Eskom

INTEGRATED REPORT 2022

Powering growth ... sustainably

CONTENTS

NAVIGATING OUR REPORT

Navigation icons

The following navigation icons are used to depict the six capitals (refer to page 7 to 8 for definitions):

- **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)

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

We are a proud supporter member of the following bodies

IFRS Sustainability Alliance

INTEGRATED REPORTING COMMITTEE OF SOUTH AFRICA MEMBER 2022/23

Turnaround objectives

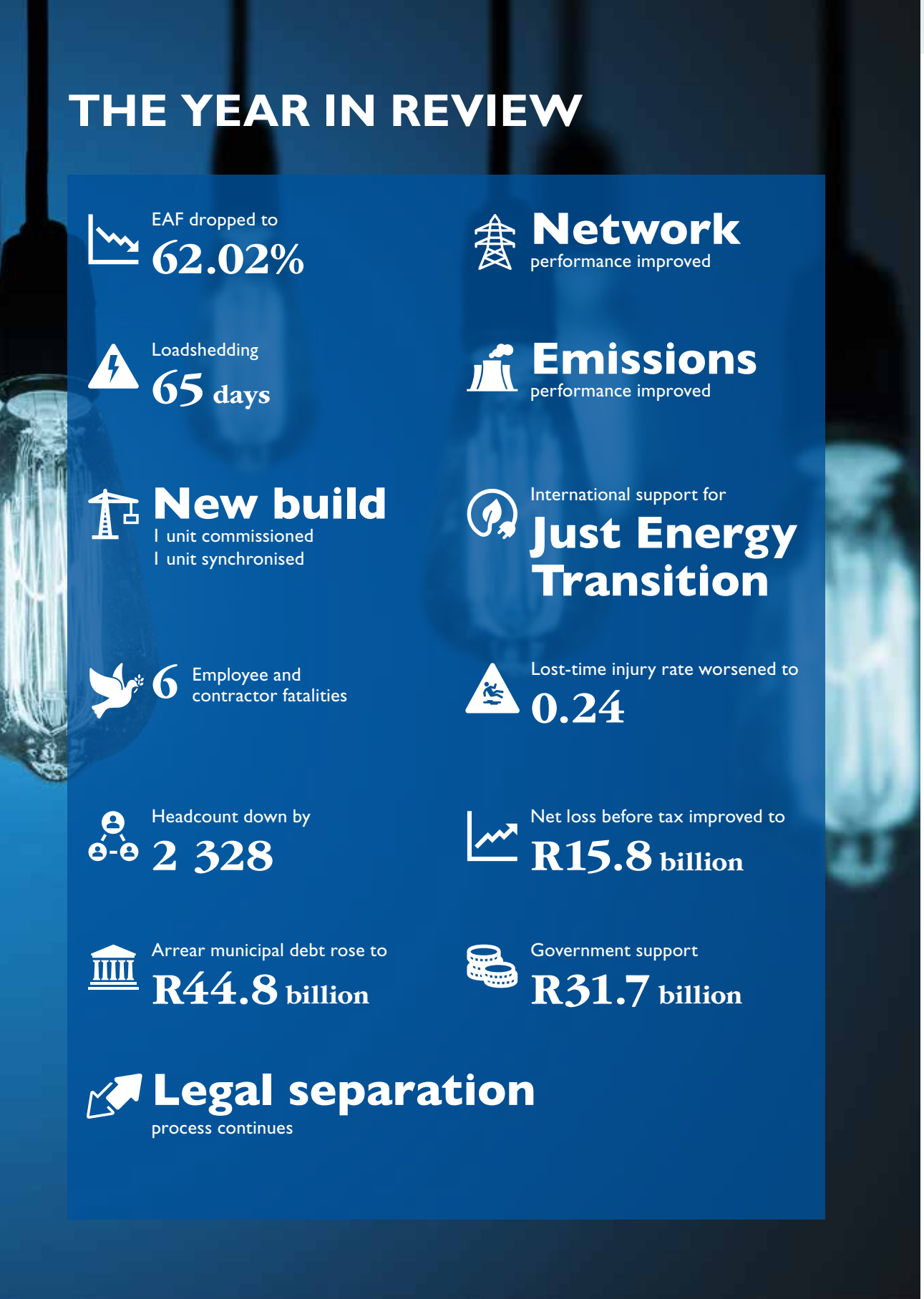
- **Operations recovery**
- **Improve income statement**
- **Strengthen balance sheet**
- **Business separation**
- **People and culture**

Further content

- Information block or case study
- Additional information contained in the integrated report
- Supplementary information at the back of the report
- Information available online

A list of abbreviations and glossary of terms is available on page 135 to 137

To complete a short survey on our integrated report, please click here



THE YEAR IN REVIEW

EAF dropped to
62.02%

Network
performance improved

Loadshedding
65 days

Emissions
performance improved

New build
1 unit commissioned
1 unit synchronised

International support for
Just Energy Transition

6 Employee and contractor fatalities

Lost-time injury rate worsened to
0.24

Headcount down by
2 328

Net loss before tax improved to
R15.8 billion

Arrear municipal debt rose to
R44.8 billion

Government support
R31.7 billion

Legal separation
process continues

ABOUT THIS REPORT

Board responsibility and approval

Eskom's Board is accountable for the integrity and completeness of the integrated report and any supplementary information. It is assisted in this regard by the Audit and Risk Committee and the Social, Ethics and Sustainability Committee. As noted on page 10, the new Board was appointed six months after the 2022 financial year end. As such, the new Board has had to familiarise itself with the results and matters dealt with in this report, and sign off on Eskom's year-end reporting on behalf of the previous Board.

The Board has considered the integrated report and concluded that it is presented in accordance with the Integrated Reporting Framework. Based on the reliability of information presented and the completeness of material items discussed, and given the combined assurance process followed, the Board approved the 2022 integrated report and supplementary information on 16 December 2022.

Mpho Makwana
Chairman

Fathima Gany
Chairperson: Audit and Risk Committee

Bheki Ntshalintshali
Chairperson: Social, Ethics and Sustainability Committee

As South Africa's national electricity utility, Eskom's mandate is to ensure a stable electricity supply in an efficient manner, to contribute to lowering the cost of doing business and enable economic growth. As such, we have a significant impact on the economy and the lives of South Africans. We serve a wide range of stakeholders, such as our shareholder, investors, employees, customers, suppliers, regulators, civil society and Government.

Our value creation model depicts how the generation, transmission, distribution and sale of electricity affect value creation by transforming inputs into electricity supplied to customers, as well as considering the impact of our business on the six capitals. Our integrated report aims to provide a transparent and balanced account of how we create, preserve or erode value.

Our value creation model is set out on page 4 to 5

Approach to presentation

This integrated report reviews our financial, operational, environmental, social and governance performance for the financial year from 1 April 2021 to 31 March 2022, as well as the future outlook. Unless otherwise stated, both financial and non-financial performance data in this report relates to the 2022 financial year. Significant events occurring to the date of approval have been covered.

The report covers the group performance of Eskom Holdings SOC Ltd (Eskom) and its major operating subsidiaries, unless otherwise stated. Unless noted otherwise, information presented is comparable to that of prior years. The integrated report should be read in conjunction with the group annual financial statements, for a complete overview of financial performance.

Eskom's group annual financial statements are available at www.eskom.co.za/investors/integrated-results. Restatements due to prior period errors are dealt with in note 48

Our integrated report is based on the guiding principles and content elements contained in the revised Integrated Reporting Framework, issued in January 2021. 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, such as recommendations by the Task Force on Climate-related Financial Disclosures (TCFD).

This is our primary report to stakeholders aimed predominantly at providers of financial capital, although the report seeks to provide information to a wide range of stakeholders. We strive to provide a balanced, transparent and complete account of our performance, by focusing on matters material to our ability to create or dilute value. We also consider qualitative and quantitative matters material to our operations and strategic objectives, as well as strategic risks and opportunities and our operating context.

Through our short-term turnaround objectives, our use of and impact on the six capitals are connected to our strategy, material matters, organisational and strategic risks, key performance indicators (KPIs) and performance. In our context, short term means within one year after year end, medium term within one to five years, and long term more than five years.

We are embedding a holistic approach to decision-making in ensuring security of electricity supply. It is applied by management, executives and the Board, such as when the various capitals and trade-offs between them are continually considered. An example of such trade-offs is the use of costly diesel turbines to ensure stability of the grid and provide security of supply to customers, at the expense of financial capital. Similarly, running generation plant above emission limits to ensure security of supply, at the expense of natural capital. Another example would be the headcount reduction to manage employee benefit costs, at the expense of skills available to the business.

ABOUT THIS REPORT continued

Preparation process

Our Chief Financial Officer, Mr Calib Cassim CA(SA), oversees the preparation and presentation of the integrated report and supplementary information.

A dedicated team from the Group Finance Division produces the integrated report, by collaborating with representatives from all areas of the business to source the information presented in the report. The content relies heavily on our strategic Corporate Plan, as well as information contained in a quarterly report to our shareholder, all of which are approved by Eskom's Board prior to submission to the Department of Public Enterprises.

The content is further guided by the material matters determined during the preparation process. Content is reviewed by subject matter experts from the business, as well as Exco, the Audit and Risk Committee and the Social, Ethics and Sustainability Committee. In approving the integrated report, the Board assumes ultimate accountability for the content, completeness and reliability of the report.

Financial information is presented in South African Rand, our functional and presentation currency. Figures are taken from Eskom's group annual financial statements, which are prepared in accordance with International Financial Reporting Standards (IFRS). Non-financial data is reported regularly to Exco and the Board, and included in the quarterly shareholder report.

Assurance approach to improve credibility

The Audit and Risk Committee and the Board rely on a combined assurance approach to assess the adequacy of internal controls and risk management processes.

The consolidated annual financial statements have been audited by the group's independent auditors, Deloitte & Touche, who issued a qualified opinion relating to information 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 have emphasised a number of matters in their report, including a material uncertainty relating to Eskom's ability to continue as a going concern. However, this does not affect their opinion.

The independent auditor's report is incorporated in the annual financial statements

The Assurance and Forensic Department provided reasonable assurance limited to certain quantitative information, and to a lesser extent, some qualitative aspects of the report. The group's external auditors provided assurance on the sustainability KPIs contained in the shareholder compact; all of the KPIs scoped in for reasonable assurance received an unqualified opinion.

The independent sustainability assurance report is included from page 154

Our suite of reports

Our 2022 suite of reports comprise:

Integrated report and supplementary information

The integrated report is prepared in accordance with the Integrated Reporting Framework. It considers our value creation model, strategy, risks and opportunities, performance and outlook, as well as governance of these areas. Supplementary information of interest to a variety of stakeholders is available at the back of the report. The external auditors provided reasonable assurance on selected KPIs, while the Assurance and Forensic Department provided reasonable assurance limited to certain aspects of the report.

Annual financial statements

The consolidated annual financial statements of Eskom Holdings SOC Ltd have been prepared in accordance with IFRS as well as the requirements of the Companies Act, 2008 and the PFMA, 1999, and have been audited by our independent auditors, Deloitte & Touche.

Sustainability report

The sustainability report supplements and provides more detailed information on our sustainable development impact than that provided in the integrated report. The report is guided by the reporting principles of the Global Reporting Initiative (GRI), and considers our contribution to the United Nations' Sustainable Development Goals (SDGs).

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 imprecise and/or incorrect 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 nor assumes any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Future performance plans and/or strategies referred to in the integrated report have not been reviewed or reported on by the independent auditors.

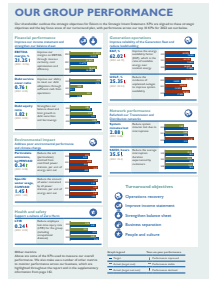
WHO WE ARE AND HOW WE CREATE VALUE

WHAT YOU WILL FIND IN THIS SECTION 1

VALUE CREATION MODEL

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



Refer to page 27 for our top 10 KPIs

INPUTS

Finance
R35.8 billion Funding secured
R31.7 billion Government support

Infrastructure
47 145MW Nominal power station capacity
6 831MW IPP capacity
404 818km Power lines and cables

Environment
110.3Mt Coal burnt
283 610Mℓ Net raw water used

People
42 749 Employees (at 31 March 2021)
R855 million Training spend

Society and relationships
R75.1 million CSI committed spend
R2.1 billion DMRE electrification funding

Know-how
Institutional knowledge
12 research Grand Challenges

Note that a selection of significant inputs and outcomes are shown in the business model

Nuclear generation

We operate Koeberg Nuclear Power Station, Africa's first and only nuclear power station

Renewable generation

Renewable energy is supplied by IPPs, primarily in the form of solar photovoltaic (PV) and wind energy, and by Eskom, using hydroelectric and wind energy

Fossil fuel-based generation

Generate electricity from coal, optimally manage asset performance and leverage core competencies to expand the revenue base. Utilise gas-fired stations owned by Eskom and independent power producers (IPPs) as peaking capacity

Primary energy

Identify, source, procure and deliver primary energy (coal, water and limestone) of the right quality, at the right time and at optimal cost to our power stations

System Operator

Maintain the frequency of the power system at 50Hz, to balance electricity supply and demand in real time

Transmission

Provide a reliable and efficient transmission network and energy market services in South Africa and neighbouring markets

Distribution

Provide reliable energy and related services to our customers, enhance the customer experience and collect revenue

Products

198 281GWh
Electricity sales to distributors and industrial, commercial, international, residential and other customers

Waste and by-products

32.90Mt Ash produced
66.65kt Particulate emissions
207.2Mt CO_2 emitted

Values

- **Z** Zero Harm
- **I** Integrity
- **I** Innovation
- **S** Sinobuntu
- **C** Customer satisfaction
- **E** Excellence

OUTCOMES

Finance
▼ R71.4 billion Debt and interest repaid
▲ R246.5 billion Revenue
▲ R52.4 billion EBITDA
▼ R44.8 billion Municipal arrear debt

Infrastructure
▲ 794MW New capacity from Medupi Unit 6
▲ 180.5km Transmission lines installed
▲ 1 065MVA Transmission transformer capacity installed
▲ R30.2 billion Capital expenditure

Environment
▼ 65 Environmental legal contraventions
▼ 0.34kg/MWhSO Relative particulate emissions
▼ 1.45ℓ/kWhSO Specific water consumption

People
▲ 40 421 Employees at year end
▼ 0.24 Lost-time injury rate
▼ 6 Employee and contractor fatalities
▲ R33 billion Employee benefit expense

Society and relationships
▲ 785 085 CSI beneficiaries
▲ 97 947 Electrification connections
▼ 65 days Loadshedding

Know-how
▼ Tacit knowledge lost due to VSPs

▲ Positive outcome ▼ Negative outcome

Turnaround objectives

- Operations recovery
- Improve income statement
- Strengthen balance sheet
- Business separation
- People and culture

Supply of electricity

205 688GWh Generated by Eskom power stations
15 973GWh supplied by IPPs
8 500GWh imports from neighbouring countries
Energy available for distribution 226 226GWh

Electricity demand

184 983GWh sales to 6 969 153 local customers
13 298GWh sales to 11 international customers
24 811GWh technical losses, electricity theft and errors
Energy demand 226 226GWh

Not all elements of supply and demand are shown.

UNDERSTANDING OUR BUSINESS

Our operations

Eskom's business

The foundation of our business is the generation, transmission, distribution and sale of electricity, supported by the construction of new power stations and network infrastructure. Our core divisions – Generation, Transmission and Distribution – rely on corporate support functions to operate effectively. Our subsidiary Eskom Rotek Industries performs turbine and transformer repairs and provides specialised construction and transport services, in support of the electricity business, while other subsidiaries also provide strategic support services.

Eskom is one of the few remaining vertically integrated utilities. We are connected to the Southern African Power Pool through an interconnected grid, which supports grid stability. We rely on neighbouring countries to maintain sufficient and reliable transmission grids in their countries. to facilitate the transmission of electricity throughout the Southern African Development Community (SADC) region.

Using inputs from the natural environment – coal, nuclear fuel and diesel, as well as water and wind – we generate more than 90% of the energy supplied to a wide range of customers in South Africa and the region. Our System Operator has to maintain the frequency of the power system at 50Hz to balance electricity supply and demand in real time.

Our new build programme caters for South Africa's future energy demand by building new power stations and strengthening our transmission grid. However, additional base-load generation capacity of 4 000MW–6 000MW is required urgently, to ensure sufficient capacity to support South Africa's power system, and Eskom's efforts to maintain our existing power stations.

The final unit of Medupi Power Station achieved commercial operation on 31 July 2021, while a further unit at Kusile Power Station was synchronised to the grid on 23 December 2021. Defects on new units at Medupi and Kusile are being addressed, to improve the reliability and availability of the units.

Detailed information on our power stations, power lines and substation capacities is available on page 150 to 151

We 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. We also support several of the United Nations' Sustainable Development Goals (SDGs).

GENERATION CAPACITY

30 Power stations

47 145MW Total nominal capacity

Base-load stations

39 456MW Coal-fired stations

1 854MW Nuclear power

Mid-merit and peaking stations

2 724MW Pumped storage

602MW Hydro stations

2 409MW OCGTs

Self-dispatching energy

100MW Sere Wind Farm

NETWORK CAPACITY

404 818km of high-, medium- and low-voltage lines and underground cables

301 381MVA of transformer capacity

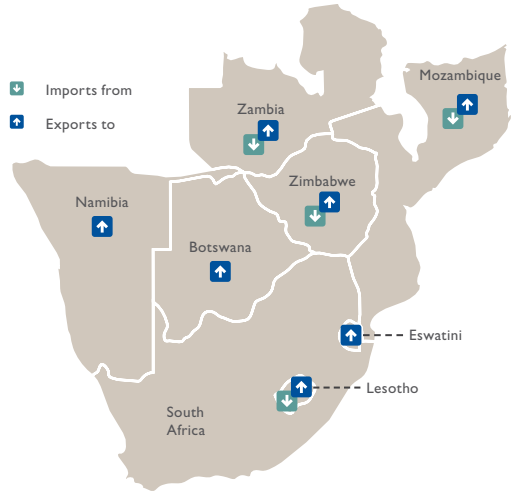
Supply and demand of electricity

Electricity is supplied by Eskom's power stations, IPPs and cross-border suppliers to local and export customers through our transmission and distribution networks.

Eskom generated 205 688GWh for the year, from the following primary energy sources:

Source, GWh	2022	2021	2020
Coal-fired stations	**184 568**	183 553	194 357
Nuclear power	**12 355**	9 903	13 252
Pumped storage stations	**4 743**	4 795	5 060
Hydro stations	**1 943**	1 387	688
Open-cycle gas turbines (OCGTs)	**1 826**	1 457	1 328
Wind	**253**	305	283
Eskom generation	**205 688**	201 400	214 968
Pumping by pumped storage stations	**(6 434)**	(6 625)	(6 629)
Net sent out by Eskom	**199 254**	194 775	208 339
Independent power producers	**15 973**	13 526	11 958
Imports	**8 500**	8 812	8 568
Wheeling	**2 499**	2 310	2 491
Energy available for distribution	**226 226**	219 423	231 356

The following diagram indicates the countries from which we import and those to which we export, with Mozambique being by far the most significant trading partner.



Total energy of 184 983GWh was supplied to 6 969 153 local customers (2021: 178 355GWh), with 13 298GWh supplied to 11 international customers (2021: 13 497GWh). Technical energy losses incurred during the transmission and distribution process, together with losses due to electricity theft and errors consumed 24 802GWh (2021: 25 078GWh). Loadshedding and load curtailment of large customers over the past year reduced supply by an estimated 1 605GWh, equating to just over 0.7% of total energy demand for the year (2021: 1 034GWh).

The number of customers, electricity sales volumes and revenue by customer segment are set out on page 152

How we define the six capitals

Resources comprising all six capitals set out in the International <IR> Framework are used as inputs in our business. The creation of value in one area frequently leads to the erosion of value in another, given the inevitable trade-offs. We have to ensure that our business remains sustainable across all the capitals.

How we interpret each of the capitals is explained below, with detail provided in the sections dealing with each of the capitals.

Financial capital is fundamental to our sustainability as a business. It comprises retained earnings, equity from our shareholder and debt funding provided by lenders, a large portion of which is Government guaranteed. Lenders and bondholders earn a return in the form of interest. Our shareholder does not receive any dividends at this time.

Manufactured capital consists of our power stations and our transmission and distribution networks. Our manufactured capital base is enhanced by the commissioning of new power station units and power lines, as well as through maintenance and capital refurbishment of existing plant. The process of generating, transmitting and distributing electricity erodes that base.

Natural capital in the form of non-renewable or scarce primary energy sources such as coal, water, nuclear fuel and diesel is consumed to generate electricity. The generation process produces waste in the form of ash, gaseous and particulate emissions, contaminated water and nuclear waste, also eroding natural capital. Through the increased use of renewable energy, we aim to transition to a cleaner energy mix to reduce our impact on the environment. Although we strive to mitigate our impact on the natural environment, our transmission and distribution networks also have a negative impact on bird life in some cases.

Human capital covers our employees and contractors, and their competencies, capabilities and experience. We continue to focus on improving the racial, gender and disability equity of our employee base. Given the significance of employee benefit costs to our cost base, we continue to pursue a reduction in our headcount, mainly through natural attrition, while still maintaining the productivity of the workforce and preserving our knowledge base. Human capital is enhanced through training and skills development, although these efforts remain constrained by our financial situation.

Social and relationship capital considers interactions with customers, suppliers, communities and the public in general. We contribute to society by enabling economic growth through the supply of electricity; electrifying new households in our licensed areas of supply; supporting Government's priorities of 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. We acknowledge that our power stations and

UNDERSTANDING OUR BUSINESS continued

to some extent, our networks, have a negative impact on the health of the communities in which we operate, and a pilot project is under way to consider how to mitigate the impact on air quality. Strong stakeholder relationships are critical to our ability to create value.

Intellectual capital includes technology, 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.

Selected inputs and outputs to the value creation process are highlighted in the model from page 4

Our structure and regulation

Electricity supply industry

The electricity supply industry in South Africa consists of the generation, transmission, distribution and sale of electricity, together with the import and export thereof. Most of the base-load and peaking capacity is owned and operated by Eskom, with IPPs supplementing capacity, largely in the form of wind and solar PV power, as well as peaking capacity supplied by gas turbines.

Capacity added and energy supplied by IPPs are discussed from page 98

Only major subsidiaries are shown.

The National Energy Regulator of South Africa (NERSA) regulates the industry under the National Energy Regulatory Act, 2004 and the Electricity Regulation Act, 2006 by providing licences, regulatory rules, codes and guidelines. NERSA also determines our revenue allocation in accordance with the Electricity Pricing Policy (EPP).

The National Nuclear Regulator (NNR) provides oversight of our nuclear power station, Koeberg, by ensuring that it complies with nuclear safety standards to protect individuals, society and the environment against radiological hazards linked to the use of nuclear technology.

How we are regulated

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

The Department of Public Enterprises is our shareholder ministry and sets our mandate, which 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 enabling economic growth.

We are also subject to oversight or regulation by several other Government departments, Parliamentary committees and regulators.

Under the PFMA, 1999 we have to submit a strategic Corporate Plan on an annual basis, which sets out our strategic objectives, with plans and targets to achieve those. We agree on an annual shareholder compact with DPE, which tracks the KPIs that support our mandate and the strategic objectives under the Strategic Intent Statement set out by DPE. Our latest annual Corporate Plan covers the five-year period to 2027.

Performance against the 2022 shareholder compact is dealt with comprehensively 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 included in the statistical tables, available as a fact sheet at the back of this report, from page 142

Numerous laws and regulations govern our operations, including conditions relating to tariffs, 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, among others:

- 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
- Preferential Procurement Policy Framework Act, 2000
- Promotion of Access to Information Act, 2000

Group overview

Eskom Holdings SOC Ltd houses our electricity business and holds investments in subsidiaries. The Eskom group comprises the operating company with its subsidiaries and joint ventures. Under our business separation project, as mandated by DPE's Roadmap for Eskom in a Reformed Electricity Supply Industry released in 2019, a new subsidiary to house the Transmission business was established during the year – the National Transmission Company South Africa SOC Ltd (NTCSA). However, the company is not yet operational, given policy and regulatory dependencies that are lagging behind schedule. Under the process, the Generation and Distribution businesses will also be separated in the coming years.

Progress on the business separation project is discussed in "Our strategic context – Our strategy and turnaround plan" from page 40

Our head office is based in Johannesburg, with operations across South Africa and administrative offices in most major centres. Our local subsidiaries provide strategic services to Eskom and our employees, and we have a subsidiary based in Uganda.

Significant subsidiaries are discussed below.

Subsidiaries of Eskom

Eskom Enterprises SOC Ltd (EE) is an investment holding company. An overview of its subsidiaries is set out below.

Escap SOC Ltd is a wholly-owned insurance captive company, which manages and insures the business risk of Eskom and its subsidiaries. As part of its long-term diversification strategy, Escap has also started insuring other public entities to generate additional income and reduce policyholder concentration risk.

Eskom Finance Company SOC Ltd (EFC) provides housing and other loans to employees. The disposal of EFC, as mandated by the shareholder, resumed in the 2023 financial year, since the offer received towards the end of the 2021 financial year was not accepted by DPE.

The Eskom Development Foundation NPC (the Foundation) is a non-profit company under section 21 of the Companies Act, 2008. It is responsible for implementing CSI programmes on behalf of Eskom, thereby improving the quality of life of communities where we operate.

Full details of Eskom's equity-accounted investees and subsidiaries at 31 March 2022 are set out in notes 12 and 13 of the consolidated annual financial statements

Subsidiaries of Eskom Enterprises

Eskom Rotek Industries SOC Ltd (ERI) provides lifecycle, plant maintenance and technical support to Eskom's electricity business.

Eskom Uganda Limited, a subsidiary of EE, operates and maintains Nalubaale and Kiira hydroelectric power stations in Uganda under a 20-year concession arrangement that ends in March 2023, followed by a handover period. The stations have a combined capacity of close to 380MW.

Pebble Bed Modular Reactor SOC Ltd (PBMR) is wholly owned by EE. It remains in a state of care and maintenance to preserve the intellectual property created during operation. The EE Board is considering the way forward on the future of PBMR.

EE holds an effective interest of 69% in South Dunes Coal Terminal Company SOC Ltd (SDCT), both directly and indirectly through Golang Coal SOC Ltd. SDCT owns rights 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.

Contribution to financial performance

The contribution by the main group companies to performance and financial 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	246 520	10 656	4 188	566	–	(15 410)	**246 520**
EBITDA[1]	50 598	449	475	180	–	672	**52 374**
Net (loss)/profit after tax	(14 312)	57	1 032	138	–	755	**(12 330)**
Total assets	784 568	7 289	24 067	8 252	59	(22 650)	**801 585**
Total liabilities	569 377	2 637	12 898	6 728	62	(25 431)	**566 271**
Capital expenditure[2]	28 512	261	–	–	–	(245)	**28 528**

1. EBITDA excludes fair value adjustments on financial instruments and embedded derivatives.
2. The company and group figures include DMRE funded capital expenditure of R2.1 billion, but exclude capitalised borrowing costs.

Segment disclosure for Generation, Transmission, Distribution and other segments is provided in note 7 of the consolidated annual financial statements

BOARD RESTRUCTURING

The Board comprised of eight directors at year end, including six independent non-executive directors and two executive directors. This was well below the full composition of 15 directors allowed in terms of Eskom's Memorandum of Incorporation (MOI). The Board had concluded, through its independent board evaluation, that it was insufficiently constituted and lacked critical skills and experience based on the size and nature of Eskom, as well as the complexity of the operational and financial challenges that the organisation is facing.

The Board had requested the shareholder to appoint additional independent non-executive directors on several occasions, in line with the skills, experience and diversity needs identified by its People and Governance Committee. In particular, the Board had identified that its Audit and Risk Committee lacked appropriate finance and assurance skills and experience and that its Investment and Finance Committee (IFC) was not adequately capacitated. Furthermore, the chairperson of IFC resigned in August 2021.

The shareholder conducted a review of the Board and announced a reconstituted and restructured Board on 30 September 2022. The shareholder appointed 12 new independent non-executive directors with a broad range of experience and the necessary expertise and skills to provide stability and strategic direction to Eskom. Dr Rod Crompton, Mr André de Ruyter and Mr Calib Cassim remained from the previous Board. The new Board is now fully constituted with 15 directors, including 13 independent non-executive directors and two executive directors, thereby enhancing oversight of and strategic direction to Eskom.

The new Board commenced its tenure on 1 October 2022. The Board has reviewed its structure and recommended the establishment of a Business Operations Performance Committee to provide oversight of Eskom's technical performance, operational challenges and risks relating to the production of electricity, in particular performance against shareholder compact targets such as the energy availability factor. The Board Strategy Committee's mandate has been expanded to include governance matters and has been renamed to the Governance and Strategy Committee. The People and Governance Committee has changed to the Human Capital and Remuneration Committee.

The composition of the previous Board at 31 March 2022 as well as the new Board at 1 October 2022 are shown below. Governance information included in this report, covering the Board's independent evaluation, King IV™ assessment, as well as the key activities and future focus areas of the Board and its committees are reported on behalf of the previous Board for the year ended 31 March 2022.

BOARD OF DIRECTORS AT 31 MARCH 2022

Prof. Malegapuru Makgoba (69)
Interim Chairman

Mr André de Ruyter (54)
Group Chief Executive

Mr Calib Cassim (50)
Chief Financial Officer

Dr Rod Crompton (69)
Independent non-executive director

Dr Banothile Makhubela (37)
Independent non-executive director

Ms Busisiwe Mavuso (43)
Independent non-executive director

Dr Pulane Molokwane (45)
Independent non-executive director

Prof. Tshepo Mongalo (48)
Independent non-executive director

Ms Busisiwe Mavuso resigned on 27 September 2022. The terms of Prof. Malegapuru Makgoba, Prof. Tshepo Mongalo, Dr Banothile Makhubela and Dr Pulane Molokwane ended on 30 September 2022.

Refer to page 138 to 141 for full details of the Board and meeting attendance for the year ended 31 March 2022.

Membership of Board committees

- Audit and Risk Committee
- Investment and Finance Committee
- People and Governance Committee (now Human Capital and Remuneration Committee)
- Ⓒ Denotes chairmanship of a committee
- Social, Ethics and Sustainability Committee
- Board Strategy Committee (now Governance and Strategy Committee)
- Business Operations Performance Committee (new Board committee)

BOARD OF DIRECTORS AT 1 OCTOBER 2022

Mr Mpho Makwana (52)
Chairman
Former non-executive director of Eskom from 2002 to 2011, including acting as Chairman and CEO

Mr André de Ruyter (54)
Group Chief Executive
Served as Group Chief Executive since January 2020

Mr Calib Cassim (50)
Chief Financial Officer
Served as Chief Financial Officer since July 2017

Dr Rod Crompton (69)
Independent non-executive director
Served on the Board since January 2018. Experience in energy, chemicals, economic regulation and industrial policy

Ms Fathima Gany (47)
Independent non-executive director
Finance professional, registered as a Chartered Accountant (SA)

Mr Lwazi Goqwana (47)
Independent non-executive director
Engineer with experience in manufacturing, construction, financial services, logistics, energy and government services

Mr Clive le Roux (70)
Independent non-executive director
Engineer; previously served as Chief Nuclear Officer and power station manager at Matimba and Koeberg

Ms Ayanda Mafuleka (42)
Independent non-executive director
Finance professional, registered as a Chartered Accountant (SA)

Mr Leslie Mkhabela (50)
Independent non-executive director
Legal professional with experience in restructuring of state-owned assets, commercial and administrative law, and dispute resolution

Dr Tsakani Mthombeni (42)
Independent non-executive director
Engineer with experience in sustainable development, energy management and climate change strategy

Mr Bheki Ntshalintshali (68)
Independent non-executive director
Former trade unionist; previously served as general secretary of the Congress of South African Trade Unions (COSATU)

Mr Mteto Nyati (57)
Independent non-executive director
Engineer with experience in information and communication technology (ICT); previously served as CEO of MTN SA and Altron

Ms Tryphosa Ramano (50)
Independent non-executive director
Finance professional, registered as a Chartered Accountant (SA)

Dr Busisiwe Vilakazi (39)
Independent non-executive director
Engineer with experience in ICT research and innovation, data science and analytics, strategy and digital transformation

Dr Claudelle von Eck (51)
Independent non-executive director
Organisational development and change management professional; previously served as the CEO of the Institute of Internal Auditors of South Africa

Racial diversity

12 ACI | 3 White

Gender diversity

5 Female | 10 Male

EXECUTIVE MANAGEMENT COMMITTEE

AT 31 MARCH 2022

1. Mr André de Ruyter (54)
Group Chief Executive
Appointed to Exco in January 2020
2 years in Eskom
LLB (Unisa)
MBA (Nyenrode University)

2. Mr Calib Cassim (50)
Chief Financial Officer
Appointed to Exco in July 2017
20 years in Eskom
Chartered Accountant (SA)
Master of Business Leadership (Unisa)

3. Mr Jan Oberholzer (63)
Group Chief Operating Officer
Appointed to Exco in July 2018
29 years in Eskom (including from 1983 to 2008)
B Sc Electrical Engineering (University of Pretoria)
Master of Business Leadership (Unisa)
Executive Program (University of Michigan)

4. Ms Faith Burn (53)
Chief Information Officer
Appointed to Exco in May 2020
1 year in Eskom
M Sc Mathematics (University of Johannesburg)
Master of Business Leadership (Unisa)

5. Ms Mel Govender (40)
Group Executive: Legal and Compliance
Appointed to Exco in October 2021
<1 year in Eskom
LLB (University of KwaZulu-Natal)

6. Ms Nthato Minyuku (43)
Group Executive: Government and Regulatory Affairs
Appointed to Exco in October 2020
1 year in Eskom
B Architectural Studies (University of Witwatersrand)
Master of City Planning and Urban Design (University of Cape Town)

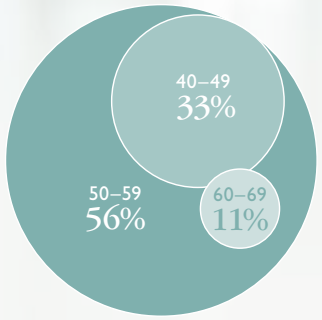
7. Ms Elsie Pule (54)
Group Executive: Human Resources
Appointed to Exco in November 2014
24 years in Eskom
BA (Hons) Psychology (University of Pretoria)
M Sc Business Engineering (Warwick University)

8. Ms Jainthree Sankar (50)
Chief Procurement Officer
Appointed to Exco in March 2021
28 years in Eskom
B Com (Hons) Business (Unisa)
MBA Sustainable Business (University of Southern Queensland)
Master of Project Management (University of Southern Queensland)

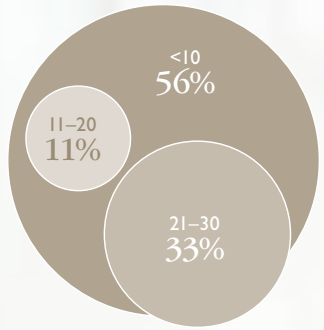
9. Mr Vuyolwethu Tuku (46)
Group Executive: Transformation Management Office
Appointed to Exco in July 2020
1 year in Eskom
B Sc Electrical Engineering (University of Cape Town)
MBA (University of Witwatersrand)

Qualifications listed are not exhaustive. Refer to pages 139 and 140 for full details of Exco members' qualifications and active directorships

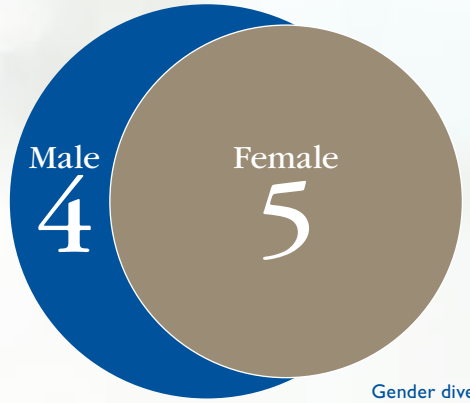
Skills



Age diversity



Years in service



Gender diversity

Racial diversity

MESSAGE FROM THE CHAIRMAN

The Collins dictionary's word of the year for 2022 is *permacrisis*, signifying an extended period of instability and insecurity. As we present the results for the 2022 financial year to the market, the state of affairs that we found at Eskom seem to resonate with a state of permacrisis.

The integrated report and annual financial statements are presented by a new Board of Directors 85 days after assuming their term. As one of its first tasks, the Board had to consider the delayed publication of the 2022 annual financial statements. Delays were experienced in appointing the external auditors and the extensive work on opening balances required at the commencement of a new audit engagement. This was further exacerbated by the time taken to resolve several matters that were raised during the audit and required restatement of prior year figures. The Board is confident that the results fairly reflect Eskom's performance for the 2022 year, and that the organisation remains a going concern.

We wish at the outset to start off by giving thanks to Professor Malegapuru Makgoba and the preceding Board of Directors for the gallant leadership provided to Eskom under very trying circumstances. The tail end of the 2022 financial year concluded amid a once-in-a-century event – the global COVID-19 pandemic.

Until the advent of this global pandemic, leadership across the world occurred in a volatile, uncertain, complex and ambiguous (VUCA) strategic context. The pandemic taught us that this challenging leadership context was further complicated by an added challenging state of affairs, where leaders and those who look to them for leadership find themselves operating in a brittle, anxious, nonlinear and incomprehensible (BANI) strategic context. Our human logic is generally linear, seeking to process one thing at a time – the VUCA-BANI context and the added permacrisis leaves the Eskom boardroom and many others discombobulated to say the least! Added to this complexity is the debilitating and ravaging legacy that State Capture left at Eskom. The high levels of loadshedding and the negative impact on livelihoods and the economy, together with the highly challenged control environment reflected in the annual financial statements, must all be understood against the backdrop of a bewildering VUCA-BANI permacrisis operating climate.

South Africa continues to face the triple threat of unemployment, inequality and poverty. These factors all have a ripple effect on socio-economic conditions and will likely lead to even higher levels of poverty, inequality and household unaffordability, all of which have a direct impact on Eskom; equally, an Eskom that is not ameliorating loadshedding speedily has a direct systemic impact on the pollical economy of South Africa and the country's ability to achieve economic recovery. An entrenched culture of theft, vandalism of network equipment, illegal connections, a culture of non-payment, and an escalation in fraud and corruption all have a huge disruptive and debilitating effect on the smooth operation, management and leadership of Eskom.

Eskom's generation performance continues to deteriorate, with daily loadshedding set to continue at least in the short to medium term. Financial performance is similarly constrained, with profitability negatively affected by a lack of cost-reflective tariffs, the high cost associated with the use of diesel turbines to supplement electricity supply during times of generation constraints, the continued escalation in arrear municipal debt, and unsustainably high levels of debt servicing costs.

The Board's mandate

It is against this backdrop that the shareholder announced the appointment of 12 new Board members from 1 October 2022. The Board, which is now fully constituted with 15 directors, assumed its mandate and chose to create a step change in how Eskom is led, injecting a new ethos of corporate governance by an engaged board that will seek to provide active strategic, technical and financial leadership towards the ultimate stability and world-class performance of Eskom. We embrace the mantra introduced by our Group Chief Executive Mr André de Ruyter of *MEGA*: Make Eskom Great Again!

The new Board members and I welcome this challenge as an opportunity to put shoulder to wheel, as a call to all of us to make our fair-share contribution to MEGA, and in turn, the recovery and stability of our country. The new non-executive directors are Ms Fathima Gany, Mr Lwazi Goqwana, Mr Clive le Roux, Ms Ayanda Mafuleka, Mr Leslie Mkhabela, Dr Tsakani Mthombeni, Mr Bheki Ntshalintshali, Mr Mteto Nyati, Ms Tryphosa Ramano, Dr Busisiwe Vilakazi and Dr Claudelle von Eck. Dr Rod Crompton, Mr André de Ruyter and Mr Calib Cassim remained from the previous Board. We are confident that this new Board has a broad range of experience as well as the necessary skills and expertise to provide stability and strategic direction to Eskom.

The shareholder has tasked us with repositioning Eskom to play a key role in the evolving energy landscape and further, to deal with Eskom's immediate loadshedding issues, procurement challenges, the elimination of corruption and, most importantly, delivering on Eskom's mandate of ensuring reliable electricity supply in the medium to long term. In short, our job is to focus on the technical, commercial and financial aspects of the business, to get the organisation back on its feet and restore its reputation. Staff morale and the skills shortage will also require attention.

As a Board, we assumed office in the middle of the financial year. At the end of the year, we will agree on what has been achieved and what has not, and set new targets for the 2024 financial year. Given our pressing mandate, we will proceed with a sense of urgency, while using this initial period to deepen and strengthen our understanding of Eskom, to improve our ability to achieve our mandate.

To lay a solid foundation, we reviewed the structure of the board committees. We proposed establishing a Business Operations Performance Committee (BOPC) to provide oversight of Eskom's operations, in particular, performance against energy availability factor (EAF) targets. Its job is to engage with the operations, to unpack and unchallenged a whole host of the technical assumptions in the business. The committee will go into the belly of the organisation, as it were, to drive the turnaround plan. Together, each of the six board committees will undertake a thorough review of its area to get a handle on the state of the business.

One of our top priorities is to reduce Eskom's drain on the public purse, together with dealing with irregular expenditure and Eskom's unsustainably high debt. Furthermore, we are mindful of the need to have robust consequence management in Eskom, and to improve operations so that Eskom finds a way out of being a drain on the fiscus and on the economy, both through its need for Government support and the impact of unprecedented levels of loadshedding.

As I've said before, we strive to be an engaged board that will seek to perpetuate a high-performance ethical culture at Eskom within the purview of sound corporate governance that doesn't blur the lines between executive management and board oversight, we intend to be actively engaged in supporting the executive team in resolving whatever challenges exist.

The electricity crisis

Eskom has insufficient reliable generation capacity to power a post-COVID-19 economic recovery in the medium term. Availability of the generation fleet continues to deteriorate, with the coal fleet being highly unreliable after years of inadequate maintenance and refurbishment, compounded by running the plant at levels significantly above the international norm considering the age of the fleet. The new power stations, Medupi and Kusile, have not delivered on expectations due to critical shortcomings in project planning, design and execution, a direct consequence of the delay in the decision to commence building. The 2019 Integrated Resource Plan identified a supply gap over the next three years, based on assumptions regarding plant availability at levels well above those being achieved, although at higher levels of demand than being experienced; it did not cater adequately for the risk of deteriorating plant availability nor the delay in adding capacity from independent power producers (IPPs) to the grid.

The electricity crisis is hugely damaging: the inadequate, unreliable and unpredictable electricity supply has affected the South African economy's ability to grow. In the wake of the COVID-19 pandemic, it is imperative that the electricity supply industry supports and even creates opportunities for economic recovery. While the procurement of new capacity by the Department of Mineral Resources and Energy has begun, current interventions will not address short- to medium-term system constraints.

In July 2022 President Cyril Ramaphosa announced measures to address the country's long-running electricity crisis, including the formation of a National Energy Crisis Committee. In collaboration with the relevant government departments, agencies and other stakeholders, Eskom has made some progress on the implementation of these measures, with interventions under way to procure additional capacity. Discussions addressing legal and regulatory constraints to allow capacity to come online in an integrated manner are advancing quite well.

The BOPC has tabled a Generation recovery plan to the Board to restore EAF to 70% by 31 March 2025. Embedded in this recovery plan is ensuring that loadshedding is ameliorated in the short term, with EAF stabilising at 60% by 31 March 2023 and 65% by 31 March 2024. This complex plan is being reviewed in consultation with key stakeholders in our country; a sense of urgency is central to this plan as we marshal key players on whom success depends. A public announcement on the Generation recovery plan will be made in January 2023, as soon as all key players have signed off and committed to it.

As Eskom moves away from its reliance on coal, it will shift its focus to the implementation of the Just Energy Transition. It intends to continue playing a leading role by facilitating the connection of renewable energy through an expanded and strengthened grid, and by participating in building renewable energy, as the country transitions towards a low-carbon future.

The Group Chief Executive will expand on these matters in his report.

Eskom's financial challenges

As I alluded to earlier, financial performance is constrained by various factors, such as a lack of cost-reflective tariffs, the high cost associated with the use of diesel turbines, escalating arrear municipal debt and unsustainably high levels of debt servicing costs.

The market has been calling for detail on Government's solution to Eskom's unsustainably high debt. Eskom notes with gratitude the support announced by the Honourable Minister of Finance in the Medium-Term Budget Policy Statement in October 2022. We understand that the market requires further certainty on National Treasury's proposal to address Eskom's debt. The Minister indicated that the specifics will be communicated in the National

MESSAGE FROM THE CHAIRMAN continued

Budget Speech in February 2023, together with the conditions attached to the support, which are expected to deal with cost management, arrear municipal and household debt, and tariff pricing. We are encouraged by Moody's affirmation of Eskom's credit rating on 31 October 2022 and the revision of its outlook from negative to positive on the back of the Minister's announcement.

Regarding liquidity, the use of open-cycle gas turbines (OCGTs) is a particular cause for concern. For the 2023 financial year, Eskom budgeted to spend R10.1 billion on its own OCGTs. An additional R3.5 billion for OCGTs was approved, which must be funded from savings elsewhere in the business. To the end of October 2022, Eskom already spent R13.3 billion on its own OCGTs, largely to cover the gap left by renewable IPP capacity not coming online as expected, coupled with deteriorating generating plant performance. Consequently, to preserve Eskom's liquidity, management placed a cap on the diesel use for the remainder of the year. This cap translates to Eskom having to implement at least stage 2 loadshedding on a constant basis for the remainder of the financial year. If no cap was in place, Eskom would need to spend about R34 billion in total on its own OCGTs for the 2023 financial year.

Eskom is not in a financial position to carry the burden of extensive use of OCGTs to ensure security of supply to the country. Although the additional dispatchable capacity of 1 996MW to be added by 11 bidders under the Risk Mitigation IPP Procurement Programme will assist in alleviating the pressure, that capacity is not expected to come online for some time to come and will not solve the problem being faced in the 2023 financial year. Consequently, Eskom requires further financial support from the shareholder, given that capacity constraints are expected to persist due to our poor generating plant performance coupled with the lower-than-expected IPP capacity. Eskom is grateful for the financial support of R31.7 billion provided by the shareholder during the 2022 financial year, and for the recent commitment by Government to assist with the funding of diesel, to limit the loadshedding Eskom has been forced to implement since November 2022, when it ran it out funds to buy diesel.

The CFO will go into more detail about ways to address Eskom's financial challenges, particularly our efforts to have the tariff corrected to be more cost reflective.

Response to state capture

The Zondo Commission acknowledged the proactive steps Eskom had taken to eradicate state capture within the organisation; significant matters addressed by Eskom and the Special Investigating Unit (SIU) have resulted in more than R2 billion being recovered to date. Eskom has established a dedicated task team to review the reports of the Zondo Commission, address the recommendations and ensure appropriate legal remedies are pursued. The latest version of Eskom's implementation plan was submitted to the Presidency in October 2022. Key focus areas include civil recoveries; consequence management related to suppliers, former employees and former directors; conducting an in-depth risk assessment; and the review of policies and procedures, specifically related to procurement and human resources, to support the eradication of fraud and corruption.

Eskom continues to work with DPE, other state-owned companies and law enforcement agencies to ensure that the Zondo Commission's recommendations are adequately addressed. Where the recommendations are outside Eskom's control, the organisation will continue providing the necessary support to law enforcement authorities to ensure the successful prosecution of implicated suppliers, former employees and former directors, and associated perpetrators.

Final words

I would like to join the Honourable Minister of Public Enterprises in thanking the previous Board members for their service to Eskom. I also extend my condolences to the loved ones of Ms Nelisiwe Magubane, a past member of the previous Board who passed away recently. I worked closely with Ms Magubane in my previous term as Chairman of Eskom from 2009 to 2011, when she was then Director-General of the Department of Energy.

I further wish to thank the Minister for the opportunity to be a part of shaping South Africa's future. My mandate is to lead capable men and women as a Board of Directors; working in partnership with our shareholder ministry, we know that in Minister Gordhan and the Public Enterprises team we have a champion for the utility regarding our relationship with the broader government and political spheres. We are further heartened by the faith that the Honourable Minister of Mineral Resources and Energy expressed in the Board's capacity to address Eskom's challenges.

The GCE and his executive team have our support to see Eskom through these challenging times. We are giving them our unwavering support as we immerse ourselves in their existing strategy to keep the lights on, while we fine-tune it towards making Eskom future-proof.

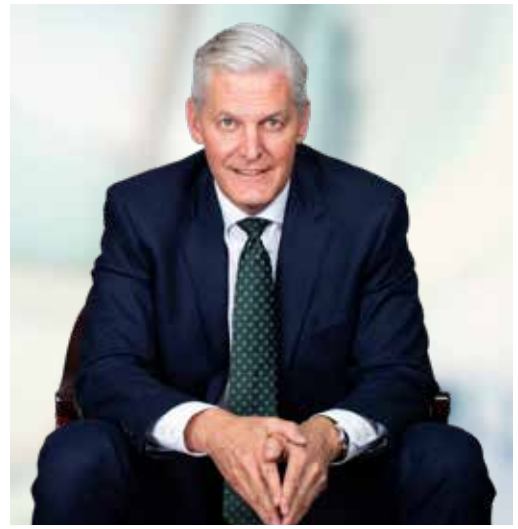
Looking forward, we are moving ahead with Eskom's separation into three legal entities in a transformed energy market. We are preparing to deal with the ensuing complexities, especially the financial ones that will impact Eskom's lenders, and will focus on improving operational sustainability and strengthening Eskom's financial position while pursuing Eskom's commitment to a Just Energy Transition.

