Units 1, 3, 8 and 9 (720MW nominal), of which 190MW was removed in the past year
 - Komati Units 1, 2, 3, 5, 6, 7 and 8 (690MW nominal), of which 205MW was removed in the past year
- Dry-cooled unit specifications based on design back-pressure and ambient air temperature.
- Pumped storage facilities are net users of electricity. Water is pumped during off-peak periods so that hydro electricity can be generated during peak periods.
- Use restricted to periods of peak demand, dependent on the availability of water in the Gariep and Vanderkloof Dams.
- Installed and operational, but not included for capacity management purposes.



POWER LINES AND SUBSTATIONS IN SERVICE

AT 31 MARCH 2020

Category	2020	2019	2018	2017	2016
Power lines					
Transmission power lines, km¹	33 027	32 698	31 951	32 220	31 957
765kV	2 784	2 784	2 784	2 782	2 608
533kV DC (monopolar)	1 032	1 035	1 035	1 035	1 035
400kV	19 743	19 421	18 804	18 943	18 872
275kV	7 228	7 218	7 218	7 358	7 343
220kV	1 351	1 351	1 221	1 220	1 217
132kV	889	889	889	882	882
Distribution overhead power lines, km	351 023	347 284	341 874	344 993	337 759
132kV and higher	24 777	24 666	24 646	25 011	25 528
44 to 88kV ²	20 767	20 735	23 904	23 794	23 682
33kV ²	3 563	3 420	–	–	–
1 to 22kV	301 916	298 463	293 324	296 188	288 550
Distribution underground cables, km	7 734	7 651	7 769	7 499	7 571
132kV and higher	86	86	79	75	66
44 to 88kV ²	190	189	415	215	375
33kV ²	4	4	–	–	–
1 to 22kV	7 454	7 372	7 275	7 209	7 130
Total all power lines, km	391 784	387 633	381 594	384 712	377 287
Total transformer capacity, MVA	306 949	297 512	285 737	276 583	244 637
Transmission, MVA ³	153 135	152 415	151 105	147 415	143 440
Distribution and reticulation, MVA	153 814	145 097	134 632	129 168	101 197
Total transformers, number	391 231	385 085	383 284	372 995	342 387
Transmission, number	446	444	442	433	427
Distribution and reticulation, number	390 785	384 641	382 842	372 562	341 960

1. Transmission power line lengths are included as per distances from the Geographic Information System.
2. Under NRS048 part 6, 33kV lines were reclassified in 2019 from high to medium voltage. Prior year figures have not been restated.
3. Base of definition: transformers rated ≥30MVA and primary voltage ≥132kV.

CUSTOMER INFORMATION

Category	2020	2019	2018	2017	2016
Number of Eskom customers					
Local	6 716 190	6 497 361	6 258 605	5 976 546	5 688 629
Distributors	805	800	800	802	801
Residential ¹	6 577 905	6 358 523	6 120 122	5 838 754	5 550 307
Commercial	52 909	52 556	51 848	50 956	50 816
Industrial	2 684	2 705	2 703	2 706	2 733
Mining	961	981	993	1 012	1 013
Agricultural	80 451	81 303	81 638	81 806	82 450
Rail	475	493	501	510	509
International	11	11	11	11	11
Utilities	8	8	8	8	8
End users across the border	3	3	3	3	3
	6 716 201	6 497 372	6 258 616	5 976 557	5 688 640
Electricity sales per customer category, GWh					
Local	190 446	195 858	196 922	199 028	201 022
Distributors	85 984	87 236	87 133	89 718	89 591
Residential ¹	11 293	11 748	12 302	11 863	11 917
Commercial	10 486	10 558	10 539	10 339	10 150
Industrial	45 610	48 717	47 854	48 295	50 150
Mining	28 703	28 972	30 235	30 559	30 629
Agricultural	5 770	5 796	5 711	5 405	5 733
Rail	2 600	2 831	3 148	2 849	2 852
International	15 189	12 461	15 268	15 093	13 465
Utilities	6 549	3 693	6 384	5 750	4 018
End users across the border	8 640	8 768	8 884	9 342	9 447
	205 635	208 319	212 190	214 121	214 487
International sales to countries in southern Africa, GWh	15 189	12 461	15 268	15 093	13 465
Botswana	1 261	247	147	984	1 099
Lesotho	426	292	276	252	205
Mozambique	8 358	8 339	8 326	8 120	8 281
Namibia	2 013	1 518	2 147	2 089	1 746
Swaziland	1 011	766	839	986	1 044
Zambia	238	258	362	352	344
Zimbabwe	1 245	456	2 250	1 743	252
Short-term energy market ²	637	585	921	567	494

1. Prepaid electricity and public lighting are included under the residential category.
2. The short-term energy market consists of all the utilities in the southern African countries that form part of the Southern African Power Pool. Energy is traded on a daily, weekly and monthly basis as there is no long-term bilateral contract.