I understand that South Africans are frustrated by the ongoing electricity crisis – I am also affected, as are some of my businesses. I don't want to make premature statements about when loadshedding will be a thing of the past, but I am confident that, with the draft turnaround plan on the table, we can improve Eskom's performance, although it will take discipline to find a sustainable way of keeping the lights on and getting the economy going.

As our President said recently, "The crisis that we are facing requires that we should take bold, courageous and decisive action to close the electricity gap." As a Board, we are up to the challenge – the only question is how long it will take to get to 75% energy availability.

Mpho Makwana
Chairman

CHIEF EXECUTIVE'S REVIEW



How would you describe the past year?

First off, I have to acknowledge that 2022 was a tremendously difficult year for Eskom. Our generation plant performance reached record-low levels, and we saw the worst loadshedding in Eskom's history. On the financial side, the challenges continued – lower-than-required tariffs and vast amounts of money spent on burning diesel to keep the lights on, meant that funds available to maintain our generation plant were constrained. And of course, if you can't produce the megawatts, you can't sell them, so loadshedding also has a knock-on effect on our revenue. The CFO covers our financial performance for the year in his report.

As he points out, we have to maintain a delicate balance between sufficient levels of liquidity and spend on operations recovery to turn around generation plant performance, as well as utilising diesel turbines to limit the level of loadshedding given the poor generation plant performance. On top of that, we must invest in our plant to ensure environmental compliance, and also to add capacity to the system – both in terms of megawatts on the grid and our transmission and distribution networks, that get those megawatts to the customer. Using our limited resources effectively really is a balancing act.

That said, we have seen some recovery in sales volume from the low base in 2021 following the COVID-19 pandemic, and there were many areas of the business that performed well – construction at Medupi Power Station, which commenced in May 2007, was completed when the last unit achieved commercial operation on 31 July 2021. Unfortunately, that achievement was marred by the generator explosion at Medupi Unit 4 mere days later, on 8 August 2021. Losing a unit like that puts us well on the way to one stage of loadshedding.

As I keep pointing out, we are dealing with an unpredictable and unreliable system, but we are fully cognisant of the fact that the lack of capacity is inhibiting economic growth and employment opportunities. The GCOO discusses the poor plant performance and the reasons for it in his report.

You often speak of the electricity crisis. What is Eskom doing to end it?

Let me start by touching on the reasons for the electricity crisis. The underlying cause of the deterioration in the performance of the generation fleet is the lack of a sufficient reserve margin, aggravated by the onset of age-related equipment failures and, to some extent, the need for better planning and execution of the very complicated major maintenance work. The seven-year delay from 1998 in the decision to build new capacity coincides with the start of the deterioration in the existing fleet's reliability. The lack of capacity requires existing power stations to operate at very high load factors, which constrains the ability to perform the requisite major maintenance work. Excessively high load factors also lead to deteriorating plant reliability over time. Other factors that have contributed to the crisis are unrealistic timelines on the delivery of megaprojects such as Medupi and Kusile; deteriorating coal quality; deferring maintenance to keep the lights on; delays in adding IPP capacity against DMRE's Integrated Resource Plan 2019; and funding constraints on major equipment replacement and outages.

While we will do all we can to improve the performance of our coal-fired generation fleet, the deep maintenance needed requires lengthy planned outages. Many power stations are also reaching the end of their lives and performance will continue to deteriorate as they approach their shutdown dates. We cannot resolve the energy constraint challenges without the support of all key stakeholders.

Another factor in the crisis is the risk of shutdown of several of our power stations due to environmental compliance issues. Instead of spending R330 billion on retrofitting old power stations to meet Minimum Emission Standards, we propose that emissions reduction could better be achieved by closing down old coal-fired power stations and spending the capital on adding urgently needed new capacity through renewables, low-carbon technology and strengthening the national grid to allow for the growth of renewable energy and IPPs.

We're in the present situation because of past decisions, but we need to spend more time talking about the future. The electricity sector should function as an enabler, rather than an inhibitor, of economic growth. Opportunities have to be unlocked for the electricity sector to create sustainable jobs, both by powering the economy and through investment in locally manufactured and assembled generation and grid infrastructure. A programme of sustainable electricity infrastructure development is urgently needed. We have long since been campaigning on a number of areas where interventions are required to unlock opportunities to bring new capacity online.

CHIEF EXECUTIVE'S REVIEW continued

That is why I was so excited by the announcement by President Cyril Ramaphosa in July this year of measures to address the long-running electricity crisis. We've got to give credit to the President for the extraordinary move to liberalise the energy sector by lifting the generation cap. As a result, there are projects totalling around 6 600MW in the pipeline; it will take two years or so to see the new capacity on the grid. However, new capacity depends on grid access, and that's why a strong transmission grid is so important in enabling economic growth – expropriation to speed up the acquisition of servitudes would be a quick fix to deal with cynical landowners who hamper expansion of the grid.

If we do not respond adequately in the short term, the electricity crisis will severely constrain economic recovery over the next decade, affecting the trajectory of our recovery in the medium to long term. As Albert Einstein said, "We cannot solve problems with the kind of thinking we employed when we came up with them." That perfectly sums up our thinking around the Just Energy Transition as a solution to the electricity crisis: I can see no other opportunity to drive economic growth, to solve for energy security, to solve our environmental problems, to create employment, than by embarking on the Just Energy Transition. If we don't do this, what else? We cannot lose this opportunity.

Our efforts to source financing for climate projects culminated in the South African Just Transition financing facility of $8.5 billion which was approved at COP26 last year. This unprecedented partnership between the South African and five other governments has at its heart the Eskom Just Energy Transition (JET) plan. The financing will be used to fund new clean energy generation projects as well as transmission and distribution infrastructure, together with green hydrogen and electric vehicle projects. Other lenders are also showing interest in funding various Eskom JET projects, supporting our net zero emission aspirations. Furthermore, we will be exploring opportunities to deliver on South Africa's Just Energy Transition Investment Plan, which the President recently shared ahead of COP27. However, we need to remember that debt is debt, even if it comes at a low cost.

Komati Power Station shut down in October 2022. The station will serve as the flagship site for our repowering and purposing programme to demonstrate our JET commitment to shift from coal dependency to producing power through renewable energy on existing Eskom land using existing infrastructure. The Komati mitigation plan outlines potential projects that can be undertaken regionally, locally and at the power station to mitigate against indirect and induced effects of the shutdown.

We have begun installation of a 500kWp agrivoltaic demonstration plant. In total, 370MW of renewable energy – including wind and solar – and battery storage, is planned to be deployed. A microgrid assembly and fabrication factory is being set up in the disused Komati workshops. The Komati Training Facility, for which we received R48 million in grant funding from the Global Energy Alliance for People and Planet, is being established in partnership with the South African Renewable Energy Technology Centre (SARETEC) to facilitate the skilling of Eskom workers and the local community in the Komati area.

Tell us about progress against the turnaround plan

I've explained before that our turnaround plan focuses on operations recovery, improving the income statement, strengthening the balance sheet, driving business separation and transforming our people and culture. The aim is to position Eskom to deliver value within the broader national efforts to drive reform in the electricity supply industry, through the execution of DPE's Roadmap.

Regarding operations recovery, we are making progress, but we still have a long way to go. The correction of new build defects is showing good results, but the focus on addressing load losses – both full and partial – are not yet yielding the results we had hoped for. On the environmental side, emissions performance has improved, but water performance is still well outside our tolerance levels. One of the biggest causes for concern is the high utilisation of older coal-fired power stations, which is one of the root causes of the poor plant availability performance we are seeing now. Lastly, adding additional external capacity is also lagging.

As the CFO notes, liquidity is one of our biggest short-term challenges, which threatens both financial and operational stability. It is critical that we deliver on the turnaround plan to ensure that we address the myriad challenges we face.

One of the issues that affect both liquidity and profit is the escalating arrear municipal debt, which grew by R9.5 billion year-on-year – that's almost as much as we spent on diesel for the year. If we could see that money coming in, it would make a remarkable difference to our financial position. Unfortunately, there are many role players, and our multipronged strategy is not yet delivering results. Another big issue is the tariff. It's deeply disappointing that we must contend with a regulator that doesn't apply its own methodology. We keep going to court to challenge NERSA's decisions, and we keep winning, with the courts referring to several irrational decisions made over the last few years. Unfortunately, it takes years for these decisions to be implemented, and in the meantime, Eskom has to carry the cost of NERSA's incorrect decisions. This ultimately impacts the country through the cost of loadshedding, and the financial burden of Government support. So, while management has implemented appropriate actions to deal with these challenges, these have so far proven ineffective because of factors outside the control of management.

On the balance sheet side, we're working on initiatives to deal with inventory management and capital optimisation. We're also prioritising the disposal of non-core assets, with the EFC disposal having resumed since year end, after having been put on hold on instruction of the shareholder due to unfavourable market conditions. Of course, the elephant in the room is Eskom's unsustainably high debt burden. We are working with National Treasury to find a solution, and we are tremendously grateful for their support in developing a way to make Eskom more financially sustainable.

How about the legal separation?

We completed divisionalisation of the three line divisions – Generation, Transmission and Distribution – in the 2020 financial year, with functional separation achieved in April 2021. We also set up the National Transmission Company South Africa (NTCSA) during the past year.

Despite those successes, the legal separation of Transmission experienced delays in several critical external decisions and key dependencies. These include delays in NTCSA obtaining a transmission licence and a protracted lender consent process. We continue to work with Government – DPE, DMRE and National Treasury – and NERSA to put in place transitional arrangements for the operationalisation of NTCSA and the implementation of the asset transfer agreement, towards commencement of trade around April 2023, subject to the dependencies I mentioned.

Both Distribution and Generation have now started their journey towards legal separation, with project management offices being established, roadmaps developed and legal due diligence in progress. However, the way forward for a preferred corporate structure depends on changes to existing legislation or new founding legislation – this affects the legal separation of the Generation business. As with Transmission, the separation of the Distribution and Generation businesses depend on lender consent, as well as numerous other legislative, regulatory and policy changes.

Our revised plans target readiness for Distribution operationalisation by December 2023 and commencement of trade by April 2024. Legal separation of Generation is targeted in 2025. We have to accept that these dates are subject to external dependencies, which may negatively affect the timelines even further. The decentralised operating model has also not been properly embedded as intended. It is important for the legal separation that the functional leader model must work, with controllership at the right level.

Tell us more about the people and culture area of the turnaround plan

The aim of this aspect of the turnaround plan is to drive change and support the overarching goal of three legally separated subsidiaries under Eskom Holdings, in line with DPE's Roadmap. We are working towards fit-for-purpose organisational structures to ensure optimal business models that are responsive to the changing energy landscape.

To this end, we have established our 1:1:6:10 culture transformation programme, which is a key enabler of delivering a high-performance culture – thereby driving our turnaround plan and powering growth sustainably through our legally separated businesses. This cultural aspiration is supported by six cornerstones which should be reflected in everything we do: accountability, operational excellence, prioritising people, financial prudency, a values-driven culture and customer-centricity. We need to get the basics right, to ensure that our people drive the change we need to get our business back on track.

In light of this, I was deeply disappointed by the behaviour of some of our employees in June and July of this year, when they embarked on unprotected and unlawful strike action when wage negotiations deadlocked. With Eskom being an essential service, its employees are prohibited from engaging in any industrial action. That period was characterised by disruptive and destructive behaviour, mostly at our power stations, as well as intimidation of employees and their families; this is simply unacceptable. The strike action caused widespread disruption of our operations due to high levels of staff absenteeism, and eventually culminated in the need to implement stage 6 loadshedding due to unheard-of levels of unplanned losses, caused by both deliberate sabotage or just neglect of plant due to employees staying away, coupled with disruption of coal handling operations. It is deeply regrettable that a dispute over wages compromised the national interest and held the country to ransom. I extend my heartfelt gratitude to those Guardians who chose not to participate in the unprotected industrial action and worked hard to keep the lights on – we cannot thank them enough for going far above and beyond the call of duty under extremely challenging conditions to avoid a total collapse of our power system.

Clearly, we have work to do in this area: we need to work with organised labour to ensure that such criminal behaviour is never seen again. As I've said before, we cannot overemphasise the value of a productive partnership between Eskom, our people and our trade unions. We need to bring back pride, passion and a sense of belonging and connectedness to the business.

We have achieved a notable reduction of 5.4% in our headcount over the past year, mainly through natural attrition and, to a lesser extent, voluntary separation packages. We are, however, prioritising the retention of critical workforce segments to address the skills shortage being felt by some areas of the business. The impact of that runs deep: we cannot focus on getting the basics right if we don't have adequate staff to do so. To this end, we are conducting a skills audit, to determine our skills requirements and highlight any gaps.

Despite our commitment to Zero Harm, we recorded four employee and two contractor fatalities during the 2022 financial year. Every life lost in service to Eskom is one too many, and I extend my sincere condolences to the families of those Guardians.

What does Eskom intend focusing on over the coming year?

Well, if we thought the 2022 financial year was bad, the 2023 year has turned out to be worse. September 2022 saw the highest plant unavailability and the highest unplanned unavailability, the longest continuous loadshedding with the highest stage of loadshedding, as well as the highest OCGT usage we've ever experienced. Interestingly enough, we also had the highest renewable generation by IPPs. Since then, we reached a point in November where we had exhausted our budget for diesel – this was after having spent R13.3 billion on diesel to the end of October – and had to implement continuous loadshedding at higher levels to preserve emergency reserves. Thankfully, Government has stepped in response to our requests, and has committed to making funds available to enable us to purchase more diesel to limit the loadshedding required.

So operationally, our immediate priority is to improve the reliability and predictability of the generation fleet, to get more operational megawatts on the grid so that we can reduce the need for loadshedding. It is unfortunate that we recently lost three units at Kusile due to a collapsed flue duct – it means that capacity of over 2 100MW will be out of service for around six months. Additionally, as a collective,

CHIEF EXECUTIVE'S REVIEW continued

we need to do as much as we can as quickly as we can to get more capacity on the grid, to help ease supply constraints. We've long since said that Eskom improving its performance is not enough to solve the problem we're facing – we need additional capacity of around 4 000MW to 6 000MW on the grid, and this cannot be provided by Eskom.

Notably, Eskom has recently signed land leases for around 6 000ha for the purpose of generating electricity from renewable technologies either for Eskom's consumption or for sale to third parties. This will enable an estimated 2 000MW of additional private sector investment. Through the Standard Offer programme, Eskom is in the process of securing 1 000MW of excess energy from existing generators, which will be purchased under these contracts. The Emergency Generation programme of 600MW has received conditional PFMA approval from National Treasury, with other approvals pending. So we are making progress on adding capacity to the grid.

On the finance side, we are essentially faced with four main challenges: the lack of cost-reflective tariffs constrains our revenue, which then limits our ability to spend on improving plant performance. The poor plant performance again drives the excessive use of expensive diesel turbines, which cripples our income statement. Together with that, escalating arrear municipal debt is severely limiting our liquidity, as is the unsustainably high levels of debt servicing costs. If we can fix those four areas – tariffs, diesel use, arrear debt and debt levels – Eskom could be on a sound financial footing again.

In the medium term, we need to find a solution to the challenge of compliance with Minimum Emission Standards. We are gratified that the DFFE Minister has started a consultative process in response to our appeal, and we've had an opportunity to share an introduction to the air emission reduction technology with the panel. We sincerely hope that we can reach an outcome that is in the best interest of South Africa. And of course, we cannot forget our networks – with the focus on Generation, we sometimes lose sight of the fact that our networks require investment. The transmission grid alone requires about R178 billion to 2031 to enable new generation capacity, network reliability investments, load growth, refurbishment of existing infrastructure and more.

In the long term, we need to address the electricity crisis, and I'll say it again: JET is the only way forward. We also need to remove some obstacles – we need enabling policy, with policy alignment and consistency to execute the necessary measures to address the electricity crisis. One example is prohibitive import duties and local content requirements. We've got to weigh up the greater good and rapidly remove obstacles that will enable us to solve the bigger problem, which is energy security.

Our internal controls have proven to be not as effective as we'd like. Although management has started to improve internal controls – such as through verifying coal quality and dealing with the fuel oil challenges at Tutuka – it will take a while for these to filter down. We have also initiated a programme to deal with non-technical energy losses.

However, with the improvement of internal controls and investigations into fraud, we are seeing resistance from within and outside Eskom, with little support from law enforcement agencies. Although we are heartened by the increasingly frequent successes in bringing perpetrators to book through the criminal justice system, prosecutions are not yet proving effective.

As I keep saying, we need to focus on consequence management, firstly to root out corruption, but also any unacceptable behaviour. Despite years of focusing on cleaning up corruption, it is still rife within Eskom: this scourge has the potential to compromise our sustainability as an organisation. We have also put in place overt and covert surveillance of key installations and critical electricity infrastructure to manage and mitigate the actions of these criminal elements, but this is hampered by four known criminal syndicates operating at plant level, involving employees and suppliers. However, we're also seeing more frequent acts of sabotage, and such deplorable, abusive and dishonourable behaviour simply must stop – it is unconscionable that individuals would commit deliberate acts of sabotage, or negligence, against Eskom's operations for their own gain or with malicious intent, given the grave consequences, not only for Eskom's critical electricity infrastructure, but ultimately, for hard-working South Africans. There are a multitude of incidents linked to the sabotage of Eskom on one level or another, and we hope to see more arrests.

We are thankful for the support and understanding of our shareholder. Minister Pravin Gordhan said recently, "the facts have been put to the nation in a very transparent way, that Eskom is in a perilous state, that state capture did do immense damage, that we do have a shortage of electricity to the extent of 4 000MW, and until we provide that source of megawatts through renewables and possibly through other mechanisms provided for in the IRP, we are going to continue to be in difficulty as a nation and our plan is in the next 18 months or so, we must get out of this crisis." Because we're all on the same page, we can work together to get Eskom out of the deep hole that it's in.

If you had to leave us with one thought, what would it be?

As the American president Calvin Coolidge once said, "Nothing in the world can take the place of persistence. The slogan 'Press On' has solved and always will solve the problems of the human race." As we enter Eskom's centenary year, we need every single Eskom Guardian to get up every single day, determined to press on under strenuous and demanding conditions to make Eskom great again, so that we can serve our great nation and its 61 million people by delivering on our mandate. We must remember that we are stronger together. We can succeed, and if we press on together, we will!

André de Ruyter
Group Chief Executive

CHIEF FINANCIAL OFFICER'S REPORT

What were some of the challenges over the past year?

First and foremost, I need to address the delayed publication of the annual financial statements for the 2022 financial year. We experienced delays in appointing the external auditors, and extensive audit procedures were required to evaluate significant areas of judgement and estimates in the prior period. This was exacerbated by the time taken to resolve several key audit matters, some of which required the use of external experts; we require expert technical skills and improved finance business partnering to address these matters more timeously in future. The auditors also identified numerous findings and control deficiencies emanating from the lack of compliance with well-documented policies and procedures and general financial record-keeping and reporting controls. Despite these shortcomings, the system of internal financial controls and compensating measures provide a reasonable basis for the preparation of Eskom's financial statements.

Eskom once again received a qualified audit opinion relating to information disclosed under the PFMA, with a material uncertainty regarding Eskom's status as a going concern. Except for the qualification, the financial statements are fairly presented in terms of IFRS.

The financial results for the year ended 31 March 2021 were subject to various restatements arising from the external audit. The most significant adjustment affecting profitability related to net fair value losses recognised on hedging instruments. Altogether, the loss before tax for 2021 increased by R8.3 billion due to these restatements. The statement of financial position was mostly affected by the reclassification of a portion of coal inventory from current to non-current assets. This impacted the current ratio, which was revised downwards from 1.27 to 0.95 in 2021.

Refer to note 48 in the consolidated annual financial statements for further detail

Operationally, we continue to navigate a very challenging environment, with growth hindered by capacity shortages and depressed economic conditions. Financial and operational sustainability are intrinsically linked, and there is a delicate balance between maintaining sufficient liquidity while also supporting spend on operations recovery and utilising OCGTs to minimise loadshedding. Despite the prohibitive cost, we utilise OCGTs within our financial constraints, given the debilitating cost of loadshedding to the country.

Liquidity remains one of our biggest short-term challenges, threatening both financial and operational stability and Eskom's status as a going concern. Delivering on the turnaround plan is critical to addressing these challenges.

What were the main reasons for the year-on-year improvement in the net loss?

To start, it is important to acknowledge that much of the improvement relates to us beginning the year on an abnormally low base, as financial performance in the previous financial year was significantly hampered by COVID-19: the unprecedented reduction in energy demand we experienced during the stricter levels of the national lockdown negatively affected sales volumes and revenue. As I mentioned, the prior year restatements also contributed to the low base.

Year-on-year, revenue grew by 20.7% due to a 15.06% tariff increase, together with a 3.4% recovery in sales volumes. Almost every sector saw an improvement, with the industrial, mining and rail sectors in particular benefitting from the recovery of global commodity markets.

The recovery in demand necessitated higher electricity production. Primary energy costs increased by 14.7% largely due to increased production from IPPs, coal and Eskom-owned OCGTs, coupled with price escalations on diesel and fuel oil. Poor generating plant performance led to increased reliance on Eskom- and IPP-owned OCGTs to alleviate supply constraints and minimise loadshedding. Furthermore, SARS has disallowed certain rebates relating to Eskom's diesel use over several years. Our appeal to SARS has been denied and the receivable of R3.6 billion at year end has been written off due to uncertainty around its recovery, with a corresponding increase in primary energy costs. We're pursuing the necessary legal processes to address this dispute.

Employee benefit costs have remained stable due to further headcount reduction and by containing salary increases to affordable levels. Other operating expenditure increased by 18.9% due to the extensive planned and unplanned maintenance required to address generation plant performance challenges, as well as other once-off items such as asset write-offs due to plant incidents and provisions raised for compensation event claims.

CHIEF FINANCIAL OFFICER'S REPORT continued

Altogether, EBITDA improved to R52.4 billion (2021: R32.6 billion) and the EBITDA margin strengthened to 21.25% (2021: 15.96%), with the biggest contributor being the growth in revenue. Regrettably, the EBITDA margin remains below the aspirational level of 35% due to a lack of cost-reflective tariffs as well as the financial pressures arising from poor operational performance.

Net finance costs grew by 6.2% largely due to lower capitalisation of interest to the asset base as the new build programme nears completion. We also experienced a higher average cost of borrowing given the prevailing risk-averse market sentiment. Depreciation increased by 20.4% mainly due to additional Medupi and Kusile units achieving commercial operation.

Even though we recorded a loss before tax of R15.8 billion, we managed to achieve a year-on-year improvement of R17.3 billion against restated results. Unfortunately, a return to profitability remains hindered by poor operational performance, lack of cost-reflective tariffs, high debt service costs and non-payment by some customers.

To further illustrate the enormity of these challenges, net revenue not recognised due to non-collectability from municipalities and residential customers amounted to R7.7 billion for the year. Additionally, Eskom- and IPP-owned OCGTs were used extensively to minimise loadshedding in the interests of the country, exceeding the budget by R12.8 billion. Had Eskom been able to recover the net revenue not recognised and contain OCGTs to budgeted levels, we would've been able to record a profit for the year.

Tell us more about the financial areas of the turnaround plan

The turnaround plan aims to place us on a more financially sustainable footing by improving the income statement and strengthening the balance sheet. We're focusing on several areas in this regard.

We continue to receive the necessary equity support from Government, with R31.7 billion received during the 2022 financial year, and a further R88 billion committed until 2026. These funds are restricted for debt servicing, and therefore, only assist us in addressing short-term liquidity requirements.

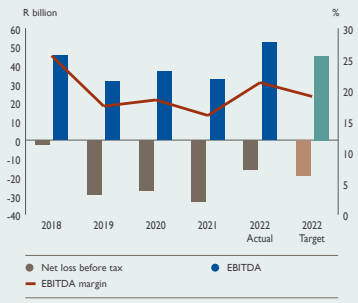
The gross debt and securities balance stood at R396.3 billion at year end (2021: R401.8 billion), while total debt servicing requirements resulted in a cash outflow of R71.4 billion for the year. Key gearing and solvency ratios improved due to favourable EBITDA performance and the Government support received, although these ratios remain well below acceptable levels. As an example, the net debt/EBITDA ratio stood at 7.43 times at year end (2021: 12.29), but we need to reduce this to less than 4 times to improve financial sustainability. The reality is that cash generated from operations is simply inadequate to support our highly leveraged capital structure. This shortfall can only be corrected through a combination of deleveraging the balance sheet and obtaining cost-reflective tariffs.

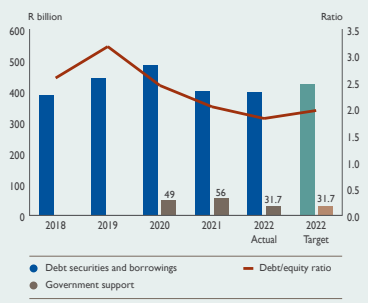
In this regard, we welcome the announcement of a prospective debt relief solution by the Minister of Finance in the recent Medium-Term Budget Policy Statement. Government is considering relief of between one-third and two-thirds of our debt balance, or around R130 billion to R260 billion, which will lead to a direct improvement in Eskom's liquidity by reducing debt servicing requirements.

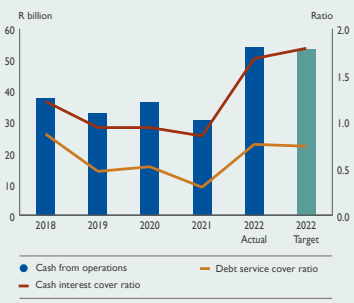
We're also working towards migration to a cost-reflective tariff path through regulatory revenue applications. If the tariff challenge is not resolved, further Government support will be required to bridge the gap between costs and the revenue allowed by NERSA. While I am confident about the outcomes of our court review applications, with many favourable judgments received so far, these legal processes do take time. Similarly, these amounts can only be recovered through future decisions, meaning that Eskom has to carry the cost of NERSA's incorrect decisions for the time being. One notable highlight is that we've received further clarity from the High Court on the timing of the recovery of the remaining R59 billion owed to us from the incorrect MYPD 4 determination, with an additional R15 billion in allowable revenue per year in 2024 to 2026, and R14 billion in 2027.

Regrettably, we've achieved limited success in managing arrear municipal debt, which continues to escalate to unacceptable levels, increasing by 26.6% to R44.8 billion at year end. We've pursued a multipronged strategy aimed at recovering the amounts owed, although progress has been slow on key intergovernmental interventions. Various strategies are being considered in collaboration with National Treasury. Eskom's legal right to receive payment from municipalities was affirmed by the Supreme Court of Appeal, which sets a positive precedent for revenue collection efforts.

We're pursuing various initiatives to reduce our annual cost base by a cumulative R61.8 billion by 2023. We've achieved combined savings and other income of R50.7 billion so far, exceeding the cumulative target of R40.4 billion. Most of the savings during the year came from optimising primary energy working capital, by containing the increase in the coal purchase cost per ton to a modest 2.1%, although this does not necessarily lead to an immediate improvement in profitability. Regrettably, our savings efforts are being hindered by overspend on fuel oil and diesel.







We're still in the early stages of addressing the disposal of non-core assets, with the sale of Eskom Finance Company SOC Ltd being one of the key initiatives in this area.

What are the key issues being raised by investors and rating agencies?

With respect to funding, we intended to raise R25.5 billion in borrowings in 2022, but this was later revised to R42.9 billion to accommodate funding initiatives postponed from the previous year. By year end, we had secured funding of R35.8 billion despite a difficult economic climate.

Our credit ratings have been affirmed by all three rating agencies, but concerns around operational and financial sustainability drove a mostly negative outlook at year end. Overall, Eskom's credit ratings remain at sub-investment grade level, thereby limiting access to unguaranteed funding and increasing the cost of borrowing.

On a positive note, the continued support from Government goes a long way towards allaying market concerns. In December 2021, Fitch revised its outlook from negative to stable, in line with its improved outlook for the Sovereign. Moody's revised its outlook from negative to positive in October 2022, for the first time since 2007, and Standard & Poor's revised its outlook from negative to stable in November 2022 on the back of the announcement of a prospective debt relief solution for Eskom.

Despite this positive sentiment, investors and rating agencies remain concerned about Eskom's poor operational performance, as well as the stability of our workforce, given the unlawful and unprotected strike action experienced during the wage negotiations in June and July 2022. They're also concerned about the regulatory uncertainty associated with the lack of a clear, cost-reflective tariff path, as well as inadequate progress in addressing arrear municipal debt.

We're conducting bilateral engagements with various lenders for the funding of critical Just Energy Transition projects and are engaging with lenders on the legal separation process, including the associated timelines. The transfer of the Transmission Division to the National Transmission Company South Africa SOC Ltd is subject to certain suspensive conditions being met, including obtaining applicable lender consents. André covers progress on the Just Energy Transition as well as Eskom's legal separation in his report.

Talk to us about the outlook for the coming year

Depressed economic conditions and generation supply constraints will continue to adversely impact financial performance. The Russian invasion of Ukraine has threatened the sustainability of the global energy sector, in terms of both the cost and availability of fuel oil and diesel. We ring-fenced additional funds for the management of fuel price fluctuations to minimise operational and financial risks in the 2023 financial year. Regrettably, halfway through the year, we've already fully utilised these funds as we've had to place increased reliance on OCGTs to avoid or minimise loadshedding; this situation is expected to continue until South Africa's generation capacity shortages are alleviated. We've placed a cap on diesel use for the remainder of the 2023 financial year, to preserve Eskom's liquidity and ensure we can meet operating, capital and debt servicing commitments.

The lack of a clear, cost-reflective tariff path and uncertainty around application of the regulatory methodology pose a risk to Eskom's financial sustainability and hinder development of financial strategies over the medium term. The 9.61% tariff increase awarded by NERSA for 2023 falls far below the 20.5% we had applied for. We've challenged NERSA's incorrect treatment of the regulatory asset base; we were successful in having this decision set aside by the High Court, although no retrospective adjustment has been granted for 2023. A number of NERSA determinations and court review applications are still pending, most notably, NERSA's decision for 2024 and 2025 of our MYPD 5 revenue application.

Government has committed R21.9 billion of equity support for 2023, a portion of which has been received to date. The conditions attached to the support for the 2023 year were finalised in October 2022 – we remain compliant with these to ensure that the necessary funds are made available when required.

Government is finalising details of the prospective debt relief solution, including the quantum thereof, the relevant debt instruments, and the method for effecting the transaction. Further detail will be communicated by the Minister of Finance in the National Budget Speech in February 2023, together with the conditions attached to the relief, which are expected to deal with cost management, municipal and household arrear debt, and tariff pricing. We look forward to collaborating closely with Government to develop the specifics of the strategic reorganisation and strengthening of the balance sheet, and will engage with investors and other stakeholders at the appropriate time.

Non-payment of municipal debt remains a systemic challenge to the entire electricity sector. We will continue to deliver on our municipal debt management strategy and work closely with the Eskom Political Task Team to arrest the growth in arrear debt, although further political intervention is required to address the culture of non-payment. As I mentioned, it is anticipated that further measures will be announced by Government in the 2023 Budget Speech.

We will continue to engage transparently with lenders as the legal separation process unfolds. Furthermore, we look forward to exploring further funding opportunities to deliver on South Africa's Just Energy Transition Investment Plan, which was shared by the President ahead of COP27.

It is critical that Eskom is placed on a more sustainable footing going forward, not only financially, but also operationally. Key to our success will be partnering with Government, investors and other key stakeholders to deliver on the turnaround plan.

Calib Cassim
Chief Financial Officer

CHIEF OPERATING OFFICER'S COMMENTARY

How would you characterise performance in the 2022 financial year?

As in the previous financial year, our operating divisions delivered varied performance. We experienced record-low levels of generation plant availability, which resulted in capacity constraints that led to unprecedented levels of loadshedding, with 65 days of loadshedding during the 2022 financial year. To avoid or minimise loadshedding, we've had to continue utilising expensive gas turbines, at a combined cost of R14.7 billion for Eskom and IPP-owned OCGTs.

In contrast, our networks business continued to deliver strong sustainable performance, and the new build programme delivered some successes.

Are you satisfied with the plant performance?

Plant availability across the generation fleet declined for the fourth consecutive year to 62.02% for the year under review. The performance of the coal-fired plant in particular is deeply disappointing and really concerning. The decline in plant availability is driven by a significant increase in unplanned losses, due to both breakdowns and partial load losses. Planned maintenance was slightly lower than the previous year, to compensate for the high levels of unplanned losses and hampered by the late release of funding.

Contributing to the low generation plant availability is the fact that Medupi Unit 4 is out of service until at least August 2024, following the explosion of the generator in August 2021. More positively, the Camden ash dam facility was completed, with the station now able to run all units. Our hydro stations contributed about 550MW more than the previous year, which helped us to limit the use of expensive diesel turbines to avoid or minimise loadshedding during periods of generation constraints.

We continue to execute our Generation recovery plan, with a focus on reliability maintenance. More effort has been applied to ensure that key funding and enabling contracts are in place to support the objectives of this critical programme within the maintenance space to ensure 80% outage readiness. Despite this, we've seen an increase in partial load losses and boiler tube failures, and unit trips also increased substantially year-on-year. Losses on units returning from outage have also deteriorated, although due date performance on outages has improved slightly.

Koeberg Nuclear Power Station continues to operate safely, although the benchmarked performance has deteriorated somewhat, due to the late return to service of Unit 1 after its refuelling outage, coupled with two trips on Unit 1. As we've explained before, we had to postpone the replacement of the steam generators on Unit 2 to the next outage in 2023, as our benchmarking against other nuclear utilities highlighted that the envisaged timelines were not achievable: the replacement would result in a longer outage than originally planned, thereby affecting capacity available to the grid during the high demand winter period. Although later than initially planned, the unit has since returned to service after successful completion of the refuelling and maintenance outage, which included replacement of the reactor pressure vessel head, but suffered two trips after returning to service. Following extensive troubleshooting with the OEM, the unit was safely returned to service and is operating at full load.

The long-term operation activities, to extend Koeberg's life by another 20 years beyond 2024, continue according to plan, at an expected cost of around R20 billion. The National Nuclear Regulator has accepted our application to modify Koeberg's operating licence accordingly.

Although the year-on-year coal purchase cost increase was contained below inflation, we are experiencing high coal demand from more expensive power stations due to generation performance challenges. Coal quality also remains a problem, with poor coal quality contributing to partial load losses and ultimately, the need to implement loadshedding. Where we encounter instances of coal tampering, such as contractors mixing lower quality coal with higher quality coal to meet volume targets, we investigate and act accordingly. Overall coal stock days remained healthy, even though two stations had stock levels below minimum at year end. Rain readiness plans have generally held up well against high summer rainfall, and actions continue to improve the plans for the coming rainy season.

The reliability of the transmission system improved, with system minutes <1 performing significantly better year-on-year. On the distribution side, customers are experiencing fewer supply interruptions, improved outage duration and faster restoration of supply (excluding the impact of loadshedding). Through Transmission sustainability improvement initiatives and Distribution's network development plan, we have plans in place to invest in our networks, to ensure that they continue to sustainably deliver at expected levels.

Of concern is the continued high levels of energy losses from theft and illegal connections, putting additional strain on an already constrained system. We have found that when people don't pay for electricity, they tend to waste it. We're also seeing persistent high levels of network asset vandalism, equipment theft and overloaded networks due to illegal connections, all of which lead to increased breakdowns, higher maintenance cost and higher levels of safety risk to employees and the general public. As the CFO pointed out, the unsustainably high levels of arrear municipal debt remain a tremendous cause for concern, as does the negative effect thereof on the availability of cash.

What is behind the generation challenges?

I believe that the respect you show your plant is the same respect your plant shows you. We are now seeing the consequences of many years of mistreating our plant, in an effort to keep the lights on at all costs. We must remember that, excluding our two new stations, our coal-fired fleet is on average 43 years old. Furthermore, since about 2002, we've been running our plant above design parameters at an energy utilisation factor at unheard of levels – above 80% for our coal-fired fleet – to create "virtual" capacity. When you expect old, poorly maintained plant to perform continuously at exceptionally high levels, eventually something's got to give, and that's what we've been seeing since about 2012/13.

There are several root causes to the capacity shortage we're experiencing. One is the delay in adding new capacity to the system, due to delays in both investment approvals from Government, and in bringing new capacity online due to build challenges. The other is the fact that we had to keep deferring scheduled maintenance and much-needed midlife refurbishment to keep the lights on, leading to a further deterioration in the state of existing plant. The only way to fix this is to have adequate space or system capacity to perform maintenance, and of course you need the funds to do that. Because of the lack of cost-reflective tariffs for many years, funding remains a tremendous challenge. Until new capacity of at least 4 000MW to 6 000MW is brought online, and we have sufficient funds to properly plan maintenance and procure long-lead spares two years in advance as we need to do to execute maintenance effectively, plant performance cannot be expected to improve.

How is the new build programme progressing?

As we've reported before, the final unit at Medupi Power Station was placed in commercial operation on 31 July 2021, thereby completing construction activities on the 4 764MW project. At Kusile, Unit 4 was synchronised to the national grid on 23 December 2021, delivering 800MW, and achieved commercial operation on 31 May 2022.

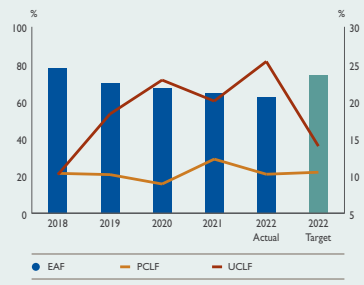
Kusile Unit 5 was making good progress towards first synchronisation scheduled for June 2023, but the gas air heater caught fire on 17 September 2022, resulting in all commissioning activities being discontinued. Early indications are that this incident may delay the schedule by up to a year.

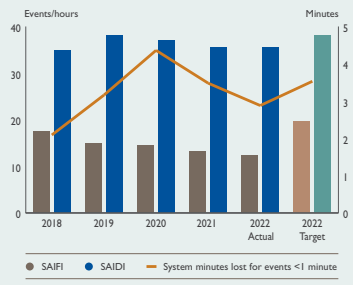
On the correction of new build defects, we are making good progress, with performance at Medupi improving by an average of 145MW per unit due to the interventions, and all units now capable of reaching full load. We have successfully completed the rollout of the major boiler plant defects solutions agreed in 2020 with the contractor for Medupi and Kusile units that required outages. The rollout to the Medupi mills during normal mill rebuilds is projected to be completed by October 2023. Also at Medupi, the gas air heater, pulse jet fabric filter and boiler plant modifications by the boiler contractor have been implemented on all six units, except for the long-lead milling modifications on all units and the Unit 6 duct erosion modifications. At Kusile, boiler plant modifications have been completed on Units 1 to 4, while modifications on Units 5 and 6 will be rolled out during construction before commercial operation.

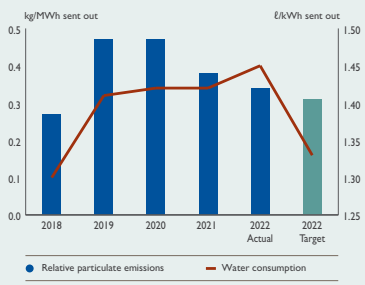
Our battery energy storage project is progressing well. Contracts for the first phase of 800MWh were awarded for the first three packages, situated at Skaapvlei, Pongola, Elandskop, Paleisheuwel, Graafwater and Hex. Construction on Pongola and Elandskop began in September and October 2022. The procurement plan for the fourth package (Melkhout and Rietfontein) has been submitted for World Bank approval. The latest forecast for construction completion of Phase 1 is June 2023. Phase 2 of 640MWh is in development.

Tell us about the environmental performance

Particulate emissions performance has improved due to focused maintenance of generating plant under the Generation recovery plan. Our coal-fired stations operate in general compliance to emission limits set in terms of their atmospheric emission licences, however, when there is production pressure and plant failures, units have to operate above the limit. We also saw a decline in particulate emission performance from June to August 2022 primarily due to the unlawful strike action, which led to damage of electrostatic precipitators used to reduce emissions. Since September, there has been a recovery and particulate emissions performance has improved.







CHIEF OPERATING OFFICER'S COMMENTARY continued

We applied for postponement against the Minimum Emission Standards (MES) to the Department of Forestry, Fisheries and the Environment (DFFE) during August 2020. In November 2021, DFFE returned their decision – the seven stations to be shut down by 2030 received approval, while another five stations had their requests refused; four stations received partial approval. Full compliance with the MES would necessitate expenditure of about R330 billion or the loss of around 30 000MW by April 2025. This is simply unaffordable to Eskom and the South African economy, both financially and in terms of generation capacity. While we are committed to improvement and the reduction of Eskom's impact on the environment, it is clear that an affordable path to a greener future is critical. We submitted an appeal for those stations with unfavourable decisions in December 2021, asking the Minister of DFFE to consider our motivation for a balanced and sustainable way forward. The Minister has indicated that she would undertake a consultative process on the MES appeals and would establish a participative panel. While the consultative process is under way, the appeal process is on hold.

Kendal's emissions have reduced significantly since the implementation of an emission recovery plan late in 2019. Our action plan to return Kendal's units to compliance was approved by DFFE in August 2020 – we report on progress to the authorities on a monthly basis. The criminal case against Eskom relating to Kendal's particulate emissions, opened in 2019, has been postponed on several occasions; the next court date is February 2023.

Water performance remains very disappointing, with specific water usage in the generation of electricity deteriorating year-on-year. Previous poor water management practices together with ageing plant, and poor technical performance of coal-fired stations remain a risk and continue to lead to the unlawful release of water at several power stations. We have plans in place to resolve this across the fleet of coal-fired power stations.

What are your key focus areas for the coming year?

Let me start by acknowledging that generation performance has continued to deteriorate in the 2023 financial year, with plant availability falling to below 60%. Combined with the shortfall in capacity from renewable IPPs when compared to the 2019 Integrated Resource Plan, this has resulted in 175 days of loadshedding, the worst ever in a single financial year. Delays in concluding the Risk Mitigation IPP Procurement Programme will continue contributing to future capacity constraints.

Other than the capacity shortfall from renewable IPPs and our own poor generation performance, we have exhausted the funds for diesel, with R13.3 billion spent on Eskom-owned OCGTs alone to the end of October 2022. Let me be very clear: we do not have any more money to spend on diesel. As a result, loadshedding is required at never-before-seen levels to protect the integrity of the system. This is not a policy decision, but a financial reality because of decisions of the past that we must deal with now. We were even forced to implement stage 6 loadshedding since year end – on several days in July 2022 during unlawful and unprotected strike action which crippled Eskom's operations, and again during September 2022 during periods of exceptionally high levels of unplanned load losses.

Generation leadership is focusing on 10 key areas to drive a holistic improvement of generation performance. These include dealing with skills and experience gaps; addressing fraud and corruption; ensuring compliance with policies and procedures; and ensuring adequate funding to execute reliability maintenance, partly through aggressive cost cutting. We are increasing planned maintenance within the restrictions we're facing and working on improving coal quality. Maintenance is being prioritised at our top six stations – Duvha, Kendal, Kusile, Majuba, Matla and Tutuka – both philosophy and reliability-based maintenance, together with catching up on backlog outages. However, sufficient attention and focus is required at those stations performing well to ensure sustained performance.

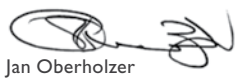
We are preparing for an almost seven-month outage on Koeberg Unit 1 starting in December 2022, which includes the replacement of the steam generators. Furthermore, we have to address the collapse of the flue duct of Kusile Unit 1, which has also affected Units 2 and 3, thereby removing around 2 400MW from the grid and worsening capacity constraints. Indications are that it could take up to six months to repair the duct, with all three units expected to be out for the entire duration.

One of our biggest challenges is skills – we are working on appointing plant managers, ramping up training and development, and engaging experienced external experts. We also need adequate and appropriate coaching and mentoring for our power station general managers and station leadership. The skills audit will highlight those gaps we need to work on. We developed a crowdsourcing digital platform to attract a talent pool of highly skilled and experienced candidates. Twenty-five individuals have been selected as part of the first intake. In total, we have shortlisted 153 candidates of the 238 in the database. Our 1:1:6:10 culture transformation programme is another key enabler for delivering a high-performance ethical culture.

The skills challenge is not limited to Generation; other areas have similar competence and proficiency challenges, and we must address those effectively. Our people are our most important asset, and we must provide the necessary and required investment.

We deeply regret the disastrous impact we have on the economy and the lives of South Africans when we implement loadshedding, but it's unavoidable until more capacity comes online. However, our teams are doing their best to return plant to service. We need to shift from firefighting to substantive fixing of underlying problems, to ensure that we drive a sustainable improvement in plant performance.

I want to thank all those Guardians doing their best on a daily basis to keep the lights on for South Africa – your sacrifice does not go unnoticed. Eskom was once a world-class utility – with grit and determination, we can turn around this ship if we work together to improve the lives of 61 million South Africans every single day.



Jan Oberholzer
Group Chief Operating Officer

OUR GROUP PERFORMANCE

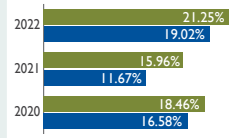
Our shareholder outlines the strategic objectives for Eskom in the Strategic Intent Statement. KPIs are aligned to these strategic objectives and the key focus areas of our turnaround plan, with performance across our top 10 KPIs for 2022 set out below.

Financial performance

Improve our income statement and strengthen our balance sheet

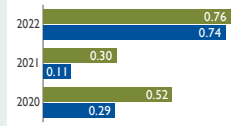
EBITDA margin, %
21.25 ↑
(2021: 15.96)

Improve our margins on EBITDA through revenue certainty, cost optimisation and efficiency



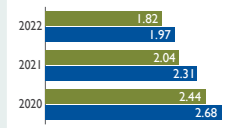
Debt service cover ratio
0.76 ↑
(2021: 0.30)

Improve our ability to meet our debt obligations through sufficient cash from operations



Debt equity ratio
1.82 ↑
(2021: 2.04)

Strengthen our balance sheet and limit growth in debt securities and borrowings

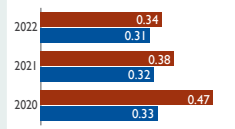


Environmental impact

Address poor environmental performance and climate change

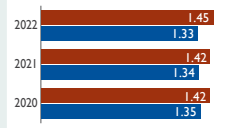
Particulate emissions, kg/MWhSO
0.34 ↑
(2021: 0.38)

Reduce the ash (particulates) emitted from coal-fired power stations, per unit of energy sent out



Specific water usage, ℓ/kWhSO
1.45 ↓
(2021: 1.42)

Reduce the amount of water consumed by all power stations, per unit of energy sent out

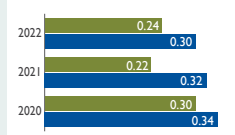


Health and safety

Support a culture of Zero Harm

LTIR
0.24 ↓
(2021: 0.22)

Reduce employee lost-time injury rate (LTIR) for the group (including occupational diseases)

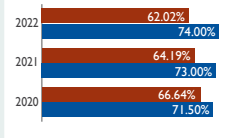


Generation operations

Improve reliability of the Generation fleet and reduce loadshedding

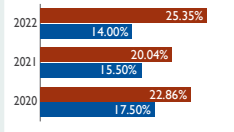
EAF, %
62.02 ↓
(2021: 64.19)

Improve the energy availability factor (EAF), which is the ratio of available energy over nominal energy



UCLF, %
25.35 ↓
(2021: 20.04)

Reduce the incidence of unplanned outages to improve system availability

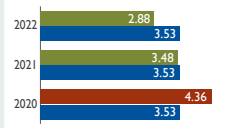


Network performance

Refurbish our Transmission and Distribution networks

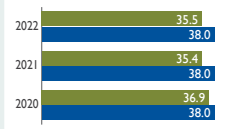
System minutes lost
2.88 ↑
(2021: 3.48)

Reduce system minutes lost due to interruptions



SAIDI, hours
35.5 ↓
(2021: 35.4)

Reduce the average interruption duration experienced by customers



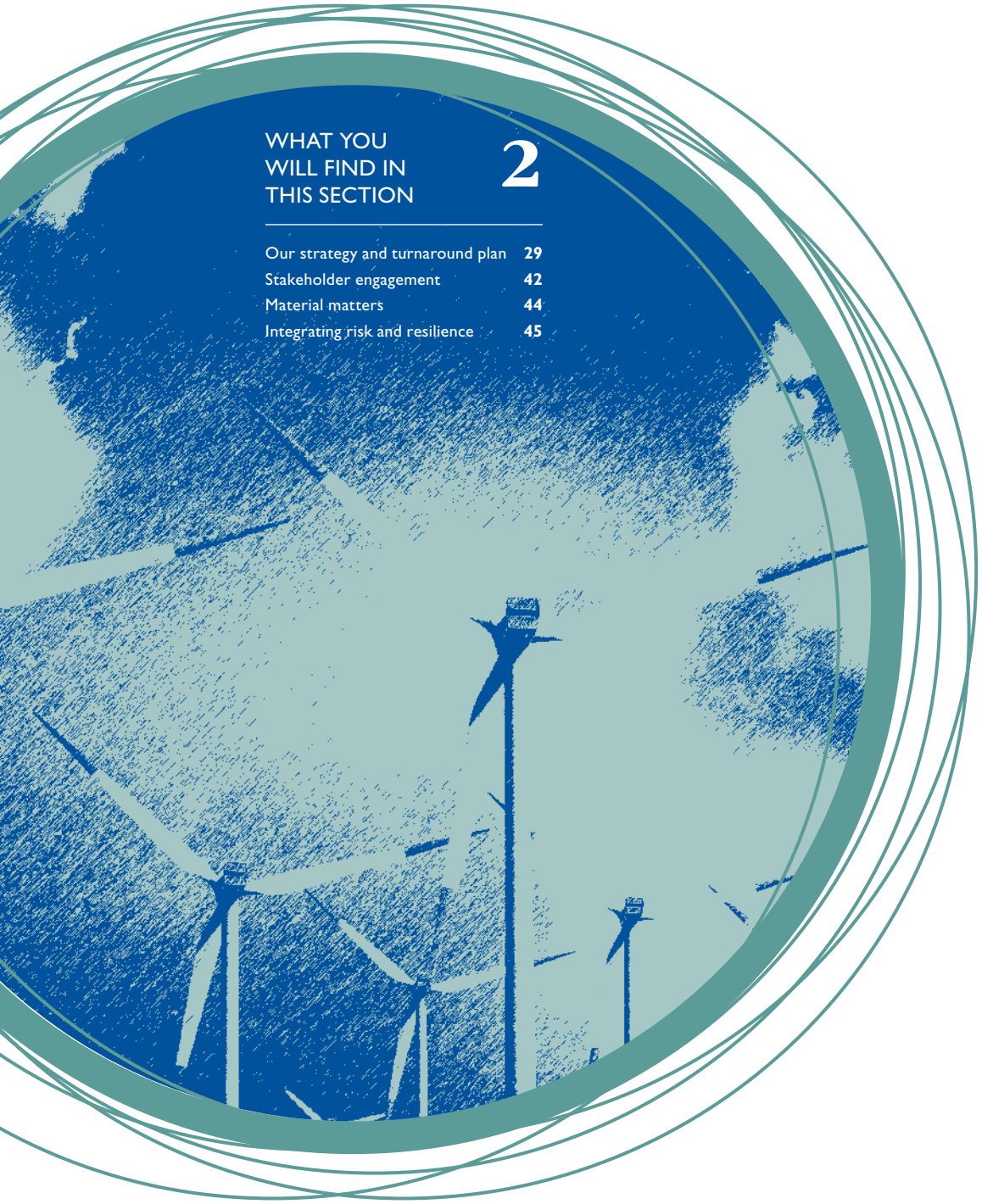
Turnaround objectives

- Operations recovery
- Improve income statement
- Strengthen balance sheet
- Business separation
- People and culture

Other metrics
Above are some of the KPIs used to measure our overall performance. We also make use a number of other metrics to monitor performance across our business, which are highlighted throughout the report and in the supplementary information from page 142.

Graph legend	Year-on-year performance
Target	↑ Performance improved
Actual (target met)	– Performance stable
Actual (target not met)	↓ Performance declined

OUR STRATEGIC CONTEXT



WHAT YOU WILL FIND IN THIS SECTION **2**

OUR STRATEGY AND TURNAROUND PLAN

Mandate, vision and mission

In terms of the mandate set by DPE, our key role is to assist in lowering the cost of doing business in South Africa, enabling economic growth and providing stability of electricity supply through providing electricity in an efficient and sustainable manner.

Our vision is "Sustainable power for a better future", meaning that we aim to promote sustainability in the electricity supply industry from a technological, environmental, social and cost perspective.

Our mission is threefold:

- Turn around the existing business and resuscitate our operational and financial sustainability
- Create a sustainable Eskom that drives economic growth through the provision of reliable and efficient electricity and ancillary services in a manner that adds value for all South Africans
- Create a positive social impact in South Africa by driving shared growth through sustainable electricity solutions

Eskom's role in supporting the sustainability of the future electricity supply industry (ESI) remains pivotal. Notwithstanding policy reforms that are reshaping the industry, our historical role and the magnitude of our vertically integrated operations require the organisation to leverage electricity assets to navigate the path to adequate capacity that will enable an effective and efficient future ESI. Regrettably, our contribution in supporting the journey to a sustainable future ESI is not unfolding as envisaged. The Eskom fleet is not performing as planned, resulting in an energy capacity deficit, with loadshedding and load curtailment being required to protect the system. Remedying the need for debilitating loadshedding remains a top priority, and the Generation Division remains resolute to improve plant performance and reliability.

The nature of the electricity crisis

The performance of our power stations should be viewed in the context of our mandate, the supply capacity shortage leading to a constrained power system, the age of our plant, as well as funding and space available for maintenance.

The decision to build Medupi, Kusile and the Ingula pumped storage scheme had to be made by not later than 1999 to meet increased demand by 2007. However, Eskom did not obtain approval to embark on the process to establish the next new base-load capacity, as Government's strategy at the time was to restructure the electricity supply industry, which included encouraging competition and the introduction of independent power producers. We only received Government's decision allowing Eskom to embark on the build programme late in 2004, with approval of the first new base-load capacity investment in December 2005, resulting in the new capacity not being available when required. The delay in the decision also resulted in limited up-front planning and development work for the construction of Medupi and Kusile, resulting in build timelines being compressed.

Our financial constraints also have their origins in the build programme. We raised debt with the primary purpose of supporting the new build programme, which commenced in the 2006 financial year to address impending generation and transmission capacity constraints. At the time, the determination of borrowing requirements assumed cost-reflective tariffs in the future (including a reasonable and market-related return on assets), limited delays in the new build programme, prudent financial oversight, as well as sufficient economic growth to stimulate the desired demand for electricity. Those assumptions have either not materialised or have greatly underperformed (for example through significant build delays or procurement processes seeing inflated costs), leading to a significant shortfall between Eskom's revenue and expenditure, requiring higher levels of debt than previously envisaged to fund the annual revenue shortfall and the new build programme, ultimately leading to a deteriorating financial position.

On the operations side, lack of sufficient capacity requires existing power stations to operate at very high load factors, which constrains our ability to perform the requisite major maintenance, refurbishment and retrofits work, aggravated by the onset of age-related equipment failures. Excessively high load factors further lead to increased unplanned breakdowns and deteriorating plant reliability.

Other factors that have contributed to the current situation are a deterioration in the quality of coal; the reality of "keeping the lights on" constrained the space available for maintenance, causing a deferral of plant and equipment maintenance and the use of expensive diesel to ensure security of supply; poor performance of contractors during the build programme and outages leading to rework; and funding constraints to execute major equipment replacements. We also acknowledge the need for better planning and execution of the very complicated major maintenance, refurbishment and retrofit work.

We have insufficient reliable generation capacity to power a post-COVID-19 economic recovery in the medium term. Availability of our generation fleet has continued to deteriorate, with the coal fleet being highly unreliable after years of inadequate maintenance and refurbishment and running the plant at levels significantly above the international norm given the age of the fleet. Consequently, generation capacity availability changes by more than 4 000MW week-on-week. Medupi and Kusile, themselves a response to the looming electricity crisis in 2004, have not delivered on expectations due to critical shortcomings in project planning, design and execution, a direct

OUR STRATEGY AND TURNAROUND PLAN continued

consequence of the delay in the decision to commence building. In 2019, the updated Integrated Resource Plan (IRP 2019) identified a supply gap over the next three years, based on assumptions regarding plant availability at levels well above those being achieved, although at higher levels of demand than being experienced. However, capacity planning in the IRP 2019 did not cater adequately for the risk of deteriorating plant availability.

The electricity crisis is hugely damaging for the economy: the inadequate, unreliable and unpredictable electricity supply has had an impact on the ability of the country's economy to grow. Loadshedding and load curtailment of large customers over the past year resulted in energy not supplied estimated at 1 605GWh, or just over 0.7% of total energy demand for the year. In the wake of the COVID-19 pandemic, it is imperative that we do all that we can as the electricity supply industry to support economic recovery.

Refer to "Managing supply and demand – Loadshedding and load curtailment over the past four years" on page 92 for additional information about the impact of loadshedding

While the procurement of new capacity has begun, current interventions will not address short- to medium-term system constraints. DMRE's IPP Office initiated the procurement of 2 000MW of new, dispatchable generation capacity in August 2020. This capacity, identified as a risk mitigation requirement in the IRP 2019, was expected to come online by June 2022, but legal challenges will delay the date by which the capacity will be online. The procurement of a further 11 813MW of capacity (per the second determination of 2020) began in 2021 with around 2 600MW under bid window 5 of the RE-IPP Programme. Nevertheless, the procurement of this capacity is unlikely to deliver significantly within the next two years. This capacity is insufficient, uncertain and too late to address the expected gap adequately.

As a result, the short- to medium-term outlook remains uncertain and indicates a significant gap between supply and demand. There is considerable uncertainty regarding the anticipated generation performance, the demand forecast and the delivery of new utility-scale generation capacity, giving rise to a potential capacity gap of between 4 000MW and 6 000MW by 2026, with a resultant energy gap of up to 1.7TWh.

In the longer term, the IRP also envisaged that 11 000MW of old coal-fired power stations would be retired by 2030, given an assumption of plant availability (EAF) of 75%. Failure to meet legislated national air quality standards is creating further pressure to close non-compliant power stations, given the significant cost implications of meeting these requirements.

The underlying uncertainty presents a risk of frequent loadshedding that will manifest if not addressed proactively.

Pivoting towards a sustainable electricity supply industry

We cannot keep "kicking the can down the road"; we need to pivot to a sustainable future. Over the past two decades, various decisions to address constraints have reflected short-term crisis thinking. Interventions included deferring maintenance to keep the lights on, extending the life of old power stations, and imposing unrealistic timelines on the delivery of new megaprojects such as Kusile and Medupi.

On the other hand, other decisions have spoken to a more sustainable future. Notably, DMRE's IPP Office has concluded the procurement of around 7 000MW of renewable energy from independent power producers, of which 6 831MW was in commercial operation by March 2022. This programme is aligned with a fundamental transition that is happening in the electricity sector globally. The transition is towards a green economy powered by least-cost renewable energy, combined with flexible resources and procurement from competitive independent producers. These build programmes do not rely on large build projects, but deliver capacity in a flexible, incremental manner.

The electricity sector should function as an enabler, rather than an inhibitor, of economic growth. Opportunities have to be unlocked for the electricity sector to create sustainable jobs by powering the economy and industrialisation in locally manufactured and assembled generation and grid infrastructure. This includes opening new avenues to trade and finance opportunities, which are fundamental to the transition to a zero-carbon economy. A programme of sustainable electricity infrastructure development is urgently needed.

The move to a decarbonised energy sector will require a fundamentally transformed transmission grid to transport energy from the south to the north of the country. Based on the 2022 Transmission Development Plan (TDP), investment in the transmission grid of about R178 billion over the next 10 years to 2031 is required to enable new generation capacity, network reliability investments, load growth, refurbishment of existing infrastructure and more. The distribution grid requires capital investment of R42.6 billion over the next five years to support around 250 major customers that will be added to the grid over the five-year horizon, including renewable generators.

Funding remains a significant risk as essential projects in this space are deferred as we are forced to reallocate constrained capital to completing the new build programme and stabilising the generation fleet. Execution of the transmission and distribution expansion programmes will offer significant localisation opportunities. Given the limited investment in the past, local manufacturing capacity of particularly transformers may not be adequate to meet demand.

Furthermore, a system that embraces an increased uptake of variable renewable energy will require an increase in ancillary services, synchronous condensers and storage technologies to address the expected change in the dynamic system response due to the change in energy mix.

Enablers

Eskom alone cannot solve the problem. While we will do all we can to improve the performance of our coal-fired generation fleet, the deep maintenance needed requires lengthy planned outages. Many power stations are also reaching the end of their useful lives and performance will continue to deteriorate as they approach their shutdown dates between now and 2035. As the primary energy supplier in South Africa, challenges that affect Eskom have an impact on the electricity supply industry. However, there are certain aspects that adversely affect Eskom alone and which require external support and enablement.

While we will endeavour to address everything within our control, such as improving the reliability and predictability of our coal-fired fleet, deploying technologies to minimise both technical and non-technical energy losses, as well as strategically leveraging the Just Energy Transition, we cannot resolve the energy constraint challenges without the support of all key stakeholders.

Action is required in key areas such as funding new capacity, minimum emission standards, acquisition of land rights, the market structure which influences the bid window processes, IPP prices, tariff structure and trajectory, and unlocking the municipal debt conundrum. The areas which require urgent action are briefly described below.

1 Avoid the potential crisis caused by the shutdown due to existing minimum emission standards of 16GW capacity immediately, and 30GW by 2025, by agreeing on a pathway for decarbonisation and reduction in all emissions, with significant savings in water usage

A reduction in emissions through a retrofit programme of around R330 billion would take approximately 15 years to implement at coal-fired power stations. We propose that emissions reduction could better be achieved in that time by closing down old coal-fired power stations and spending the capital on adding urgently needed additional capacity through renewables, low-carbon technology and strengthening the national electricity grid to allow for the growth of renewable energy and IPPs. This would create additional capacity to support our reliability maintenance programme.

2 Improve the reliability and predictability of the coal-fired generation fleet to meet the growing electricity needs of the country

To support the maintenance programme, funding has to be released timeously to ensure that contracts can be placed and spares ordered in advance, and this requires certainty on the tariff path. For there to be adequate space to conduct maintenance, additional capacity of 4 000MW to 6 000MW is required urgently, and this cannot be provided by Eskom. Increased capacity would reduce the need for loadshedding and create the opportunity for much-needed maintenance.

The funding challenge requires either continued support from the fiscus or cost-reflective tariffs, or both.

3 Leverage existing electricity assets to partner with the private sector and accelerate the connection of new generating capacity

Innovative ways must be considered to add new generation capacity to the system, including leveraging Eskom assets to incentivise IPPs to expedite establishment of generation capacity. This includes access to land and proximity to grid connection points, enabling the development of renewable plants up to 100MW. Leasing Eskom land to IPPs supports faster deployment of additional capacity to support the system and mitigate loadshedding, and provides us with an additional revenue stream from the leasing of land and wheeling of power. Most importantly, it mitigates the impact of the constrained electricity system, while benefitting from the continued use of existing grid infrastructure.

4 Leverage the Just Energy Transition (JET) strategy and the recent commitment to an international climate deal to enable the development of new generation, transmission and distribution capacity, through a pipeline of projects in these areas

Repowering of older power stations in Mpumalanga with low-carbon-emitting technologies, such as renewables and gas with battery storage, while capitalising on existing grid infrastructure is key to continuing economic activity in the local areas.

Declaring Mpumalanga a special economic zone to ensure a favourable business environment for investors and entrepreneurs will catalyse the creation of new businesses for component manufacturing, asset creation and maintenance in renewable technologies.

OUR STRATEGY AND TURNAROUND PLAN continued

5 Transition from the bid window process to a competitive market as soon as possible

Previous delays in rolling out bid windows have not created the certainty and predictability required to enable investors to invest in manufacturing capacity and stimulate localisation in the long term. A competitive market outside the single buyer programme is considered complementary to the bid window procurement process, and would enhance the attractiveness for investors of the manufacturing of renewable energy components. This would increase sectoral investment and ultimately, reduce the burden on the state of providing guarantees to IPPs.

Migrating to a multiple-buyer platform may allow for more appropriate risk allocation and reduce, if not eliminate, the requirement for a government guarantee*, just as would be the case for any other investor in any other industry. This would result in greater innovation in financing and construction, as investors would seek to devise other risk-mitigation strategies that are currently transferred to the National Treasury. Furthermore, IPPs could find alternative customers through wheeling, which would significantly diminish the perceived market risk.

* The remaining guarantees for bid windows 1 to 4 amount to R165 billion for installed capacity of 8 000MW.

6 Mitigate the risks associated with the development of a two-tier market and the Transmission System Operator (TSO) being saddled with long-term expensive power purchase agreements

Continuing with the single-buyer approach, with the future TSO required to act as the single buyer for future bid windows, without adequate governance of projects below 100MW would likely lead to a two-tier market – efficient IPPs could seek to conclude power purchase agreements (PPAs) with solvent buyers, such as metros, large industrial users and commercial customers. The TSO would be saddled with long-term PPA contracts with IPPs under existing bid windows, subject to annual tariff increases and take-or-pay commitments. Undoubtedly, creditworthy customers would defect to suppliers with more supply options and competitive pricing, while the TSO would be left with expensive suppliers and non-creditworthy buyers, such as defaulting municipalities.

Consequently, the TSO would likely be compelled to approach National Treasury within a five-year period to cover its revenue shortfall, thereby both perpetuating and exacerbating the current need for taxpayers to bail out Eskom.

7 Achieve more optimal pricing through a liberalised, appropriately governed electricity market

Further bid windows are likely to perpetuate inflated prices due to the need for Government to deliver on its social mandate requirements for local community participation, local content and supplier development, with contractually determined annual price increases adding to the burden. The same restrictions do not apply to embedded generators with capacity less than 100MW, who would also be subject to market pricing, which would create an even greater cost disparity between best-in-class embedded generators and successful tenderers under IPP Office bid windows.

Migrating from the IPP bid window process to an appropriately governed electricity market in line with the developments in the industry would be critical to manage the associated risks and shortcomings. Such an approach, facilitated by non-discriminatory access to the national grid, would lead to the required sectoral investments and economic developments, while reducing the burden on the state of providing guarantees to IPPs.

8 Accelerate the acquisition of servitudes, which is critical for rapid transmission network development

The acquisition of land and servitude rights over approximately 5 000km of land registered to private landowners and state-owned land is critical to implementing the TDP and Distribution's expansion plan. A more effective expropriation process is crucial to accelerating successful delivery of grid projects.

9 Political intervention is needed to arrest the rising arrear municipal debt and culture of non-payment

Non-payment of municipal debt is a systemic challenge to the energy industry as a whole. Eskom's multipronged strategy aimed at recovering arrear municipal debt has had little effect to date, and we require more aggressive political intervention to change the municipal non-payment culture, to assist municipalities in building skills and capabilities, and to hold them accountable for servicing their accounts. Furthermore, we are collaborating with National Treasury on structuring solutions to assist with the collection of arrear municipal debt and managing payment of municipalities' current accounts.

This would enable us to arrest the growth in arrear municipal debt of around R8 billion per year to become financially sustainable. Arrear municipal debt amounted to R44.8 billion by 31 March 2022.

10 Arrest energy losses to protect Eskom's revenue

Energy theft arising from meter tampering and illegal connections as well as vending fraud are the primary sources of losses and remain a perennial problem. The scourge of energy theft and infrastructure vandalism is not abating. Socio-economic conditions and societal challenges require political and economic intervention to address the culture of non-payment.

Nevertheless, levers to protect the most vulnerable people in society against increasing costs, for example by reviewing the free basic electricity model, may reduce the number of illegal connections. A more robust vending system along with smart meters are being implemented to improve revenue protection.

11 Achieve cost-reflectivity in electricity tariffs with the appropriate structure

For Eskom and the electricity supply industry to be financially sustainable, to operate and maintain assets in a reliable state, and to meet the financial obligations related to existing and new infrastructure capacity, the tariffs must migrate to being cost-reflective. This would ensure a fair return on assets, and would lead to a self-reliant and sustainable ESI that is not dependent on Government support. However, this requires an immediate upward tariff adjustment of 20% or more.

Furthermore, to recover the costs of the imminent imposition of carbon taxes and the Risk Mitigation IPP Procurement bid window programme, a further 10% increase in the electricity price (above inflationary increases) would be required.

It should be noted that in a low electricity tariff environment, the customer will suffer the double burden of incurring its own much higher cost of backup and/or self-generation as well as higher tax rates and/or lack of government expenditure on those items for which tax revenue is normally used.

12 Restructure tariffs in anticipation of changing markets

Current tariff rates do not correctly reflect the separate divisional costs associated with energy, network and retail costs, although costs linked to allowed revenue are recovered on the whole.

Tariffs need to be updated and modernised to reflect this changing environment and, in doing so, protect both customers and the electricity supply industry.

If we do not respond adequately in the short term, the electricity crisis will severely constrain economic recovery over the next five to 10 years, affecting the trajectory of our recovery in the medium to long term. If we are to regain our credibility as a sector and as an investor-friendly emerging economy, we must cater for the whole range of uncertainties. What is certain is that our current trajectory will continue to result in loadshedding, similar or worse than we have seen over the last few years.

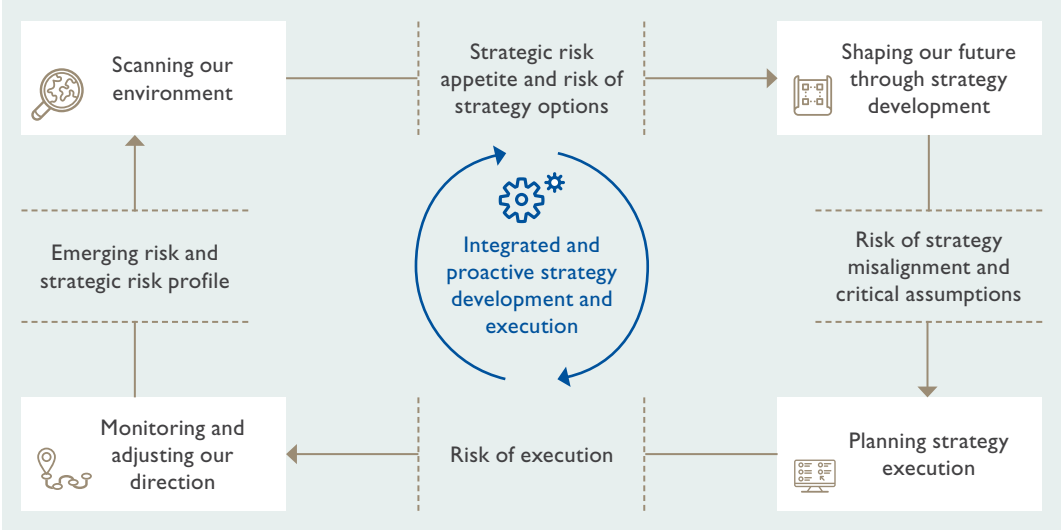
Nevertheless, we have the opportunity to harness technical and funding solutions that have become available in the context of the global climate crisis. South Africa's just transition deal struck at COP26 is testament to this, with Eskom's Just Energy Transition plan at the heart of this ground-breaking transaction. It is premised on the fact that our country is endowed with abundant renewable resources, providing an opportunity to create the conditions under which a credible, green, reindustrialised electricity sector can help power our economic recovery. We are also presented with opportunities to unlock related priorities such as job creation and reindustrialisation. In addition, we can repurpose and repower end-of-life stations to contribute to the capacity solutions, given the existing transmission infrastructure already in place.

OUR STRATEGY AND TURNAROUND PLAN continued

At the end of July 2022, President Cyril Ramaphosa announced further reforms to address the long-running electricity crisis, including the formation of a National Energy Crisis Committee. We welcome the announcement by the President, and we are in full support of these measures, as they will go a long way towards easing the power generation constraints the country has been grappling with for some 14 years. The reforms will accelerate the end of loadshedding and will expand and grow the electricity generation industry in South Africa through structural changes.

We look forward to playing our part in the rapid and effective implementation of the President's plan, and will partner with Government, regulators, labour and the private sector to bring an end to loadshedding. Although this will not happen overnight, the measures announced by the President will enable us to intensify maintenance efforts to drive improvements in plant availability.

Strategic context



Globally and locally, the energy sector is transforming, driven by fundamental shifts in policy, technology, as well as economic and environmental demands. The industry is evolving from a predictive, vertically integrated model that leverages economies of scale with centralised generation flowing in a single direction towards a decentralised, modular model based on bidirectional flow of power. This shift introduces new players to the industry and an unfolding series of demand-centric, value-adding applications. The most significant of these is the shift towards greener, cleaner technology, which aims to reduce overall emissions in line with South Africa's commitment to the Paris Agreement.

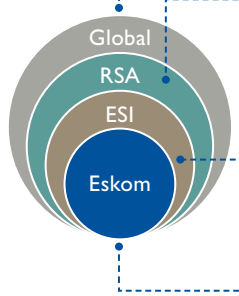
A number of developments and considerations inform our strategic context and thereby influence our long-term strategy – global trends and influences, factors at a national level, developments relating to the electricity supply industry and Eskom's financial and operational challenges.

We operate in a financially constrained environment and have posted significant financial losses over the past few years. Our financial sustainability continues to be threatened by a lack of cost-reflective tariffs. NERSA awarded a tariff increase of 9.61% for the 2023 financial year, which is significantly lower than the 20.5% for which we applied. We are still grappling with non-payment of arrear debt by delinquent municipalities, an unsustainable debt burden and high debt servicing costs. In addition, high levels of fraud and corruption remain a concern, and we are still recovering from the scourge of state capture. Continued Government support will be required to bolster liquidity if the challenges threatening our financial sustainability go unresolved.

Furthermore, operational performance remains a major challenge, with loadshedding set to continue at least in the short to medium term. This is largely due to the unreliable and ageing generation plant, older stations reaching the end of their life, a decrease in the capital expenditure budget, environmental non-compliance and the loss of core, critical and scarce skills.

A number of external factors also have an impact on our sustainability and therefore, shareholder and political support is critical. Policy shifts to enable Eskom to operate efficiently given the evolution of the industry, specifically around issues such as Eskom's debt, arrear municipal debt, National Treasury decision-making and NERSA's tariff determination, remain fundamental.

Our financial and operational challenges have been exacerbated by volatile global and local economic conditions, affected over the past two years by the COVID-19 pandemic and the associated lockdowns, travel restrictions and a decline in tourism. Most recently, the Russian-Ukraine conflict continues to impact the sustainability of the global energy sector. We are already affected by rising fuel prices and declining fuel availability, which may pose significant challenges for Eskom and the country.



- The "4Ds" namely decarbonisation, decentralisation, digitisation and democratisation are global trends influencing businesses
- Increased commitment to address environmental footprint towards climate neutrality goals
- Global trends show a shift away from large scale coal assets towards cleaner, decentralised systems underpinned by the advancements in renewable technology, data-driven businesses models and increased customer choice
- A constrained fiscus with growth further inhibited by COVID-19 may affect Government support and investment as funds are diverted to health and welfare
- High unemployment and poverty place greater limitations on Government's support for increased tariffs
- Increased focus on addressing climate and environmental issues limiting the continued impact of the coal fleet on CO_2 emissions and unacceptable particulate emissions
- Given the dynamics in the local context, and a series of previous decisions, the industry evolution needs to align with the shifts in a way that will avert crisis
- A number of policy and regulatory decisions are at varying levels of implementation (e.g. NDP, IRP 2019, DPE's Roadmap, amendment of acts applicable to Eskom) which further define Eskom's parameters
- Eskom's mandate and available resources define the scope of our possible solutions which should translate into key actions to navigate out of the current crisis towards a sustainable entity
- Financial challenges are driven by under-recovery of costs, inadequate tariffs, declining sales, escalating municipal debt and high level of borrowings
- Operating challenges such as maintenance constraints, unplanned outages, excessive diesel cost and loadshedding
- Environmental legal contraventions and the cost of addressing emissions compliance (around R330 billion)

OUR STRATEGY AND TURNAROUND PLAN continued

Strategic direction

Our desired end state is an organisation that is able to contribute to providing electricity to meet growing demand and demonstrates positive environmental and socio-economic impacts, with a significantly reduced financial dependence on the South African Government.

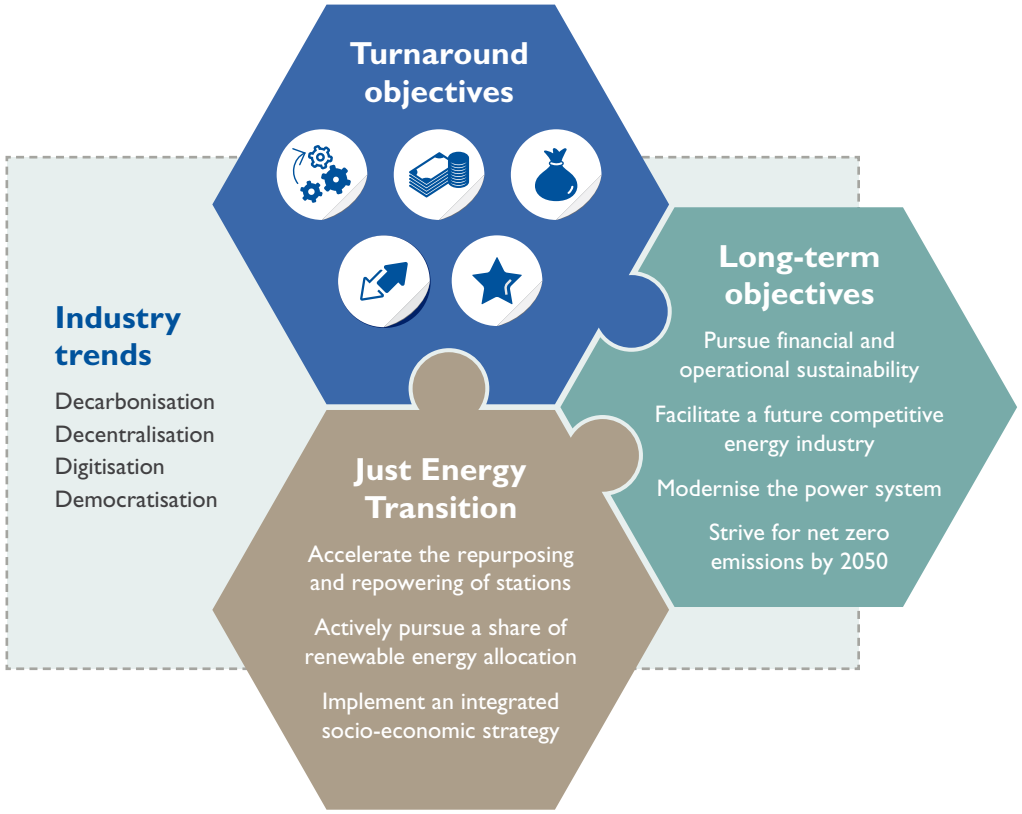
The introduction of renewable and other cleaner technologies, as well as the expected shutdown of around 20GW of nominal capacity at coal-fired power stations that reach their end of life between now and 2035, will require significant strengthening and expansion of transmission infrastructure, in line with the requirements of the Transmission Development Plan. Eskom needs to further position itself to respond to the changing environment through the introduction of technology for better efficiencies, the establishment of a Distribution System Operator to manage and coordinate distributed generation as a neutral facilitator of open markets, and active partnering to solve incapacity and non-payment challenges at municipalities.

While our longer term aspirations are driving towards new and improved infrastructure, operations and financial sustainability, the focus for the next two to three years is on executing the turnaround plan and legal separation, while positioning the organisation for the transition.

The turnaround plan is aimed at addressing immediate operational and financial challenges to set the organisation on a sustainable path, by achieving the following:

- Reshaping Eskom's business and operating models and establish an agile organisation to respond to rapid changes without disrupting daily services
- Committing to greater efficiencies across the organisation, reduce wasteful expenditure and optimise revenue
- Improving corporate governance and act against corruption and mismanagement
- Ensuring greater transparency in the governance of Eskom and its subsidiaries

While our focus is on delivering the outcomes of the turnaround plan, we will continue to drive the Just Energy Transition to serve as a pivotal point in Eskom's future, enabling us to address many of our challenges in the short term, while ensuring long-term growth and sustainability. The JET will also assist in supporting national goals to decrease greenhouse gas emissions, promote job creation through reskilling and stimulate economic growth.



Industry trends

Our long-term strategy responds to major industry trends that are shaping the future of the electricity sector, which can be summarised around four key themes, namely decarbonisation, decentralisation, digitisation and democratisation.

Decarbonisation
The industry is experiencing huge shifts towards more carbon-efficient energy sources, resulting in global climate neutrality goals. This shift is driven by the continued reduction in renewable energy technology costs and more stringent environmental policies aligned to the Paris Agreement.

Decentralisation
Distributed energy gives rise to new roles and participants in the power market. The uptake of residential and commercial rooftop PV has increased significantly in South Africa, particularly in light of new regulations permitting consumers to generate their own electricity for self-consumption. Decentralisation will require utility operations to be decentralised for local area control.

Digitisation
Digitisation and digitalisation have become more prevalent to incorporate and coordinate distributed generation efficiently and to improve the overall efficiency of the grid and operations across value chains. The industry is experiencing an increase in digital electricity infrastructure investment and decreasing costs for grid technologies. New data, generated globally, will lead to new ideas and has huge value creation potential.

Democratisation
Future energy systems will incorporate many customer technologies through decentralised generation and decentralised ownership. Consumer choice of electricity source and supply will broaden. Artificial intelligence, blockchain, the Internet of Things and advanced analytics start-ups are also disrupting the status quo and driving innovation in this space.

Long-term objectives

To achieve our desired end state, we have developed a set of core strategic objectives in response to the latest developments in our internal and external environment. These objectives are fundamentally tied to the overarching phases of "stabilise, separate, and grow" which form the foundation of our strategy.

Our long-term strategy positions Eskom as an enabler of the Just Energy Transition and a key role player in executing the IRP 2019. 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.

Pursue financial and operational sustainability – fix the current business
Our turnaround plan was refined in 2020 to address the challenges threatening structural, financial and operational sustainability. It focuses on five key areas that are the primary focus over the short to medium term:

- *Operations recovery* to ensure that we recover generation capacity and availability to enable system adequacy in the medium term in line with the Generation recovery plan. It includes strengthening transmission and distribution networks to support system reliability and the policy direction for the electricity industry
- *Improve the income statement* to ensure that we realise sustainable revenue through cost-reflective tariffs, as well as ensuring that the operating cost base is reduced to sustainable levels. This will be achieved through reductions in primary energy and procurement costs, and driving operational efficiencies
- *Strengthen the balance sheet* by improving profitability and optimising capital spend and, at the same time, reducing debt to acceptable levels
- *People and culture transformation* entails ensuring that our people are sufficiently enabled and supported to transform for Eskom to achieve a high-performance culture
- *Functional and legal separation* to support the restructuring of Eskom into three legally separated entities wholly owned by Eskom, in terms of DPE's *Roadmap for Eskom in a Reformed Electricity Supply Industry*

Progress on the key areas of the turnaround plan is discussed from page 40

Facilitate a competitive future energy industry – prepare for competition
Eskom will seek to deliver an Integrated Transmission System and Market Operator in line with DPE's Roadmap, while pursuing new generation capacity based on the IRP 2019 and its revisions to enable the transition towards renewable energy. We strive to implement profitable business models underpinned by sound business principles for Generation, Transmission and Distribution to respond to the anticipated increase in competition.

The Transmission business will establish the appropriate market platforms to enable a liberalised electricity market. This will require strong alignment and facilitation of enabling policy and a regulatory framework for this future market, together with the establishment of smart and flexible tariff models.

The Distribution business will establish a Distribution System Operator and Energy Trader to support the Transmission System Operator to enable grid access to distributed energy resources; balance and manage the power system; and aggregate and coordinate prosumers onto the power system.

OUR STRATEGY AND TURNAROUND PLAN continued

Modernise the power system – leverage technology
Significant investment is required in the expansion and modernisation of grid infrastructure to support the evolution of the electricity supply industry and the connection of additional large-scale and distributed generators, to derive value for all stakeholders. This is facilitated by interventions such as the development of smart grids and installation of smart meters to enable bidirectional metering.

We must embark on a digital transformation journey to improve our ability to respond to technological disruption and transition the business to utilising digital technology to enhance operations, improve business efficiency and drive customer-centricity. This objective will also deliver on the required transmission grid expansion and the increase in regional distribution grids and distributed generation, while rolling out new technology options to support the future business.

Strive for net zero emissions by 2050, with an increase in sustainable jobs – transition responsibly
Given the rapid development in renewable technology, more stringent environmental legislation and our ageing fleet, we will prioritise repurposing and repowering coal power stations as they are shut down in line with our commitment to achieving net zero emissions by 2050. This will be done while driving key enablers to expedite future utility-scale procurement programmes, mitigate negative socio-economic impacts by delivering on social and skills plans, promote local industrialisation and job creation, and focus on enhancements to improve environmental performance.

Just Energy Transition as a thrust to our strategy

Eskom's long-term strategy positions it as an enabler of a Just Energy Transition (JET) and a key role player in executing the IRP 2019. JET is about leveraging the opportunities presented by the transition to a cleaner and greener energy future, while creating new job opportunities for those displaced by the replacement of coal by cleaner technologies. It means a transition towards a low-carbon, climate-resilient economy and society in a manner that does not impede socio-economic development, but results in an increase in sustainable jobs. It is not a sudden shift in economic activity but occurs in a phased manner over time.

Eskom has committed itself to addressing the strategic objectives of the National Development Plan and other related policies through its turnaround plan and Just Energy Transition Strategy, in accordance with which Eskom has a social compact with communities. The aim of the social compact is to ensure a fair and "Just" transition when repurposing generation assets, to partner with local stakeholders when introducing greener energy technologies, and to deal with the challenges of unemployment, poverty, and inequality, including contributing towards inclusive growth and development, all towards a greener footprint in the country.

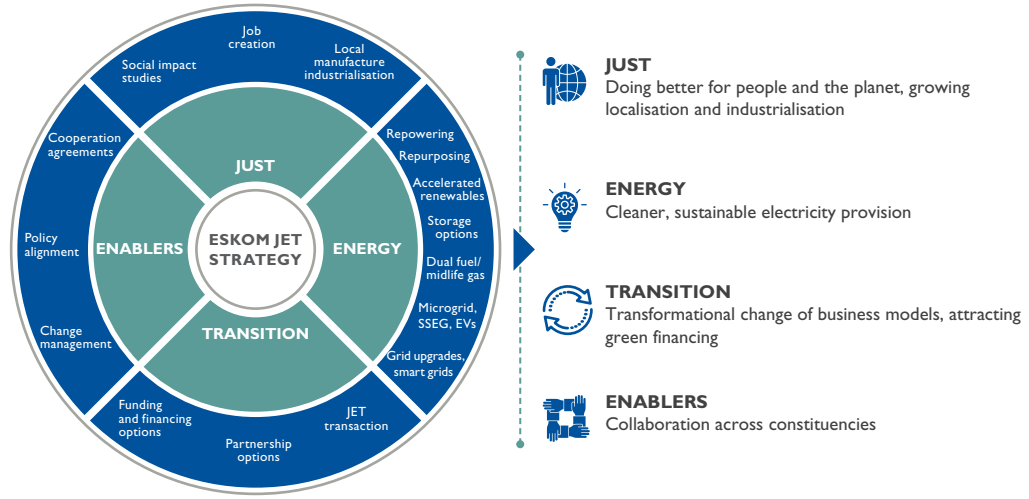
In support of Eskom's 2035 Roadmap for a Just Energy Transition, the Generation business is positioning itself to become a profitable and sustainable business and a key player in the green energy market, with a focus on renewable energy production. We intend pursuing the Just Energy Transition and participating in the IRP 2019 for renewable and nuclear energy as well as gas, while focusing on a structured approach to the shutdown of the coal fleet.

Approximately 22GW of installed capacity of coal-fired power will be retired in the next 15 years in line with our focus on pursuing a Just Energy Transition. This will result in additional strain on the system and the need for new generating capacity. Based on a 50-year design life of coal-fired stations and our initiative to extend Koeberg's life to 60 years, only six coal-fired and one nuclear power station will continue to run beyond 2035. Another four coal-fired power stations will be shut down by 2050. Two coal-fired stations may be shut down prior to the 50-year design life being realised.

Minimum Emission Standards require stations operating until 2030 to comply immediately with "existing plant" limits for NO_x, SO_2 and particulate emissions. Plant shutting down after 2030 must comply with new plant standards by 2025, and therefore, all plant must continue with required emission improvement retrofit projects. As discussed earlier, these requirements present significant financial and operational challenges.

To mitigate the impact associated with the shutdown of the coal-fired plant reaching end of life, and in response to the changes of the electricity supply industry towards a lower-carbon future, Generation will focus on priority JET-related capacity projects.

The JET strategy will focus on several key areas over the next five years, as shown below.



The first five years of the transition are deemed to be the most critical to enable the sustainable success of the just transition of both Eskom and the country and to make a vital contribution to economic growth, job creation, socio-economic development, and the creation of a stable, equitable, and cohesive South Africa. Key focus areas in the immediate and short term include the repurposing and repowering of stations, ensuring alignment with government's Just Energy Transition plans, actively pursuing renewable energy allocations, and implementing an integrated socio-economic strategy as discussed below.

Accelerate the repurposing and repowering of stations
This initiative is aimed at repurposing and repowering the power stations that will be shut down. To enable and optimise the just transition from coal to more carbon-efficient generation, solar PV, wind, battery storage, and gas are immediate technologies prioritised for repowering initiatives, with investigation of other technologies to be considered in the medium to longer term.

Align with national Just Energy Transition plans
In driving initiatives within Eskom, alignment with national Just Energy Transition plans is critical. Collaboration and integration with the various government ministries, as well as the Presidential Climate Commission, will be driven on all matters involving the transition, including targets, funding mechanisms, localisation, industrialisation and socio-economic impacts.

Actively pursue a share of renewable energy allocation
Accelerating the transition to renewable energy will improve the carbon profile of South African industries and will retain competitiveness. Renewables will be enabled through own build, partnerships, and PPAs. Potential for local manufacture, optimisation regarding established special economic zones (SEZs), and renewable energy development zones (REDZs) will be leveraged.

Implement an integrated socio-economic strategy
Some of the additional benefits of moving towards lower-carbon technologies are the potential to create new and exciting jobs and a greater preservation of biodiversity in South Africa. The increase in investment in cleaner technologies will open the door for social upliftment through job creation, the creation of demand along the supply chain, and the development of previously disadvantaged groups, including black- and women-owned companies, as well as promoting community-based ownership. The initial focus on reindustrialisation in the Mpumalanga region will contribute to this.

Refer to "Our interaction with the environment – Just Energy Transition" from page 117 for further information

Progress against the turnaround plan

The success of our turnaround plan relies on the commitment of the Board, senior management and all Eskom employees, together with support from the shareholder. Government and Eskom will align on injections of Government support and debt transfers and the timing thereof, and will also continue engaging on the implementation of Eskom's legal separation to create three separate entities. We will collaborate with Government to create a future industry structure and clarify the role of Eskom and its subsidiaries.

OUR STRATEGY AND TURNAROUND PLAN continued

Progress on key areas

Operations recovery

Generation initiatives encompassed in the Generation recovery plan aim to improve predictability and reliability of generation plant while fixing new build defects at Ingula, Medupi and Kusile. However, the initiatives are not bearing fruit yet, with deteriorating generation plant performance creating insufficient available capacity to meet the country's electricity demand, resulting in the need to implement loadshedding to protect the system.

Transmission infrastructure has deteriorated to an extent that may pose a risk to energy availability, with high energy losses being a key concern. The Transmission network development plan is critical to strengthening and extending the network and reducing energy losses. Financial constraints are hampering Distribution from executing its mandate of building and maintaining distribution assets and servicing the customer. Distribution has identified initiatives to optimise distribution asset management and asset service, reduce non-technical losses and sustain revenue.

Improve the income statement

Several initiatives have been put in place to address tariff recovery. A tariff increase of 15.06% was granted for the 2022 financial year, which had a significant positive impact on Eskom's profitability and liquidity. However, future revenue recovery is at risk given NERSA's decision to allow a tariff increase of only 9.61% for the coming year, compared to 20% for which we applied. We are evaluating our options in this regard.

To improve revenue collection, the Distribution business developed a debt management strategy, with one of the key interventions being active partnering with municipal customers. Regrettably, only two municipalities have entered into active partnering agreements to date. We continue to apply a multi-stakeholder engagement approach using various intergovernmental platforms while implementing the other levers of the strategy, such as credit management, legal action and limiting of service. Furthermore, the City of Johannesburg Metro has expressed an interest in taking over the supply of electricity to Soweto and Sandton within its areas of jurisdiction; a memorandum of understanding has been signed. We will consult with all key stakeholders once the viability of the business case has been assessed. Similarly, discussions are ongoing with the City of Cape Town for the transfer of certain Eskom distribution areas to the metro.

We have achieved combined cost savings of R50.7 billion over the last three years, exceeding the target of R40.4 billion.

Strengthen the balance sheet

Several inventory optimisation interventions have been put in place to manage stock levels. In the medium to long term, we are implementing a warehouse modernisation project. The supplier payment cycle was identified as another lever to improve working capital.

We have set up a capital efficiency programme to make optimal use of scarce capital to ensure delivery against our mandate despite significant financial constraints. Key optimisation levers have been defined and divisions are developing and implementing capital efficiency roadmaps.

The cash release expected from the sale of non-core property has been delayed as the Eskom Real Estate strategy is under review. In the interim, no-regret interventions such as optimising office space and disposal of underutilised buildings is being undertaken. The sale of EFC was put on hold on the instruction of the shareholder as market conditions were not considered favourable, but has resumed in the 2023 financial year.

We continue to work with the shareholder and National Treasury to find solutions to address Eskom's unsustainable debt levels.

People and culture

The people and culture portfolio was established to drive change and support the overarching goal of three legally separated subsidiaries under Eskom Holdings, in line with DPE's Roadmap. The programme aims to achieve fit-for-purpose organisational structures to ensure optimal business models that are responsive to the changing energy landscape. Mechanisms to drive a high-performance culture and improved productivity are fundamental to the programme.

Progress on business separation

The need to restructure Eskom is driven by an evolving South African energy market and policy landscape. The implementation of DPE's Roadmap will result in the formation of new Transmission, Generation and Distribution subsidiaries wholly owned by Eskom. The Roadmap originally set out timelines for the restructuring of Eskom, from a vertically integrated utility to an unbundled state as follows:

- Divisionalisation by March 2020
- Functional separation by March 2021
- Legal separation of the Transmission entity by December 2021
- Legal separation of the Generation and Distribution entities by December 2022

We are applying a phased approach to the separation, to allow us to implement and optimise governance, operations and processes before final legal separation. Divisionalisation was completed in the 2020 financial year, with functional separation achieved in April 2021.

To complete the structural reform and legal separation, we require support from Government and regulators in the form of policy, legislative and regulatory amendments, such as:

- Dealing with implications to lenders and loan covenants given our debt challenges
- Staff transfers and consultations with organised labour
- The need for unbundled tariffs prior to separation, as well as policy and Government-approved market rules
- A legal framework for the restructuring process, and a regulatory framework and licensing requirements
- Solving Eskom's financial viability

Transmission progress

We have established the National Transmission Company South Africa SOC Ltd (NTCSA) to house the transmission business. It is key to electricity market reform in South Africa, playing the roles of system operator (balancing supply and demand) and market operator. NTCSA is in a good position to operationalise legal separation, given stable operational performance with activities supporting legal separation.

DMRE has started the process to amend both the Electricity Regulation Act, 2006 and the Electricity Pricing Policy. Current timelines suggest that the amended legislation will come into effect in 2023. Until then, DPE is leading discussions on the possibility of introducing transitional arrangements to facilitate an earlier separation of the Transmission Division.

The legal separation of Transmission experienced delays in several critical external decisions and key dependencies, including protracted lender consent processes and delays in obtaining a transmission licence for NTCSA.

Where critical decisions are pending or delayed, we continue to work with Government – DPE, DMRE and National Treasury – and NERSA to put in place transitional arrangements for the operationalisation of NTCSA and the implementation of the asset transfer agreement.

Given these delays, revised plans indicate NTCSA commencement of trade around April 2023, subject to the dependencies mentioned above.

Distribution and Generation progress

Both divisions have started their journey towards legal separation, with the establishment of project management offices, development of roadmaps and the commencement of a legal due diligence.

The PFMA application for the establishment of a new distribution entity has been approved by DPE and National Treasury. The way forward for a preferred corporate structure depends on changes to existing legislation or new founding legislation – this affects the legal separation of the Generation business.

Similar to the separation of the Transmission business, the separation of the Distribution and Generation businesses depend on lender consent, as well as numerous other legislative, regulatory and policy changes. It has become apparent that given these dependencies, the timelines proposed in the Roadmap were optimistic.

Our revised plans target readiness for Distribution operationalisation by December 2023 and commencement of trade by April 2024. Legal separation of Generation is targeted in 2025. However, these dates are subject to external dependencies which may affect the timelines.

STAKEHOLDER ENGAGEMENT

A poor corporate reputation undermines investor confidence, challenges profitability and liquidity, erodes business value and threatens commercial viability. Eskom has the responsibility to navigate both a shifting political economy and a complex government and regulatory environment in which our ability to influence decisions, impacts our business.