Category	2020	2019	2018	2017	2016
Electricity revenue per customer category, R million					
Local	196 868	178 906	170 824	168 325	155 472
Distributors	85 656	77 231	72 935	73 009	66 396
Residential ¹	16 069	14 771	14 585	14 070	12 884
Commercial	14 067	12 385	11 726	11 279	10 157
Industrial	37 762	36 047	33 798	33 213	31 925
Mining	29 968	26 550	26 277	25 915	23 895
Agricultural	9 839	8 682	8 154	7 659	7 349
Rail	3 323	3 119	3 151	2 990	2 755
IPP network charge	184	121	198	190	111
International	12 229	8 241	9 530	10 682	8 055
Utilities	7 767	4 132	5 696	6 632	4 163
End users across the border	4 462	4 109	3 834	4 050	3 892
Gross electricity revenue	209 097	187 147	180 354	179 007	163 527
Less: Revenue capitalised ²	(5 683)	(3 393)	(2 172)	(717)	(367)
Less: Revenue not recognised ³	(10 190)	(8 914)	(3 635)	(3 196)	(1 472)
Add: Recognised on the cash basis ⁴	4 083	2 472	358	–	–
Electricity revenue less capitalised revenue per note 33 in the annual financial statements	197 307	177 312	174 905	175 094	161 688

- Prepaid electricity and public lighting are included under the residential category.
- Revenue from the sale of production, while testing generating plant not yet commissioned, is capitalised to plant.
- The principle of only recognising revenue if it is deemed collectable at the date of sale, as opposed to recognising the revenue and then impairing the customer debt when conditions change, has been applied since 2015. External revenue to the value of R10 190 million was thus not recognised at 31 March 2020.
- Under IFRS 15, certain supplies to distributors were recognised on the cash basis, due to uncertainty around collectability at the time of sale.

INDEPENDENT SUSTAINABILITY ASSURANCE REPORT

Independent assurance provider's reasonable assurance report on selected key performance indicators to the directors of Eskom

Introduction

We have been engaged to perform an independent assurance engagement for Eskom Holdings SOC Ltd (Eskom) on selected key performance indicators (KPIs) reported in Eskom's integrated report for the year ended 31 March 2020. Our engagement was conducted by a team with relevant experience in sustainability reporting.

Subject matter

We have been engaged to provide a reasonable assurance opinion in our report on the following selected KPIs, marked with ^{RA} in the statistical tables of the integrated report. The selected KPIs described below have been prepared in accordance with Eskom's reporting criteria that are available on Eskom's website, at www.eskom.co.za/OurCompany/SustainableDevelopment/Pages/Sustainable_Development.aspx

No	Indicator	Unit of measure	Boundary	Reporting criteria
Focus on safety				
1.	Lost-time injury rate (LTIR) (including occupational diseases)	Index	Eskom group	Occupational Health and Safety Act
Improve operations				
2.	Planned capability loss factor (PCLF)	%	Generation	Eskom's measurement specification document
3.	Energy availability factor (EAF)	%	Generation	
4.	Unplanned partial load losses (UCLF PLL)	Average MW	Generation	
5.	Unplanned automatic grid separation (UAGS) trips ¹	Number of trips	Generation	
6.	Post-philosophy outage unplanned capability loss factor (UCLF) ¹	%	Generation	
7.	EAF and UCLF post-CO and official – Medupi Power Station ¹	%	Generation	
8.	EAF and UCLF post-CO and official – Kusile Power Station ¹	%	Generation	
9.	Transmission technical energy losses savings ¹	MWh	Transmission	
10.	Payment levels excluding Soweto interest ¹	%	Distribution	
11.	System average interruption duration index (SAIDI)	Hours	Distribution	
12.	System average interruption frequency index (SAIFI)	Number	Distribution	
13.	Total electrification connections	Number	Distribution	
14.	System minutes lost <1	Minutes	Transmission	
15.	Distribution total energy losses	%	Distribution	
16.	Restoration time	%	Distribution	
Deliver capital expansion				
17.	Generation capacity installed and commissioned	MW	Generation	Eskom's measurement specification document
18.	Transmission lines installed	Km	Transmission	
19.	Transmission transformer capacity installed and commissioned	MVA	Transmission	
Reduce environmental footprint in existing fleet				
20.	Relative particulate emissions	kg/MWh sent out	Generation	Environmental Act
21.	Specific water usage	ℓ/kWh sent out	Generation	Water Act
22.	Carbon dioxide emissions	kg/kWh sent out	Generation	Eskom's measurement specification document
Primary energy optimisation				
23.	Migration of coal delivery volume from road to rail	Mt	Majuba, Grootvlei and Tutuka Power Stations	Eskom's measurement specification document
24.	Coal purchases Rand/ton % increase	%	Generation and Primary Energy Divisions	
25.	Coal stock days recovery	Days	Generation and Primary Energy Divisions	