The ongoing electricity supply crisis has to be addressed in a manner that supports the growth and development of the economy and our society, by ensuring a sustainable organisation while limiting the detrimental impact on the economy. To do so, we depend on the support of stakeholders and the broader public, which constitutes our direct and indirect customers, to achieve success – stakeholder trust is a key factor in our future success. Therefore, we continue to explore ways to improve how we engage with stakeholders, thereby promoting energy security in the long term, by effectively responding to stakeholder needs.

The Board provides oversight of the effectiveness of stakeholder engagement through SES, and has delegated the management of stakeholder relationships to Exco. Under Exco's oversight, various functions within Eskom are responsible for engaging with different stakeholder groups. The Government and Regulatory Affairs Division (GRAD) is responsible for managing relationships with Government, various regulators, as well as domestic and international stakeholders.

Our interaction with stakeholders

Strong and productive relationships with all stakeholders – Government, the financial sector, business, labour and customers – are needed to deliver value. Despite a marked improvement over the past two years, public sentiment towards Eskom remains poor.

Refer to "Our role in communities – Our reputation" on page 131 for additional information

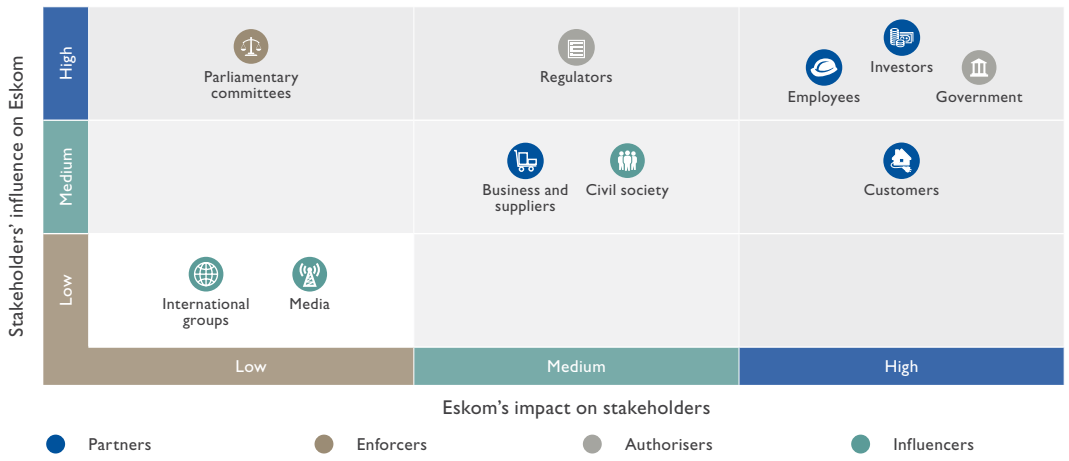
We believe that transparent reporting to the shareholder, our stakeholders and the broader public (our direct and indirect customers) is key to restoring trust in Eskom. Advocacy and stakeholder engagement remain key enablers of our strategy and turnaround plan and, as such, our engagements with stakeholders are carefully planned in terms of the approach, scope and intended outcome.

Our stakeholder engagement plans are developed to address the challenges facing Eskom's structural, financial and operational sustainability. Several strategic platforms were created during the year to engage on issues of Eskom's legal separation, Just Energy Transition and repurposing of power stations. These meetings were used to clarify Eskom's security of supply and decarbonisation value proposition, as well as the socio-economic contribution and trade-offs we have to balance. The success of our turnaround programme will rely both on our commitment and the support of our stakeholders to achieve a sustainable energy future for South Africa.

Stakeholder landscape

We operate in a broad and extensive stakeholder landscape with divergent and occasionally competing stakeholder needs and concerns. We have classified key stakeholder groups as authorisers, influencers, partners or enforcers. Stakeholder groups have been categorised based on their perceived influence on Eskom, and our impact on them.

As a state-owned entity, the requirements of the South African Government are vital to what we do. DPE acts as our shareholder, setting the mandate on which we must deliver, while other departments create policy within legislative frameworks or provide oversight of our operations. Alignment with DPE, DMRE and other government departments is key to ensuring that we create a sustainable electricity supply industry through DPE's Roadmap.



The Board is satisfied that it has identified all key stakeholders, their significance and role. The relationship with Parliamentary committees has been identified as an area for improvement. GRAD is enhancing processes to ensure Eskom maintains strong relationships with all key stakeholders, in accordance with our stakeholder engagement strategy.

We must rebuild trust and strengthen confidence in Eskom by implementing our turnaround plan to ensure that we can deliver on our mandate and DPE's Roadmap. As part of that process, we need the continued support and commitment, not only of our employees, but of all stakeholders as we transition towards a more desirable future for Eskom and the country. Improving the quality of our relationships with stakeholders will support that process.

Issues raised by stakeholders

Those issues that matter to our stakeholders often directly affect our ability to create value and to execute our strategic objectives. As such, we consider these matters in our strategic planning, as well as in the determination of material matters.

Issues raised by different groups include the following:

Material matters	Issues raised	Stakeholder groups
Government support and debt structure	Government support and guarantees; debt management; foreign borrowing limits; management of loan agreements; credit ratings; funding plans and debt levels	Government; investors
Liquidity (short to medium term) and going concern Financial sustainability (long term)	Cost-reflective tariffs and electricity pricing; affordable electricity and tariff certainty; revenue management; municipal debt; cost containment initiatives; cash projections and liquidity; financial sustainability	Government; Parliamentary committees; regulators; investors; customers; business and industry; employees and organised labour; suppliers; civil society
Operational stability	Operational sustainability; availability of supply; quality and reliability of supply; impact of loadshedding; nuclear programme; customer connections; illegal connections; electrification and job creation; new build programme; workforce demobilisation; grid expansion into Africa; public-private partnerships; health and safety; skills development; supplier development, localisation and industrialisation; job creation; community development	Government; Parliamentary committees; regulators; investors; customers; business and industry; employees and organised labour; suppliers; civil society; international groups
Environmental performance and compliance Climate change and Just Energy Transition	Environmental compliance; renewable energy; new sources of energy; cleaner technology adoption; Just Energy Transition; IRP 2019; responding to climate change	Government; investors; business and industry; civil society; international groups
Governance, compliance and ethics	Performance against the shareholder compact; accountability; legal compliance; governance issues; corruption and consequence management; irregular expenditure; licence to operate	Government; Parliamentary committees; regulators; investors; business and industry; employees and organised labour; suppliers; civil society
Adequate skills and high-performance culture	Job security; employee benefits; leadership stability; strategic direction	Government; employees and organised labour; suppliers
Business separation progress	Business separation progress, particularly relating to the Transmission business	Government; regulators; investors; business and industry; employees and organised labour; international groups

Our response to issues raised

Eskom will engage consistently and collaboratively to address all the above stakeholder concerns. Most importantly, we strive to be responsible corporate citizens, ethically and socially.

Loadshedding and electricity supply

In recognition of the devastating impact of loadshedding on the economy and the country, the Group Chief Executive and Group Chief Operating Officer held frequent media briefings to update the media and the public on the system status. We have resurrected the Power Alert campaign requesting voluntary residential demand reduction when the system is most constrained during evening peaks. In response to the electricity shortage, we rolled out the "Use electricity smartly" campaign, while a public safety campaign warned electricity users against the impact of illegal connections. We further hosted the media and other key stakeholder groups at power stations to explain the source of the electricity supply crisis and our initiatives to address the issue.

Just Energy Transition

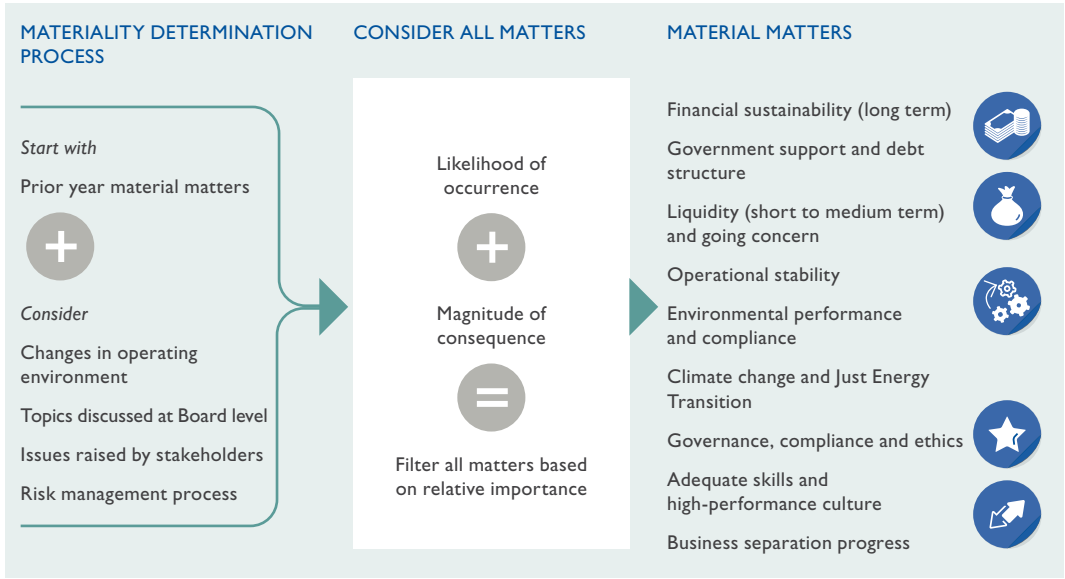
Achieving Eskom's Just Energy Transition objectives requires profound changes in market outcomes and social and political relationships. We conducted various community roadshows, stakeholder forums and workshops to engage with displaced workers and empower affected citizens. COP26 was used to position the country as a preferred investment destination and secure funding for Eskom's Just Transition to cleaner energy.

Eskom's legal separation

Various workstreams enable collaboration with stakeholders to support legal separation. We have responded to policymaker concerns through advisory committees to address decision-making challenges. Trade union concerns are dealt with at the Eskom Restructuring Consultative Forum.

MATERIAL MATTERS

Material matters are those high-likelihood, high-consequence matters that affect our ability to create, preserve or erode enterprise value in the short, medium and long term. We consider both positive and negative matters, in the context of the six capitals and our turnaround objectives.



The financial matters cover our financial results; equity and debt funding raised; liquidity; the revenue outlook given the trajectory towards cost-reflective tariffs and stagnant or declining sales volumes; cost curtailment initiatives; and escalating arrear municipal debt. Operational stability, which requires sufficient liquidity, covers both generation plant and network performance as well as ensuring sufficient generation capacity through the new build programme and IPPs. It further considers coal and water security, as well as safety performance.

The impact of the COVID-19 pandemic is no longer treated as a separate material matter, as it has become part of business as usual.

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

Our strategic risks, which are aligned to our turnaround objectives and indirectly, to the material matters, are discussed from page 46

INTEGRATING RISK AND RESILIENCE

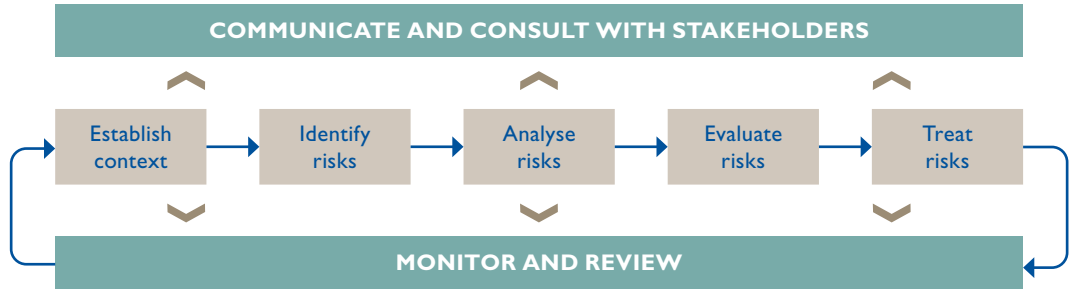
Enterprise risk management process

We have an established, integrated approach to managing risk and resilience across Eskom and its subsidiaries. The Board is responsible for the governance and oversight of risk in line with King IV™, approving the risk appetite and tolerance levels of the organisation as well as the Enterprise Risk and Resilience Management Policy and Plan.

As management is considered the first line of defence when treating risk, the responsibility to implement and execute effective risk and resilience management has been delegated to Exco by the Board. Exco and its Risk and Sustainability Committee, together with ARC, review the key priorities and deliverables of our Risk and Resilience Management Plan annually and monitor the organisation's risk management performance quarterly, in line with the Risk Appetite and Tolerance Framework.

Risk appetite refers to the amount and type of risk an organisation is prepared to pursue or accept in achieving its objectives, while risk tolerance refers to an organisation's readiness to bear the risk after risk treatment. This risk appetite and tolerance process serves as an early warning mechanism when adverse risk trends reach unacceptable limits.

We employ one integrated risk management information system for all organisational risk management information, with accountable owners assigned to each risk. Key risk indicators are in place for all risks, to ensure that they are managed proactively and to understand the rate and direction in which they are moving. Our integrated risk management process is outlined below.



In November 2020, DPE published its Risk and Integrity Management Framework (RIMF), which is aimed at strengthening practices by SOCs in the areas of risk management, sustainability reporting, conflict of interest management, vetting of employees and general ethics management. We have begun implementing our plan to address the requirements of the RIMF and thereby enhance governance, risk monitoring and risk reporting.

Enterprise resilience

We ensure compliance with the Disaster Management Act, 2002 and manage our response to major threats and disruptions through our Enterprise Resilience Programme. Technical and non-technical vulnerabilities are continuously reviewed, with simulation exercises conducted regularly to ensure that the organisation can continue to operate and is able to recover within a reasonably short time in the event of serious incidents or disasters.

Disaster risks are classified as those inherent to our operations that, while having a relatively low likelihood of materialising and adequate controls, would have a significant consequence should they materialise. The following national disaster risks are managed through our Enterprise Resilience Programme, which caters for disaster management and emergency preparedness. Accountability for risk monitoring and response planning for each has been assigned to individual Exco members.

- National blackout
- Severe supply constraint
- Nuclear incident
- Economic or financial collapse
- Cyber-attack or critical systems failure
- National industrial action
- Drought and water-related disaster
- Environment or climate disaster
- Solar or geomagnetic storm
- Pandemic
- Terrorism or political instability

The worldwide COVID-19 pandemic, as well as severe generation supply constraints, continued to affect our operations during the year under review. Eskom's Emergency Response Command Centre (ERCC) has handed over the response to the COVID-19 pandemic to the Human Resources Tactical Command Centre to be integrated into Eskom's normal business operations. However, we remain ready to activate the ERCC to respond to any of the national disaster risks should the need arise.

INTEGRATING RISK AND RESILIENCE continued

Political instability materialised in July 2021 through waves of social unrest following the incarceration of former President Jacob Zuma. Infrastructure and service delivery were impacted, predominantly in the KwaZulu-Natal Province. Eskom's disaster management plans were implemented and working groups conducted risk assessments and monitored risks relating to each area of our operations. Thankfully, no incidents were reported at Eskom sites. Nevertheless, prolonged periods of unrest could have created generation supply constraints due to the unreliability of generating plant.

Given the violent nature of the unrest, the safety and security of our people and assets were considered paramount. Non-essential work was deferred and employees and contractors were not dispatched to volatile areas without an integrated route risk assessment to prevent hijacking and other crime while responding to faults. At the height of the violent unrest, Eskom was in constant communication with the National Joint Operational Centre to address security requirements, including the safe transportation of fuel. Contracted private security, SAPS and the South African National Defence Force were deployed to provide support at various Eskom sites in affected areas.

Assessment of risk

Integrating and effectively managing risk and resilience ensures that we are able to formulate and execute our strategy, operate our business with minimal disruption, proactively leverage opportunities as they arise, and respond to and recover from disruptions should they materialise. It is therefore important that risks that affect our strategic objectives are identified, managed effectively and monitored continuously.

Strategic risks

Treating the following long-term risks are paramount for Eskom's future success:

- The financial sustainability of Eskom being compromised due to declining sales volumes, lack of cost-reflective tariffs, poor operational performance necessitating increased reliance on expensive OCGTs to avoid or minimise loadshedding, escalating arrear debt from non-paying customers and high levels of borrowings
- Deterioration in generating plant performance, loss of and inability to attract critical skills, capacity constraints, and inability to sustain and maintain transmission network reliability, leading to potential system constraints, the risk of a national blackout and a decline in stakeholder confidence
- Loss of licence to operate due to poor environmental performance, leading to plant shutdown and/or litigation
- Critical applications and various IT platforms being compromised due to attacks against network infrastructure and business systems, cyber-security shortfalls or instability leading to severe business disruptions
- Failure to transform and transition from a coal-based power system to a low-carbon and climate-resilient company at an adequate rate, while complying with policies and regulations
- Legal separation delays caused by a lack of alignment with external stakeholders, leading to reputational damage and a decline in investor confidence

Our risk landscape is monitored, tracked and reported across seven risk categories which address these long-term risks. These include finance, operations, environment and climate change, people culture and safety, information technology, stakeholder management as well as governance and compliance.

In addition to these, we are committed to executing the legal separation of Transmission, Generation and Distribution in a phased manner, in line with DPE's Roadmap, and to ensuring Eskom's Just Energy Transition. These are critical for delivering on our long-term strategy, transforming the electricity supply industry and ensuring the sustainability of Eskom into the future.

Refer to "Just Energy Transition as a thrust to our strategy" from page 38 and "Progress on business separation" from page 40 for further information

Risk appetite statement per risk category	Risk summary	Related material matters	High-level treatment options
Finance High appetite to reduce Eskom's loss to less than R5 billion by the end of the 2024 financial year by increasing revenue, operating at an efficient cost base, improving debt collection and stabilising the balance sheet. This will require support from Government and possible policy changes, where necessary	Eskom's liquidity in the short term and financial sustainability in the medium to long term are at risk due to a declining customer base, escalating arrear municipal debt, high levels of borrowings and debt servicing, unacceptable levels of fraud and corruption, as well as regulatory uncertainty and the lack of cost-reflective tariffs. These challenges may lead to compromised operations, an inability to maintain Eskom's status as a going concern and failure to meet our mandate	Financial sustainability (long term) Government support & debt structure Liquidity (short to medium term) & going concern Operational stability	• Review of standard tariff plans, structures and rates, as well as legal review of NERSA decisions • Government support to bolster liquidity • The Eskom Compact signed by labour, business and Government at NEDLAC • Eskom's turnaround plan, including cost curtailment initiatives • Weekly meetings with DPE and National Treasury, focusing on liquidity management • Engagement with DPE and National Treasury on ways to address the debt burden • Municipal debt management strategy and escalation of arrear municipal debt challenges to Government
Operations High appetite to meet the country's electricity demand and prevent a national blackout and protect the national grid using load reduction and loadshedding as control measures. This will be achieved by operating plant efficiently and safely through a skilled and competent workforce, while limiting environmental harm and obtaining support from Government where required	The deterioration in operational performance is linked to Eskom's constrained financial position. This is exacerbated by ageing plant, lack of adequate maintenance over many years, running ageing plant at unacceptably high utilisation levels, coal quality challenges at some stations, the loss of core, critical and scarce skills, procurement and National Treasury delays, as well as low staff morale. In addition, new plant not achieving desired levels of performance, due to a combination of plant design deficiencies and operational and maintenance inefficiencies, contribute to supply constraints. The ageing national grid is also plagued with intolerable levels of theft and vandalism of network equipment. Delays in connecting IPPs to the grid adds to the unreliability of power supply. These factors pose a fundamental risk of loadshedding to protect the national grid from a national blackout, leading to a further decline in stakeholder confidence	Liquidity (short to medium term) & going concern Operational stability Adequate skills & high-performance culture	• Generation recovery plan • Koeberg long-term operation project to avoid shutdown in 2024 • Eskom's turnaround plan, focused on improving reliability, reducing loadshedding and addressing design defects • Transmission sustainability improvement plan • Distribution energy losses initiatives programme • Plans are being revised to respond to increasing network equipment crime • Improving consequence management to address poor performance • Engagements to address National Treasury delays in procurement processes
Environment and climate change High appetite to comply with environmental regulations and legislation, to prevent harm or damage to the environment and people living in communities close to Eskom's plant High appetite to transition to a low-carbon and climate-resilient company, while addressing socio-economic imperatives and complying with policies and regulations	Poor environmental performance and non-compliance with environmental regulations and legislation could lead to the loss of Eskom's licence to operate and plant shutdown. Contributing to this risk is the lack of disciplined execution of operations as well as a lack of adequate project management and funding to implement initiatives aimed at ensuring environmental compliance and the reduction of our environmental footprint Eskom's failure to transform and transition from a coal-based power system to a low-carbon and climate-resilient company could lead to penalties from authorities and/or potential loss of Eskom's social licence to operate. This is driven by a lack of alignment on the net zero pathway, coupled with no allocation by DMRE of low-carbon technology to Eskom, which may lead to failure to determine an optimal combination of clean technologies to achieve emission reductions	Environmental performance & compliance Climate change & Just Energy Transition Adequate skills & high-performance culture	• Extensive integrated work on a response that considers emissions, cost, tariff, net present value, practicality, alternate technology options and energy provision • Securing funding for emission projects and Eskom's Just Energy Transition • Establishment of a Clean Energy Department in Generation to oversee the development, design, construction and execution of clean energy projects

INTEGRATING RISK AND RESILIENCE continued

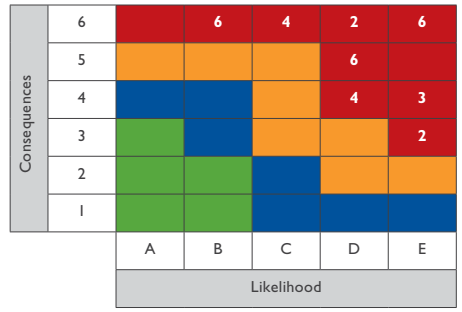
Risk appetite statement per risk category	Risk summary	Related material matters	High-level treatment options
People culture and safety High appetite for a skilled workforce and a high-performance ethical culture High appetite for Zero Harm among employees, contractors and members of the public by eliminating fatalities and reducing injuries. Furthermore, there is no appetite to negatively affect human health, both physical and mental	The loss and lack of skills is a root cause to many risks and will continue to impact Eskom's sustainability. In addition, a breakdown in relationship with labour and management affects productivity and creates a harmful working environment, and in extreme cases, could affect our ability to supply electricity to customers. The health and safety of people are compromised by a failure to effectively implement occupational health and safety improvement initiatives	Operational stability Adequate skills & high-performance culture	• COVID-19 protocols and rollout of the employee vaccine programme • Safety awareness and education programmes • Staff engagements • HR strategy implementation, including a skills audit • Implementation of a hybrid work model • Development of Eskom's culture transformation programme to deliver a high-performance ethical culture
Information technology High appetite to proactively improve Eskom's information technology direction, while enabling, empowering and co-creating innovative technology solutions for Eskom's customers	The evolving IT environment requires continuous investment to prevent cyber-security intrusions affecting information and operational technology. This is exacerbated by cyber-security shortfalls and the loss of core, scarce and critical IT skills, which pose a risk to Eskom's IT infrastructure, network and business systems, and may lead to compromised confidentiality and integrity of business information	Operational stability Adequate skills & high-performance culture	• Continual enforcement of security compliance on all applications, as well as collaboration between Group IT and application vendors • Addressing critical supplier disputes • Development of new key risk indicators to enhance risk monitoring • Megawatt Park data centre replacement project
Stakeholder management High appetite to enhance Eskom's relationship with stakeholders, including the communities in which we operate, Government and the shareholder, to achieve common value. This is underpinned by an effective, efficient, timeous and integrated communication plan and by managing external risk factors that have an impact on Eskom's sustainability	Failure to sufficiently assess and proactively respond to external stakeholder expectations impacts our financial and operational sustainability. In addition, the decline in socio-economic conditions exacerbates associated community-related risks such as theft and vandalism of our infrastructure and potential harm to members of the public exposed to our products and infrastructure, leading to legal, reputational and financial risks	Government support & debt structure Governance, compliance & ethics	• Implementation of the stakeholder engagement plan, including continuous internal and external stakeholder engagements • Various engagements with DPE and National Treasury • Implementation of Eskom's reputation strategy
Governance and compliance No appetite for any non-compliance with obligations which may cause harm to the organisation, including non-compliance with compulsory regulations and legislation, as well as voluntary commitments. In addition, there is no appetite for unethical conduct, fraud, corruption or criminal behaviour in general	Non-compliance with sections 50 and 51 of the PFMA, 1999, has proven an ongoing challenge and has led to qualified audit opinions for the past few years. This has been caused by a lack of specialised oversight on key PFMA-related processes, which could lead to reputational damage, financial loss, fruitless and wasteful expenditure and criminal prosecution of directors This is exacerbated by fraud, corruption, unethical behaviour, employees not complying with policies and procedures, as well as regulatory and litigation challenges facing Eskom	Operational stability Environmental performance & compliance Governance, compliance & ethics	• Addressing vacancies on the Board • Implementation of the Fraud Prevention Plan • Establishment of a dedicated task team to address the recommendations of the Judicial Commission of Inquiry into Allegations of State Capture (Zondo Commission) • System improvements to enhance controls, management of conflicts of interest and consequence management • Reviews and investigations by the Assurance and Forensic Department • Establishment of the PFMA Loss Control Department to execute and report on PFMA compliance • Implementation of the procurement roadmap to improve commercial governance processes • Ethics risk assessment, as well as compulsory training on ethics, fraud awareness and PFMA requirements

Organisational risks

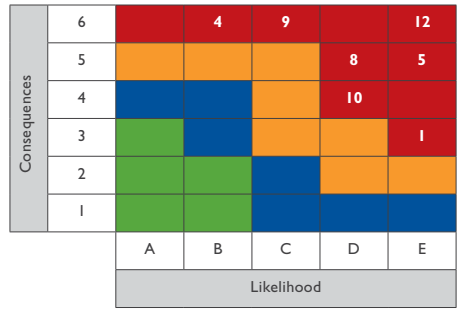
Organisational risks are classified from Priority I risks at the highest level to Priority IV risks at the lowest, based on the magnitude of the consequence and likelihood of the occurrence. All Priority 1 and emerging risks are reported quarterly to Exco and the Board, which provide oversight as recommended by King IV™.

At 31 March 2022, we had 33 Priority I risks (2021: 49), which include strategic risks and those affecting achievement of the shareholder compact, with their corresponding positions on the risk matrix shown below in terms of our Risk Appetite and Tolerance Framework.

Priority 1 level risks at March 2022



Priority 1 level risks at March 2021



We have achieved an improvement in the number of Priority 1 risks as a result of several risk management interventions implemented during the year. An "attacking the causes" initiative was introduced to address root causes and ensure alignment to risk controls. Furthermore, information captured in the risk management system was reviewed by divisional risk managers and independently reviewed by the Enterprise Risk Management Department. A number of findings were identified and shared with risk owners to address the shortcomings. Risk inquiries were also conducted on long outstanding Priority 1 risks to improve management accountability.

Regrettably, financial sustainability and liquidity risks continue to remain at the highest level of risk, namely 6E, and are a contributing factor to many other risks in the business. Treatment plans are monitored to ensure that they are achievable within specified timelines and to identify where escalation is required for risks that are outside of Eskom's control.

Emerging risks

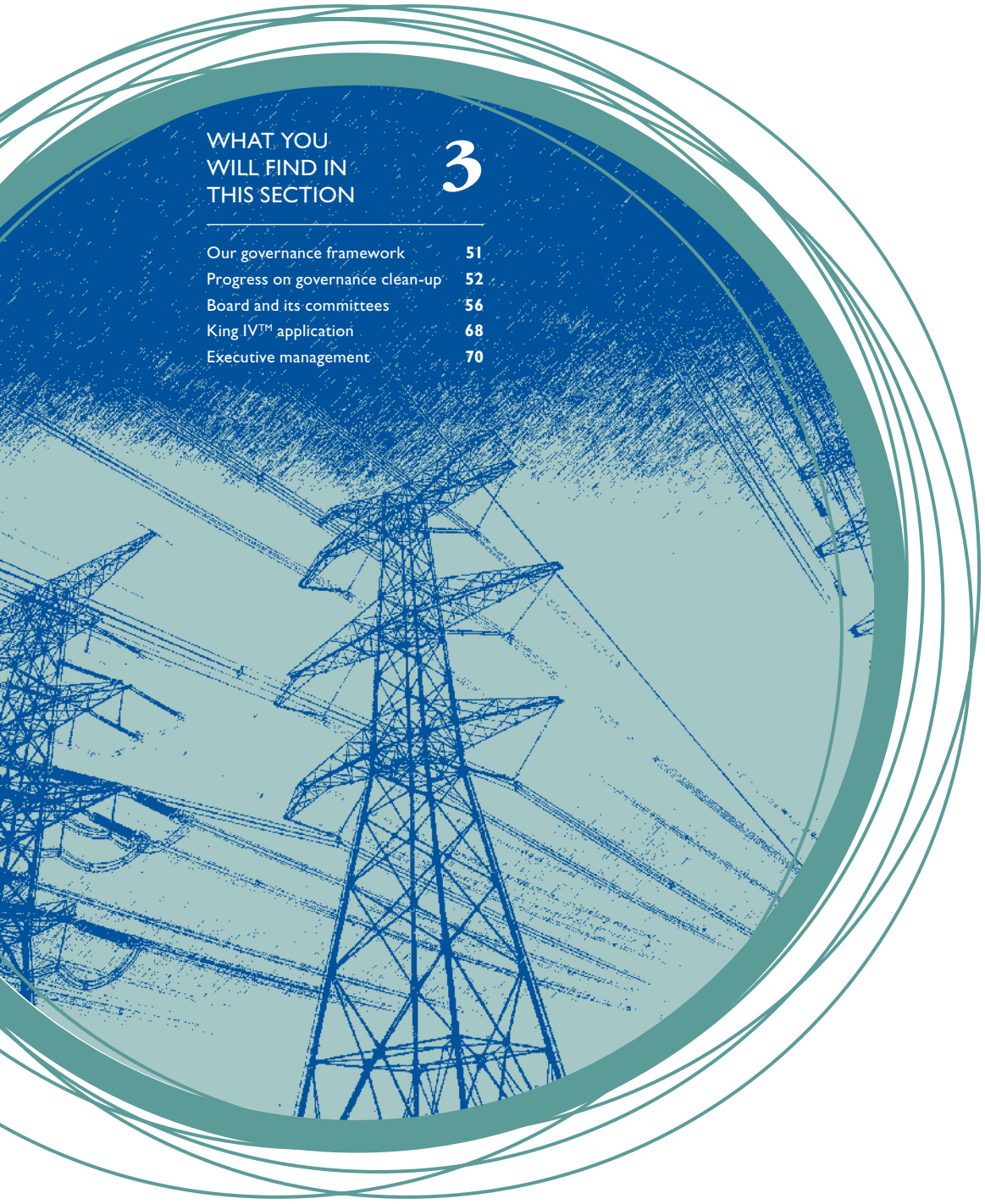
Emerging risks are assessed on a regular basis through scanning our environment and identifying changes in our operating environment due to global and local developments, as well as changes reported in the business. The identification of emerging risks is critical to ensure that these risks are managed proactively. As with existing organisational risks, emerging risks are tracked and reported quarterly to Exco and the Board.

The Russian invasion of Ukraine in February 2022 poses a significant emerging risk to Eskom and the broader energy sector. Eskom is likely to continue to be affected by supply chain disruptions, rising fuel prices and declining fuel availability, which will lead to increased costs amid an already constrained financial position and further generation supply constraints, thereby increasing the risk of loadshedding.

To mitigate this risk, our financial plan for the 2023 financial year has been adjusted to accommodate potential fuel price fluctuations. We will collaborate with suppliers and Government to ensure continued availability of critical resources.

Refer to "Our finances – Fuel price sensitivity" on page 78 for further information on the risk to fuel prices

GOVERNANCE, LEADERSHIP AND ETHICS



WHAT YOU WILL FIND IN THIS SECTION **3**

OUR GOVERNANCE FRAMEWORK AT 31 MARCH 2022

Department of Public Enterprises

Eskom's mandate is based on the shareholder's Strategic Intent Statement. Our annual performance is measured against the shareholder compact

Eskom Holdings SOC Ltd

King IV™ and our Code of Ethics, "The Way", guide the way we do business

Board of Directors

- Audit and Risk (oversight of internal and external audit)
- Investment and Finance
- People and Governance
- Social, Ethics and Sustainability
- Strategy

For information on the Board and its committees, refer to "Board and its committees" from page 56

Executive Management Committee

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

For information on Exco and its subcommittees, refer to "Executive management" on page 70

Divisional boards

- Generation
- Transmission
- Distribution

Eskom's functional and legal separation is discussed under "Our strategic context" from page 28

An essential component of our governance framework is ensuring clarity of roles between the shareholder, the Board and management of the Eskom group, to achieve our strategic priorities within the legislative, regulatory and policy environment in which we operate. Clear accountability for decision-making is assigned through our Delegation of Authority (DoA) and Significance and Materiality Frameworks (SMF), which guide the referral of matters from management to the Board, and from there to DPE and National Treasury, where required.

The Board, supported by several committees, is the focal point of our governance framework and promotes good corporate citizenship. The Board is also accountable to the shareholder for performance against financial, operational and other business expectations, and to the organisation for providing strategic direction and ensuring its sustainability and prosperity. The powers of the Board and the shareholder are defined in Eskom's Memorandum of Incorporation (MOI). Apart from the Group Chief Executive (GCE) and the Chief Financial Officer (CFO), the Board is composed entirely of independent non-executive directors.

The Executive Management Committee (Exco) is accountable for exercising executive control over day-to-day operations to deliver on the strategy set out by the Board.

Refer to page 10 to 13 for the composition of the Board and Exco, including information on skills as well as racial, gender and age diversity

Divisional boards for Generation, Transmission and Distribution were established to drive separate accountability for each division, as a transitional structure and a first step towards Eskom's legal separation. The divisional boards do not constitute a board of directors in accordance with the Companies Act, 2008, but function as operational boards until the legal separation is concluded. Although the divisional boards function relatively independently, they report to Exco on a regular basis to ensure that decision-making is aligned with Eskom's overall strategy.

Eskom's legal separation will ultimately result in the formation of wholly-owned subsidiaries with independent boards for Transmission, Generation and Distribution, starting with National Transmission Company South Africa SOC Ltd. The boards of the wholly-owned subsidiaries will still be accountable to the Board of Eskom Holdings SOC Ltd, in line with good governance practices.

PROGRESS ON GOVERNANCE CLEAN-UP

Eskom has experienced corporate governance breaches in the past, particularly relating to allegations of state capture surrounding state-owned companies (SOCs) in South Africa. These matters have been reported on widely in the media and have been the subject of numerous investigations and inquiries, as discussed in previous integrated reports.

Most notably, the Judicial Commission of Inquiry into Allegations of State Capture, led by Deputy Chief Justice Raymond Zondo, commenced in August 2018. The Zondo Commission published the first parts of its report in early 2022 and concluded its work in June 2022. Part IV Volumes 3 and 4 were dedicated to allegations of state capture at Eskom, while Part I Volume 2 contained a limited number of recommendations related to Eskom. The Commission found serious cases of fraud and corruption perpetrated by former executives, former Board members, suppliers and their associates.

Recommendations to address these findings include instituting criminal charges; ensuring appropriate consequence management against employees and suppliers; pursuing director delinquency proceedings and civil recovery of financial losses suffered by Eskom; among others.

These recommendations are consistent with the Board's plan to root out fraud and corruption, promote an ethical culture and address issues related to past corporate governance breaches, with the aim of restoring Eskom's reputation as a trusted corporate citizen and improving its financial and operational sustainability.

Our response to these governance challenges centres on the following key areas:

- Conducting proactive lifestyle audits and reviews of conflicts of interest
- Enhancing ethics and anti-fraud frameworks, as well as consequence management
- Instituting disciplinary proceedings against employees and suppliers, as well as pursuing criminal and civil legal action where appropriate
- Establishing a dedicated task team to address the recommendations of the Zondo Commission
- Strengthening PFMA and commercial governance processes

These actions are part of a collective effort to improve trust and restore investor confidence. We continue to affirm a zero tolerance to fraud, corruption and other forms of economic crime or dishonest activity. Developments are discussed in further detail 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

In last year's report, we noted that the lifestyle audits of 383 executives and senior managers had been concluded, with 34 high-risk cases handed over to the Special Investigating Unit (SIU) for investigation. Of these, one official was dismissed on unrelated charges, 17 cases were closed as a result of no adverse findings identified or resignations during the process, and five cases are still under investigation by the SIU. The remaining 11 cases were referred to Eskom for disciplinary action, with seven employees found guilty and subject to sanctions ranging from written warnings to suspensions.

Disciplinary processes continue to be conducted on the approximately 3 800 employees below executive and senior management level mentioned in last year's report, who had not declared business-related interests or had performed private work without prior approval. Around 94% of these matters were resolved by year end.

In response to these findings, we have enhanced our conflict of interest declaration system by linking directly to the Companies and Intellectual Property Commission (CIPC) database. The upgrade was implemented from 1 April 2021 to verify declarations made during the 2022 financial year. Exceptions that raise potential non-compliance with our conflict of interest policy are referred to the Assurance and Forensic Department (A&F), our internal audit and forensics function, for investigation.

Ethics, fraud and consequence management

The implementation of our Fraud Risk Prevention Plan is progressing well, with the aim of maximising fraud prevention and enhancing good corporate governance practices. The Anti-Fraud and Corruption Integration Committee (AFCIC) is monitoring implementation of the plan and ensuring integration between forensic, legal, ethics, industrial relations and supplier review functions. Progress is reported to Exco and the Audit and Risk Committee (ARC) on a regular basis.

As part of this plan, executive management has tasked A&F with visiting each power station to identify possible fraud risks and opportunities for improved fraud detection and response activities. By 30 September 2022, visits have been conducted at 16 power stations. Four forensic cases relating to findings at Kendal and Tutuka Power Stations have been registered following these visits and the investigations are ongoing.

In addition, the AFCIC is assessing our alignment to the goals and purpose of the Organisation for Economic Co-operation and Development's (OECD) recommendations on anti-corruption, which will be used to identify further areas for improvement in the Fraud Risk Prevention Plan.

The Human Resources Division (HR) has revised its reference flagging procedures to include employees who resigned before disciplinary processes or investigations could be concluded. Previously, only employees who were dismissed were flagged. Individuals who have been flagged cannot be employed in Eskom for 10 years and cannot serve as an employee of a contractor on Eskom sites. The withholding of pension benefits and the recovery of losses or damages to Eskom from flagged employees are also outlined in the revised procedure.

Investigations and disciplinary action

All of our stakeholders are encouraged to report suspected incidents of unlawful or irregular conduct involving Eskom's directors, employees or suppliers through our whistle-blowing channels. These channels are managed by an independent service provider to ensure the integrity and confidentiality of the process. All incidents are acknowledged within 24 hours and cases are registered for forensic investigation after conducting an initial assessment of the incident.

Refer to the inside back cover for the contact details of our whistle-blowing channels

FORENSIC INVESTIGATIONS	
1 669 reports to A&F through whistle-blowing channels	
128 new cases registered for investigation	**113** forensic investigations concluded
253 cases under investigation at year end, relating to current and prior years	

SANCTIONS
192 employees recommended for disciplinary action
69 suppliers recommended for review to the Supplier Review Committee
104 confirmed cases of fraud and corruption registered with the South African Police Services (SAPS)
5 cases on trial before the criminal courts

We are employing data analysis to aid in forensic investigations and identify suspicious transactions. Unfortunately, our investigations have revealed similar themes to previous years, with instances of undeclared conflicts of interest, failure to obtain permission to perform private work, improper contract management, as well as general procurement irregularities continuing. Non-compliance with Eskom's policies and procedures remains the most prevalent root cause of these issues. A&F has recommended control enhancements in affected areas to prevent recurrence; management actions to rectify identified control deficiencies are being monitored.

Regrettably, instituting appropriate disciplinary proceedings against employees and suppliers remains slow, resulting in a backlog of cases. A&F, HR, the PFMA Loss Control Department and the Supplier Review Committee are collaborating to improve the effectiveness of consequence management processes, including reporting of outstanding cases. The number of long outstanding disciplinary actions are being monitored at executive and Board level. A disciplinary tribunal consisting of internal and external experts has been established to expedite disciplinary action and policies and procedures are also being reviewed to ensure consistent application of sanctions.

Compliance with the Prevention and Combating of Corrupt Activities Act, 2004 requires referral to law enforcement agencies in instances where amounts involved are R100 000 and more. However, Eskom has adopted a zero-tolerance approach to fraud and corruption, in which every matter where evidence of criminality exists are referred to law enforcement agencies for criminal investigation, even if implicated individuals have resigned from Eskom. We also facilitate workshops on our procurement processes with law enforcement agencies to improve the turnaround time and quality of investigations into Eskom cases. Where appropriate, civil proceedings are instituted to recover losses suffered by Eskom. During the year, A&F introduced a process of non-litigation recovery in which financial losses are recovered during the course of a forensic investigation.

An Executive Security Steering Committee, chaired by the Group Chief Operating Officer (GCOO), has been established to address security risks relating to criminal acts, including the theft of copper, vandalism of infrastructure and sabotage incidents. Improved security measures are being implemented to manage these risks and reduce the number of incidents and associated losses through appropriate use of technology and the deployment of additional security.

Initiatives to improve the prevention of coal, diesel and fuel oil theft at Eskom's power stations are also under way. These are critical commodities for Eskom and are frequently targeted by known criminal syndicates. In particular, coal deliveries by road are at risk of theft and coal-swapping for inferior quality coal. We have implemented operational control mechanisms, such as tamper proof seals, and phased out free carrier agreement transporter contracts since December 2021. All coal supply agreements require suppliers to retain responsibility for and ownership of the coal until it is weighed at the power station. Coal supplies are also pre-certified by laboratories to ensure they adhere to contractual quality before being delivered.

Despite these interventions, investigations have discovered that in some cases these processes are deliberately bypassed through collusion by criminal elements. Our focus is on gathering intelligence on key role players within and external to Eskom, as well as the syndicated operations of the criminal networks. We are collaborating with law enforcement and other criminal justice agencies to address possible shortcomings which prevent successful investigations and prosecutions on these matters.

Major investigations

External investigations into major cases of suspected fraud and corruption involving former employees, directors and

PROGRESS ON GOVERNANCE CLEAN-UP continued

suppliers continue. In most cases, criminal convictions and civil judgments are dependent on the justice system, together with successful investigation and prosecution by law enforcement agencies. This remains a lengthy process and, regrettably, there have been no substantial outcomes in the cases covered in last year's report, as investigations and legal proceedings remain under way.

Refer to page 19 of our 2021 integrated report for detail on the criminal and civil cases being pursued

Most notably, we are pursuing civil recovery of approximately R3.8 billion relating to a prepayment to Tegeta Exploration and Resources (Pty) Ltd. While limited progress has been achieved to date, we are encouraged by the arrests of Rajesh and Atul Gupta in June 2022.

Mr Brian Molefe and Mr Anoj Singh were arrested in August 2022 on fraud, corruption and money laundering charges relating to Transnet. Mr Matshela Koko was arrested in October 2022 on similar charges relating to ABB and Impulse International. The three former executives are also defendants in the Tegeta matter. Legal processes are ongoing in these matters.

We continue to provide the necessary support to law enforcement authorities, including the SIU, the National Prosecuting Authority (NPA), the Directorate of Priority Crime Investigations (the Hawks) and SAPS in these and other matters.

Eskom's response to the report of the Zondo Commission

Eskom has established a dedicated task team to review the Zondo Commission report in order to address the recommendations of the Commission and ensure appropriate legal remedies are pursued.

The Commission acknowledged the proactive steps taken by Eskom to eradicate state capture within the organisation, with significant matters dealt with by both Eskom and the SIU to date, which have resulted in the recovery of more than R2 billion.

Eskom's task team has developed an implementation plan, the latest version of which was submitted to the Presidency in October 2022. Key focus areas include civil recoveries; consequence management for implicated suppliers, former employees and former directors; an in-depth risk assessment; and the review of policies and procedures, specifically related to procurement and HR, to support the eradication of fraud and corruption.

We are working with DPE, other SOCs and law enforcement agencies to ensure that the recommendations are adequately addressed. Where the recommendations are not within Eskom's control, as in the case of criminal prosecution, we will continue to support law enforcement authorities to ensure the successful prosecution of implicated suppliers, former employees, former directors and associated perpetrators.

The executive leadership of the NPA and Eskom have committed to collaborating in their response to the serious crimes stemming from the Zondo Commission report. The NPA and its Investigating Directorate will work with Eskom's forensic investigators and legal experts to support its efforts to ensure successful prosecution of alleged perpetrators of complex and high-profile cases.

The NPA has also committed to increasing its collaboration with law enforcement authorities to focus on major crimes, such as cable theft and damage to essential infrastructure, which seriously threaten the operational sustainability of Eskom and other SOCs.

A summary of some of the key focus areas of our implementation plan are discussed below.

Consequence management of delinquent employees

Employees implicated in state capture were dismissed or resigned in early 2018. There are currently no outstanding disciplinary actions against individuals highlighted in the Zondo Commission report and no implicated individuals are currently employed by Eskom. We are reviewing our disciplinary procedures to ensure consequence management is dealt with more timeously and appropriately.

Criminal proceedings

We are monitoring all criminal matters arising from the Zondo Commission report and have engaged with the NPA regarding progress on these matters. As mentioned, we are working with law enforcement agencies to bring these matters to court as soon as possible.

Civil recoveries

Several civil recovery proceedings have been launched by Eskom and the SIU. The SIU has sought to extend its mandate to include all matters raised in the Zondo Commission report. Our task team is monitoring civil recovery proceedings where legal progress remains slow.

Director delinquency proceedings

From a legal perspective, the most effective avenue to charge former directors and officials is through delinquency proceedings under the Companies Act, 2008. DPE is coordinating this process across all SOCs. Eskom has compiled detailed evidence relating to all implicated former directors to aid in the delinquency proceedings.

Reporting of former delinquent directors and officials to the relevant professional body

The South African Institute of Chartered Accountants instituted disciplinary proceedings against Eskom's former Chief Financial Officer, Mr Anoj Singh, and revoked his professional membership in August 2020. Similar proceedings are being considered for other implicated individuals and we are working with DPE and the Department of Justice on these matters.

Blacklisting of suppliers

We are investigating the option of placing a provisional block on new contracts for all implicated suppliers while awaiting the conclusion of governance processes to blacklist these suppliers. We are also reviewing our supplier disciplinary procedures and processes to allow supplier sanctions to take place more effectively going forward.

Crime landscape risk assessment

We are conducting a full assessment of Eskom's crime risk management landscape together with an independent service provider, which will consider risks related to bribery and corruption, financial crime, physical asset crime, cybercrime and money laundering. Once this assessment is concluded, a crime risk management programme will be embedded as part of Eskom's standard operating procedures.

Review of policies and procedures

The task team has reviewed and considered improvements to key procurement and HR policies and procedures to improve the implementation of consequence management. These policies and procedures will be amended within the parameters of the law. We are also in the process of implementing automated systems, including price check tools, digitalisation of stock control and e-auction systems, to proactively address fraud- and corruption-related risks in the procurement of goods and services.

Improvements to address PFMA and commercial governance processes

Eskom has once again received a qualified opinion relating to PFMA information disclosed in the annual financial statements, as associated financial records were not complete or accurately maintained in line with legislative requirements.

The Board is not satisfied that prior year qualification issues have been adequately addressed and considers this a significant focus area. Systems, controls, resources, policies and procedures as well as reporting structures will need to be enhanced to address this challenge.

Disclosure of information required in terms of the PFMA is set out in note 51 in the consolidated annual financial statements, while the basis on which the audit opinion was qualified is explained in the independent audit report

At 31 March 2022, the closing balance of irregular expenditure amounted to R67.1 billion, the vast majority of which relates to prior year transgressions. The opening balance has been restated from R37.2 billion to R59.2 billion. The process of collecting information and reporting on irregular expenditure continues to be a focus area to reduce the occurrence of restatements in the future.

Regrettably, the process of obtaining condonations from National Treasury has shown little progress for a number of years. Notice of condonation of 18 transactions valued at R527 million was received during the year. We are working with DPE and National Treasury to ring-fence historical irregular expenditure to minimise the continued impact on our annual financial statements.

The closing balance of fruitless and wasteful expenditure amounted to R5 billion at year end, of which only R26 million relates to the year under review. The 2021 closing balance was restated from R4.5 billion to R5 billion. Losses due to criminal conduct of R2.8 billion (2021: R2.5 billion) were reported during the year, of which the majority related to non-technical energy losses including electricity theft.

We have established a centralised Loss Control Department as required in terms of National Treasury Instructions No. 02 and 03 of 2019/2020. From 1 April 2021, all assessments and determinations relating to the PFMA are performed by this department. Training and awareness on revised PFMA reporting procedures and guidelines have been implemented and are mandatory for all managerial and executive employees.

In addition, Eskom has embarked on an audit recovery programme to address its challenges with PFMA reporting, which includes assessing the effectiveness of the procurement compliance monitoring systems and other internal controls. A detailed audit recovery plan was developed in February 2022 and will be enhanced to address findings arising from the external audit.

Our Procurement and Supply Chain Management Department (P&SCM) has implemented several initiatives to reduce the occurrence of irregular expenditure and improve commercial governance processes through its procurement roadmap. In line with the conditions of the Special Appropriation Act, 2019, progress on the procurement roadmap is reported to National Treasury and DPE on a regular basis. The procurement roadmap aims to:

- Reduce the number of cancellations of published tenders
- Improve compliance with procurement plans
- Reduce the number of contract modifications, expansions and deviations
- Enhance contract management and performance monitoring

Continuous reviews and monitoring are under way to limit the use of low-value procurement mechanisms and identify contracting opportunities in accordance with revised procurement procedures.

Reportable irregularities raised by the external auditors

In terms of section 45 of the Auditing Profession Act, 2005, the external auditors are required to report any reportable irregularities (RIs) to the Independent Regulatory Board for Auditors, and only then report the matter to Eskom, affording management an opportunity to respond to and/or rectify the matter.

A number of RIs were reported during previous financial years; 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.

Several RIs have been raised in respect of the audit of the 2022 financial year, some of which are a continuation of matters from previous financial years.

Details of the reportable irregularities, as well as the action taken and status of the respective matters, are discussed in note 52 in the consolidated annual financial statements

BOARD AND ITS COMMITTEES

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

Board composition and appointments

The shareholder approves the appointment of all directors in accordance with our MOI and nomination requirements outlined in Government's *Handbook For the Appointment of Persons to Boards of State and State-Controlled Institutions*. The shareholder is responsible for filling Board vacancies and for managing targets for racial, gender, age and disability diversity, as well as succession planning for the Board. The People and Governance Committee (PGC) assists the shareholder by identifying and highlighting skills, experience and diversity needs of the Board, where required.

In terms of our MOI, the Board may consist of a maximum of 15 directors. The majority of the Board must be independent non-executive directors, and there must be at least two executive directors. Non-executive directors are appointed for a period of three years, reviewable at the annual general meeting, and may not serve more than three consecutive terms.

Ms Nelisiwe Magubane resigned as an independent non-executive director and chairperson of the Investment and Finance Committee (IFC) with effect from 15 August 2021. Ms Busisiwe Mavuso was subsequently appointed as acting chairperson of the committee.

Consequently, the Board comprised only eight directors at year end, including six independent non-executive directors and two executive directors. The Board requested the shareholder to appoint additional non-executive directors, in line with the skills and diversity needs identified by PGC.

After year end, Ms Busisiwe Mavuso resigned as an independent non-executive director with effect from 27 September 2022.

On 30 September 2022, the shareholder announced the appointment of 12 new Board members with effect from 1 October 2022. The terms of Prof. Malegapuru Makgoba, Prof. Tshepo Mongalo, Dr Banothile Makhubela and Dr Pulane Molokwane ended on 30 September 2022 and were not renewed, while Dr Rod Crompton, the GCE and the CFO remained from the previous Board. The new Board is now fully constituted with 15 directors.

Refer to "Board restructuring" on pages 10 and 11 for the Board composition at year end and at 1 October 2022

Mr André de Ruyter announced his resignation as Group Chief Executive on 14 December 2022. He will continue to serve in the position until 31 March 2023 to ensure continuity while a successor is recruited.

Board committees

The Board is supported by various committees, to which it delegates authority without diluting its own accountability. These committees exercise their authority in accordance with terms of reference approved by the Board, and which define their composition, mandate, roles and responsibilities. The terms of reference of each committee are aligned to the DoA.

All Board committees are comprised of and chaired by independent non-executive directors. When required, the GCE, CFO, GCOO and senior management from various functional areas attend committee meetings as officials.

Board evaluation

Although King IV™ recommends that board evaluations be performed every second year, we conduct one annually in line with DPE's SOC Board Evaluation Framework.

In July 2021, an external service provider conducted an independent board evaluation for the 2021 financial year. Based on the findings, a feedback report was submitted to the shareholder and the Board improvement plan was updated to monitor progress in addressing areas of concern.

The board evaluation covered the same themes as the Board's self-assessment for the 2020 financial year, with each area discussed in further detail below. The average scores (out of 5) achieved across each area are shown below.

A follow-up board evaluation was conducted by an independent service provider in July 2022 to measure progress against the Board improvement plan during the 2022 financial year. The evaluation concluded that close to 60% of the recommendations in the Board improvement plan had been adequately addressed. The report was approved by the previous Board in September 2022 for consideration by the shareholder.

Board composition, skills and experience

The Board was dissatisfied with its size. The lack of a fully constituted Board led to skills and experience gaps which needed to be addressed, particularly in the areas of accounting, assurance, corporate finance, electrical engineering and large project management. Requests to appoint additional non-executive directors were submitted to the shareholder, to strengthen the Board and address its diversity needs. A fully constituted Board was appointed from 1 October 2022.

2.25 Board composition	**4.63** Board responsibilities	**4.35** Ethical leadership	**3.42** Board meetings
3.84 Sustainability	**3.72** Relationship with management	**4.25** Stakeholder engagement	**3.81** Board Chairman

Board responsibilities

The Board's involvement in operational matters limited its focus on oversight, strategic planning and emerging issues. The terms of reference and agendas for the Board and its committees are being structured to address strategic oversight matters more clearly.

The most recent review of the DoA focused on the mandate of IFC, to withdraw the Board's involvement in the approval of procurement transactions. Work is under way to review the DoA and the SMF to adequately address the Board's involvement in, and management's responsibility for, other operational matters.

Vacancies in the Office of the Company Secretary are being filled to address capacity constraints. The Office of the Company Secretary is revising the Board's continuing education programme to address its training needs; the Board attended a number of site visits and training interventions facilitated by the Institute of Directors in South Africa NPC during the year.

Ethical leadership

Although the Board affirmed a zero tolerance towards unethical behaviour, the lack of assurance regarding Eskom's ethical culture and the inconsistent application of consequence management were highlighted by the Board as areas for improvement.

An ethics risk assessment was conducted by The Ethics Institute to enhance Eskom's ethics strategies and policies. Furthermore, Eskom's culture transformation programme has been developed to deliver a high-performance ethical culture. Feedback on consequence management has been improved with the implementation of the Fraud Risk Prevention Plan and regular reporting to relevant Board committees.

Actions taken to address unethical behaviour are discussed in "Progress on governance clean-up" from page 52. The ethics risk assessment is discussed in more detail in "Ethics based on our values" on page 65

Board meetings

The quality and lateness of submissions to the Board and its committees, as well as the inordinate number of meetings, were highlighted as a concern. Board committee calendars have been reviewed to ensure meetings are scheduled annually in advance with an agenda plan to provide direction on matters to be covered at each meeting, although special meetings may be convened to address pressing issues.

Board committees

The Board appoints members to its committees by considering the required skills, experience and diversity needs. The one exception is ARC, where the shareholder is responsible for appointing members in terms of our MOI and the Companies Act, 2008.

The Board concluded that the appointment of additional non-executive directors was urgently required for its committees to be adequately constituted, in particular IFC following the resignation of its chairperson in August 2021. Furthermore, the Board acknowledged that ARC needed to be strengthened with appropriate skills and experience in finance and assurance.

As mentioned, the mandate of IFC has been revised to remove the Board's involvement in the approval of procurement transactions and, instead, emphasise oversight through the approval of procurement strategies. Data analytics are being explored to strengthen monitoring and oversight of capital projects by IFC.

Sustainability

The Board was satisfied with its oversight of safety, health, quality, environmental, social and financial sustainability through its Social, Ethics and Sustainability Committee (SES). The committee reports to the Board on these matters on a quarterly basis . Management is considering improvements in reporting investors' environmental and social sustainability requirements to IFC, to enhance decision-making.

Relationship with management

The Board understood its responsibility for oversight and to hold executive management accountable for performance. The performance of the GCE is required to be assessed and approved at PGC annually.

Succession planning for executive management is an area of focus, with the process managed through an executive talent board and overseen by PGC. All vacant Exco positions have been filled, in line with PGC's approval authority.

Stakeholder engagement

The Board was satisfied that it had identified all key stakeholders, their significance and role. The Board was further satisfied that it sets the direction for reporting to stakeholders, to enable informed decision-making. The relationship with Parliamentary committees was identified as an area for improvement. The Government and Regulatory Affairs Division is enhancing processes to ensure Eskom maintains strong relationships with all key stakeholders, in accordance with Eskom's stakeholder engagement strategy.

For further information on stakeholder engagement, refer to "Our strategic context – Stakeholder engagement" from page 42

Board Chairman

The Board was satisfied that the Interim Chairman provided overall leadership without limiting the principle of collective responsibility for Board decisions, was effective in executing his duties, and ensured that the Board maintained a strong relationship with the shareholder.

The Board had requested the shareholder to finalise the permanent appointment of the Chairman. The term of the Interim Chairman, Prof. Malegapuru Makgoba, ended on 30 September 2022 and Mr Mpho Makwana was appointed as Chairman with effect from 1 October 2022.

REPORT BY THE BOARD

FOR THE YEAR ENDED 31 MARCH 2022

Number of meetings

Ten meetings were held during the year.

Membership

Refer to the Board composition at 31 March 2022 on page 10

Purpose

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

- Setting the strategic direction of the organisation, and treating strategy, risk, performance and sustainability as inseparable
- Providing oversight through effective governance frameworks, and approving policies and plans that enable strategy
- Monitoring management's performance and implementation of the strategy, ensuring accountability and promoting integrity of reporting
- Ensuring identification and management of compliance requirements and risks through effective internal controls, supported by a risk-based internal audit function
- Promoting a high-performance ethical culture aligned to Eskom's values and operating as a responsible corporate citizen – ethically, socially and environmentally

Key activities and decisions

- Undertook an independent Board evaluation for the 2021 financial year and identified matters to be addressed through the Board improvement plan
- Considered management's performance and progress on Eskom's turnaround plan
- Approved the proposed corporate structure of Eskom Holdings SOC Ltd and its subsidiaries, and approved submission of the PFMA application to establish a new holding company
- Approved submission of the necessary PFMA applications in preparation for the legal separation of Transmission, as well as the share subscription in the newly formed National Transmission Company South Africa SOC Ltd
- Approved submission of the PFMA application for the legal separation of Distribution, as well as the proposed name and mandate of the Distribution company to be incorporated
- Approved submission of the PFMA application to close or dispose of Eskom Uganda Ltd at the end of its 20-year concession arrangement
- Approved revisions to the MOI and the Risk Appetite and Tolerance Framework
- Approved the revised Significance and Materiality Framework, agreed between the Board and the Minister of Public Enterprises
- Recommended the appointment of Deloitte & Touche to the Minister of Public Enterprises to provide statutory audit services to Eskom for a period of five years
- Approved adoption of bid window 6 of DMRE's RE-IPP Programme and the Risk Mitigation IPP Procurement Programme
- Approved the Corporate Plan for the 2023 to 2027 financial years, including the financial budget and key assumptions, such as Generation's shutdown plan for coal-fired power stations, which support the 2035 Corporate Strategy
- Agreed the shareholder compact for the 2023 financial year with the Minister of Public Enterprises

In addition, the Board considered and approved numerous recommendations from its committees, detailed under the key activities of the respective Board committee reports that follow.

Conclusion

The Board adopted an appropriate Board Charter, regulated its affairs in compliance with this charter and was satisfied that it had discharged its responsibilities contained therein.

The Board requested that the shareholder appoint additional non-executive directors to ensure that all committees are adequately capacitated to fulfil their mandates.

Subsequent to year end

As mentioned previously, a new Board was appointed with effect from 1 October 2022. The new Board has reviewed its structure and resolved to revise the mandate of certain committees. The new Board has recommended the establishment of a Business Operations Performance Committee to provide oversight of Eskom's technical performance, operational challenges and risks relating to the production of electricity, in particular performance against shareholder compact targets such as the energy availability factor (EAF). The Board Strategy Committee's mandate has been expanded to include governance matters and has been renamed to the Governance and Strategy Committee. The People and Governance Committee has changed to the Human Capital and Remuneration Committee.

Refer to the Board composition at 1 October 2022 on page 11

REPORT BY THE AUDIT AND RISK COMMITTEE FOR THE YEAR ENDED 31 MARCH 2022

Number of meetings

Ten meetings were held during the year.

Membership (at year end)

Three independent non-executive directors:

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

Collectively, members' qualifications or experience included 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 internal and external audit functions, financial reporting, internal control systems, as well as risk and compliance management
- Oversight of risks and opportunities and governance of information and technology
- Serving as the statutory 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 the following and, where required, recommended matters for approval or noting by the Board:

- Group annual financial statements, the integrated report and related documents for the 2021 financial year, as well as interim group financial statements for the 2022 financial year
- Escalating arrear municipal debt and progress on initiatives under the municipal debt management strategy
- Progress on digitalisation initiatives, IT licensing risks, as well as the withdrawal of software support services by Oracle
- The A&F Charter and PFMA compliance risk management plan
- The three-year rolling strategic audit plan, as well as progress on and amendments to the 2022 audit plan
- The insurance plan and budget for the 2023 financial year

In addition, the committee monitored and considered reports on the following areas:

- Quarterly shareholder reports to the shareholder, covering Eskom's financial, operational, environmental, social and governance performance as well as risks and opportunities
- Financial performance and liquidity; IT governance and performance; PFMA compliance; enterprise risk and resilience, including black-start capability and readiness; forensic and technical investigations; and feedback on new legislation, litigation and other significant matters

To address the prior year's focus areas, the committee:

- Considered risks relating to financial reporting, the potential impairment of assets and Eskom's status as a going concern for the 2021 annual financial statements
- Recommended the appointment of the external auditors and associated fees

Future focus areas

Focus areas for the coming year include:

- Considering liquidity risks, sustainability risks relating to financial reporting, Eskom's status as a going concern, as well as efforts to improve the income statement and strengthen the balance sheet
- Reviewing the effectiveness of risk and compliance management and the internal control environment, together with consequence management, to ensure that contraventions are appropriately addressed
- Exercising ongoing oversight of information and technology management
- Monitoring of combined assurance, including overseeing the internal audit function and the external audit process
- Overseeing the preparation of the annual financial statements of Eskom and its subsidiaries

Conclusion

The committee adopted an appropriate formal terms of reference, regulated its affairs in compliance with its terms of reference and was satisfied that it had discharged its responsibilities contained therein. Furthermore, 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 Board acknowledged that the committee needed to be strengthened with appropriate financial skills.

Subsequent to year end

Following the appointment of the new Board, the committee has been appropriately constituted to address the financial skills and experience needs identified by the previous Board and consists of six independent non-executive directors:

Ms Fathima Gany (chairperson), Dr Rod Crompton, Ms Ayanda Mafuleka, Mr Leslie Mkhabela, Dr Busisiwe Vilakazi and Dr Claudelle von Eck

The committee considered the delayed publication of Eskom's annual financial statements, the reportable irregularities raised by the external auditors and several key audit matters, including the restatement of prior period errors as well as findings and control deficiencies emanating from the lack of compliance with well-documented policies and procedures.

Refer to the report of the Audit and Risk Committee in the annual financial statements for further information

The committee also assessed the ability of Eskom to continue to operate as a going concern in the foreseeable future and acknowledged that there are various dependencies and material uncertainties that might impact the going-concern assessment. The committee recommended to the Board that the adoption of the going-concern basis of accounting was appropriate with the commitment of support by Government.

Refer to note 3.2 in the annual financial statements for the going concern assessment

ASSURANCE AND CONTROLS

The Board, through ARC, is responsible for setting the direction for assurance, risk management, controls, compliance and the governance of technology and information. ARC provides independent oversight of these functions.

A&F, our internal audit and forensics function, reports directly to ARC to maintain its independence from executive management. ARC approves A&F's Charter, as well as an annual risk-based audit plan and a resource plan to address the complexity of risks facing Eskom.

Combined assurance

We apply a combined assurance model that includes a combination of supervision, management and assurance across various functions, culminating in oversight by ARC and the Board. Collectively, these enable an effective control environment, provide reasonable assurance and support the integrity of information for decision-making and reporting to stakeholders.

SUPERVISION

Operations and supervisory oversight
Implementation of internal controls and risk management processes to ensure a high-performing and sustainable operating environment

OPERATIONAL MANAGEMENT

Management and review functions
Assurance over the adequacy of operational risk management, effective adherence to internal control processes and delivery against objectives

FUNCTIONAL MANAGEMENT

Specialised control functions
Development and maintenance of internal control frameworks and policies, reviewing and monitoring

Risk, resilience and compliance
Assurance over risk and resilience as well as compliance management practices and processes

ASSURANCE

External audit
Independent reasonable assurance of the annual financial statements and integrated report

Internal audit
Assurance over the adequacy and effectiveness of risk management, internal control and governance

OVERSIGHT

Board and ARC
Consider control deficiencies and risk affecting the organisation, and provide guidance

The responsibility for combined assurance is delegated to A&F, which facilitates and coordinates the execution of combined assurance activities. ARC receives regular reports on the status of governance, risk management, compliance and the adequacy and effectiveness of preventative and corrective controls.

Governance, risk management and internal controls

Based on the results of the audits completed during the 2022 financial year, including key observations and relevant control and governance information, A&F has concluded the following:

GOVERNANCE	RISK MANAGEMENT
Governance requires improvement in respect of compliance with applicable laws and regulations	The design of the system of risk management is adequate, although the system of controls relating to compliance is partially effective
INTERNAL CONTROLS	**FINANCIAL CONTROLS**
The design of internal controls is adequate, although application is partially effective. Control deficiencies were identified relating to compliance with contract management, supply chain management, plant management and operational technology procedures, among others	The system of internal financial controls is adequate and provides a reasonable basis for the preparation of Eskom's financial statements

ARC has concluded that the combined assurance model is adequate; however, monitoring and assessment of the execution of controls needs to be enhanced internally, to proactively address control deficiencies and prevent recurrence of findings. The compliance framework requires continued focus in its application, especially in terms of PFMA requirements and contract management. Consequence management needs to be improved to address non-compliance with well-documented policies, process control manuals and procedures. Furthermore, the need for additional resources and skills in the finance function and A&F were noted. Despite these shortcomings, the system of internal financial controls and compensating measures provide a reasonable basis for the preparation of Eskom's financial statements.

The consolidated annual financial statements have been audited by the independent auditors, Deloitte & Touche, who issued a qualified opinion relating to information disclosed in terms of the PFMA. Except for this qualification, the annual financial statements are fairly presented in terms of IFRS.

Refer to the report of the Audit and Risk Committee and the independent auditor's report in the annual financial statements for further informationn

REPORT BY THE INVESTMENT AND FINANCE COMMITTEE FOR THE YEAR ENDED 31 MARCH 2022

Number of meetings

Ten meetings were held during the year.

Membership (at year end)

Two independent non-executive directors:

Ms Busisiwe Mavuso (acting chairperson) and
Dr Banothile Makhubela

Collectively, members' qualifications or experience included commerce and industry, accounting, chemistry and the public sector.

Purpose

The committee's responsibilities include:

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

Key activities during the year

The committee considered the following and, where required, recommended matters for approval or noting by the Board:

- Submission to NERSA of the regulatory clearing account (RCA) balance application for the 2021 financial year and the MYPD 5 revenue application for the 2023 to 2025 financial years
- The funding solution for Eskom Finance Company SOC Ltd given that the disposal has been placed on hold
- The strategic direction of the Medupi flue gas desulphurisation (FGD) project to complete selection of the technology solution and resolve funding constraints before proceeding
- Progress on the Koeberg long-term operation (LTO) project
- The Transmission Development Plan for the 2022 to 2031 financial years
- Treasury reports and progress on the borrowing programme
- Investment monitoring reports and the status of the capital investment plan and associated risks

To address the prior year's focus areas, the committee:

- Approved a short-term cross-border pricing strategy for negotiating power supply agreements with cross-border customers
- Evaluated power purchase agreements with preferred bidders through the Risk Mitigation IPP Procurement Programme

In addition, the committee considered and approved matters within its approval mandate, and considered and recommended those above its approval limits to Board. These matters included various procurement strategies, capital investment approvals or revisions, as well as other commercial decisions.

Future focus areas

Focus areas for the coming year include:

- Monitoring the funding available for refurbishment and maintenance plans for the 2023 financial year
- Considering standard tariff plans, structures and rates, as well as regulatory applications and NERSA decisions
- Executing ongoing supervision of financial plans and business cases, as well as setting criteria and guidelines for capital investments

Conclusion

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

Subsequent to year end

Following the appointment of the new Board, the Investment and Finance Committee consists of five independent non-executive directors:

Ms Tryphosa Ramano (chairperson), Mr Lwazi Goqwana, Mr Clive le Roux, Dr Tsakani Mthombeni and Mr Mteto Nyati

REPORT BY THE PEOPLE AND GOVERNANCE COMMITTEE

FOR THE YEAR ENDED 31 MARCH 2022

Number of meetings
Four meetings were held during the year.

Membership (at year end)
Three independent non-executive directors:

Prof. Tshepo Mongalo (chairperson),
Prof. Malegapuru Makgoba and Ms Busisiwe Mavuso

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

Purpose
The committee's responsibilities include:
- Succession planning and nomination of executives
- Ensuring fair, transparent, responsible and equitable remuneration
- Overseeing human resources strategies, policies and performance, including relationships with organised labour and employees
- Setting the direction for and monitoring corporate governance

Key activities during the year
The committee considered the following and, where required, recommended matters for approval or noting by the Board:
- The appointment of vacant Exco positions, as discussed in "Executive management" on page 70
- The annual review of remuneration and employment conditions, including updates on the negotiations with organised labour at the Central Bargaining Forum
- Quarterly human resources performance reports, including Eskom's response to COVID-19, learner management, employment equity, industrial relations and employee engagement
- The implementation of a hybrid work model and the impact of remote work on productivity
- The improvement of governance processes, following the inconsistency in the resolution between IFC and the Board relating to Econ Oil and Energy (Pty) Ltd
- Quarterly corporate governance as well as forensic and anti-corruption reports

To address the prior year's focus areas, the committee:
- Reviewed Eskom's people relations management approach and disciplinary processes, to reduce delays and improve consequence management
- Considered progress on the people and culture focus area of the turnaround plan, including the implementation of the skills audit and Eskom's culture transformation programme

Future focus areas
Focus areas for the coming year include:
- Overseeing the implementation of interventions aimed at improving leadership quality and stability
- Monitoring leadership continuity
- Revising performance management principles for executives and senior management
- Overseeing the development of a fit-for-purpose future skills strategy, taking into consideration the outcome of Eskom's skills audit
- Monitoring the implementation of Eskom's culture transformation programme
- Finalising Eskom's executive remuneration policy in line with DPE's latest guidelines, subject to DPE's feedback
- Monitoring the human capital impact and change management processes relating to Eskom's turnaround plan and digitalisation initiatives

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

Subsequent to year end
The new Board has resolved to revise the committee's mandate to transfer governance-related matters to the Board Strategy Committee Board and change the name of this committee to the Human Capital and Remuneration Committee.

The Human Capital and Remuneration Committee comprises six independent non-executive directors:

Dr Claudelle von Eck (chairperson), Ms Fathima Gany, Mr Clive le Roux, Mr Leslie Mkhabela, Mr Bheki Ntshalintshali and Mr Mteto Nyati

REMUNERATION AND BENEFITS

Our approach to remuneration
PGC is mandated by the Board to provide oversight of key human resources policies in Eskom, including a remuneration philosophy which is fair, transparent, responsible and equitable. Our approach to remuneration is intended to support Eskom's strategic objectives, encourage value creation and advance long-term sustainability through:
- Adoption of the King IV™ principles for the remuneration of directors and executives
- Implementation of DPE's guidelines on remuneration and incentives for executives, prescribed officers and non-executive directors of SOCs
- Alignment with the shareholder compact, which sets clear targets and drives individual and organisational performance

We are engaging with DPE to ensure alignment of our remuneration policy for executives and non-executive directors with their 2022 guidelines. The policy will be updated and finalised in the coming year, based on DPE's review of our proposal.

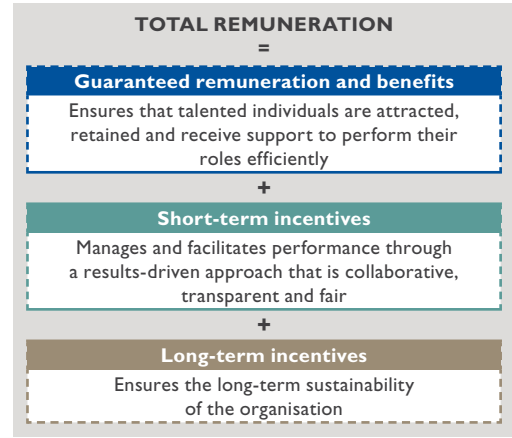
Remuneration of managerial and bargaining unit employees is discussed under "Our people – Remuneration and benefits" from page 125

Remuneration practices for directors and executives

Non-executive directors
Non-executive directors receive a fixed monthly fee, guided by DPE, and are reimbursed for expenses incurred in fulfilling their duties. Where applicable, PGC submits proposals on non-executive remuneration to the Board, which considers and makes recommendations to the shareholder for approval, in line with DPE's guidelines.

Executives
We aim to attract and retain executive management in a competitive market on a fair and equitable basis, and reward performance that supports the achievement of organisational objectives and exceeds expectations. PGC is responsible for determining executive remuneration, in line with DPE's guidelines, and conducts an annual review of executive packages, based on external benchmarking. Executives are not involved in the approval process, and PGC maintains the right to adjust, withhold or veto any remuneration.

Executive remuneration is designed to demonstrate a clear relationship between performance and remuneration and is based on the principles below. The conditions of the Special Appropriation Act, 2019 have prohibited incentive payments to executives since the 2020 financial year as well as increases in executive guaranteed remuneration since the 2021 financial year. Given Eskom's financial constraints, no incentives have been paid and no increases have been awarded to executives since the 2018 financial year.



Guaranteed remuneration
Guaranteed remuneration 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.

Variable remuneration
Variable remuneration is linked to the achievement of individual and organisational performance objectives, subject to defined gatekeepers. Short-term incentives relate to a single financial year, whereas long-term incentives cover a three-year period.

Total remuneration for directors and group executives

Category, R 000	2022	2021
Non-executive directors	5 274	5 945
Executive directors	12 162	12 151
Other group executives	24 191	23 002
Total remuneration	41 627	41 098

Refer to note 49 in the consolidated annual financial statements for detailed remuneration information as required by King IV™

Housing loans to executive directors and other group executives are disclosed in the consolidated annual financial statements. No loans have been made to non-executive directors.

REPORT BY THE SOCIAL, ETHICS AND SUSTAINABILITY COMMITTEE

FOR THE YEAR ENDED 31 MARCH 2022

Number of meetings
Five meetings were held during the year.

Membership (at year end)
Three independent non-executive directors:

Dr Banothile Makhubela (chairperson),
Prof. Malegapuru Makgoba and Dr Pulane Molokwane

Collectively, members' qualifications or experience included 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 set out in the Companies Act, 2008
- Oversight of socio-economic development; good corporate citizenship; environmental, climate change, health and safety programmes; and the assurance of select key performance indicators through the sustainability audit
- Supervision of nuclear strategies and policies, as well as nuclear safety in terms of regulatory requirements and international best practice
- Serving as the statutory social and ethics committee for Eskom's wholly-owned subsidiaries

Key activities during the year
The committee considered the following and, where required, recommended matters for approval or noting by the Board:

- Operational and environmental sustainability performance, including challenges and mitigating measures
- Human resources sustainability and compliance with labour and employment regulations, as well as occupational health and safety performance
- Progress on the capacity expansion programme
- Initiatives to improve Eskom's B-BBEE rating and socio-economic transformation, including supplier development, localisation and industrialisation
- Corporate social investment, stakeholder engagement and customer relations
- Nuclear oversight, nuclear waste management and associated risks
- Ethics report and progress on forensic and anti-corruption initiatives

To address the prior year's focus areas, the committee:

- Monitored Eskom's transformation and progress on the turnaround plan
- Reflected on compliance with the principles of the UN Global Compact and the OECD recommendations on anti-corruption
- Considered environmental performance, including contraventions and non-compliance notices, as well as risks relating to ash disposal facilities

Future focus areas
Focus areas for the coming year include:

- Executing ongoing supervision of stakeholder management and environmental sustainability matters
- Overseeing Eskom's ethics review to improve the ethics management strategy and related policies and procedures
- Driving improved financial and operational sustainability through Eskom's transformation

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

Subsequent to year end
Following the appointment of the new Board, the Social, Ethics and Sustainability Committee consists of eight independent non-executive directors:

Mr Bheki Ntshalintshali (chairperson), Dr Rod Crompton, Ms Fathima Gany, Mr Clive le Roux, Mr Leslie Mkhabela, Dr Tsakani Mthombeni, Dr Busisiwe Vilakazi and Dr Claudelle von Eck

ETHICS BASED ON OUR VALUES

The Board, through its Social, Ethics and Sustainability Committee, is responsible for the governance of ethics in Eskom, by establishing an ethical culture and providing oversight of ethics strategies and policies in accordance with King IV™.

Adherence to our Code of Ethics, known as the "The Way", is not optional. It is the way we do business in Eskom, guiding the way in which the Board and employees interact with one another as well as with our shareholder, customers, suppliers, the public, other stakeholders and the environment.

"The Way" is defined by six core values, which form the foundation of our values-driven organisation and reflect our commitment to the highest standards of governance and ethical behaviour.

- **Zero Harm** means *protecting* the Eskom Way
- **Integrity** means *acting* the Eskom Way
- **Innovation** means *thinking* the Eskom Way
- **Sinobuntu** means *caring* the Eskom Way
- **Customer satisfaction** means *serving* the Eskom Way
- **Excellence** means *working* the Eskom Way

We believe so strongly in the importance of these values that a values-driven culture is one of the cornerstones of the aspirational high-performance ethical culture outlined in Eskom's culture transformation programme. The programme is a key enabler of our turnaround plan.

For further information on Eskom's culture transformation programme, refer to "Our people – Organisational effectiveness" on page 125

A dedicated Ethics Office is responsible for developing ethics policies and procedures and monitoring the effectiveness of their implementation. The Ethics Office also facilitates annual ethics training, which is mandatory for all employees, and provides guidance on ethical issues in the workplace. Any potential breaches of ethics that may involve fraud and corruption are referred to A&F for further investigation.

Our conflict of interest policy and declaration of interest procedure complement our Code of Ethics by setting out the obligations of directors and employees in dealing with ethical issues, such as potential conflicts of interest, performing private work, 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. Any interests declared by directors and Exco members in meetings are minuted for the record. A&F reviews directors' declarations on an annual basis.

All members of the Board and Exco completed their declarations for the 2022 financial year and any identified conflicts are managed appropriately.

No Eskom official or employee is allowed to do business with Eskom while being employed by Eskom or its subsidiaries. To our knowledge, there are no conflicts of interest due to any director doing business with Eskom.

A&F facilitates proactive compliance reviews and probity checks for procurement transactions over R500 million tabled for approval at relevant Exco, divisional and Board committees. Where these reviews find that the requirements of Eskom's P&SCM procedures and the Preferential Procurement Policy Framework Act, 2000 have not been adhered to then the non-compliance is rectified. Any director, employee or supplier who is found to have contravened ethics policies and procedures or the DoA will be subject to disciplinary processes.

As mentioned in last year's report, we commissioned The Ethics Institute to perform an independent ethics risk assessment to determine potential ethics opportunities, as well as unethical behaviours and practices that place Eskom at risk. Management interviews and a company-wide survey were conducted to assess the current state of ethics in the organisation, as perceived by our employees. The assessment highlighted the maturity of ethics awareness in Eskom, although improvement is required in accountability, transparency and addressing the lack of trust. The results will be used to better manage ethics-related risks through an ethics risk register, and inform the review of our ethics management strategy. High-risk areas will be subject to greater focus for ethics training and consequence management.

We are committed to the fight against fraud, corruption, irregularities and other forms of economic crime. As a signatory to the United Nations Global Compact and the World Economic Forum's Partnership Against Corruption initiative, we adopt a zero-tolerance approach to fraud, corruption and irregularities. We also subscribe to the OECD recommendations on anti-corruption.

We encourage all stakeholders to report unlawful or irregular conduct involving Eskom's directors, employees or suppliers through an independent, confidential whistle-blowing hotline.

Refer to the inside back cover for the contact details of our toll-free whistle-blowing hotline

REPORT BY THE BOARD STRATEGY COMMITTEE

FOR THE YEAR ENDED 31 MARCH 2022

Number of meetings
Five meetings were held during the year.

Membership (at year end)
Two independent non-executive directors:

Dr Rod Crompton (chairperson) and
Prof. Malegapuru Makgoba

Collectively, members' qualifications or experience included commerce and industry, economics, energy, medicine and the public sector.

Purpose
The committee's responsibilities include:
- Oversight of Eskom's response to and implementation of Government directives, roadmaps and policy documents relating to the restructuring of Eskom and the electricity supply industry
- Making recommendations to the Board on Eskom's long-term strategy, including the Just Energy Transition, legal separation and the transfer of assets, liabilities and resources
- Interacting with Government and associated offices on these matters

Key activities during the year
The committee considered the following and, where required, recommended matters for approval or noting by the Board:
- Progress on the establishment of an Independent Transmission System and Market Operator, as well as Distribution's role in the future distribution industry
- Eskom's JET strategy and roadmap, and the international funding announced during COP26
- Progress on Generation's strategic repurposing and repowering of ageing coal-fired power stations and Transmission's infrastructure expansion and grid planning projects, and associated funding
- Electricity tariff optimisation and feedback on revised tariff structures submitted to NERSA based on an updated cost-to-serve model
- Initiatives and levers to address the debt burden, together with the classification of debt, core assets and non-core assets amid Eskom's legal separation
- Progress on digitalisation and leveraging of data to enable Eskom's strategy and digital business transition

To address the prior year's focus areas, the committee:
- Monitored development of Eskom's Integrated Long-Term Plan, 2035 Corporate Strategy and Corporate Plan for the 2023 to 2027 financial years
- Requested feedback on the turnaround plan, in particular the legal separation of Transmission, Generation and Distribution as well as initiatives to address financial sustainability
- Considered Eskom's culture transformation programme and policy to address the future world of work

Future focus areas
Focus areas for the coming year include:
- Shaping Eskom's long-term strategy and the Just Energy Transition
- Overseeing turnaround plan initiatives, in particular Eskom's legal separation and efforts to improve the income statement and strengthen the balance sheet
- Overseeing interactions with Government on the legal separation of Eskom, as well as the implementation of associated directives, roadmaps and policies
- Providing direction and recommendations on the new market structure, including amendments to legislation, regulations, licences, methodologies and Grid Codes
- Monitoring the organisational culture transformation
- Determining appropriate separation of Eskom's commercial and non-commercial activities

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

Subsequent to year end
The new Board has resolved to revise the committee's mandate to include governance-related matters and change the name of this committee to the Governance and Strategy Committee.

The Governance and Strategy Committee comprises six independent non-executive directors:

Mr Mpho Makwana (chairperson), Ms Fathima Gany,
Mr Bheki Ntshalintshali, Mr Mteto Nyati,
Ms Tryphosa Ramano and Dr Claudelle von Eck

BUSINESS OPERATIONS PERFORMANCE COMMITTEE

In October 2022, the new Board recommended the establishment of a Business Operations Performance Committee to provide oversight of Eskom's operational performance, including the assessment of performance against key targets. The establishment of the committee is subject to shareholder approval.

The committee was established subsequent to year end, therefore, no key activities or decisions are reported in respect of the year ended 31 March 2022.

The committee consists of eight independent non-executive directors:

Mr Mteto Nyati (chairperson), Dr Rod Crompton,
Mr Lwazi Goqwana, Mr Clive le Roux, Ms Ayanda Mafuleka,
Dr Tsakani Mthombeni, Ms Tryphosa Ramano,
Dr Busisiwe Vilakazi

Purpose and future focus areas
The committee's responsibilities and focus areas include:
- Providing oversight of:
  - Eskom's technical performance and operational issues, including production, customer services and related policies and procedures, as well as safety, security, health, environmental and insurance matters which are not dealt with by the Social, Ethics and Sustainability Committee
  - Coal, nuclear and renewable primary energy carriers
  - The adequacy of electricity supply
  - Progress against agreed shareholder compact and key Corporate Plan targets relating to the production of electricity, such as the energy availability factor
- Reviewing:
  - Progress achieved through production and operational strategic initiatives
  - Proposed changes to measures reported in the Operational Health Dashboard and operational reports, including relevant operational metrics
  - Outcomes from major technical investigations and technical audits conducted by A&F
- Providing guidance on:
  - Production and operational risks, as well as the appropriateness of mitigation plans
  - Stakeholder feedback and public communication plans, where applicable

KING IV™ APPLICATION

King IV™ assessment and focus areas

Based on an assessment for the year ended 31 March 2022, our overall implementation of the King IV™ principles and practices remains partially effective. Although many of the required practices are in place and have been for many years, the Board acknowledged that not all of the King IV™ principles have been effectively adhered to.

Eskom's King IV™ application register for the year ended 31 March 2022 is available online

This summary focuses on key governance developments during the year, as well as initiatives to address the King IV™ focus areas. Principles considered to be implemented effectively in previous reports continue to remain effective and are not highlighted below.

Principle 1	The Board should lead ethically and effectively
Principle 2	The Board should govern the ethics of Eskom in a way that supports the establishment of an ethical culture

Various initiatives are under way to improve the governance of ethics, particularly in respect of the implementation of ethics policies as well as consequence management. Ethics and PFMA training interventions to promote ethical behaviour are now mandatory for all employees on an annual basis. Furthermore, the Ethics Office has been capacitated through the appointment of additional resources.

Refer to "Progress on governance clean-up" from page 52 and "Ethics based on our values" on page 65 for further information on these initiatives

Principle 7	The Board should comprise the appropriate balance of knowledge, skills, experience, diversity and independence for it to discharge its governance role and responsibilities objectively and effectively
Principle 8	The Board should ensure that its arrangements for delegation within its own structures promote independent judgment, and assist with balance of power and the effective discharge of its duties

The Board recognised the need to strengthen its membership with additional non-executive directors to ensure that its committees are adequately constituted. In particular, the Board recognised that ARC required members with appropriate skills and experience in finance and assurance and that IFC was not adequately capacitated.

On 30 September 2022, the shareholder announced the appointment of 12 new Board members, with effect from 1 October 2022. The Board is now fully constituted with 15 directors in terms of the MOI.

Principle 9	The Board should ensure that the evaluation of its own performance and that of its committees, its chair and its individual members, support continued improvements in its performance and effectiveness

The Board undertook an independent evaluation of its performance for the 2021 financial year and identified areas of concern to be addressed through the Board improvement plan. A follow-up board evaluation was conducted in July 2022 to measure progress against the Board improvement plan during the year ended 31 March 2022.

Refer to "Board and its committees – Board evaluation" from page 56 for further information

Principle 10	The Board should ensure that the appointment of, and delegation to, management contribute to role clarity and the effective exercise of authority and responsibilities

The Board delegates certain powers to management through the DoA and outlines levels of materiality through the SMF. The DoA was revised in January 2022 to improve role clarity between the Board, Exco and the divisional boards in respect of procurement transactions.

Succession planning for key executive positions is guided by Eskom's talent management policy and managed by the executive talent board.

Principle 11	The Board should govern risk in a way that supports Eskom in setting and achieving its strategic objectives

As previously reported, Exco has implemented a quarterly risk workshop to review the risk landscape and improve accountability for treatment plans.

In accordance with set timelines, we have begun implementing the requirements of DPE's Risk and Integrity Management Framework (RIMF) for SOCs to enhance risk governance, policies, monitoring and reporting.

Principle 14	The Board should ensure that Eskom remunerates fairly, responsibly and transparently so as to promote the achievement of strategic objectives and positive outcomes in the short-, medium- and long-term

Eskom has separate remuneration policies in place due to different remuneration practices across bargaining unit, managerial, executive and non-executive categories. Work is under way to align the remuneration policy for executives and non-executive directors with DPE's 2022 guidelines.

Refer to "Remuneration and benefits" on page 63 for further information on executive and non-executive remuneration

The conditions of the Special Appropriation Act, 2019, have, to some extent, limited the autonomy of the organisation in respect of decisions relating to annual increases and incentive bonuses.

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. The governance of technology and information as well as compliance are discussed in further detail below.

Key risks and opportunities facing the organisation are discussed in "Our strategic context – Integrating risk and resilience" from page 45. Our approach to combined assurance is discussed in "Assurance and controls" on page 60

Governance of technology and information

The responsibility for managing technology and information has been delegated to Exco, with Exco's Information and Technology Committee ensuring alignment between operational technology (OT) and information technology (IT).

ARC considers quarterly reports that provide assurance on the security and availability of Eskom's OT and IT systems of control, as well as assessments of the adequacy and effectiveness of governance, risk management, compliance and controls relating to technology and information.

Information technology

Through ARC, the Board has adopted an IT Charter and policies to provide direction on how information technology is managed in the organisation to ensure the confidentiality, security, integrity and availability of information. Group IT has established strategic forums to oversee IT governance, compliance, assurance, risk and resilience, cloud and data management, IT investments, as well as cyber-security.

A roadmap has been developed to improve cyber-security for operational technology and information technology over the next five years. Furthermore, we are investigating the utilisation of data analytics and conducting research on blockchain and artificial intelligence technologies, in line with the shareholder's expectations.

Operational technology

The Technical Governance Committee reports to Exco's Operating Committee and is responsible for development of technical processes and standards, as well as effective management of operational technology throughout Eskom.

Compliance

The Board is accountable for compliance and governs this through the Compliance Charter and, with the assistance of ARC, oversees compliance throughout Eskom.

Compliance maturity is based on an assessment of the extent of identification and understanding of compliance obligations, development of related controls, and routine monitoring of adherence to those controls. Given the complex legal and regulatory obligations affecting our operations, the overall risk of non-compliance in the organisation remains high.

Non-compliance may result in reportable matters through the PFMA, 1999. Transgressions are managed through disciplinary processes, and may extend to civil and criminal legal action where appropriate.

Quantifiable penalties, fines or sanctions levied against the organisation due to non-compliance, including environmental sanctions, are disclosed in note 51 of the consolidated annual financial statements

In order to improve the management of compliance risks, Exco is monitoring compliance-related key risk indicators through its risk workshops. We have also conducted a review of our approach to compliance, which has informed the development of a corporate compliance structure and operating model to better monitor and address compliance risks. Implementation will commence following the necessary governance processes.

EXECUTIVE MANAGEMENT

Exco is established by the GCE and is supported by several subcommittees in the execution of its duties.

Refer to "Our governance framework" on page 51 for the Exco subcommittees

Membership of Exco includes the GCE, CFO, GCOO and group executives responsible for various functional areas of the business. Both the GCE and CFO are appointed on five-year contracts; their terms end in January 2025 and December 2023 respectively, with an option to renew. All other executives are full-time employees, unless otherwise noted.

Refer to pages 12 and 13 for the Exco composition, with information on skills and years in service, as well as racial, gender and age diversity

The group executives for Generation, Transmission and Distribution serve as the divisional managing directors of their respective divisional boards and report directly to the GCOO.

Changes in executive leadership

The following changes took place during the year:

- Mr Phillip Dukashe was appointed as Group Executive: Generation from 1 April 2021, after acting in the position since 1 February 2021
- Ms Mel Govender was appointed as Group Executive: Legal and Compliance from 1 October 2021. Ms Nerina Otto previously acted in the position
- Ms Jainthree Sankar was appointed as Chief Procurement Officer from 1 March 2022, after acting in the position since 4 March 2021

After year end, Mr Phillip Dukashe resigned with effect from 31 May 2022 and Mr Rhulani Mathebula was appointed to act as Group Executive: Generation. Mr Rhulani Mathebula subsequently resigned with effect from 30 November 2022. Mr Thomas Conradie is acting in the position while the recruitment process is under way.

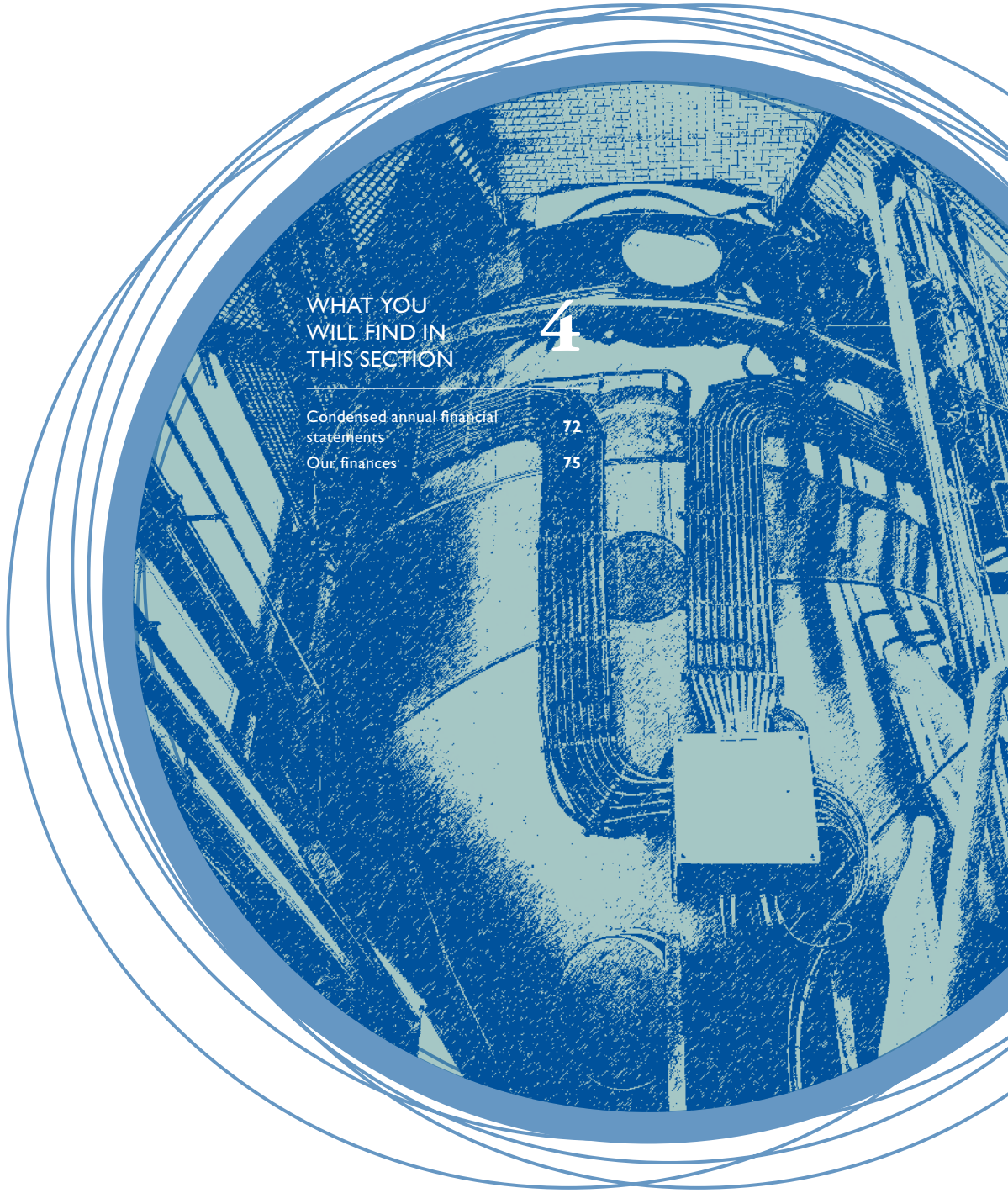
Mr Bheki Nxumalo, previously Group Executive: Group Capital, was appointed as the Chief Executive Officer of Eskom Rotek Industries SOC Ltd with effect from 1 June 2022; the Group Capital Division now reports directly to the GCOO.

Mr Riedewaan Bakardien resigned as Chief Nuclear Officer with effect from 31 July 2022. Mr Keith Featherstone was appointed to act in the position.

Ms Mandy Rambharos, General Manager: Office of the Group Chief Executive, responsible for managing Eskom's JET Office and driving our JET strategy, resigned with effect from 31 October 2022. Mr Vikesh Rajpaul was appointed in the position.

Mr André de Ruyter announced his resignation as Group Chief Executive on 14 December 2022. He will continue to serve in the position until 31 March 2023 to ensure continuity while a successor is recruited.

FINANCIAL REVIEW



WHAT YOU WILL FIND IN THIS SECTION 4

CONDENSED ANNUAL FINANCIAL STATEMENTS

The group and company financial results set out in the condensed financial statements that follow have been extracted from the consolidated annual financial statements of Eskom Holdings SOC Ltd for the year ended 31 March 2022, 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 16 December 2022.

The consolidated annual financial statements have been audited by the group's independent auditors, Deloitte & Touche, 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 information disclosed in note 51 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 have emphasised a number of matters in their report, including a material uncertainty relating to Eskom's ability to continue as a going concern. However, this does not affect their opinion.

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

The statements of financial position for the 2020 and 2021 financial years as well as the income statements and statements of comprehensive income for the 2021 financial year have been restated as a result of prior period errors identified during the external audit. All financial information presented in this report reflects the restated results where applicable.