1. KPI not assured in previous audits.



No	Indicator	Unit of measure	Boundary	Reporting criteria
Ensure financial sustainability				
26.	EBITDA	R million	Eskom group	Eskom's measurement specification document
27.	Cash interest cover	Ratio	Eskom group	
28.	Debt service cover	Ratio	Eskom group	
29.	Disposal of Eskom Finance Company ¹	R million	Eskom group	
30.	Savings from turnaround initiatives ¹	R million	Eskom group	
Socio-economic impact: human capital				
31.	Training spend as % of gross manpower costs	%	Eskom company	Eskom's measurement specification document
32.	Learner intake (artisans)	Number	Eskom company	
33.	Learner intake (engineers)	Number	Eskom company	
34.	Learner intake (technicians)	Number	Eskom company	
35.	Learner intake (sector-specific)	Number	Eskom company	
36.	Disability equity in total workforce	%	Eskom company	
37.	Racial equity in senior management	%	Eskom company	
38.	Gender equity in senior management	%	Eskom company	
39.	Racial equity in professionals and middle management	%	Eskom company	
40.	Gender equity in professionals and middle management	%	Eskom company	
Industrialisation and localisation				
41.	Local content contracted	%	Eskom company	Eskom's measurement specification document
42.	Preferential procurement ¹	% of total measured procurement spend	Eskom company	
43.	Competitive supplier development programme (CSDP) ¹	% of total capital procurement spend	Eskom company	
44.	Enterprise and supplier development ¹	R million	Eskom company	
45.	Research and development ¹	% of NERSA-allocated spend	Eskom company	
46.	B-BBEE score level	Number	Eskom company	B-BBEE amended Codes of Good Practice
Socio-economic impact: corporate social investment (CSI)				
47.	CSI committed spend	R million	Eskom company	Eskom's measurement specification document

1. KPI not assured in previous audits.

Directors' responsibilities

The directors are responsible for the selection, preparation and presentation of the selected KPIs in accordance with Eskom's reporting criteria. This responsibility includes the identification of stakeholders and stakeholder requirements, material issues, commitments with respect to sustainability performance and design, implementation and maintenance of internal controls relevant to the preparation of the integrated report that is free from material misstatement, whether due to fraud or error.

The directors are also responsible for determining the appropriateness of the measurement and reporting criteria in view of the intended users of the selected KPIs and for ensuring that those criteria are publicly available to the report users.

Inherent limitations

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining, calculating, sampling and estimating such information. The absence of a significant body of established practice on which to draw allows for the selection of certain different but acceptable measurement techniques, which can result in materially different measurements and can impact comparability. Qualitative interpretations of relevance, materiality and the accuracy of data are subject to individual assumptions and judgements. The precision thereof may change over time. It is important to read the report in the context of the reporting criteria.

Further, because of the test nature and other inherent limitations of an audit, together with the inherent limitations of internal controls, there is an unavoidable risk that some, even material, misstatements may not be detected, even though the audit is properly planned and performed in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (revised), *Assurance Engagements other than Audits or Reviews of Historical Financial Information*.

Where the information relies on factors derived by independent third parties, our assurance work has not included an examination of the derivation of those factors and other third-party information.

Our independence and quality control

We have complied with the independence and all other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

SizweNtsalubaGobodo Grant Thornton Inc applies the International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our responsibility

Our responsibility is to express a reasonable assurance opinion on the selected KPIs based on the procedures we have performed and the evidence we have obtained. We conducted our assurance engagement in accordance with ISAE 3000 (revised), issued by the International Auditing and Assurance Standards Board. That standard requires that we plan and perform our engagement to obtain reasonable assurance about whether the selected KPIs are free from material misstatement.

A reasonable assurance engagement in accordance with ISAE 3000 (revised) involves performing procedures to obtain evidence about the measurement of the selected KPIs and related disclosures in the report. The nature, timing and extent of procedures selected depend on the auditor's professional judgement, including the assessment of the risks of material misstatement of the selected KPIs, whether due to fraud or error.