Refer to note 48 in the consolidated annual financial statements for more information on the prior period restatements

Neither the future performance plans nor strategies referred to in the integrated report have been reviewed or reported on by the group's independent auditors.

Condensed group income statements for the year ended 31 March 2022

	2022 Rm	Restated 2021 Rm	%	
Continuing operations				
Revenue	**246 520**	204 326	21 ▲	15.06% tariff increase for the year, coupled with a 3.4% recovery in sales volumes, due to the phased easing of COVID-19 lockdown restrictions and many sectors returning to operation
Other income	**1 494**	2 662		
Primary energy	**(132 439)**	(115 492)	15 ▲	Price escalations, particularly in diesel costs, and write off of diesel rebates. Higher overall production to meet increased demand, in particular OCGT usage to alleviate supply constraints
Employee benefit expense	**(32 985)**	(32 887)	–	
Net impairment loss	**(1 436)**	(1 795)		Salary increase for the bargaining unit, offset by headcount reduction and no managerial salary increases
Other expenses	**(28 780)**	24 206	19 ▲	
Profit before depreciation and amortisation expense and net fair value and foreign exchange loss (EBITDA)	**52 374**	32 608	61 ▲	Increased maintenance to address plant performance challenges, combined with other once-off items
Depreciation and amortisation expense	**(32 009)**	(26 585)	20 ▲	The biggest contributor to the improved performance is the impact on revenue of the higher tariff and sales volumes
Operating profit (EBIT)	**20 365**	6 023	238 ▲	Mainly due to additional Medupi and Kusile units achieving commercial operation
Net fair value and foreign exchange loss on financial instruments, excluding embedded derivatives	**(4 748)**	(7 694)	38 ▼	Mainly due to fair value movements on hedging instruments arising from credit risk adjustments and strengthening of the Rand. Prior year restatement due to hedge effectiveness criteria no longer being met as a result of a correction to the valuation curve methodology
Net fair value and foreign exchange gain/(loss) on embedded derivatives	**1 622**	(355)	557 ▲	
Profit/(loss) before net finance cost	**17 239**	(2 026)		
Net finance cost	**(33 063)**	(31 142)	6 ▲	Mainly due to fair value movements arising from an increase in aluminium prices. A new pricing agreement became effective from 1 August 2021
Finance income	**2 364**	2 400		
Finance cost	**(35 427)**	(33 542)		Higher average cost of borrowings and lower interest capitalised to projects, offset by a slight reduction in gross debt
Share of profit of equity-accounted investees after tax	**52**	71		
Loss before tax	**(15 772)**	(33 097)		Despite the loss, we recorded an improvement of R12.7 billion, with the biggest contributor being the growth in revenue. A return to profitability remains hindered by the poor operational performance, lack of cost-reflective tariffs, high debt service costs and non-payment by some customers
Income tax	**3 442**	8 081		
Loss for the year	**(12 330)**	(25 016)	51 ▼	

▲ Income/gain increased ▼ Income/gain decreased ▼ Expense/loss decreased ▲ Expense/loss increased

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

Condensed group statements of financial position at 31 March 2022

	2022 Rm	Restated 2021 Rm	%	
Assets				
Non-current assets	**718 412**	710 419	1 ▲	Capital expenditure and other capitalised costs largely offset by depreciation
Property, plant and equipment and intangible assets	**668 694**	665 350	1 ▲	
Future fuel supplies	**6 304**	4 390	44 ▲	Additions to coal and nuclear fuel supplies
Investment in equity-accounted investees and subsidiaries	**418**	420		
Inventories	**11 516**	11 001	5 ▲	Prior year restatement resulted in a portion of coal inventory being reclassified from current to non-current based on a review of the quantity and usage of coal at power stations
Deferred tax	**9 971**	6 280		
Embedded derivatives	**822**	–		
Derivatives held for risk management	**8 046**	11 185	28 ▼	Net derivatives used in hedging activities declined due to credit risk adjustments and strengthening of the Rand
Other non-current assets	**12 641**	11 793		
Current assets	**83 173**	66 839	24 ▲	
Inventories	**23 086**	22 481		
Loans receivable	**319**	310		
Embedded derivatives	**117**	–		Net derivatives used in hedging activities declined due to credit risk adjustments and strengthening of the Rand
Derivatives held for risk management	**463**	1 358	66 ▼	
Trade and other receivables	**25 163**	22 716	11 ▲	Increase largely attributable to growth in municipal and metro debtors, offset by write off of diesel rebates
Insurance investments	**17 318**	14 401		
Other current assets	**822**	1 532		
Cash and cash equivalents	**15 885**	4 041	293 ▲	Refer to the condensed group statement of cash flows on the next page
Total assets	**801 585**	777 258	3 ▲	
Equity				
Capital and reserves	**235 314**	215 304	9 ▲	Share capital of R31.7 billion issued in exchange for Government support, reduced by the loss for the year
Liabilities				
Non-current liabilities	**453 876**	460 416	1 ▼	
Debt securities and borrowings	**345 490**	357 411	3 ▼	Debt of R38.9 billion repaid, offset by R33 billion debt raised. Portion of non-current debt reclassified as current as maturities fall due
Embedded derivatives	**–**	208		
Derivatives held for risk management	**5 415**	3 736	45 ▲	Net derivatives used in hedging activities declined due to credit risk adjustments and strengthening of the Rand
Deferred tax	**348**	388		
Contract liabilities and deferred income	**25 525**	23 943		
Employee benefit obligations	**16 404**	15 414		
Provisions	**49 257**	47 335		
Lease liabilities	**8 032**	8 447		
Other non-current liabilities	**3 405**	3 534		
Current liabilities	**112 395**	101 538	11 ▲	
Debt securities and borrowings	**50 804**	44 415	14 ▲	
Embedded derivatives	**–**	1 283		Net derivatives used in hedging activities declined due to credit risk adjustments and strengthening of the Rand
Derivatives held for risk management	**4 563**	4 538	1 ▲	
Payments received in advance	**3 880**	2 796		
Employee benefit obligations	**3 450**	3 732		
Provisions	**8 944**	5 307	69 ▲	Increase largely due to provisions raised for compensation event claims
Trade and other payables	**37 994**	37 082		
Other current liabilities	**2 760**	2 385		
Total liabilities	**566 271**	561 954	1 ▲	
Total equity and liabilities	**801 585**	777 258	3 ▲	

▲ Asset increased ▼ Asset decreased ▼ Liability decreased ▲ Liability increased

CONDENSED ANNUAL FINANCIAL STATEMENTS continued

Condensed group statements of cash flows for the year ended 31 March 2022

	2022 Rm	Restated 2021 Rm	%	
Cash flows from operating activities				
Loss before tax	**(15 772)**	(33 097)	52	▼
Adjustment for non-cash items	**79 688**	75 477		
Changes in working capital	**(9 771)**	(11 963)	18	▼
Cash generated from operations	**54 145**	30 417		
Net cash (used in)/from derivatives held for risk management	**(899)**	1 402		
Finance income received	**441**	278		
Finance cost paid	**(25)**	(42)		
Income taxes paid	**(218)**	(1 046)		
Net cash from operating activities	**53 444**	31 009	72	▲
Cash flows used in investing activities				
Proceeds from disposal of property, plant and equipment and intangibles	**331**	208		
Acquisitions of property, plant and equipment and intangibles	**(28 436)**	(23 057)	23	▲
Acquisitions of future fuel supplies	**(2 468)**	(1 559)	58	▲
Net acquisitions of insurance investments	**(2 601)**	(1 989)		
Payments made in advance	**–**	(139)		
Cash used in provisions	**(318)**	(885)		
Net cash from/(used in) derivatives held for risk management	**178**	(1 049)		
Net cash from loans receivable and finance lease receivables	**212**	299		
Dividends received	**129**	95		
Finance income received	**1 150**	1 400	18	▼
Net cash used in investing activities	**(31 823)**	(26 676)	19	▲
Cash flows used in financing activities				
Debt securities and borrowings raised	**33 036**	15 756	110	▼
Payments made in advance	**(471)**	(132)		
Debt securities and borrowings repaid	**(38 854)**	(65 586)	41	▼
Share capital issued	**31 693**	56 000	43	▼
Net cash (used in)/from derivatives held for risk management	**(2 769)**	7 859		
Net cash from financial trading assets	**–**	152		
Net cash used in lease liabilities and financial trading liabilities	**(417)**	(710)		
Finance income received	**656**	791		
Finance cost paid	**(32 547)**	(37 267)	13	▼
Taxes paid	**(66)**	(78)		
Net cash used in financing activities	**(9 739)**	(23 215)	58	▼
Net increase/(decrease) in cash and cash equivalents	**11 882**	(18 882)		
Cash and cash equivalents at the beginning of the year	**4 041**	22 990		
Foreign currency translation	**5**	12		
Effect of movements in exchange rates on cash held	**(43)**	(159)		
Assets and liabilities held-for-sale	**–**	80		
Cash and cash equivalents at the end of the year	**15 885**	4 041	293	▲

Operating cash flows of R53.4 billion remain inadequate to meet total debt servicing requirements of R71.4 billion, comprising interest of R32.5 billion and capital of R38.9 billion, emphasising the lack of cost-reflective tariffs and the need for Government support

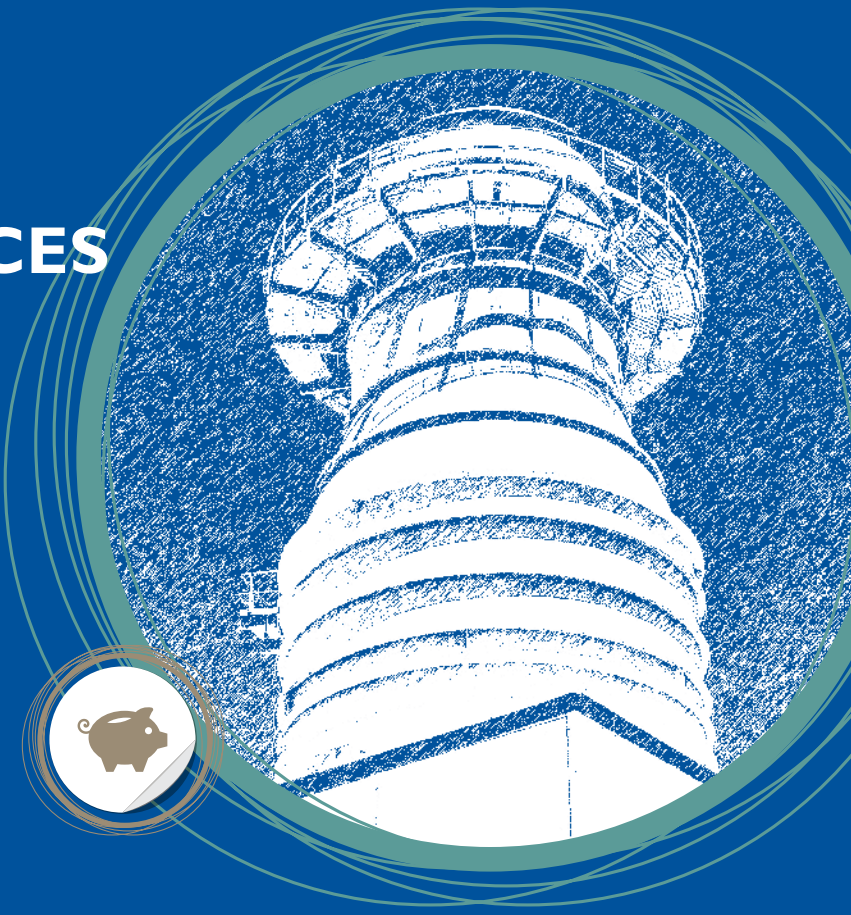
Investing activities relate mainly to capital expenditure on the new build programme, Generation outage and technical plan requirements as well as network infrastructure

Financing activities resulted in a net outflow, with total debt servicing of R71.4 billion, offset by debt raised of R33 billion, net of commercial paper. This is in line with plans to deleverage the balance sheet, by repaying more debt than is raised annually. Debt raised increased due to the private placement and syndicated loan being postponed from 2021. Government support of R31.7 billion was received

Despite the improvement for the year, liquidity remains constrained due to the lack of cost-reflective tariffs and high debt servicing and working capital requirements. Eskom remains reliant on Government support to service debt

▲ Inflow increased ▼ Inflow decreased ▼ Outflow decreased ▲ Outflow increased

OUR FINANCES



Highlights

- Government support of R31.7 billion to strengthen the balance sheet and support going concern status, with R21.9 billion committed for the 2023 financial year
- Tariff increase of 15.06% for the 2022 financial year and clarity on the recovery of the remaining R59 billion disallowed by NERSA, as a result of favourable court judgments
- Eskom's legal right to payment for services rendered to municipalities affirmed by Supreme Court of Appeal; a positive step towards arrear debt collection efforts

Challenges

- Total primary energy cost up 14.7% due to increased use of more expensive OCGTs, write off of diesel rebates as well as higher production volumes from other generating sources
- Operating cash flows remain insufficient to address high debt servicing requirements
- Despite gross debt reduction of R5.5 billion, net finance costs increased due to higher cost of borrowing and lower capitalisation of finance costs
- Lack of a cost-reflective tariff path hinders long-term financial sustainability, with the 9.61% tariff increase for the 2023 financial year falling far below the 20.5% required. Awaiting NERSA's decisions for 2024 and 2025
- Debt management with EDM of Mozambique remains a challenge, with R350 million in dispute

Improvements

- Sales volumes recovered by 3.4% as a result of higher electricity demand from many sectors
- Revenue improved by 20.7% and EBITDA margin grew to 21.25% (2021: 15.96%), driven by favourable tariff increase and recovery in sales volumes
- Cash and cash equivalents increased to R15.9 billion at year end (2021: R4 billion)
- Solvency ratios improved due to favourable EBITDA performance and Government support, but remain below acceptable levels
- Credit ratings affirmed by all three rating agencies, but concerns around operational and financial sustainability led to a mostly negative outlook at year end

Lowlights

- Net loss after tax of R12.3 billion for the year, despite achieving an operating profit of R20.4 billion, largely due to unsustainable net finance costs
- Continued escalation in arrear municipal debt to R44.8 billion (2021: R35.3 billion), coupled with poor payment levels and limited progress from Government interventions

OUR FINANCES continued

We make use of financial capital in the form of debt or equity to fund our operations. Debt includes both guaranteed and unguaranteed borrowings from external lenders. Equity should be created through sustainable profits generated from sufficient revenue to cover our costs, or through support received from our shareholder.

Financial results of operations

The group recorded a net loss after tax of R12.3 billion for the year (2021: R25 billion), and EBITDA of R52.4 billion (2021: R32.6 billion). The EBITDA margin increased to 21.25% (2021: 15.96%), driven largely by a regulatory tariff increase of 15.06% for customers supplied directly by Eskom and an increase of 17.80% for municipal and metropolitan distributors. Further contributing to improved EBITDA performance was a recovery in sales volumes, resulting from higher electricity demand from many sectors due to the phased easing of COVID-19 lockdown restrictions and higher commodity prices. The improvement in revenue was offset by the use of more expensive primary energy sources, to alleviate generation supply constraints and avoid or minimise loadshedding, coupled with growth in other operating expenditure.

Profitability and working capital

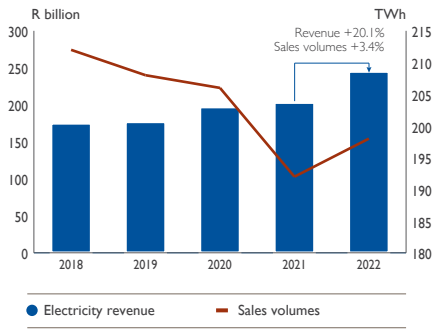
Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Company							
Electricity revenue per kWh (including environmental levy), c/kWh	171.30	138.44	**124.99**	●	**127.32**	111.04	101.86
Electricity operating costs, R/MWh	1 256.11	1 121.44	**1 008.17**	●	**990.31**	906.36	803.01
Group							
EBITDA, R million[SC]	82 805	51 929	**45 113**	●	**52 374**	32 608	36 816
EBITDA margin, %	26.89	19.70	**19.02**	●	**21.25**	15.96	18.46
Current ratio[1]	1.80	1.54	**1.30**	■	**0.90**	0.95	0.82
Free funds from operations (FFO), R million	94 573	59 600	**52 992**	●	**63 215**	42 972	41 120
FFO after net interest paid, R million	58 890	25 429	**19 752**	●	**31 324**	6 496	2 606

1. The current ratio was impacted by the reclassification of a portion of coal inventory from current assets to non-current assets based on operational needs.
2. Future targets assume a tariff path with annual increases of 9.61%, 13% and 10% over the next three financial years, based on our Corporate Plan.

Although most financial ratios performed better than target and mostly improved compared to the previous year, Eskom's standalone long-term financial sustainability remains dependent on the migration towards cost-reflective tariffs, a solution to Eskom's debt burden and recovery of arrear debt from delinquent municipalities. Resolving these challenges and strengthening Eskom's financial position will take time.

Sales and revenue

Net electricity revenue for the group amounted to R243.4 billion (2021: R202.6 billion), an increase of 20.1% compared to the prior year. Excluded from this amount is pre-commissioning revenue of R1.1 billion relating to Medupi and Kusile capitalised during the year (2021: R4 billion).



Over the past decade, Eskom has been experiencing a declining sales trajectory, averaging around a 1% reduction in sales volumes per year. The 2021 financial year saw an unprecedented 6.7% decline in sales volumes due to the slowdown of the economy amid the COVID-19 lockdown. Sales volumes have partially recovered in the 2022 financial year, increasing by 3.4% to 198.3TWh (2021: 191.9TWh).

Year-on-year recovery in sales volumes

	TWh	%
Distributors	1.5 ▲	1.8 ▲
Residential	0.4 ▼	3.9 ▼
Commercial	0.2 ▲	1.8 ▲
Industrial	4.2 ▲	10.4 ▲
Mining	1.0 ▲	3.8 ▲
Agricultural	0.1 ▼	1.4 ▼
Rail	0.2 ▲	10.2 ▲
International	0.2 ▼	1.5 ▼
Total	6.4 ▲	3.4 ▲

Refer to page 152 for the number of customers by customer segment, as well as electricity sales by customer category, both volumes and revenue

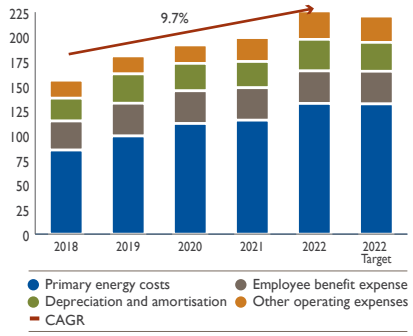
Growth in sales volumes was achieved across almost every customer category, with the industrial, mining and rail sectors in particular benefiting from the recovery of global commodity markets. This led to improved profit margins, driving higher production by large mines and smelters as well as increased freight demand. Regrettably, the rail industry continues to experience cable theft and infrastructure vandalism, thereby hampering further growth. Residential prepayment was affected by lower consumption due to depressed economic conditions as well as theft through illegal connections and meter tampering.

Due to the long-lasting impact of the economic recession, as well as shifts to self-generation technology, demand is not expected to recover to pre-COVID-19 levels in the short to medium term. Our Corporate Plan reflects a gradual decline in sales volumes from around 194TWh to 190TWh over the next five years.

We are engaging with customers on the market dynamics of their sectors and collaborating with Government to assist vulnerable sectors in a sustainable manner. A number of applications have been received for short- and long-term negotiated pricing agreements (NPAs); these are being adjudicated by NERSA in terms of the requirements of DMRE's NPA framework.

Operating costs

Operating expenses, R billion

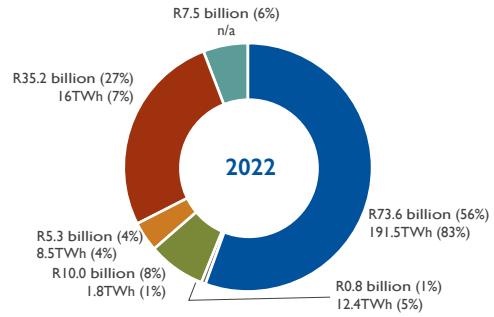


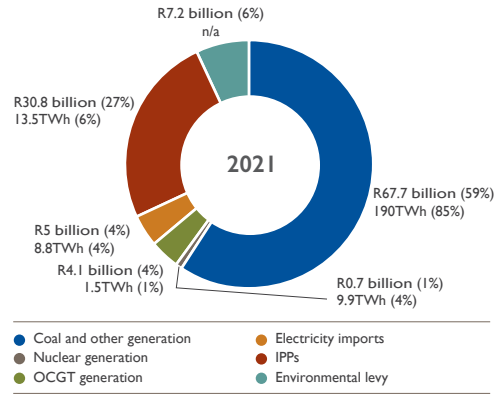
Primary energy

Primary energy costs (including coal, diesel and water) increased by 14.7% to R132.4 billion (2021: R115.5 billion), accounting for the majority of the growth in operating costs during the year. Growth in IPPs, coal and Eskom-owned OCGT costs were the major contributing factors as a result of increased production from these sources, combined with price escalations, particularly in diesel and fuel oil. Altogether, production volumes increased by 6.4TWh to meet the higher electricity demand experienced during the 2022 financial year. In addition, SARS has disallowed certain rebates relating to Eskom's diesel use over several years and denied our appeal on the matter in October 2022. Due to uncertainty around the recovery of the rebates, the receivable of R3.6 billion at year end has been written off, with a corresponding increase in primary energy costs. We are pursuing the necessary legal processes to address this dispute.

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

Primary energy breakdown





Our own generation costs increased by 16.5% to R84.4 billion (2021: R72.5 billion), excluding the environmental levy. Total coal-fired generation costs, excluding the environmental levy, increased by 8.7% to R73.6 billion (2021: R67.7 billion). Production volumes from commissioned coal-fired stations increased by 3%, while the increase in the average coal purchase cost per ton was contained to just 2.1%.

Expenditure on Eskom-owned OCGTs increased by 146.2% to R10 billion largely due to the write off of the diesel rebate receivable, coupled with higher diesel prices and a 25.3% increase in production to 1 826GWh (2021: R4.1 billion to produce 1 457GWh). The OCGT load factor increased to 8.7% (2021: 6.9%) to ensure system stability during periods of supply constraints.

IPP expenditure grew by 14.2% due to more extensive use of IPP OCGTs and higher production from renewable IPPs, coupled with higher diesel prices. The total expenditure on IPP OCGTs (after the lease accounting adjustment of R1.5 billion) amounted to R4.6 billion to produce 899GWh (2021: R2.9 billion to produce 704GWh), while R30.6 billion was spent on renewable IPPs to produce 15 073GWh (2021: R27.9 billion to produce 12 821GWh).

OUR FINANCES continued

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

Unit cost, R/MWh	2022	2021	% change
Coal[1]	**440**	419	5.0 ▲
Nuclear	**99**	105	5.3 ▼
Eskom-owned OCGTs[2]	**4 708**	3 951	19.2 ▲
IPPs[3]	**2 204**	2 280	3.3 ▼
IPP OCGTs[4]	**4 574**	3 578	27.8 ▲
Renewable IPPs	**2 027**	2 178	6.9 ▼
International purchases[3]	**625**	567	10.3 ▲

1. Excludes pre-commissioning production of 1 369GWh from certain Medupi and Kusile units (2021: 5 735GWh).
2. The average cost is calculated on fuel and start-up costs only, excluding storage and demurrage costs. For comparability, the calculation is shown gross of rebates as a result of the write-off of the R3.6 billion diesel rebate receivable in 2022.
3. Note that the unit costs of IPPs and international purchases are 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 capacity charges, and after the lease accounting adjustment.

The increase in coal and international purchases unit costs was largely due to inflationary and periodic contractual increases. Renewable IPP unit costs continue to decline as suppliers in the latter RE-IPP bid windows, with lower contracted rates, are connected to the grid and contribute an increasingly higher proportion of production. Nuclear unit costs declined due to higher production at Koeberg Power Station. The unsustainable increases in Eskom-owned and IPP OCGT unit costs were driven by unfavourable diesel price movements during the year.

Other operating costs
The number of employees (including fixed-term contractors) declined by 5.4% to 40 421 at year end (2021: 42 749) due to natural attrition. Net employee benefit costs for the year amounted to R33 billion, after capitalising costs to qualifying assets (2021: R32.9 billion).

Despite the reduction in headcount, employee costs have remained relatively stable. This is largely a result of lower capitalisation of costs, containing salary increases to affordable levels and an adjustment to pension benefits based on classification as a defined benefit fund. Overtime costs remained stable at R2.1 billion (2021: R2.1 billion) due to exceptionally high levels of unplanned maintenance required during the year. Contract labour costs and other staff-related costs, such as training and travel, were well contained.

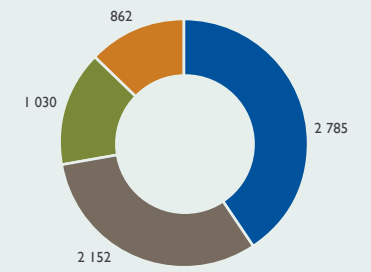
Other operating expenditure increased by 18.9% to R28.8 billion (2021: R24.2 billion), largely due to a 9.5% increase in repairs and maintenance, coupled with certain once-off items. These include R1.1 billion relating to the write-off of assets damaged in the explosion at Medupi Unit 4 and R2.7 billion relating to a provision raised for a compensation event claim at Koeberg Power Station.

Fuel price sensitivity
Poor generating plant performance has led to increased reliance on Eskom-owned and IPP OCGTs to alleviate supply constraints and avoid or minimise loadshedding. However, OCGTs are an expensive source of generation and particularly susceptible to fuel price fluctuations. The wholesale diesel purchase price, before rebates, reached a high of R18.87/ℓ for the financial year in March 2022 and averaged R15.70/ℓ over the course of the financial year (2021: average of R12.12/ℓ), leading to above-inflation growth in primary energy costs.

The Russian invasion of Ukraine in February 2022 has had a detrimental impact on the sustainability of the global energy sector. We have been affected by rising fuel prices and declining fuel availability, leading to increased costs. Diesel and fuel oil, required to ensure security of supply and to return units to service after maintenance, are expected to rise to unsustainable levels.

Our financial plan for the 2023 financial year assumed an increase in diesel prices to around R21.57/ℓ, before rebates, with the impact on our primary energy costs shown below. We have considered the knock-on effect to the coal value chain, including the transport of coal to power stations by road, as well as fuel oil start-up costs for coal-fired power stations.

Impact on budget costs, R million



Therefore, budgeted primary energy costs for the 2023 financial year were increased by a further R6.8 billion, or 4.8%, from the original budget as a direct result of fuel price increases. This amount was ring-fenced for the management of fuel price fluctuations to minimise operational and financial risks; it has been consumed by the fuel price adjustments experienced during the 2023 financial year so far.

The group's expenditure on repairs and maintenance (before intergroup eliminations and excluding associated labour costs and capitalised maintenance) increased to R19.1 billion (2021: R17.4 billion).

MAINTENANCE SPEND
Generating plant R14.7 billion (2021: R13.4 billion) ▲ **9.6%**
Transmission network R0.8 billion (2021: R0.7 billion) ▲ **16.5%**
Distribution network R3.6 billion (2021: R3.4 billion) ▲ **7.7%**

Extensive planned maintenance was required on generating plant to address performance challenges and defects in line with the Generation recovery plan, while significantly higher levels of unplanned maintenance was needed to address several critical plant issues. In addition, the availability of resources to conduct maintenance improved due to the easing of lockdown restrictions.

The impairment of financial assets amounted to R589 million (2021: R91 million reversal) relating mainly to trade and other receivables. The impairment of other assets amounted to R0.8 billion (2021: R1.9 billion) due to the continuation of an inventory clean-up exercise to address shortcomings in the internal controls relating to consumables management.

Depreciation and amortisation
Depreciation and amortisation expense increased by 20.4% to R32 billion (2021: R26.6 billion), largely due to the commissioning of additional generating units through the new build programme. Kusile Units 2 and 3 achieved commercial operation on 29 October 2020 and 29 March 2021 respectively. Medupi Unit 1 achieved commercial operation on 31 July 2021.

Net fair value movements on financial instruments and embedded derivatives

The group recorded a net fair value loss on financial instruments, excluding embedded derivatives, of R4.7 billion (2021: R7.7 billion), mainly due to fair value movements on derivative hedging instruments arising from credit risk adjustments and the strengthening of the Rand against major currencies. This was partially offset by a gain on translation of foreign borrowings due to the strengthening of the Rand.

YEAR-END EXCHANGE RATES
EUR/ZAR 16.19 ▼ (2021: 17.32)
USD/ZAR 14.59 ▼ (2021: 14.75)

A net fair value gain of R1.6 billion was recorded on embedded derivatives (2021: R0.4 billion net fair value loss), linked mostly to the increase in aluminium prices during the year.

NERSA approved a new 10-year NPA for the South32 Hillside aluminium smelter, effective from 1 August 2021, with a Rand-denominated tariff and escalation linked to the South African Producer Price Index.

Net finance cost and debt

R billion	2022	2021
Debt securities and borrowings	**29.1**	31.4
Derivatives held for risk management	**6.7**	6.6
Other	**7.8**	7.2
Gross finance cost	**43.6**	45.3
Finance income	**(2.4)**	(2.4)
Cost of borrowings capitalised to assets	**(8.2)**	(11.7)
Net finance cost	**33.1**	31.1

Gross finance costs have declined slightly due to an overall reduction in debt, partially offset by a higher average cost of borrowings. Net finance costs have increased to R33.1 billion largely as a result of lower capitalisation of interest. As the new build programme nears completion and new units are transferred to commercial operation, lower borrowing costs are capitalised to the related asset base, negatively affecting profitability.

COST OF DEBT AND INVESTMENT RETURN
Average cost of debt 10.02% ▲ (2021: 9.66%)
Average investment return 3.92% ▲ (2021: 3.87%)

The average cost of debt is based on a blend of fixed and floating rates, with the majority of our borrowings on fixed rates to hedge against interest rate exposures.

R billion	2022	2021
Debt securities and borrowings	**396.3**	401.8
Cash and cash equivalents	**(15.9)**	(4.0)
Net derivatives held for risk management	**1.5**	(4.3)
Total net interest-bearing debt	**381.9**	393.5

1. In the table above, assets are reflected as negative amounts.

Our gross debt securities and borrowings have decreased by R5.5 billion to R396.3 billion (2021: R401.8 billion). We repaid debt of R38.9 billion and raised R33 billion during the year, net of commercial paper. Furthermore, foreign borrowings were affected by exchange rate movements. Altogether, we reduced net interest-bearing debt by R11.6 billion, or 3%, after accounting for growth in cash as well as exchange rate movements on net derivatives.

OUR FINANCES continued

Credit ratings and funding

Solvency ratios

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Group							
FFO as % of gross debt, %	19.10	11.97	**10.60**	●	**13.98**	9.42	7.74
FFO (after net interest) as % of gross debt, %	11.90	5.11	**3.95**	●	**6.93**	1.42	0.49
Cash interest cover, ratio[SC]	2.04	1.33	**1.79**	■	**1.68**	0.85	0.94
Debt service cover, ratio[SC]	0.91	0.55	**0.74**	●	**0.76**	0.30	0.52
Gross debt/EBITDA, ratio	5.63	9.59	**11.12**	●	**8.63**	13.98	14.43
Debt/equity (including long-term provisions), ratio	1.52	1.83	**1.97**	●	**1.82**	2.04	2.44
Gearing, %	60	65	**66**	●	**65**	67	71

All solvency ratios, except cash interest cover, performed better than target and improved significantly year-on-year, although they remain well below investment-grade levels. The positive performance is largely attributable to improved EBITDA performance, together with Government equity support which helped us to reduce our debt balance during the year. Despite this improvement, operating cash flows remain inadequate to fund our debt servicing requirements.

Credit ratings

Summary of Eskom's credit ratings

Rating	Standard & Poor's	Moody's	Fitch: local currency
Foreign currency	CCC+	caa1	n/a
Local currency	CCC+	caa1	B
Standalone	ccc-	caa3	ccc-
Outlook	Stable	Positive	Stable
Last rating action	Affirmed	Affirmed	Affirmed
Last action date	25 Nov 2022	31 Oct 2022	27 Sep 2022

During the year, Standard & Poor's and Fitch affirmed our previous credit ratings in November and December 2021 respectively. Standard & Poor's maintained their negative outlook, while Fitch revised its outlook from negative to stable, in line with its improved outlook for the Sovereign.

Subsequent to year end, Moody's affirmed our previous credit ratings with a negative outlook in April 2022, expressing its concern about Eskom's debt burden, arrear municipal debt, operational challenges and loadshedding, as well as long-term uncertainty around electricity tariffs. In September 2022, Fitch once again affirmed our credit ratings with a stable outlook.

Moody's revised its outlook from negative to positive in October 2022 and Standard & Poor's revised its outlook from negative to stable in November 2022 on the back of the announcement of a prospective debt relief solution for Eskom by the Minister of Finance in the Medium-Term Budget Policy Statement (MTBPS). The debt relief is expected to address between one-third and two-thirds of Eskom's debt balance.

Our ratings remain at sub-investment grade level, which affects our ability to access unguaranteed funding. Successful implementation of our turnaround plan and maintaining a positive outlook for the South African economy remain critical for improving our credit ratings.

Funding activities and risks

Funding progress against the 2022 borrowing programme

Potential sources, R billion	Aspirational funding	Committed by year end
Development finance institutions (DFIs)	7.9	**6.3**
Export credit agencies (ECAs)	0.7	**0.4**
Domestic bonds and notes	8.5	**7.1**
Commercial paper	0.5	**0.6**
Private placement[1]	7.0	**7.0**
Syndicated loan[1]	10.3	**14.4**
International bond	7.0	**–**
Derivative loans	1.0	**–**
Total	42.9	**35.8**

1. Planned funding, originally targeted for 2021, postponed to 2022.
2. The table above includes the rolling of commercial paper, whereas the debt raised figure in the statement of cash flows does not.
3. Committed sources include funding raised or signed facilities with milestone drawdowns.

Our borrowing programme for 2022 was revised from a target of R25.5 billion to an aspirational funding level of R42.9 billion to accommodate the postponement of the private placement and syndicated loan from the previous financial year. We exceeded the target for the year by securing funding of R35.8 billion (2021: R18.9 billion).

A $500 million Euro bond was issued through a private placement during the second quarter of the year. The syndicated loan was executed in two phases, with disbursement in October 2021 and March 2022. Refinancing of the syndicated loan was concluded in the 2023 financial year. The planned issuance of a public international bond in November 2021 was cancelled due to delays in the Government bond programme. We considered a private placement in the international bond market as a substitute, but did not proceed due to the negative interest rate environment at the time.

The primary focus of our borrowing programme over the next five years is to continue to secure cost-effective funding, while not exceeding a gross debt balance of R400 billion, by borrowing less than we repay annually. This remains the only approach within our control to deleverage our balance sheet. Continued Government support is necessary to provide debt relief and liquidity support while awaiting implementation of Government's debt relief solution.

Annual borrowing programme	R billion
2023	**44.5**
2024	**29.8**
2025	**21.7**
2026	**17.3**
2027	**10.2**
Total	**123.5**

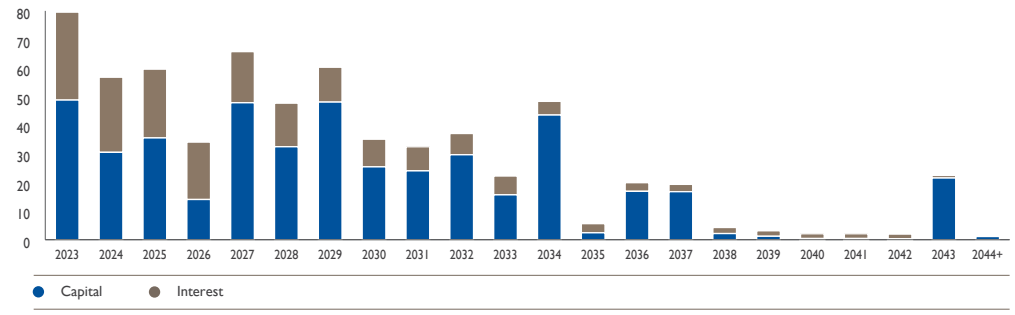
We had planned to secure borrowings of R44.5 billion during the 2023 financial year; however, due to increased operational challenges and capital requirements, the adjusted borrowing programme includes raising around R58 billion in 2023. The borrowing programme for the coming financial year includes the issuance of a private international bond. In addition to Government guarantees, the market has indicated that a commitment to sustainability targets may be required for any new issuance.

Demand for Eskom's unguaranteed debt remains limited as investor mandates typically restrict access to sub-investment grade arrangements unless they are guaranteed. At 31 March 2022, we had utilised R322 billion, or 92%, of the guarantees available under Government's R350 billion Guarantee Framework Agreement (GFA) (2021: R305 billion). After previously guaranteed debt is repaid, 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. Discussions are under way with DPE and National Treasury to obtain support for further guarantees and to establish a new GFA to address any potential risks. This will be considered together with Government's debt relief solution, further details of which will be communicated in the National Budget Speech in February 2023.

We intend to raise a significant portion of funding from the domestic bond market through opportunities for switching maturing bonds into longer term bonds. Our Domestic Medium-Term Note (DMTN) programme has been increased from R160 billion to R167 billion to facilitate further domestic funding.

Anticipated capital and interest cash flows (net of swaps) of the existing debt portfolio at 31 March 2022, R billion



OUR FINANCES continued

Our debt repayment profile remains pressured over both the short and long term, with debt repayments of R176.9 billion and interest payments of R118.9 billion over the next five years to 31 March 2027. Total debt service costs for 2023 are expected to amount to R79.5 billion (2022: R71.4 billion).

Managing liquidity

Liquidity remains a key challenge, limiting our ability to achieve financial and operational sustainability. High debt servicing costs, lack of cost-reflective tariffs, escalating arrear municipal debt and poor generating plant performance contribute to our liquidity constraints and threaten Eskom's ability to continue as a going concern.

To improve liquidity, we restricted organisational cash requirements by limiting capital expenditure and achieving targeted savings on operating expenditure. Improving our profitability and solvency ratios in a sustainable manner requires successful implementation of our financial turnaround objectives, each of which is discussed in more detail below.

IMPROVE THE INCOME STATEMENT
Pursue cost-reflective tariffs
Achieve sustainable cost curtailment measures

STRENGTHEN THE BALANCE SHEET
Obtain Government support
Reduce reliance on debt
Manage arrear debt
Dispose of non-core assets

Cash and cash equivalents improved considerably during the year, with an available balance of R15.9 billion at year end (2021: R4 billion). We relied heavily on Government support to maintain a positive cash balance, with R31.7 billion received during the year (2021: R56 billion). Liquidity was further bolstered by improved cash from operations, largely due to the recovery in revenue, as well as the success of the borrowing programme, by raising debt facilities postponed from the prior year.

Government support

Government support remains a key enabler to servicing our debt balance and strengthening our balance sheet.

A total of 31.7 billion ordinary shares with a par value of R1 were issued in return for the equity received during the year.

Eskom has received a cumulative R136.7 billion in Government support over the last three years.

Government's continued support to our balance sheet and restructuring was confirmed in the 2022 National Budget, with R21.9 billion committed for the coming financial year. The Minister of Finance announced a total of around R88 billion support to be made available until 2026, which was later confirmed in the MTBPS on 26 October 2022. We will rely on these equity injections to meet future liquidity requirements.

Government support	R billion
2023	21.9
2024	21.0
2025	22.0
2026	23.0
Total	**87.9**

The conditions of the Special Appropriation Act, 2019 attached to the support for 2023 were finalised in October 2022 and relate to various financial, operational, governance and restructuring matters. We remain compliant with the conditions to ensure that Government support is made available when required.

Reducing reliance on debt

Addressing our high debt burden is a key component of our turnaround plan, to ensure the long-term financial sustainability of Eskom. The Minister of Finance announced a prospective debt relief solution in the MTBPS on 26 October 2022. While the selection of the relevant debt instruments and the method of effecting the relief is still to be determined, the quantum is expected to be between one-third and two-thirds of Eskom's debt balance. Further detail, including the conditions to be attached to the relief, will be communicated by the Minister of Finance in the National Budget Speech in February 2023.

Price applications to support revenue requirements

Improving our income statement through revenue growth remains a key priority by migrating towards cost-reflective tariffs from NERSA. Despite applying for revenue based on prudent and efficient costs in accordance with the MYPD methodology, the revenue and RCA determinations made by NERSA over recent years have not enabled the migration towards cost-reflectivity.

As reported previously, we have lodged several review applications with the courts to challenge recent NERSA determinations. The legal processes related to the recovery of an estimated R103 billion still need to be finalised by the courts; developments since last year's report are discussed below.

Refer to page 72 of our 2021 integrated report for further information on the background to these review applications

Court review applications

RCA decisions for the 2015 to 2017 financial years (MYPD 3) – R20 billion

In January 2021, NERSA awarded R4.7 billion in response to the court judgment to reconsider its original RCA decision. We submitted a review application for the remitted decision in May 2021. During February 2022, the Court granted NERSA an opportunity to provide further records of its decision. The legal process is still under way.

RCA decision for the 2018 financial year (MYPD 3) – R14 billion

We submitted a review application in April 2020, which NERSA opposed in October 2020. A court date is still awaited.

Revenue and RCA decisions for the 2019 financial year – R10 billion

In January 2021, NERSA awarded Eskom R1.3 billion out of the R5.4 billion supplementary tariff application. In response to NERSA's 2019 RCA decision, a review application was lodged in April 2021, which also covers NERSA's decision on the supplementary application. NERSA has opposed this review and the legal process is under way.

Revenue decision for financial years 2020 to 2022 (MYPD 4) – R59 billion

In February 2021, the High Court delivered a judgment relating to the R69 billion Government support incorrectly deducted by NERSA in its revenue decision for MYPD 4, allowing Eskom to recover R10 billion during the 2022 financial year. NERSA lodged its appeal with the Supreme Court of Appeal (SCA) in June 2021.

In June 2022, the SCA issued an order on the timing of the recovery of the remaining R59 billion which requires NERSA to include an additional R15 billion in allowable revenue per year in the 2024 to 2026 financial years, and R14 billion in the 2027 financial year.

Revenue decision for financial years 2023 to 2025 (MYPD 5)

We submitted our MYPD 5 revenue application to NERSA in June 2021. In September 2021, NERSA rejected the application on the basis that the MYPD methodology was no longer valid and that it intended to develop a revised pricing methodology. We submitted an urgent High Court review, requiring NERSA to urgently process the revenue application for at least one year, as required by law.

The High Court ordered NERSA to process the revenue application for the 2023 financial year. Public hearings were held in January 2022 and NERSA announced its decision in February 2022, resulting in a standard tariff increase (including the RCA) of 9.61% for the 2023 financial year, significantly lower than the 20.5% for which we applied. The reasons for decision was published in June 2022. Eskom analysed the decision and submitted a court review application in July 2022, based on NERSA's incorrect treatment of the regulatory asset base (RAB).

On 24 October 2022, the High Court set aside NERSA's decision in respect of the valuation of the RAB, although no retrospective adjustment to the 9.61% tariff increase for 2023 was granted. NERSA has been ordered to apply its MYPD methodology for redetermination of the valuation of the RAB, which will form the basis for NERSA's decision for the 2024 and 2025 financial years.

In July 2022, the High Court issued an order requiring NERSA to assess the revenue application for the 2024 financial year by 24 December 2022, based on the existing MYPD methodology. NERSA published our revenue application for both the 2024 and 2025 financial years for stakeholder consultation, with public hearings held in September 2022. The revenue application equates to an average tariff increase of 32.02% for 2024 and 9.74% for 2025. We await NERSA's decision, which will be dependent on the RAB valuation mentioned above.

In August 2020, we submitted proposals for the restructuring of tariffs to NERSA – existing tariff structures no longer accurately reflect the component costs for energy, network and retail requirements, and need to be modernised to address prevailing circumstances and Eskom's planned legal separation.

NERSA's decision was expected during the 2022 financial year, for implementation in the 2023 financial year. However, NERSA did not consider these proposals on the basis that a revised pricing methodology is being developed. We have submitted additional proposals to address other shortfalls of the existing tariff structure amid the planned restructuring of Eskom and the electricity supply industry. Key among these is the introduction of a generation capacity charge to address the recovery of fixed generation costs. NERSA is required to process the application for implementation in the 2024 financial year.

Other pending decisions

RCA decision for the 2020 financial year (MYPD 4)

In December 2020, we submitted an RCA application of R8.4 billion for the 2020 financial year. In December 2021, NERSA approved R3.5 billion to be recovered from standard tariff customers, local special pricing arrangement customers and international customers. The reasons for decision was published in February 2022. A decision on the timing of the implementation of the RCA is awaited.

OUR FINANCES continued

RCA decision for the 2021 financial year (MYPD 4)

Based on the 2021 audited annual financial statements, we submitted an RCA application of R10.7 billion to NERSA in November 2021. NERSA has not yet issued its decision.

RCA decision for the 2022 financial year (MYPD 4)

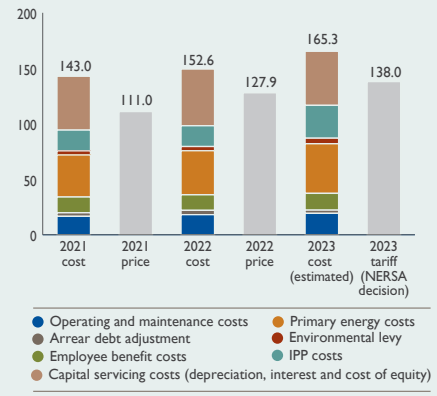
The RCA for 2022 will be calculated in accordance with the existing MYPD methodology, based on the audited financial results for the year. It is imperative that decisions are made timeously to allow the recovery of efficient and prudent costs, on our path towards financial sustainability.

Recovering the costs of generating, transmitting and distributing electricity

Our three main activities are the generation, transmission and distribution of electricity, which are separately licensed by NERSA and subject to their economic regulation. The component costs of these activities are recovered through allowable revenue determined by NERSA. These include both controllable costs, such as primary energy, maintenance and employee benefit costs associated with our power stations and network, as well as uncontrollable costs, such as electricity purchased from IPPs and environmental levies due. The revenue determination is also intended to address capital servicing costs, including depreciation on assets and the cost of debt and equity.

The graph below provides a breakdown of these costs and the average price per unit of electricity sold for the past two years, as well as the coming financial year.

Cost breakdown and average price per year, c/kWh



In order to be financially sustainable, we require cost-reflective tariffs, where the revenue determined by NERSA is sufficient to cover the prudent and efficient costs that we incur. To achieve this, the average tariff for the 2022 financial year would have had to increase by approximately 19%; instead, the increase awarded resulted in a revenue shortfall of around R48 billion for the year.

Had cost-reflective tariffs applied for the 2022 financial year, this would have translated to a tariff of 152.60c/kWh, or US 9.54c/kWh (assuming an exchange rate of R16.00), which would still qualify as one of the lowest non-subsidised average prices in the world based on global benchmarks included in our MYPD 5 revenue application.

IPP contracts, which are negotiated by DMRE, remain our largest uncontrollable cost, as well as the cost with the largest year-on-year increase. Given the planned growth of the RE-IPP Programme and the impact of the RMIPPP Programme, IPP costs are expected to constitute a larger percentage of our total costs for the foreseeable future. However, this is subject to the commissioning of new IPP capacity as planned. In the 2022 financial year, IPP costs accounted for 27% of primary energy costs but only 7% of total electricity produced.

We were awarded a standard tariff increase of 9.61% for the 2023 financial year. The estimated costs in our revenue application are approximately 20% higher than the revenue allowed by NERSA, which may lead to a revenue shortfall of around R55 billion for the coming year. The tariff increase, excluding the RCA, amounts to only 3.49%, which is well below inflation and will be consumed by the expected increase in IPP costs, leaving insufficient revenue to address our controllable costs and provide a fair return on capital.

The lack of cost-reflective tariffs has been an ongoing challenge since 2006 and one of the main reasons for our financial challenges, requiring increased reliance on debt to fund the annual revenue shortfall. This, together with our new build programme, has led to our gross debt securities and borrowings balance escalating from R29 billion in 2005 to R396.3 billion by 2022.

We have achieved some progress in closing the gap towards cost-reflective tariffs in recent years by challenging NERSA's decisions through judicial review. However, court processes remain slow and even favourable judgments take some time to lead to higher tariff levels. We continue our efforts to ensure a migration to cost-reflective tariffs through our revenue applications, as well as court review applications where required. Our three-year MYPD 5 application proposed gradual corrections to the tariff towards cost-reflectivity, as opposed to a single large adjustment, to lessen the impact on consumers.

Controlling expenditure to improve liquidity

Another focus area of our turnaround plan is improving our income statement through sustainable cost curtailment and improving efficiency of capital expenditure. We are targeting a reduction of R61.8 billion in our cost base by 2023. We have already achieved combined savings and other income of R50.7 billion over the last three years, thereby exceeding the cumulative target of R40.4 billion so far.

For the 2022 financial year, we achieved savings of R20 billion against a target of R20.1 billion, with the majority attributable to primary energy cost optimisation, and, to a lesser extent, a reduction in targeted employee benefit costs and other sundry expenses. Initiatives for other income and capital expenditure optimisation further contributed to performance. Primary energy savings relate mostly to working capital, and do not necessarily lead to an immediate improvement in the income statement. Regrettably, savings have been partially offset by an overspend in fuel oil and OCGTs.

To ensure that savings are both achievable and sustainable, divisions have developed strategies to reduce costs, with roadmaps in place. The Turnaround Management Office is monitoring the implementation of initiatives. Procurement is an ongoing area of improvement and interventions have been put in place to ensure that we derive optimal value from suppliers – these include price check tools, checklists and standardised rates.

Managing arrear debt

Systemic challenges in South Africa, such as crime, social inequality and economic pressures, have led to persistent revenue recovery challenges and a continued culture of non-payment in some sectors. Collection of the revenue owed to us and the recovery of arrear debt from delinquent municipalities remain priorities to improve liquidity and strengthen our balance sheet.

Key debt management indicators at 31 March 2022

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Arrear debt as % of revenue, %	2.65	3.54	**3.74**	▲	**3.91**	3.24	3.69
Average debtors days (including Soweto and international), days	n/a	86.16	**89.18**	●	**88.44**	101.92	90.01
Debtors days – municipalities, average debtors days	n/a	157.23	**143.18**	▲	**149.63**	140.65	116.05
Debtors days – large power top customers excluding disputes, average debtors days	n/a	15.04	**15.84**	●	**14.63**	15.01	14.60
Other large power user debtors days (<100GWh p.a.), average debtors days	n/a	17.47	**17.46**	▲	**17.54**	17.50	16.98
Debtors days – small power users excluding Soweto, average debtors days	n/a	47.50	**52.45**	●	**47.70**	50.07	44.09
Payment levels excluding Soweto interest, %[SC]	95.70	95.70	**95.70**	●	**95.97**	96.82	96.24

1. Debtors days are based on amounts processed on our billing system, and are shown before accounting adjustments relating to non-collectability. Therefore, the amounts may not agree with those disclosed in the annual financial statements. No targets have been approved for the 2025 financial year and are therefore shown as not applicable.

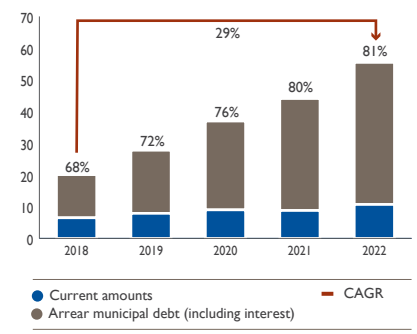
Average debtors days have worsened across municipal and large power user customers compared to the prior year. In particular, arrear municipal debt has seen a significant increase and declining payment levels. Average municipal debtors days are unacceptably high at nearly 150 days.

For details of debtors by category, including impairment and carrying values, refer to notes 5.1.1 and 20 in the consolidated annual financial statements

Arrear municipal debt

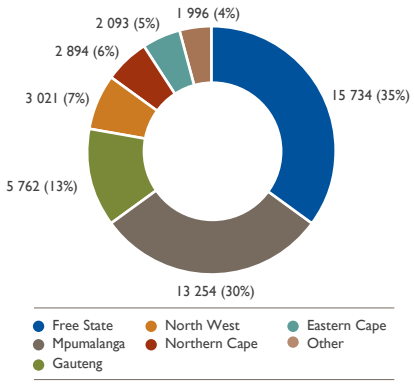
Total arrear municipal debt has continued to escalate to unsustainably high levels, amounting to R44.8 billion (including interest) at year end (2021: R35.3 billion). The top 20 delinquent municipalities accounted for 80% of total arrear municipal debt, with over 35% of the total owed by Free State municipalities. At year end, there were 53 municipalities with total arrear debt of more than R100 million each (2021: 47), as the problem continues to worsen.

Invoiced municipal debt (including interest) and percentage of total debt in arrears at 31 March 2022, R billion



OUR FINANCES continued

Arrear municipal debt by province, R million



The top 10 defaulting municipalities owed R29.8 billion in arrear debt at year end (or 67% of total arrear municipal debt).

Municipality, R million	2022	2021
1. Maluti-a-Phofung Local Municipality, Free State	**6 499**	5 804
2. Emalahleni Local Municipality, Mpumalanga	**5 978**	4 668
3. Matjhabeng Local Municipality, Free State	**4 398**	3 719
4. Emfuleni Local Municipality, Gauteng	**4 240**	2 714
5. Govan Mbeki Local Municipality, Mpumalanga	**2 898**	2 318
6. Lekwa Local Municipality, Mpumalanga	**1 536**	1 292
7. Ngwathe Local Municipality, Free State	**1 467**	1 320
8. Thaba Chweu Local Municipality, Mpumalanga	**1 047**	840
9. City of Matlosana Local Municipality, North West	**884**	582
10. Ditsobotla Local Municipality, North West	**815**	677

Dealing with delinquent municipalities
We have continued our efforts to address arrear municipal debt through our municipal debt management strategy. The objectives of our strategy include:

CURRENT ACCOUNT MANAGEMENT
Stop defaulting and enforce payment of current amounts

ARREAR DEBT MANAGEMENT
Reduce and/or eliminate overdue debt

FUTURE DEBT MANAGEMENT
Prevent future defaulting through pre-emptive action

To achieve these, we continue to enhance existing revenue and debt management processes, enforce Eskom's rights through legal action and expedite Government interventions. We employ a multi-stakeholder engagement approach through various intergovernmental platforms.

We have established a project management office to drive the implementation of our active partnering model, which aims to assist defaulting municipalities in their revenue collection efforts and improve municipal service delivery. Despite efforts to engage with municipalities, only two active partnering agreements are in place, with Phumelela and Msunduzi Local Municipalities. An active partnering agreement with Raymond Mhlaba Local Municipality is being renegotiated after coming to an end.

Maluti-a-Phofung Local Municipality, our largest defaulter at year end, has resolved to enter into a distribution agency agreement with Eskom. The municipality has submitted a council resolution supporting the agreement; however, the agreement is still to be concluded.

PAYMENT AGREEMENTS AT 31 MARCH 2022

34 active payment agreements in place, with **only 10 fully honoured**

This includes **nine of the top 20** defaulting municipalities, with **only one fully honoured**

Non-adherence to payment agreements continues to contribute to the increase in arrear municipal debt

We are exploring all avenues to collect the revenue due to us, with interruption of supply being the last resort. As previously reported, Eskom lost two appeals at the SCA, setting aside our decision to interrupt supply to Emalahleni and Thaba Chweu Local Municipalities. The SCA obliged the national and provincial governments to intervene in terms of the Constitution. In January 2021, we approached the Constitutional Court to appeal the ruling of the SCA; however, the appeal was rejected due to lack of reasonable prospects of success.

In March 2022, the SCA ruled that Letsemeng Local Municipality must pay all amounts to Eskom when due and payable. The SCA also ordered the municipality to pay its portion of the equitable share that relates to electricity within 24 hours of receipt and to settle all arrear debts owing to Eskom. The SCA judgment affirmed Eskom's legal right to payment for services rendered to municipalities and made it clear that there is no legal basis for delinquent municipalities' failure to pay. The municipality's appeal to the Constitutional Court was dismissed in July 2022. In September 2022, the municipality submitted its payment proposal to Eskom.

In July 2022, the High Court granted Eskom the right to attach the bank accounts of the City of Matlosana Local Municipality after the municipality failed to adhere to previous court orders. The municipality is challenging the court ruling and we are opposing the matter.

While we believe that favourable court rulings go a long way in enforcing Eskom's legal right to payment, we simply cannot solve our municipal debt challenges on our own, given the extent thereof. We continue to participate fully in the work of the Eskom Political Task Team and its Multi-disciplinary Revenue Committee (MdRC). Unfortunately, progress has been slow; continued support from Government is critical to addressing the root causes of the problem.

The National Treasury proposal, mentioned in last year's report, to assist municipalities in crisis and deal with the arrear debt challenges, is still being reviewed and influenced due to the complexity of the issues. We continue to engage with National Treasury on reinforcing financial oversight of affected municipalities and ensuring municipalities prioritise the settlement of the arrear amounts due to Eskom. It is anticipated that further measures will be announced by the Minister of Finance in the National Budget Speech in February 2023, as part of the conditions of Eskom's prospective debt relief solution.

Residential arrear debt
Total invoiced Soweto debt has decreased to R4.6 billion (including interest) at year end (2021: R7.5 billion). The reduction in Soweto debt is mainly due to prescribed debt written off and reversal of "in duplum" interest. While average payment levels in Soweto remain low at 25.1%, there has been some improvement since the prior year (2021: 20.6%).

Exploratory engagements are under way for the proposed transfer of customers to City Power from Eskom's licensed areas of supply, including Soweto and Sandton. A memorandum of understanding has been signed with the City of Johannesburg. Once the viability of the business case has been assessed, we will consult with all key stakeholders. Similar discussions are under way with the City of Cape Town regarding certain Eskom areas of supply.

International arrear debt
Only EDM of Mozambique remains in arrears, with R579 million outstanding at year end, of which 88% is overdue. In June 2022, we submitted a settlement offer on the disputed amount of R350 million, which EDM declined. The mediation process is still under way.

Disposal of non-core assets

As reported last year, the sale of Eskom Finance Company SOC Ltd was not approved by the shareholder. The disposal was put on hold as market conditions were not considered favourable at the time.

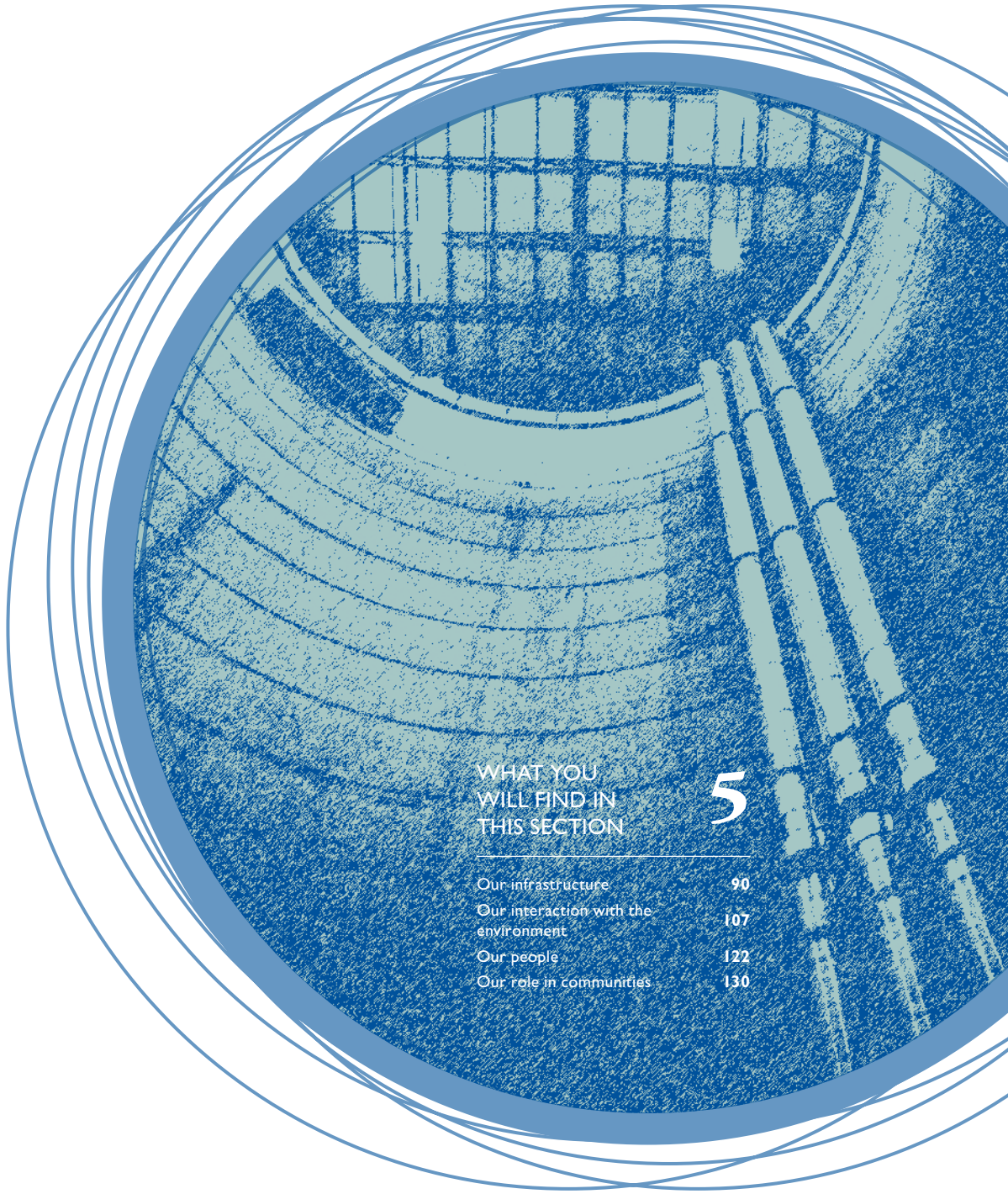
In July 2022, the shareholder requested Eskom to commence with the disposal process once again. The Board's Investment and Finance Committee approved the disposal strategy in August 2022. A request for proposal was issued in September 2022 and expressions of interest were received from various parties. The bidding process closed in November 2022 and a preferred bidder was approved by the Investment and Finance Committee in December 2022. Eskom will only be able to conclude the disposal process following PFMA approval.

The disposal of non-core properties regrettably experienced delays while finalising the review of Eskom's real estate strategy. A disposal programme was launched during the 2023 financial year for the sale of non-core and underutilised properties. We are also pursuing no-regret interventions such as optimising office space.

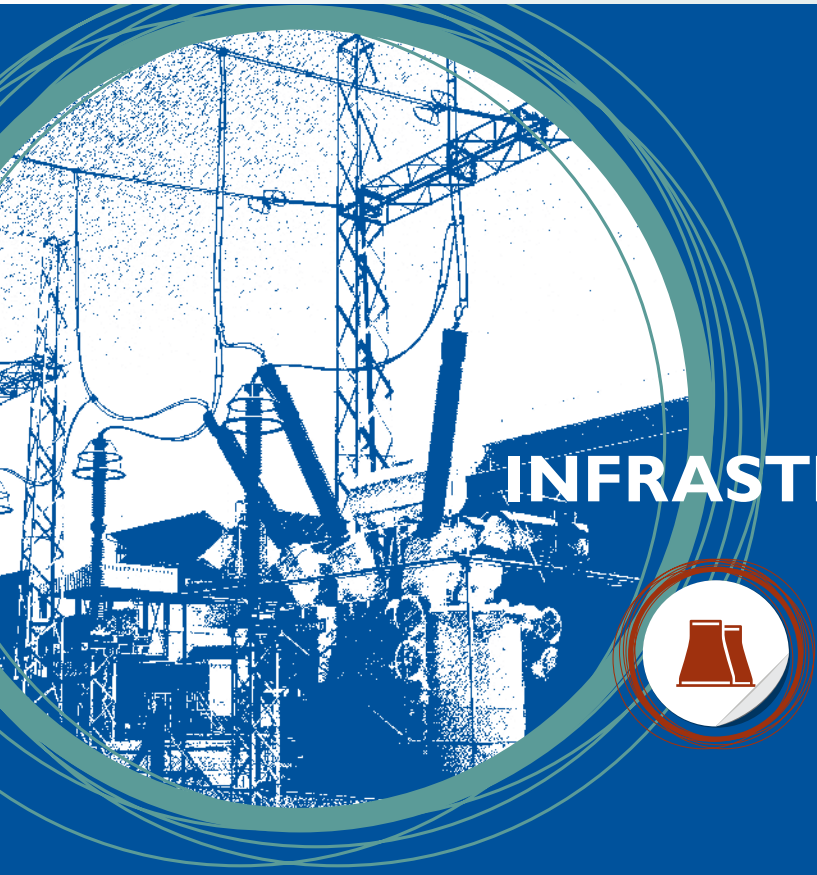
Future focus areas

- Pursuing a cost-reflective tariff path to recover prudent and efficient costs and earn a fair return on assets, thereby improving long-term financial sustainability
- Implementing cost curtailment initiatives to achieve combined savings of R61.8 billion by 2023
- Ensuring effective use of constrained financial resources to address poor plant performance, expansion requirements and environmental compliance
- Strengthening the balance sheet by improving working capital management and pursuing a sustainable debt relief solution with Government, which will assist in containing debt service costs
- Engaging with lenders on the legal separation and management of existing debt
- Adhering to Government equity conditions to ensure continued liquidity support
- Maintaining strong relationships with investors and pursuing climate funding to deliver Eskom's Just Energy Transition
- Delivering on the municipal debt management strategy and engaging with Government on proposals to improve payment levels and recover arrear debt from delinquent municipalities

OPERATING PERFORMANCE



WHAT YOU WILL FIND IN THIS SECTION 5



OUR INFRASTRUCTURE

Highlights

- Matimba boiler 5 achieved 3 064 days on 31 March 2022 (more than eight years) since the last boiler tube failure, setting a new record
- Transmission system reliability improved, with system minutes <1 performing well within target
- Customers experienced higher levels of responsiveness, fewer supply interruptions, improved outage duration and faster restoration of supply
- Medupi commercialised the last of six generation units on 31 July 2021
- Kusile Unit 4 connected to the national grid for the first time, and achieved full load of 800MW

Improvements

- Completion of the Camden ash dam solution, with the station now able to run all units
- Boiler modifications on all six Medupi and two Kusile units showing results, with an average recovery of 145MW per unit
- The Board approved a short-term cross-border pricing strategy to 2025
- Stable labour relations and stakeholder management in the new build megaprojects

Challenges

- Koeberg Unit 2 steam generator replacement project deferred to the next outage in 2023
- Transmission line fault performance deteriorated slightly, mainly due to adverse environmental factors
- High levels of network asset vandalism, equipment theft and overloaded networks leading to increased breakdowns, higher maintenance cost and higher levels of risk to employees
- Some Generation coal and emissions control projects experiencing construction and commercial challenges resulting in delays, risking achievement of the 2019 Minimum Emission Standards targets

Lowlights

- High generating plant unavailability resulting in capacity constraints, leading to 65 days of loadshedding during the year
- Continued high utilisation of expensive gas turbines due to poor plant performance, at a combined cost of energy (Eskom and IPP-owned OCGTs) of R14.7 billion (2021: R7 billion)
- Medupi Unit 4 experienced a generator explosion, resulting in 720MW not being available to the grid until August 2024
- Delays in concluding the Risk Mitigation IPP Procurement Programme, further contributing to capacity constraints
- Energy losses due to a culture of non-payment, illegal connections, theft and fraud remain high

We aim to support security of electricity supply to the country through effective operation of our assets. The supply and demand of electricity is balanced in real time to ensure stability of the national grid.

Our infrastructure constitutes our manufactured capital. It consists of our generation fleet and transmission and distribution networks, supplemented by IPP and cross-border import capacity. It further includes new power stations and high-voltage transmission lines being constructed under our new build programme, together with projects aimed at delivering customer and IPP connections, refurbishing existing assets and ensuring environmental compliance.

Managing supply and demand

Role of the System Operator

The System Operator has to manage dispatchable generation capacity to balance electricity supply from power stations and demand from customers in real time, by maintaining the system frequency within a dead band of 49.85Hz to 50.15Hz so that generators and other motors connected to the power system continue to operate within design specifications. Furthermore, dispatchable capacity has to be taken off or placed on load to compensate for variations in energy supplied by non-dispatchable capacity in the form of renewable generation. In addition, the System Operator can make use of interruptible load to assist in managing the system frequency – if the frequency is too low, it could cause a cascading trip of generating units, with the ultimate risk of national blackout, and if the frequency is too high, it risks damage to any electrical equipment connected to the electricity supply.

In South Africa, peak demand periods occur in the early morning from 6:00 to 9:00 and in the evening from 17:00 to 21:00, particularly in winter. The high evening peak is generally driven by consumption by residential consumers.

As a last resort, loadshedding is implemented to maintain the supply/demand balance, or to protect the power system by ensuring sufficient reserve capacity to respond to significant unplanned breakdowns or disruptions to supply. This typically happens during periods of high levels of unplanned generation unavailability, coupled with low diesel fuel levels at OCGT stations and/or low water levels at pumped storage stations.

To maintain our ability to respond effectively to prevent a major system event, such as a regional or national blackout, the various defence systems to protect the network are tested regularly. Lessons learnt from past events are implemented to improve the resilience of the system to unforeseen events.

Managing peaking capacity and emergency reserves

Our peaking capacity includes three pumped storage power stations with nominal capacity of 2 724MW and four Eskom and IPP-owned OCGT stations with a combined capacity of 3 072MW connected to the national power system. The generators at these power stations can start up and shut down within minutes, as opposed to coal-fired power stations that require many hours to days to start up. These power stations were designed and built to generate for short periods at peak demand times and do not have a continuous supply of fuel to power them.

In the case of pumped storage stations, water is pumped from a lower reservoir through turbines to an upper reservoir at the top of a mountain during low demand periods – overnight and weekends – and then released through the same turbines to generate power during times of high demand. The cycle of pumping and releasing water is optimised over a one-week cycle where the upper reservoir is filled by Monday morning, ready to generate for the week ahead.

In the case of OCGTs, all but one of the stations receive their diesel by road tanker. Loading, transporting and offloading the diesel to power these generators is a slow process. When these generators operate at maximum output continuously, they consume fuel faster than it can be delivered. Extremely high diesel consumption requires diesel being bought on the international market and shipped to the various depots for further distribution.

As generation capacity from coal-fired power stations has become more constrained, the peaking stations have had to generate for longer periods to supplement the shortfall. Because of the constraints around the fuel for these power stations, they are treated as emergency reserves and dispatched sparingly during off-peak periods to contain the stage of loadshedding. The combined peaking capacity of 5 796MW equates to an additional six stages of loadshedding being required were it not available.

OUR INFRASTRUCTURE continued

System performance
During the past year, Eskom's generation plant availability reached the lowest levels ever, largely due to unprecedented levels of unplanned unavailability. On average, around 13 000MW was not available for generation at unplanned unavailability of 27.75%, and close to 5 000MW unavailable due to planned maintenance, leaving around 30 000MW capacity available for generation. As a result, we had to make extensive use of both Eskom- and IPP-owned OCGTs to meet demand during periods of poor base-load generation availability.

Operational, system performance and environmental data can be accessed on our Data Portal at www.eskom.co.za/dataportal/

Eskom-owned and IPP OCGTs supplied a total of 2 725GWh during the year (2021: 2 161GWh) at a cost of R14.7 billion (2021: R7 billion). Given the debilitating cost of loadshedding to the country, we utilise these stations within our financial constraints, despite the prohibitive cost. If OCGTs were utilised only at targeted levels, Eskom could generate a net profit.

To support the stability of the power system, create space for maintenance and reduce the need for loadshedding, additional dispatchable capacity of 4 000MW–6 000MW is required immediately. At an assumed average load factor of 30%, it would require renewable capacity of 13 000MW–20 000MW. The delay in bringing capacity online under DMRE's Risk Mitigation IPP Procurement Programme serves to exacerbate the problem.

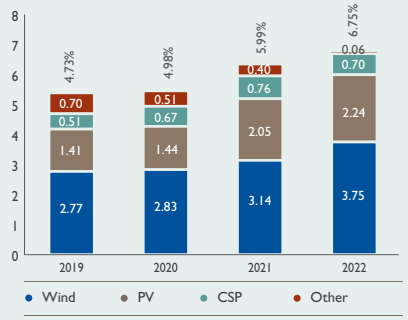
Supply was aided by record levels of hydro generation due to the good rains experienced during the summer rainfall season, with hydro generation of 1 943GWh for the year almost 1 000GWh more than the average for the preceding nine years (2021: 1 387GWh). To put this into context, the 600MW supplied by hydro generation on an almost continuous basis since November 2021 equates to 60% of a stage of loadshedding. Without it, we would have had to implement more loadshedding, or increased the use of OCGTs.

Renewable IPP generation continued to support the power system throughout the year, with wind generation in particular supporting the evening peaks. The highest wind generation supplied over the past year was 2 639MW on 15 December 2021 (2021: 2 114MW). The average load factor for wind generation over the evening peak was 42.6% for the year (2021: 43.7%), or 1 174MW (2021: 985MW). Wind generation had to be curtailed on 16 occasions over the night minimum period (2021: 15), due to very low demand between 1:00 and 4:00.

Contribution by renewable energy

During summer, wind generation output aligns well with the country's demand profile, peaking in the evening and dropping to low levels overnight. In winter, wind generation tends to peak as cold fronts traverse the Western and Eastern Cape, but drops once the cold front moves northwards and demand in Gauteng increases due to the colder temperatures, thereby creating a double blow to the system. Renewable energy makes a significant contribution to both peak demand and annual contracted energy demand, increasing to 6.75% in the 2022 financial year.

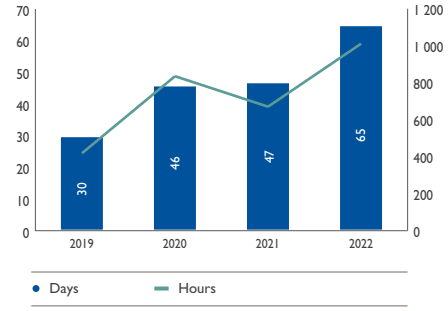
Contribution by renewable energy to annual contracted energy demand[1], %



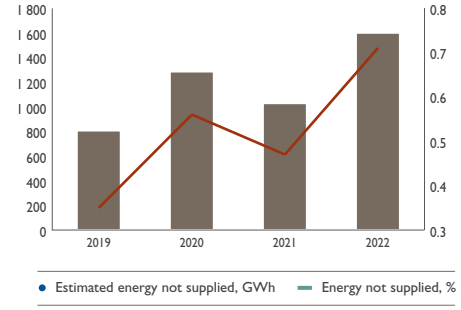
1. Contracted demand refers to demand supplied by contracted generators, being Eskom and IPPs

System forecast and loadshedding implemented during the year
Loadshedding was required on 65 days during the year (2021: 47 days) – eight days up to stage 1; 43 days up to stage 2; four days up to stage 3; and 10 days up to stage 4. Loadshedding and load curtailment of large customers were implemented for 1 011 hours over the past year (2021: 670 hours), reducing supply by an estimated 1 605GWh, equating to 0.71% of total energy demand for the year (2021: 1 034GWh).

Loadshedding and load curtailment over the past four years



Percentage of contracted demand not supplied due to loadshedding



The 2021 Winter Plan covered the period from 1 April to 31 August 2021. Three scenarios of unplanned unavailability were considered for the plan, namely 11 000MW, 12 000MW and 13 000 MW (with uncertainty of approximately 4 000MW due to volatility). At unplanned unavailability of 13 000MW, the Winter Plan showed a possible eight days of stage 1 loadshedding. However, for the entire Winter Plan period, a total of 21 days of loadshedding were required due to higher than anticipated levels of unplanned unavailability.

The 2021/22 Summer Plan commenced on 1 September 2021 and ran until 31 March 2022. Again, three scenarios of unplanned unavailability were considered, namely 12 000MW, 13 000MW and 14 000MW. The plan indicated 40 possible days of stage 2 loadshedding at 13 000MW, with a possible 94 days of stage 3 loadshedding at 14 000MW. Unplanned unavailability exceeded 14 000MW for 39.7% of the time during the summer period, leading to 44 days of loadshedding, which, although significant, was lower than anticipated in the Summer Plan, due to higher than targeted use of emergency reserves.

Generation performance

We operate 30 base-load, mid-merit, peaking and renewable power stations, with a total nominal capacity of 47 145MW to meet the country's electricity demand by providing electricity at a reasonable price. The median age of our coal-fired stations is around 40 years. The last unit at Medupi, Unit 1, achieved commercial operation on 31 July 2021. No further Kusile units achieved commercial operation during the financial year.

Detailed information on the installed and nominal capacity of each of our power stations, as well as IPP capacity, is set out on page 150 to 151

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Energy availability factor (EAF), %[SC]	72.00	65.00	**74.00**	■	**62.02**	64.19	66.64
Planned capability loss factor (PCLF), %[SC]	10.50	10.50	**10.50**	▲	**10.23**	12.26	8.92
Unplanned capability loss factor (UCLF), %	16.00	23.00	**14.00**	■	**25.35**	20.04	22.86
Other capability loss factor (OCLF), %	1.50	1.50	**1.50**	■	**2.40**	3.51	1.58
Partial load losses, average MW[SC]	3 147	3 695	**3 969**	■	**4 851**	4 109	4 651
Post-philosophy outage UCLF, %[SC]	14.00	14.00	**15.00**	■	**29.74**	21.23	29.91
Unplanned automatic grid separations (UAGS trips), number[SC]	356	392	**392**	■	**697**	527	594

Technical performance
We use EAF (energy availability factor) to measure the availability of our generation fleet, which continues to perform significantly below expectation. Plant availability deteriorated even further year-on-year, largely due to a significant increase in unplanned losses due to breakdowns or partial unavailability of stations (UCLF), offset by lower levels of losses outside of a station's control (OCLF) and less planned maintenance (PCLF) due to the late release of funding and to compensate for higher unplanned losses. Together, UCLF and OCLF constitute unplanned unavailability of our fleet.

Due to the capacity constraints, EAF is not expected to improve noticeably over the short to medium term, as time is needed to execute reliability maintenance.

OUR INFRASTRUCTURE continued

Kusile Unit 2 reached official status on 1 November 2021, one year after achieving commercial operation on 29 October 2020, and achieved an EAF of 40.39% for the year. Kusile Unit 3, which achieved commercial operation on 29 March 2021, achieved an EAF of 51.80% during its first year of commercial operation. Medupi Unit 1 achieved commercial operation on 31 July 2021 and achieved 64.47% EAF for the first eight months of commercial operation.

At the start of the financial year, 84 planned maintenance outages were scheduled for the year. By year end, 47 of those outages were completed, seven were in execution, one was cancelled and 29 were deferred. Furthermore, an additional 47 outages were completed. When scheduling outages, consideration is given to system capacity constraints, plant risks and availability of spares and resources.

We cannot continue to defer outages due to the constrained system. Outages to address the design defects at Medupi and Kusile as well as outages to implement mid-life refurbishments at older stations have to be accommodated, in addition to the required reliability outages at all stations.

UCLF has increased year-on-year, driven by increases in both full and partial load losses. The ash dam constraints at Camden Power Station reported last year accounted for 0.72% OCLF (2021: 2.05%). The station is now ashing on the new ash dam, with no load losses attributed to ash dam constraints from December 2021.

In an effort to meet demand, we continue to operate our plant far outside acceptable norms to avoid or minimise loadshedding. The energy utilisation factor (EUF) for the entire generation fleet has increased slightly to 79.78% (2021: 76.34%). Persistent high EUF levels continue to place stress on units, thereby affecting reliability and leading to high levels of UCLF. The high average fleet EUF was largely due to coal-fired stations running at an average EUF of 93.98% (2021: 90.42%), with 14 of 15 coal-fired stations recording EUF above 90%. Given the age of our fleet, EUF levels remain substantially above the international norm of around 75% over the long term, which will have negative long-term technical consequences.

Given the unpredictable and unreliable power system, the risk of loadshedding is expected to remain until the shortage of 4 000MW–6 000MW dispatchable generation capacity is addressed.

Major incidents

Medupi Unit 4 suffered an explosion of the generator on 8 August 2021 during a short-term outage, which seems to have been caused by procedural non-compliance and management failures, which resulted in extensive damage to the generator, adjacent equipment and structures; consequently, assets of R1.1 billion were written off. As a result, nine employees have been suspended. The incident caused a disturbance to Unit 5, resulting in the unit tripping. Unit 5 was returned to service on 12 August 2021. The incident led to the loss of 720MW (approximately 1.60% of official capacity), and has accounted for 0.99% UCLF for the period since the incident, adding to our capacity constraints and ultimately contributing to loadshedding.

Kendal Unit 1 tripped on 11 September 2021 due to a failure of the generator transformer. Upon initial investigation, it was determined that the generator transformer had caught fire. The fire damaged the cables to the main cooling water system on the west side of the power station. Units 3 and 2 experienced loss of vacuum and were shut down under controlled conditions. The units were returned safely on 13 and 14 September 2021 respectively, and Unit 1 returned to service on 3 January 2022. The root cause of the generator transformer failure was poor workmanship during the active part manufacturing process.

Camden Unit 8 was shut down on 29 December 2021 due to a failure of the generator transformer. Upon initial investigation, it was determined that the generator transformer had caught fire. Repairs on the unit have been completed, and the unit returned to service.

Koeberg performance

Koeberg Nuclear Power Station continues to operate within the required safety parameters, despite two trips on Unit 1 during the year, and also has the lowest primary energy cost of our base-load stations. It is subject to bi-annual safety reviews by the Nuclear Safety Review Board (NSRB), comprising experienced senior nuclear executives from various countries. The NSRB conducts an independent review of all aspects of Koeberg's operations, with particular emphasis on those activities which may affect the safe operation of the station and the protection of the staff, public and the environment. It further provides recommendations on priorities and areas for improvement based on members' professional experience.

At the end of March 2022, Koeberg Unit 1 had been online for 155 days since returning to service on 27 October 2021. The unit tripped from the grid on 30 August 2021 due to a reactor scram (emergency shutdown of a nuclear reactor) that occurred when one of the three primary pump motors tripped due to a faulty relay. Prior to that, it had been online for 75 days, after returning to service on 16 June 2021 from its last refuelling and maintenance outage. Troubleshooting and repairs were completed promptly and safely, and the unit was returned to service on 3 September 2021. The unit also tripped from the grid on 24 October 2021 due to the loss of speed on a steam feedwater pump following a statutory overspeed test. The cause of the speed loss was fully resolved on 3 November 2021.

When Koeberg Unit 2 shut down on 18 January 2022 for the start of a scheduled outage, it had been online for 454 days, since returning from the previous outage on 21 October 2020.

Koeberg long-term operation and steam generator replacement projects

The long-term operation (LTO) activities, to enable Koeberg to operate its 1 854MW capacity for another 20 years beyond 2024, continue according to schedule, in line with the IRP 2019 expectations for continued energy security beyond 2024. Extending the station's operating life is an investment into sustainable and low-carbon electricity generation infrastructure.

Nuclear power plants produce no greenhouse gas emissions during operation, and over the course of its lifecycle, nuclear produces about the same amount of carbon dioxide-equivalent emissions per unit of electricity as wind, and one-third of the emissions per unit of electricity when compared to solar.

As part of our internal process, a team of nuclear professionals from eight countries from the International Atomic Energy Agency (IAEA) carried out a review during March 2022 of the safety aspects of Koeberg's LTO, including preparedness, organisation, and programmes for safe operation. The IAEA expert team reported good progress on the work to extend the life of the plant, and provided recommendations and suggestions to further enhance the preparations for LTO safety. The IAEA team also identified Koeberg good practices and learning points that will be shared with the nuclear industry globally. Koeberg management is committed to implementing the recommendations and requested the IAEA to schedule a follow-up mission during 2024.

A formal application to modify Koeberg's operating licence to enable operations for an additional 20 years was submitted to the National Nuclear Regulator (NNR) and accepted for further processing. We submitted the safety case to the NNR for their evaluation in July 2022. As expected, no safety concerns that would preclude long-term operation have been identified.

Unit 2 commenced a five-month refuelling and maintenance shutdown on 18 January 2022, during which the three steam generators (SGR) and the reactor pressure vessel head (RPVH) were to be replaced. More than a month into the outage, Eskom and the main contractor performed a review to ensure that the SGR work would be completed at the expected quality levels and in accordance with the outage schedule. The review concluded there was a high likelihood of the unit being returned to the grid later than initially planned, which would affect capacity available to the grid during the high demand winter period. Consequently, a decision was taken on 3 March 2022 to defer the SGR from the outage scope to the unit's next refuelling and maintenance outage planned for August 2023, without affecting the LTO programme or the safe operation of Koeberg.

The RPVH was replaced during the outage and the unit returned to service on 7 August 2022, but was manually shut down on 19 August 2022 due to a slipping control rod associated with the RPVH replacement. After returning to service six days later, the unit was automatically shut down again on 3 September 2022 when one of the control rods slipped during a further scheduled test, resulting in an automatic reactor scram and grid separation. Following extensive troubleshooting with the OEM, the unit returned to service on 25 September 2022 with NNR approval. The unit remains stable.

Unit 1 will undergo a similar long outage, now scheduled to start in December 2022. However, it will exclude the reactor vessel head replacement, which was completed earlier. The outage start has been delayed to accommodate the delivery of the three steam generators to be replaced during the outage, as the delivery schedule was impacted by COVID-19 lockdowns at the factory. The three steam generators are expected on site before the end of the 2022 calendar year. 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.

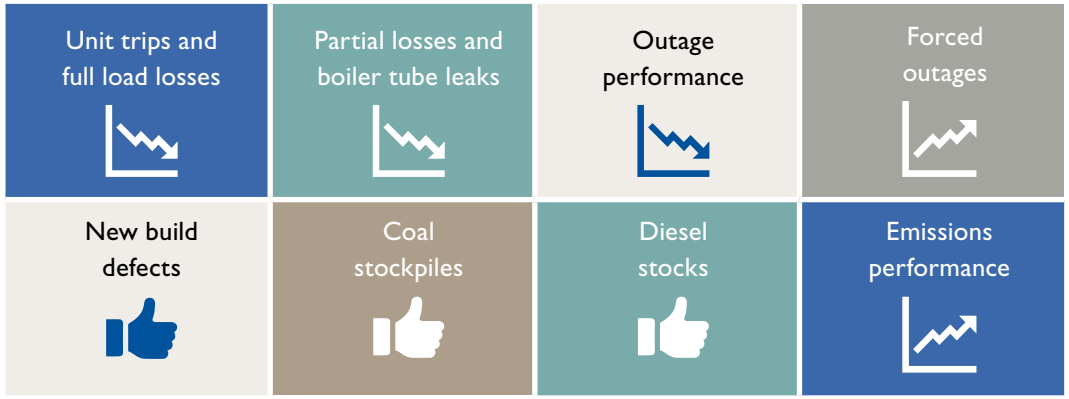
Feasibility of selling power stations

The Government of South Africa is requesting Eskom to consider potential options to sell coal-fired plants. Based on an internal study, it is anticipated that Eskom will not be able to dispose coal-fired plants at book value, for three main reasons:

- More and more, coal plants are considered as stranded assets by investors. Based on expert feedback, the experience is that selling coal plants has become hardly feasible, if not impossible
- Most of Eskom's coal-fired plants are at risk of shutdown unless huge amounts of capital expenditure are invested to retrofit the plants in compliance with the Minimum Emission Standards regulations. Non-compliant plant for which our postponement request has been rejected and that is not eligible for major capital investments cannot credibly be considered for disposal at book value
- In addition, Eskom's coal-fired asset base is ageing and demonstrates poor operational performance, deterring potential investors looking for long-term investments and high return to consider buying these assets at book value

In this context, Eskom would have to compromise significantly on the transaction economics for the disposal to take place, through either (i) a severe discount on the book value of assets or (ii) a higher than cost-reflective power purchase agreement price. Unless there was a huge increase in tariffs, both options would end up worsening Eskom's already distressed financial situation. Furthermore, while selling power stations could provide short-term liquidity relief, it would not resolve Eskom's financial viability.

OUR INFRASTRUCTURE continued



Generation recovery plan
The Generation recovery plan, which aims to address critical pain points to allow for fast-tracked improvement in generation performance and plant availability, continues to deliver results. Progress has been made in many areas, as discussed below. Full and partial load losses, as well as outage performance, are areas of concern.

The Generation leadership team have further identified seven strategic initiatives. Senior leaders within Generation have been allocated to drive the execution, with overall feedback and accountability at the Generation Operational Excellence Steering Committee, chaired by the Group Executive: Generation. The focus areas are:

- People and skills
- Training and competency development
- Technical excellence
- Station rhythm
- Supply chain management
- Focus on the future
- Contractor management

Reduce the incidence of trips and full load losses to improve reliability of coal-fired power stations

Due to their contribution to poor system performance and the associated cost of restarting units to supply load to the grid, improving trips performance remains a key focus area. The Generation fleet recorded 697 UAGS trips for the year, at an average of 58 trips per month, a significant deterioration compared to the previous year (2021: 527). The main contributors to unplanned trips were turbine, boiler and feedwater areas of plant. Performance was affected by a backlog of capability testing at several power stations due to unit load restrictions, maintenance defects and units operating outside their design envelope. Slow progress on addressing design deficiencies also contributed to the number of trips.

Full load losses for commercial units showed an increase against the prior year, to an average of 6 718MW per month (2021: 4 811MW, restated). UCLF on official units remains high, with UCLF (full and partial losses) due to outage slips increasing to 3.99% (2021: 2.43%).

Decrease partial load losses and boiler tube leaks that prevent units from operating at full capacity

UCLF related to partial load losses deteriorated significantly, with partial load losses on average 742MW higher than the prior year. Partial load losses contributed approximately 42% to total UCLF for the year, with Kendal, Tutuka, Majuba, Arnot and Kriel the major contributors.

Unplanned partial load losses were a result of delays in procuring critical spares from OEMs, slippage in planned target dates to clear the maintenance backlog to restore plant redundancy and post-outage load losses which had to be gradually cleared over time. Orders for spares placed during the year are expected to arrive in the 2023 financial year; this should result in a gradual improvement in UCLF. Plans to improve permanent partial load losses remain dependent on outages.

The boiler tube failure rate (failure per unit per year) increased slightly to 2.44 for official units (2021: 2.31), using a 12-month moving average. Boiler tube failures contributed 2.45% UCLF for the year (2021: 2.29%). The Boiler Tube Leak Reduction Forum is focusing on reducing the rate of boiler tube failures.

Power stations are aligning outage opportunities to execution of the required scope. Gains in partial load loss post-outage are being monitored. Frequent but sporadic partial load losses across the fleet continue to offset advances in some areas.

Reduce maintenance outage due date slips and duration

The Reliability Maintenance Recovery (RMR) Programme seeks to empower power stations to achieve outage excellence (prior to, during and after outages) as the single greatest opportunity to improve plant performance at the best possible cost.

Continued efforts are directed towards improving outage readiness, with central RMR team resources providing direction on best practice and being deployed to aid in enhancing outage planning and overall readiness at stations. This has resulted in the improvement of most major assessment categories of outage readiness indicators. Some deterioration has however been seen in T–01 reviews (those performed one month prior to an outage), which comprised scheduling and site preparation challenges.

The release of outage funding had a significant impact on the readiness of planned outages, as most outages take 18–24 months to plan, and remains one of the main risks for the coming financial year. A funding shortfall of R2.3 billion has already been reported, although efforts are directed towards prioritisation of outage and budget reduction exercises.

A key measure to track outage effectiveness is post-outage UCLF, which is measured up to 60 days after a unit synchronises to the grid after maintenance. Post-outage UCLF deteriorated to 29.74% (2021: 21.23%), contributing 1.39% to overall UCLF. The RMR will look at improving the quality and accuracy of outage scope by developing a holistic approach, focusing on units that undergo general overhauls, mini overhauls and interim repairs.

Due date performance is calculated for units that were on outage for more than 21 days and for reliability outages longer than 14 days. For the year, only 50.94% of outages met their due date (2021: 40.38%), significantly below the target of 80%.

Accelerate the return to service of units on long-term forced outages

Following the explosion of the generator in August 2021, Medupi Unit 4 will be out of service for an extended period. The duration of the repairs will depend on the extent of the damage and the long-lead components to be replaced. The projected return-to-service date for the unit is August 2024, and the insurance loss is estimated at around R3.34 billion, which covers replacement and repair of the damage.

Address major design and construction defects at new stations

Major defects on the new plant at Medupi and Kusile are tracked under the Generation recovery plan. These are defined as system or equipment defects that reduce, or have the potential to significantly reduce, the EAF of multiple units at the new build stations, and where the available contractual defect resolution remedies have not been effective.

Progress on correcting design and construction defects for Medupi and Kusile is set out from page 104

Maintain coal stockpiles at power stations

At year end, two power stations had stock below their individual minimum stockholding level (2021: none). Based on the budgeted standard daily burn, coal stock days (excluding Medupi) have reduced to 42 days (2021: 50 days), but remain higher than the target.

Coal-related load losses contributed to capacity constraints at our coal-fired stations, with coal-related OCLF of 0.64% for the year (2021: 0.66%). Matla and Kriel Power Stations remained the biggest contributors, accounting for around 90% of coal-related OCLF. We continue to collaborate with the relevant mines to address these issues.

Refer to "Our interaction with the environment – Securing our coal requirements" from page 108 for more information on coal performance

Maintain sufficient diesel stocks to enable the open-cycle gas turbines to perform for extended periods

Diesel tank levels remain healthy overall and were maintained well above the target of 60% during the year, although constraints occasionally developed during periods of persistent high demand. However, diesel usage remained far too high given our financial constraints.

Improve emissions performance

Despite a noticeable improvement in emissions performance over the past year, it is not yet at desired levels and continues receiving management attention. By March 2022, eight units were operating in non-compliance with average monthly emission limits (2021: five units), placing 4 766MW at risk of being shut down by the authorities (2021: 2 949MW).

Refer to "Our interaction with the environment – Particulate and gaseous emissions" from page 111 for more information on emissions performance

OUR INFRASTRUCTURE continued

Use of open-cycle gas turbines

Due to the deteriorating performance of the coal-fired generation fleet, Eskom's open-cycle gas turbines (OCGTs) had to be utilised extensively during the year, with production increasing 25% year-on-year. The load factor for the year was 8.7% (2021: 6.9%), against a target of 1% or 211GWh. The average unit production cost increased in line with the increase in the diesel price.

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
OCGT production, GWh	3 579	1 466	**211**	■	**1 826**	1 457	1 328
OCGT diesel usage, R million[1]	18 254	8 388	**867**	■	**10 033**	4 075	4 303

1. The OCGT cost includes diesel storage and demurrage costs of R108 million (2021: R79 million; 2020: R59 million) incurred when not utilising the OCGTs.
2. The 2025 target is the cumulative target over the next three years.

Utilisation of the two IPP-owned OCGTs also increased during the year, producing 899GWh (2021: 704GWh) at a cost of R6.2 billion to Eskom (2021: R4.5 billion), which includes a fixed capacity charge of R1.5 billion (2021: R1.6 billion).

Refer to "Energy supplied by IPPs" below for further information on the use of IPP-owned OCGTs

Benchmarking

Koeberg Nuclear Power Station

Eskom remains a member of the World Association of Nuclear Operators (WANO) and the Institute of Nuclear Power Operations (INPO). South Africa remains a member of the International Atomic Energy Agency (IAEA). These affiliations facilitate the definition of standards, sharing best practice, conducting periodic safety reviews, training personnel and benchmarking performance. The most recent routine WANO peer review of Koeberg was carried out from 16 August to 2 September 2021, the outcome of which was favourable.

For the review period, Koeberg's benchmarked performance has deteriorated, mainly due to lost generating hours associated with the forced shutdown of Unit 1 due to an increase in leakage on one of the steam generators at the beginning of 2021; the late return to service on the Unit 1 refuelling outage directly thereafter; and the time needed to safely return Unit 1 to service following the unit trips that occurred in August and October 2021.

Energy supplied by IPPs

Under DMRE's RE-IPP Programme, we procure renewable energy from IPPs under ministerial determinations. Since inception of the RE-IPP Programme in 2011, a total of 91 IPP projects with a capacity of 6 490MW have been connected to the grid, although only 5 826MW is in operation (2021: 5 078MW). Under existing and expected bid windows, 8 500MW of renewable energy is expected to come online before 2025.

Grid connection of bid window 3.5, 4 and 4B projects are progressing towards scheduled grid connection dates. However, commencement of commercial operation of many of the bid window 4 generators was delayed by the outbreak of the COVID-19 pandemic. As a result, less energy than planned has been purchased.

Further procurement under the RE-IPP Programme has progressed, with preferred bidders for bid window 5 being announced on 28 October 2021, after bids closed on 4 August 2021. Twenty-five projects totalling 2 583MW were identified, comprising 1 608MW wind and 975MW solar PV. Legal and financial close are expected to be staggered during the latter part of 2022 once the projects achieve financial close. RE-IPP bid window 6, originally intended for 2 600MW, was extended to include an additional 1 600MW. Bids for the extended bid window closed on 3 October 2022.

DMRE's IPP Office announced 11 preferred bidders from the Risk Mitigation IPP Procurement (RMIPPP) Programme for a total of 1 996MW of dispatchable generation capacity. The anticipated financial close by 31 March 2022 was not met due to the need to close out residual technical issues between DMRE, the bidders and Eskom. Power purchase agreements with three projects were concluded on 2 June 2022. The delays on the various IPP programmes continue to add pressure on the need to continue running our plant, some beyond their original shutdown dates.

The RE-IPP bid window 6 projects, as well as the RMIPPPP and non-DMRE projects (the so-called "100MW reform" projects) are all self-build projects as it relates to network connections, with the bidders being responsible for paying quotation fees to Eskom; presenting designs for our approval; the environmental impact assessment, as well as procurement and construction; together with commissioning timelines. Although we collaborate with the IPPs, we are not in control of all activities.