In making those risk assessments we considered internal controls relevant to Eskom's preparation of the selected KPIs. A reasonable assurance engagement also includes:

- Evaluating the appropriateness of quantification methods, reporting policies and internal guidelines used and the reasonableness of estimates made by Eskom
- Assessing the suitability in the circumstances of Eskom's use of the applicable reporting criteria as a basis for preparing the selected information
- Evaluating the overall presentation of the selected sustainability performance information

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Qualified opinion

In our opinion, and subject to the inherent limitations outlined elsewhere in this report, except for the effects of the matters described in the "Basis for qualified opinion" section of our report, the selected KPIs as set out in the "Subject matter" paragraph above for the year ended 31 March 2020 are prepared, in all material respects, in accordance with Eskom's reporting criteria.

Basis for qualified opinion

Enterprise and supplier development

We were unable to obtain sufficient appropriate audit evidence for the reported achievement of the target. This was due to limitations placed on the scope of the work. There were no reporting processes and systems put in place by management to consistently collate, review and monitor the data that supports the reliable measurement of the KPI. We were unable to confirm the reported achievement by alternative means. Consequently, we were unable to determine whether any adjustments are required to the reported achievement of R4.59 million.

Competitive supplier development programme

Eskom did not have an adequate performance management system to maintain records to enable reliable reporting on achievement of targets. Sufficient appropriate audit evidence could not be provided in some instances while, in other cases, the evidence provided did not agree to the recorded achievements. We were also unable to confirm the reported achievement by alternative means. Consequently, we were unable to determine whether any further adjustments were required to the reported achievement of 0.03%.

Local content contracted

Eskom did not have an adequate performance management system to maintain records to enable reliable reporting on achievement of targets. Sufficient appropriate audit evidence could not be provided in some instances while, in other cases, the evidence provided did not agree to the recorded achievements. We were also unable to confirm the reported achievement by alternative means. Consequently, we were unable to determine whether any further adjustments were required to the reported achievement of 92.84%.

Other matters

Our report includes the provision of reasonable assurance on selected KPIs, on which we were previously not required to provide assurance, as indicated in the table above. Hence, with regard to these KPIs, the current year information relating to prior reporting periods has not been subject to assurance procedures.

Website

The maintenance and integrity of the Eskom website is the responsibility of Eskom management. Our procedures did not involve consideration of these matters and accordingly, we accept no responsibility for any changes to either the information in the report or our independent reasonable assurance report that may have occurred since the initial date of its presentation on the Eskom website.

Restriction of liability

Our work has been undertaken to enable us to express a reasonable assurance opinion on the selected KPIs to the directors of Eskom in accordance with the terms of our engagement and for no other purpose. We do not accept or assume liability to any party other than Eskom for our work, for this report, or for the conclusion we have reached.



Sizwe Ntsaluba Gobodo Grant Thornton Inc
Registered auditors

Per BF Zwane
Chartered Accountant (SA)
Director
29 October 2020

CONTACT DETAILS

Telephone numbers		Websites and email addresses	
Eskom head office	+27 11 800 8111	Eskom website	www.eskom.co.za Contact@eskom.co.za
Eskom Media Desk	+27 11 800 3343 +27 11 800 3378 +27 11 800 6103	Eskom Media Desk	MediaDesk@eskom.co.za
Investor Relations	+27 11 800 2775	Investor Relations	InvestorRelations@eskom.co.za
Whistle-blowing hotline	0800 112 722	Forensic investigations	Investigate@eskom.co.za
Eskom Development Foundation	+27 11 800 8111	Eskom Development Foundation	www.eskom.co.za/csi CSI@eskom.co.za
National call centre	08600 ESKOM or 08600 37566	Promotion of Access to Information Act requests	PAIA@eskom.co.za
Customer SMS line	35328	Customer Service	CSOnline@eskom.co.za
Facebook 	EskomSouthAfrica	Feedback on our report	IRfeedback@eskom.co.za
Twitter 	Eskom_SA	MyEskom app	 

Physical address	Postal address
Eskom Megawatt Park 2 Maxwell Drive Sunninghill Sandton 2157	PO Box 1091 Johannesburg 2000
Group Company Secretary	Company registration number
Office of the Company Secretary PO Box 1091 Johannesburg 2000	Eskom Holdings SOC Ltd 2002/015527/30

Our suite of reports covering our integrated results for 2020 is available at www.eskom.co.za/IR2020