We applied to purchase energy under short-term IPP programmes. However, due to the delay in receiving regulatory approval from NERSA, Board IFC terminated projects aimed at procuring 300MW during the 2022 financial year.

Energy capacity and purchases

IPP capacity available and the actual energy procured under various IPP programmes for the year to 31 March 2022 is set out in the following table.

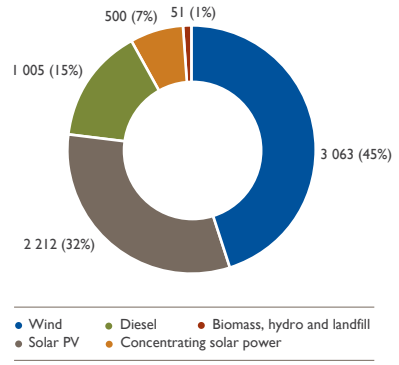
Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Total capacity, MW	14 978	9 144	**8 336**	■	**6 831**	6 083	5 206
Total energy purchases, GWh	90 050	22 621	**20 263**	■	**15 972**	13 525	11 958
Total spent on energy, R million	188 222	49 221	**42 389**	●	**36 714**	32 470	29 694
Lease accounting adjustment, R million[2]	(17 155)	(2 886)	**(2 054)**	n/a	**(1 511)**	(1 638)	(1 631)
Total expenditure, R million	171 067	46 336	**40 335**	●	**35 203**	30 832	28 063
Weighted average cost, c/kWh[3]	209	218	**209**	■	**230**	240	248

1. The 2025 target is the cumulative target over the next three years.
2. 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. For future targets, the assumption is that the RMIPPPP projects will be treated on the same basis.
3. The weighted average cost is calculated on the total amount spent on energy, before the IFRS 16 lease adjustment.

As noted earlier, the utilisation of IPP OCGT peakers was around 28% higher than the prior year, contributing to system stability to minimise or avoid loadshedding during periods of generation capacity constraints. The IPP OCGT peakers recorded an annual load factor of 10.2% (2021: 8%) against the contractual minimum obligation of 1%; renewable IPPs recorded an average load factor of 29.8% (2021: 32.3%).

IPP capacity of 748MW of renewable energy was commissioned during the year, against a target of 1 003MW for the RE-IPP Programme and a total target of 2 263MW including other expected programmes (2021: 877MW). It consisted of 668MW wind, 55MW solar PV and 25MW biomass-based energy. We expect 580MW of renewable capacity to be commissioned during the coming year.

IPP operational capacities by type at 31 March 2022, MW



OUR INFRASTRUCTURE continued

Power station land to be made available for renewable energy developments

To encourage and enable investment in renewable energy generation infrastructure and give impetus to collaborative efforts to resolve South Africa's electricity crisis, we issued a request for proposal in April 2022 to lease up to 4 000 hectares of Eskom land in Mpumalanga Province to IPPs for the addition of new renewable generation capacity to the grid. The lease will be for a minimum period of 20 years. Eskom will provide connection to the nearest network connection point. In terms of the scheme, the land will remain the property of Eskom for the duration of the lease.

The commercial process is based on auctioning suitable land at or near power stations for the development of renewable electricity generation sites, to remove a significant barrier to investment, given the proximity to existing transmission infrastructure. The evaluation process will favour quick delivery of critically needed additional generation capacity to the constrained power system as soon as possible, thereby increasing the ability to perform maintenance, as well as reducing loadshedding and the usage of OCGTs. It is estimated that this programme could add further generation capacity of up to 4 000MW to the national grid over the next few years.

The maximum amount of electricity generation capacity per project will be capped at 100MW to make use of the recently promulgated upper limit for embedded and own generation in terms of the amendment to Schedule 2 of the Electricity Regulation Act, 2006 (ERA), gazetted by DMRE in August 2021. The amendment allows generators to wheel electricity through the transmission grid, subject to wheeling charges and connection agreements with the relevant transmission or distribution licence holders.

This initiative is intended to allow investors accelerated access to our existing grid, and to enable investment in renewable energy next to our coal-fired power stations, to demonstrate our commitment to be part of the Just Energy Transition. Investors will be able to enter into power supply agreements with Eskom or bilateral agreements with customers, on terms that they agree, while Eskom will provide the transmission infrastructure to evacuate the electricity. This arrangement is a precursor of the electricity market that is enabled by the legally separated transmission company.

We launched a competitive bidding process for this land in April 2022 and received 18 firm bids. This has the potential to add a further 1 800MW in the short term, with additional capacity as more land is made available. Lease agreements with four IPP investors for land parcels around Majuba and Tutuka Power Stations were signed in October 2022.

Given that Eskom is not the buyer of electricity for these projects, there is an added benefit in the sense that there is no requirement for National Treasury guarantees to underpin these agreements, therefore they present no risk to or potential burden on the South African taxpayers.

Cross-border sales and purchases of electricity

The Southern African Power Pool aims to provide reliable and economical electricity supply to its 12 member countries, nine of which are interconnected, by coordinating the planning and operation of the electric power system among member utilities.

International sales and purchases

Measure and unit, GWh	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
International sales	32 454	11 219	**12 148**	●	**13 298**	13 497	15 189
International purchases	26 057	8 678	**8 457**	▲	**8 500**	8 812	8 568
Net sales	6 397	2 541	**3 691**	●	**4 798**	4 685	6 621

1. The 2025 target is the cumulative target over the next three years.

International sales volumes decreased 1.5% year-on-year, due to international customers entering into bilateral agreements with other regional partners to supplement their requirements, following Eskom's load curtailment and suspension of contracts implemented during loadshedding. Higher sales to ZEDTC of Zimbabwe and NamPower of Namibia resulted in volumes exceeding the target.

International purchase volumes for the year were lower than target, decreasing 3.5% year-on-year. This was mainly due to the HCB additional energy contract for 150MW expiring in September 2021, reducing the amount of power delivered to Eskom. The additional power is now allocated to Electricidade de Mocambique (EDM), the Mozambican utility.

Export growth strategy

The Board has approved a short-term cross-border pricing strategy effective from 1 April 2022 until March 2025 for all agreements to be renewed or renegotiated during this period. The purpose is to conclude profitable cross-border power supply agreements based on our cost to supply. Agreements have been concluded with NamPower and ZETDC.

Network performance

Our transmission and distribution assets make up our network. Transmission infrastructure evacuates energy from our power stations, while our distribution network transmits electricity from the high-voltage transmission network and IPPs to customers, which include redistributors (municipalities and metros) that manage their own distribution networks.

Detail of our transmission and distribution infrastructure is set out on page 151

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Number of system minutes lost <1, minutes[SC, 1]	3.53	3.53	**3.53**	●	**2.88**	3.48	4.36
Number of major incidents >1 minute, number	2	2	**2**	●	**2**	2	3
System average interruption duration index (SAIDI), hours[SC]	38.0	38.0	**38.0**	●	**35.5**	35.4	36.9
System average interruption frequency index (SAIFI), events	17.5	19.0	**19.6**	●	**12.3**	13.2	14.4
Restoration time, %[2]	90.0	90.0	**91.0**	●	**93.4**	92.5	93.5
Distribution energy losses, %[SC]	9.56	9.44	**9.45**	▲	**9.62**	10.11	8.79

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.

System minute < 1 performance improved relative to the prior year, underpinned by a reduction in interruption of supply incidents. During the last quarter of the financial year, two large interruptions affected customers in areas in KwaZulu-Natal and Gauteng, both of which were caused by plant failures. Line fault performance was negatively affected by veld fires during the winter period, while bird-related line faults increased in the summer period. Our focus is on enhancing servitude management and addressing the root causes relating to poor performing lines.

The increased capital budget allocation for the next five-year period will advance the implementation of the Transmission Development Plan and asset renewal under the Transmission sustainability improvement initiatives. The emphasis is on project development and expanding supplier capacity to enable the delivery of asset creation objectives.

Notwithstanding capital constraints, distribution network technical performance measured by the duration and frequency of customer interruptions continue to perform well within the target. Restoration time of unplanned outages, which affects availability and reliability of supply to customers, has also improved. This has been achieved through a combination of maintenance, network improvement projects and restoration management. However, concerns remain around breakdown of networks due to overloading caused by illegal connections; theft and vandalism of electrical equipment; and challenges in restoring supply to unsafe areas.

The business has focused on enhancing the restoration of supply process and feedback to customers using technology. The rollout of upgraded enterprise digital assistant devices to field maintenance teams will improve scheduling and work order management, ultimately assisting contact channels to provide seamless feedback to customers. Furthermore, a cooperative community partnership as a possible solution to reduce energy theft and inform customers on the legal use of electricity is in the pilot stage.

OUR INFRASTRUCTURE continued

Energy losses and equipment theft

Transmission lines experience technical losses only, with energy lost as heat when energy is transmitted. Distribution losses are due to both technical and non-technical losses, arising from electricity theft, illegal connections, tampering and bypassing of electricity meters, as well as the purchase of electricity tokens from unregistered or illegal vendors. Non-technical losses also include meter reading and billing errors.

Energy losses on our networks have reduced to 11.43% overall (2021: 11.78%), with 9.62% relating to the distribution environment (2021: 10.11%) and 2.31% to transmission lines (2021: 2.31%). Distribution energy losses amounted to 19.8TWh for the year (2021: 20.2TWh), signifying a reduction in non-technical losses due to our continued interventions. The cost of non-technical losses for the year is estimated at R2 291 million (2021: R2 319 million).

To limit non-technical energy losses, we continue to implement interventions, such as performing meter audits on all customer categories and carrying out meter refurbishments, as well as rolling out smart meters and replacing the online vending system. We identify areas associated with high energy losses, to investigate and disrupt illegal energy consumption; these actions are expected to improve revenue collection. The load reduction initiative continues to contribute positively to reducing equipment failures due to overloading caused by illegal connections and bypassing of meters.

Our ageing networks, which are often constrained and overloaded, contribute to technical losses. To better manage technical losses, the impact of voltage and phase imbalances have been evaluated to determine feeders where potential reductions in technical losses may be achieved by investigating and correcting imbalances, among other initiatives.

Ongoing theft of tower members and substation equipment continues to pose risks for asset failures and network availability, as well as a significant safety risk to employees and contractors. External socio-economic conditions continue to drive theft and vandalism of network equipment, with conductor theft constituting the highest number of incidents. The focus remains on proactive and effective risk management, intelligence gathering, stakeholder engagements, arrest and successful prosecution as well as the deployment of new technologies to help combat these incidents.

The Eskom-SAPS Priority Committee is making positive strides in investigating and responding to crime incidents, community protests and business disruptions that negatively impact on Eskom's operations. As an example, an organised crime task team uncovered a syndicate dealing in stolen Eskom transformers in the Heidelberg area in Gauteng. A ghost vending syndicate operating from Gauteng was disrupted; several syndicate members were arrested and are now facing trial. Various other successes in uncovering syndicates dealing in stolen conductor have also been achieved.

Losses due to conductor theft, cabling and related equipment amounted to R316 million for the year (2021: R139 million), involving 3 226 incidents (2021: 3 765 incidents). To combat these losses, we continue to collaborate with other SOCs that are affected similarly, industry role players, the South African Police Service and the National Prosecuting Authority. These actions resulted in 244 arrests (2021: 111).

Delivering capacity expansion

Our capacity expansion programme, which commenced in 2005 and is expected to be completed by the 2028 financial year, aimed 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 to strengthen the transmission network.

Since inception of the programme to 31 March 2022, installed generation capacity has increased by 14 730MW, transmission lines by 8 222km and transmission substation capacity by 39 505MVA.

Excluding capitalised borrowing costs, the Medupi project has cost R125.4 billion to date (2021: R120.6 billion), while the approved cost to completion is R145 billion. The cost of the flue gas desulphurisation (FGD) retrofit at Medupi is estimated at a further R38.4 billion. The Kusile project has cost R146.1 billion to date (2021: R141.1 billion); the approved cost to completion is R161.4 billion, which includes the FGD plant being installed during construction.

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Generation capacity installed and commissioned (commercial operation), MW[SC]	2 400	800	**794**	●	**794**	1 598	1 588
Transmission lines installed, km[SC]	826.0	140.0	**140.0**	●	**180.5**	65.6	127.9
Transmission transformer capacity installed and commissioned, MVA[SC]	2 815	–	**500**	●	**1 065**	750	250

1. The 2025 target is the cumulative capacity to be commissioned and/or installed over the next three years.

Medupi Unit 1 achieved commercial operation on 31 July 2021, after being synchronised to the national grid on 27 August 2019. The milestone signified the completion of construction activities on the 4 764MW project, which commenced in May 2007.

The targets for transmission lines installed and transformer capacity installed and commissioned for the year under review were exceeded.

Group funded capital expenditure (excluding capitalised borrowing costs) per division

Division, R million	Target 2025	Target 2023	Target 2022	Actual 2022	Actual 2021	Actual 2020
Group Capital	52 585	11 934	**12 819**	**14 034**	9 323	9 902
Generation	29 372	10 189	**6 911**	**10 394**	9 775	8 580
Transmission	2 260	1 335	**803**	**731**	702	800
Distribution	8 362	2 636	**2 329**	**2 433**	2 388	2 675
Subtotal	92 579	26 095	**22 862**	**27 592**	22 188	21 957
Future fuel (coal and nuclear)	7 304	1 685	**1 348**	**2 418**	1 495	1 031
Other areas including subsidiaries and intergroup eliminations	4 444	1 517	**789**	**213**	263	428
Total Eskom group funded capital expenditure[1]	104 327	29 296	**24 999**	**30 223**	23 946	23 416

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. Figures noted above are based on internal reporting, and do not necessarily align to the IFRS movement on property, plant and equipment as disclosed in the annual financial statements.
2. The 2025 target is the cumulative capital expenditure targeted over the next three years.

Capital expenditure for the year was R5 billion higher than target and R6 billion higher than the prior year, which was funded by cash from additional revenue. Generation expenditure recovered in the latter half of the year, with additional funding allocated for critical outages and project-specific long lead-time items. Furthermore, there was additional capital expenditure in the new build environment, as well as spend on future fuel projects which were deferred from the previous financial year.

Medupi and Kusile project performance

At Medupi, the focus is on completion of the remaining scope on the balance of plant (outside plant), including but not limited to the ash dump facility, coal stockyards and building structures with their associated systems. Furthermore, the focus is on resolving the contractual challenges and remaining claims to ensure proper project close-out. Project completion is targeted for November 2023.

At Kusile, the focus remains on commercial operation of Unit 4, as well as the remaining units under construction. We are fitting wet FGD technology to the Kusile plant as an atmospheric emission abatement technology to remove oxides of sulphur, in line with current international practice, to ensure compliance with air quality standards, making it more environmentally responsible.

Kusile Unit 4 was synchronised to the national grid on 23 December 2021. The unit successfully achieved full load on 11 January 2022, less than three weeks later. This milestone means the unit will be able to contribute its full capacity of 800MW intermittently to the national grid, based on the commissioning schedule. The unit's 72-hour full load test run commenced on 25 March and was successfully achieved on 28 March 2022, with an average of 799MW load generated over the 72-hour period. The 30-day reliability run commenced on 28 March and was completed on 28 April 2022.

Following a series of tests and other commissioning activities, the unit achieved commercial operation on 31 May 2022, earlier than the scheduled date of January 2023, and was handed over to Generation to form part of the commercial fleet.

On Unit 5, the draught group run was successfully completed in February 2022, followed by the completion of the chemical clean milestone in June 2022, and the first fires on oil and first coal fires milestones in August and September 2022 respectively. However, the gas air heater caught fire on 17 September 2022, resulting in a discontinuation of all commissioning activities. Early indications are that this incident may delay the schedule by up to a year.

The distributed control system on Unit 6 was energised on 12 May 2022. The unit is progressing towards achieving the back energisation milestone. Installation of lagging and cladding in the various areas of the boiler is under way.

Commercial operation of the last unit – Unit 6 – is planned for May 2024, with full project completion by May 2027.

OUR INFRASTRUCTURE continued

Correcting major design and construction defects at Medupi and Kusile

We continue to track the following major defects at both Medupi and Kusile (unless otherwise indicated):

- Pulse jet fabric filter plant poor performance due to inadequate pulsing system and flue gas flow entry
- Gas air heater mechanical performance, erosion and operational performance in terms of ash carry over and outlet temperature stratification
- Furnace exit gas temperature resulting in excessive reheater spray water flow and low-load and transient instability
- Milling plant defects
- Air and flue gas ducting erosion

Another major defect at Medupi is control and instrumentation repeated distributed control system card failures on Units 6, 5 and 4 as well as the balance of plant. Together with the contractor, we implemented some upgrades and hardware modifications of the distributed control system which sufficiently resolved the defect. A further major defect at Kusile is the western fill water treatment plant laboratory and demineralised water storage tanks.

The rollout of the major boiler plant defects solutions agreed with the contractor in 2020 for Medupi and Kusile units that required outages has been completed. The rollout of the solution to the Medupi mills during normal mill rebuilds is projected to be completed by October 2023. Further corrections are forecast for completion after December 2027, depending on the type of solutions and outage availability of units.

At Medupi, the gas air heater, pulse jet fabric filter and boiler plant modifications by the boiler contractor have been implemented on all six units, except for the long-lead milling modifications on all units and the duct erosion modifications on Unit 6. All available units are however capable of reaching full load. Rollout of the mill long-lead items commenced during standard planned rebuild outages (10 000 hours) in February 2022.

A commercial agreement was recently signed for the low-load and transient operations solution at Medupi, and the detail design and procurement of components are progressing well. Rollout of the low-load and transient solution will commence during available planned outages after March 2023 to December 2024, depending on outage availability.

At Kusile, boiler plant modifications have been completed on Units 1 to 4. Modifications on Units 5 and 6 are being rolled out during construction before commercial operation. The focus at Kusile is to reduce the flue gas volume and temperature since the low-load and transient instability is not as prevalent as at Medupi and to assist the FGD plant.

Modifications implemented have extended the fabric filter bag life at Medupi from 9 to 18 months, and the first fully modified mill at Medupi has run to 11 500 hours before rebuilding without any major issues, an indication that the modifications are successful in reducing the milling plant–associated load losses. The modifications have contributed to improving the availability and reliability of the synchronised units at Medupi and Kusile.

We are also working with the main contractor, original equipment manufacturers and third-party contractors to further improve the performance of the milling plant, gas air heater plant and fabric filter plant. The development of a solution to improve the gas air heater sealing system and performance is well advanced. Technical discussions and development of further enhancements on the milling and fabric filter plant have started.

The latest total estimated cost for the defects correction of all Medupi and Kusile units, based on the best available information, ranges from R5.6 billion to R7.2 billion. We have entered into a contractual consultation process with the boiler contractor to determine the liability for the necessary modifications to correct the defects. At the conclusion of the process, where Eskom is adjudicated not to be contractually liable, the plant defect correction costs will be fully recovered from the relevant contractors. We have spent R238 million on the boiler plant defects at Medupi and Kusile, which was funded from operating expenditure.

Other projects

Dedicated railway for railing coal to Majuba Power Station

The Majuba Power Station coal tippler facility has been commissioned after the fire incident and is scaling up deliveries, with two trains delivering 8 400 tons each day (the equivalent of 247 road truckloads), to gradually increase to six trains per day. On the coal tippler, the heating, ventilation and air-conditioning as well as dust suppression system works have been completed. The yard rail lines as well as civil and rail servitude rehabilitation works are all complete.

The tender for the rectification of the vandalised overhead traction equipment was cancelled due to supplier unresponsiveness. The scope was revised to include the repairs of vandalised infrastructure and a revised strategy compiled to be issued to the market. The contract for the yard optimisation work was awarded in April 2022. Equipment and materials have been delivered to site and excavations for cable trench are in progress.

Due to delays caused by infrastructure vandalism, the commercial operation date of the project has been revised to March 2024, pending Board approval, from the original target date of December 2022.

Battery energy storage systems

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. Tender evaluations for Phase 1 of 800MWh of the battery storage project were completed in December 2021 and bid evaluation reports submitted to the World Bank for evaluation and approval. In December 2021, unconditional without objection approval was received from the World Bank. A World Bank supervision mission, which included a site visit to Komati, was successfully completed during February 2022. Furthermore, the World Bank loan facility was extended to June 2023, due to Eskom demonstrating commitment and good progress towards project execution.

The NERSA board approved the concurrence with the Section 34 determination in February 2022, and the NERSA licences for Phase 1 were obtained at the end of September 2022. In May and June 2022, Phase 1 contracts were awarded for Package 1 (Skaapvlei), Package 2 (Pongola and Elandskop) and Package 3 (Paleisheuwel, Graafwater and Hex). Construction on Pongola and Elandskop began in September and October 2022. The procurement plan for Package 4 (Melkhout and Rietfontein) was submitted for World Bank without-objection approval.

The latest forecast for construction completion of Phase 1 is June 2023. Phase 2 of the project consists of 640MWh at Distribution substations and is in development. PFMA documentation is being prepared for submission to DPE, prior to applications for DMRE determination and a NERSA licence.

Medupi FGD retrofit

Given the risks associated with the chosen strategy of being technology agnostic, the market will be approached using a single-stage procurement strategy with an option of wet FGD. The contracting strategy of a single Engineering, Procurement and Construction (EPC) contract remains the same as previously approved. This strategy allows for technology and project execution risk allocation or transfer to the EPC contractor. The revised project strategy and business case has been completed and will be submitted to IFC.

In July 2021, the World Bank approved the extension of the FGD implementation deadline from 30 June 2025 to 30 June 2027. The key priorities are to complete the technology selection and resolve funding constraints before proceeding with any solution and commencing environmental approval activities.

An existing environmental impact assessment (EIA) and water-use licence (WUL) is in place for wet FGD. However, if a different FGD technology is chosen, a new EIA process and WUL would be required. A process has been initiated to acquire environmental specialists to perform sensitivity studies on available land that could be used for waste disposal. Our Land Management Department has provided details of available land for consideration for FGD waste disposal. Furthermore, the water supply tie-in to ensure the water supply from Thabazimbi to Medupi by the Mokolo Crocodile Water Augmentation Project (MCWAP) is being finalised.

The updated wet FGD technical specification is being developed. Furthermore, the updated contract and procurement strategies incorporating the main option of wet FGD are in the process of being developed. Eskom Treasury continues to engage with funders to provide project updates.

PFMA pre-notification documents have been signed off and submitted to DPE. Development of the technical tender evaluation strategy has been completed and signed off. The request for proposal documentation is being developed, to be issued to the market from November 2022 to March 2023, with contract award being targeted for the 2024 financial year. As such, there is a risk of the 2025 atmospheric emission licence compliance deadline not being postponed by the authorities. The postponement application decision is under appeal.

OUR INFRASTRUCTURE continued

RT&D projects

During the year, the Research, Testing & Development (RT&D) Department repositioned itself in line with the new Eskom operating model. The revised strategy of RT&D focuses on operational recovery of the three line divisions in the short term. In the medium term, the strategy seeks to assist the business in the transitioning away from coal, and in the long term, to assist the business in being a leading clean and green energy company to enable competitiveness, sustainability, profitability and new growth areas.

Progress on some of our high priority projects is set out below.

HVDC test facility

The scope of the work for the high-voltage direct current (HVDC) test facility was revisited to achieve value realisation for the business while considering Eskom's financial position. Due to a lack of funding, the project remains on hold.

Smart electricity platform

The project is aimed at developing a smart information technology and operational technology platform to integrate customer-centric products, including eMobility, distributed energy resources, energy storage, smart metering and other emerging technologies.

Limited availability of resources from the Council for Scientific and Industrial Research (CSIR) as well as internal IT resources negatively affected project timelines. However, the functional specification, the first release of the digital platform and a research report was completed and approved.

Microgrids and embedded generation

Three containerised microgrids have been delivered at Komati Power Station and RT&D's site in Rosherville, Gauteng. These are smart rural microgrids with battery, PV and inverter technology for the supply and storage of electricity. The work is being integrated with the Komati repurposing initiatives to commission a microgrid assembly line on site.

Remotely Piloted Aircraft System (RPAS)

The project aims to roll out the use of RPAS for power line inspection. A proof of concept was done to determine technical and economic feasibility, and the impact on transmission line failures and the resilience of transmission and distribution lines, and a business case was developed for Transmission. At the moment, 12 RPAS are able to conduct inspections equivalent to that of one helicopter. The units are used for sinkhole monitoring where ground-based patrols cannot easily obtain access, as well as for fault finding and conductor inspection.

Future focus areas

- Executing the business separation programme in Generation, Transmission and Distribution, focusing on legal, regulatory and policy issues
- Pursuing additional dispatchable generation capacity of 4 000MW–6 000MW to support the stability of the power system, create space for reliability maintenance and reduce the need for loadshedding
- Continuing to drive execution of the Generation recovery plan to improve plant performance over the medium to long term, including addressing the skills shortage
- Successfully executing the Koeberg steam generator replacement and LTO projects to extend the life of the station
- Ensuring improved environmental performance, with specific focus on water use, emissions and environmental legal contraventions
- Engaging with DFFE on the MES decision, which puts 16 000MW at immediate risk, although Eskom's appeal will result in a consultative process
- Using generating plant approaching end-of-life to lead the Just Energy Transition (JET) to position Eskom for a cleaner future, using repurposing and repowering as an alternative to full decommissioning of power station sites. Thereafter, JET will be used as the key enabler to set the course for a Generation of the future
- Connecting RE-IPP bid windows 3.5, 4 and 4B projects, as well as finalising the RMIPPP Programme and RE-IPP bid window 5 procurement
- Increasing exports and growing revenue and profitability by retaining and increasing profitable electricity exports to neighbouring countries
- Sustaining transmission system reliability and reducing line faults, while executing the Transmission Development Plan and Transmission sustainability improvement initiatives
- Prioritising capital investment to modernise and strengthen the distribution network for the connection of IPPs and set up collector stations for the exchange of power
- Installing smart meters for all new customer connections and converting existing small power meters to smart meters, to enable customers to better manage consumption, as well as replacing the online vending system to support the business in reducing energy losses
- Effectively correcting all major plant defects at Medupi and Kusile, as part of the Generation recovery plan, to enable technically acceptable new plant performance
- Completing the Medupi and Kusile projects within the revised Board-approved completion dates of the 2024 and 2028 financial years, respectively
- Effectively executing Generation emission-control and technical plan projects
- Driving completion of the battery storage and Medupi FGD projects

OUR INTERACTION WITH THE ENVIRONMENT

Highlights

- The year-on-year coal purchase cost increase was well below target and inflation
- No environmental legal contravention incidents reported in Group Capital and Transmission Divisions during the year
- The phase-out of polychlorinated biphenyls (PCBs) is on track, for Eskom's equipment to be PCB-free after the 2023 calendar year

Improvements

- Particulate emissions performance has improved year-on-year
- Constraints at ash disposal facilities at Camden resolved, with all units now able to operate
- Reduction in the number of red data bird mortalities on Eskom's infrastructure, with progress on implementing mitigation measures

Challenges

- High coal demand from more expensive power stations due to generation performance challenges
- Reduction in production from cost-plus mines due to delays in capital expansion projects
- Lack of new mining investment and execution of existing mining rights, with minimal funding available for carbon technology, signalling disinvestment by multinationals in the South African coal industry
- Poor coal quality not within contracted specification affecting plant performance
- Criminal charges related to Kendal Power Station's particulate emissions remain, with preparation ongoing for postponed court proceedings
- Maintaining environmental compliance in areas of poor technical and operational performance
- Several notices received from DFFE and DWS regarding non-compliances in Generation and Distribution Divisions

Lowlights

- Continuing poor environmental performance, with performance on specific water use, emissions and environmental legal contraventions outside tolerance levels
- Seven legal contravention incidents as a result of a significant failure of business systems, all occurring in Generation Division, with total environmental legal contraventions at 65, with the majority water-related

OUR INTERACTION WITH THE ENVIRONMENT continued

Our impact on the environment is largely negative – we rely on the use of mainly non-renewable or scarce resources such as coal, water, nuclear fuel and diesel to generate electricity. Furthermore, if not managed adequately, emissions from our power stations and waste generated in the form of ash and nuclear waste also have a detrimental impact on the environment. It is undeniable that our activities destroy natural capital to deliver electricity to customers, both through the use of non-renewable or scarce natural resources, as well as producing emissions and waste.

Through our value of Zero Harm, we endeavour to limit the impact of our activities on the environment. Environmental compliance is critical to ensure our impact on the environment is not harmful to the health and wellbeing of society, retain our licence to operate and support the security of electricity supply necessary to power the economy.

We strive to reduce our environmental footprint in several areas, such as reducing particulate emissions through a number of initiatives, using less water with less efficient units being taken out of service, and using dry-cooled technology in our newer coal-fired stations, namely Matimba, Kendal, half of Majuba, Medupi and Kusile. Both Medupi and Kusile are being commissioned with fabric filter plants to reduce particulates, as well as low NO_x technology to reduce NO_x emissions. Kusile is being commissioned with flue gas desulphurisation (FGD) technology to reduce SO_2 and Medupi will be retrofitted. Koeberg Nuclear Power Station has very low fresh water use, while nuclear constitutes low carbon technology.

Our current investment in renewable generating capacity remains modest, with one wind facility and six hydroelectric stations. However, we aim to drive the Just Energy Transition to introduce more renewable capacity, mainly through repowering and repurposing of our end-of-life stations, to reach our long-term objective of attaining net zero emissions by 2050, with an increase in sustainable jobs.

Securing our resource requirements

We use coal, nuclear fuel, diesel, gas, limestone (used in FGDs) and water as primary energy in the generation of electricity. These resources have to be sourced, procured and delivered to our power stations in the necessary amounts, at the required quality, at the right time and at optimal cost.

Securing our coal requirements

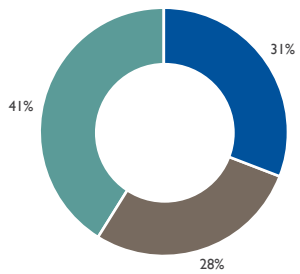
Investors are pursuing clean energy options, with minimal funding available for carbon technology, thereby signalling disinvestment by multinationals in the South African coal industry.

Coal supply strategy

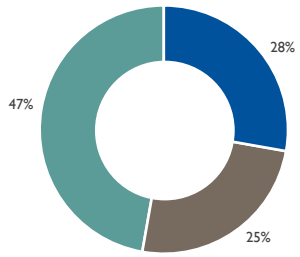
Our coal strategy favours long-term dedicated coal contracts with coal delivered by conveyor, to ensure security of supply to our coal-fired stations and minimise coal transport by road. It includes investing in cost-plus mines to support contractual supply, to ensure optimal cost of coal and security of coal supply from dedicated coal resources.

The volumes and value of coal purchased over the past year were made up as follows:

Coal volumes



Value of coal purchased



- Cost-plus
- Fixed-price
- Short-/medium-term contracts

The shift from more expensive short- and medium-term contracts to cost-plus and long-term fixed-price contracts continued over the past year, which had a favourable impact on the cost of coal. This resulted in the year-on-year increase in the average cost per ton of coal being limited to 2.1% (2021: 3.0%), which is markedly down from 16.3% experienced two years ago.

Under our long-term coal procurement strategy, we issued requests for proposal (RFPs) to the market for supply to Arnot, Camden, Kriel, Matla and Tutuka, and in some cases, contracts were awarded. Implementation of the long-term strategy is progressing, with coal requirements largely secured for the next 18 to 24 months. The shortfall, considering updates to both supply and demand, has been reduced to 0.65 billion tons of uncontracted coal to cover the life of all coal-fired power stations.

Our top 10 coal suppliers are set out below. There are three new entrants to the list since last year.

Supplier	Contract type
Exxaro Coal	Mix of cost-plus and fixed-price
Seriti Coal	Mix of cost-plus and fixed-price
Glencore	Fixed-price
Universal Coal	Fixed-price
Mbuyelo	Fixed-price
African Exploration Mining and Finance Corporation (new)	Fixed-price
Wescoal	Fixed-price
Mwelase Mining	Fixed-price
Msobo Coal/Northern Coal (new)	Fixed-price
HCI Coal (new)	Fixed-price

Coal quality

Coal-related load losses for the year amounted to 0.64% OCLF (2021: 0.71%), and were due to factors such as poor quality coal from cost-plus mines or coal contaminated by stones, combined with heavy rainfall in the Mpumalanga region during the final quarter of the year. Matla and Kriel remained the biggest contributors, accounting for 62% and 29% of coal-related load losses respectively.

Initiatives such as verification sampling have resulted in improved coal quality from short- and medium-term suppliers. We continue to collaborate with suppliers on steps to reduce future coal-related load losses, including reducing contamination and working with tied collieries to address coal quality challenges. Our long-term goal remains to determine coal quality at the point of delivery.

Investment in cost-plus mines

Most cost-plus mines require significant investment or recapitalisation to increase production and/or maintain existing production. Until then, lower production is to be expected from these mines. However, we will only consider recapitalising 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, which is often also transported by road. We will consider financing the expansion at cost-plus mines to access remaining contracted reserves, to support contract extensions through increased production.

Negotiations on the extension of existing cost-plus agreements for Lethabo, Kendal, Matla and Tutuka continue, while the agreement for Kriel has been extended.

Technical performance

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Coal burnt, Mt[1]	n/a	101.96	**104.57**	n/a	**110.30**	104.87	108.61
Coal purchased, Mt	n/a	102.60	**101.37**	n/a	**108.70**	109.96	119.25
Coal purchase R/ton, % increase[SC]	11.0	10.0	**10.0**	●	**2.1**	3.0	16.3
Coal stock days	n/a	79	**31**	●	**76**	82	81
Normalised coal stock days, budgeted standard daily burn[2]	n/a	31	**31**	●	**42**	50	50
Road-to-rail migration (additional tonnage transported on rail), Mt[SC, 4]	19.9	4.7	**5.5**	■	**2.5**	3.6	7.5

1. The current year coal burnt figure excludes 811kt burnt during the commissioning of Medupi Unit 1 and Kusile Unit 4 (2021: 3 390kt for pre-commissioning burn).
2. Normalised coal stock days exclude coal at Medupi.
3. Future targets shown as n/a are dependent on system requirements.
4. The road-to-rail target indicates the amount of coal to be transported by rail for the year. The 2025 road-to-rail target is the cumulative target over the next three years.

The increase in the average coal purchase price was contained well below the target and inflation, due to the continued move away from supply under short- and medium-term contracts, coupled with our cost savings initiatives. Coal stock levels have reduced slightly, but have been largely stable over the past year.

Majuba and Grootvlei had stock below their individual station minimum stockholding levels at year end (2021: none), due to higher coal burn than planned, combined with lower than anticipated rail deliveries, as well as the effects of higher than expected rainfall in the region in the last quarter of the year. Overall coal stock days remained higher than target due to more coal than needed being delivered to Medupi, Kusile and Lethabo. Coal requirements at Medupi and Kusile have been affected by delays in the commissioning of units, despite receiving coal in terms of take-or-pay coal supply contracts. The low quality of coal supplied to Lethabo makes it unsuitable for use by any other station, and there is no financial benefit to reducing production by the cost-plus mine supplying Lethabo.

OUR INTERACTION WITH THE ENVIRONMENT continued

Implementing coal haulage and the road-to-rail migration plan

Three power stations are partially supplied with coal on rail, namely Grootvlei, Majuba and Tutuka. Rail operations to Arnot Power Station are planned to start in the first quarter of the coming financial year. Less coal was transported by rail mainly due to the continued unavailability of the rail offloading facility at Majuba Power Station, following a fire incident in December 2019. Rail operations at Majuba resumed in October 2021 but remain limited. Furthermore, rail operations are negatively affected by cable theft, vandalism of rail infrastructure and availability of operational resources including locomotives. Eskom Security Services are engaging with Transnet Freight Rail on opportunities to cooperate to reduce the instances of cable theft.

Regrettably, coal haulage by road resulted in 20 public fatalities during the year (2021: eight), as well as three contractor fatalities (2021: six). Given the impact 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

Eskom's assurance of water supply is not at risk in the short to medium term due to our status as a strategic user. However, the Department of Water and Sanitation (DWS) continues to experience severe budgetary, financial and resource constraints, affecting its ability to manage existing operations, maintenance and the implementation of new bulk water infrastructure to ensure future water security to Eskom. Business continuity plans are in place at Eskom facilities and sites to cater for possible water restrictions by municipalities and water boards.

The Integrated Vaal River System (IVRS) storage stood at 100.8% at 28 March 2022 (23 March 2021: 91.7%). Although the IVRS level has remained high due to good rainfall in the catchment areas, the IVRS is likely to remain in deficit until Phase 2 of the Lesotho Highlands Water Project is commissioned by 2026. Unofficially, the project is likely to be delayed by another two years, with construction delayed due to COVID-19 travel restrictions. Other initiatives such as water conservation and water demand management are required to mitigate against future water security risks in the IVRS.

The Mokolo River System, which supplies raw water to Matimba and Medupi Power Stations, has also received good rainfall, resulting in the Mokolo Dam level increasing to 100.8% at year end (2021: 100.4%). As a result, the likelihood of water curtailments to Eskom has reduced significantly, although the risk remains until the Mokolo Crocodile Water Augmentation Project Phase 2A is commissioned. Matimba and Medupi will continue to minimise their water usage and reuse water where possible.

For a discussion of our water usage, refer to "Reducing water consumption" on page 114 in this section

Supplying future water needs

The Mokolo Crocodile Water Augmentation Project (MCWAP) by the Trans Caledon Tunnel Authority aims to augment water supply to Lephalale, as well as to Matimba and Medupi and Exxaro's Grootegeluk mine. The earliest water delivery date from MCWAP Phase 2A has moved out to October 2028 (from August 2026 reported previously) due to delays in securing project funding and subsequent procurement delays. Funding is expected to be secured by 31 March 2023. At this stage, the delay is not expected to affect the Medupi FGD project, which is also delayed.

Securing our nuclear fuel requirements

Existing contracts for the supply of nuclear fuel fabrication services and the delivery of fabricated nuclear fuel are sufficient to meet Koeberg's nuclear fuel demand until 2025. We have entered into contracts until 2028 for the supply of enriched uranium product, which is used in nuclear fuel fabrication.

For further information on nuclear fuel balances, refer to note 10 on future fuel supplies and note 13 on inventories in the consolidated annual financial statements

Reducing our environmental footprint

We measure our environmental performance through a number of KPIs, including relative particulate emissions, specific water consumption and the number of reported legal contravention incidents.

Refer to page 153 for information on the environmental implications of using or saving electricity

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Relative particulate emissions, kg/MWh sent out[SC]	0.28	0.30	**0.31**	■	**0.34**	0.38	0.47
Specific water consumption, ℓ/kWh sent out[SC, 1]	1.25	1.39	**1.33**	■	**1.45**	1.42	1.42
Net raw water consumption, Mℓ	n/a	n/a	**n/a**	n/a	**283 610**	270 736	286 553
Environmental legal contraventions reported as a result of significant failure of business systems, number[2]	1	1	**1**	■	**7**	7	5
Carbon dioxide (CO_2), Mt[3]	n/a	n/a	**n/a**	n/a	**207.2**	206.8	213.2
Sulphur dioxide (SO_2), kt[3]	n/a	n/a	**n/a**	n/a	**1 671**	1 604	1 721
Nitrous oxide (N_2O), t[4]	n/a	n/a	**n/a**	n/a	**1 561**	1 527	2 826
Nitrogen oxide (NO_x as NO_2), kt[4]	n/a	n/a	**n/a**	n/a	**822**	804	851
Particulate emissions, kt	n/a	n/a	**n/a**	n/a	**66.65**	71.35	94.92

1. Relative particulate emissions values and specific water consumption include Medupi Units 2, 3, 4, 5 and 6 as well as Kusile Units 1 and 2, but exclude units synchronised but not yet in commercial operation. Units are only included one year after achieving commercial operation, therefore Kusile Unit 3 as well as Medupi Unit 1 are still excluded.
2. These relate to specific cases of environmental legal contravention incidents that are of very high significance in terms of the impact on the environment and/or on Eskom in that they have a material business impact and illustrate a significant failure of business systems.
3. Emission 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.
4. N_2O and NO_x reported as NO_2 are calculated using average station-specific emission factors (which are measured intermittently) and tonnages of coal burnt.
5. No target is set for net raw water consumption or for emission volumes. Therefore, the target for these measures is shown as not applicable.

Particulate and gaseous emissions

The production of electricity by burning coal produces four major pollutants in the form of emissions: particulate matter (PM), carbon dioxide (CO_2), sulphur dioxide (SO_2) and nitrogen oxides (NO_x). The National Environmental Management: Air Quality Act, 2004 (NEMA) requires the installation of technology to reduce emissions. We have implemented pollution reduction technology since the early 1980s, thereby reducing particulate matter emissions by more than 80%.

Further details of particulate and gaseous emissions are available in the technical statistical table on page 144 to 145

Compliance with atmospheric emission licences

Atmospheric emissions include any emission that results in air pollution and include particulate and gaseous emissions. Atmospheric emission licences (AELs) issued by the authorities allow us to emit atmospheric pollutants within certain limits.

Coal-fired stations operate in general compliance with emission limits set in terms of their AELs. However, occasional non-compliance with these limits occur and are reported to the authorities as required. Our AELs require us to report emergency incidents referred to as NEMA section 30 incidents. A total of 76 section 30 incidents were reported during the year (2021: 47).

It is estimated that all coal-fired units combined have operated in non-compliance with their allowable daily particulate matter emission limits on 174 days during the year (2021: 524 days). Kendal operated in non-compliance with its daily limit on 148 days in the year as the station was forced to continue operating with damaged equipment to compensate for poor performance at other stations. Since the implementation of repairs to a number of its units, Kendal's performance has improved. Medupi recorded 24 days of non-compliance due challenges with fabric filter bags, while Tutuka was non-compliant on two days due to dust handling plant challenges.

OUR INTERACTION WITH THE ENVIRONMENT continued

We developed a new KPI this year for inclusion in the 2023 shareholder compact to track AEL compliance in terms of (i) average emission limit compliance; (ii) NEMA section 30 submissions; (iii) emission monitor status; (iv) gaseous monitor reliability; and (v) general AEL compliance. We have assessed our overall AEL compliance at power stations at 89%. Efforts are under way to significantly improve this in the 2023 financial year.

At year end, eight coal-fired units were operating in non-compliance with average monthly emissions limits (2021: five units), placing 4 766MW at risk of censure or closure by the authorities (2021: 2 949MW).

Minimum Emission Standards
Minimum Emission Standards (MES) for South Africa were published in 2013, and amended in 2018. They stipulate emission limits, which require Eskom to reduce gaseous emissions of sulphur dioxide and nitrogen oxides, as well as particulate matter. These aim to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and to secure ecologically sustainable development while promoting justifiable economic and social development.

In 2014 and again in 2019, we committed to retrofitting several power stations to reduce emissions under postponement applications granted by the then Department of Environmental Affairs. 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.

We submitted postponement applications in terms of the MES to DFFE during August 2020, with additional information submitted early in January 2021. We received a decision on our application from DFFE in November 2021. A positive postponement decision was issued for power stations shutting down by 2030, namely Grootvlei, Arnot, Hendrina, Camden, Komati, Acacia and Port Rex. However, our request for postponements at Matla, Duvha, Matimba, Medupi and Lethabo were all refused in their entirety by the National Air Quality Officer (NAQO). Postponement applications for Majuba, Tutuka, Kendal and Kriel were partially approved.

We submitted an appeal to the authorities in December 2021 for those stations with unfavourable decisions, requesting the Minister of DFFE to consider our motivation for a balanced and sustainable way forward.

In March 2022, the Minister indicated she would undertake a consultative process on the MES appeals in terms of section 3A of the National Environmental Management Act, 1998 and would establish a participative panel consisting of all appellants, stakeholders and interested and affected parties. Timeframes for the process have not been communicated. The appeal process will be held in abeyance while the consultative process is under way.

The impact of full compliance would necessitate expenditure of about R330 billion, which Eskom and South Africa simply cannot afford, given Eskom's financial position and the difficulty in raising funding for coal-based technologies, and the resultant increase on the tariff. It would also result in upgrading stations which would shut down before or shortly after upgrades are completed. The impact on installed capacity of immediate compliance with MES would be the immediate loss of around 16 000MW at Kendal, Lethabo, Tutuka, Duvha, Matla, Kriel and Medupi. A loss of around 30 000MW would be seen by April 2025. This lack of capacity cannot practically be provided for and would result in stage 8 loadshedding being required immediately, with stage 15 loadshedding by 2025.

A reduction in emissions through a retrofit programme would take approximately 15 years to implement at coal-fired power stations. However, such a reduction in emissions could be better achieved over the same period by closing old coal-fired power stations. The capital would be more easily (and even more cheaply) raised and could instead be spent on adding urgently needed additional capacity through renewables, low carbon technology and strengthening the national electricity grid. This would allow for the growth of renewable energy production facilities and provide opportunities to potential future independent power producers.

Eskom's proposal is to reduce emissions by shutting down old coal-fired power stations and to focus on retrofitting projects to reduce particulate emissions and NO_x through Eskom's Road to 2035 strategy. This is anticipated to achieve a 38% reduction in carbon emissions, with reductions of approximately 77% in relative particulate matter emissions, approximately 45% in sulphur dioxide emissions and approximately 55% in nitrogen dioxide.

During September 2022, Eskom had the opportunity to share an introduction to the air emission reduction technology with the panel. The Minister requested a recommendation from the panel by February 2023, including a public participation process. A decision on the MES and the issuing of the station AELs will follow after the MES process is complete.

Our strategy is to facilitate the development of a future electricity sector that is competitive and enabled by modern power system technologies as South Africa strives to achieve net zero emissions by 2050. Our proposed Just Energy Transition (JET) is a pathway that would make it possible to simultaneously spur economic growth, create sustainable jobs and put emissions into structural decline, thereby ensuring electricity supply that does not compromise economic growth.

Emission reduction projects
We continue to drive the implementation of the previously committed MES projects. Good progress has been made on particulate matter (PM) projects, and it is foreseen that all of these projects will be completed by 2025. There is a risk that some Tutuka units with PM upgrades may be completed after the legal requirement of 31 March 2025, but work to minimise this risk is ongoing, and alternatives are also being considered.

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, DFFE not granting further legal indulgences, or not meeting specific loan agreement conditions, such as the World Bank's Medupi FGD loan conditions.

Various emission abatement technologies have been installed at our stations. These include:

- Electrostatic precipitators (ESPs) at Duvha, Kendal, Komati, Kriel, Lethabo, Matimba, Matla and Tutuka
- SO_3 flue gas conditioning plants to improve the efficacy of ESPs at the stations mentioned before, except at Tutuka
- Fabric filter plant at Arnot, Camden, Duvha, Grootvlei, Hendrina, Kusile, Majuba and Medupi
- Boilers with low NO_x design at Kendal and Matimba
- Low NO_x burners at Camden, Kusile and Medupi
- Flue gas desulphurisation at Kusile

In line with our commitments, we are undertaking additional emission reduction projects to reduce particulate matter emissions, as well as sulphur and nitrogen oxides. Progress during the year includes:

- ESP refurbishments were completed at Kendal Units 5 and 6, and the refurbishment on the remaining four units have been scheduled
- High-frequency power supply (HFPS) projects, to further reduce particulate matter emissions, were installed at Kendal Units 1, 5 and 6, Lethabo Units 2 and 3, Matla Unit 2 and Tutuka Unit 4
- Contracts have been placed for the ESP refurbishment and SO_3 flue gas conditioning at Lethabo, and planning is under way
- At Kriel, the HFPS upgrade contract was awarded in December 2021 and engineering design is under way. Commercial challenges have delayed the ESP and SO_3 upgrades, and the planning is being revised
- Work on the NO_x projects at Majuba, Matla and Tutuka remain on hold pending a reassessment of the requirements for these projects in light of engagements with the authorities regarding the MES applications
- Elements of the technology approach for the particulate matter reduction at Tutuka has been reassessed given funding constraints. Revised commercial documentation is being prepared
- The World Bank has approved an extension of the loan agreement for the Medupi SO_2 reduction FGD project until June 2027. A revised procurement strategy has been developed, and planning to meet the revised date is under way

Relative particulate emissions
Relative particulate emission performance has improved since the previous financial year due to focused maintenance of generating plant under the Generation recovery plan, particularly an improvement in the performance at Kendal Power Station. Nonetheless, the year-end target was not achieved. The most significant contribution to the poor performance came from Duvha, Kendal, Lethabo, Matimba, Matla and Tutuka, due to ash plant challenges, electrostatic precipitator performance and SO_3 plant failures.

OUR INTERACTION WITH THE ENVIRONMENT continued

Kendal emission challenges

The station implemented an emission recovery plan across all units since late 2019, which has led to a significant reduction in emissions and units operating in compliance, although emissions remain worse than target. In August 2020, DFFE approved our action plan to return Kendal's units to compliance. The station reports on progress monthly to the authorities as required.

A criminal case was opened in September 2019, relating to non-compliance with Kendal's atmospheric emission licence (AEL) between April 2015 and April 2019. If found guilty, Eskom could be issued a fine of up to R25 million. The key charges are:

- Emission of air pollutants at concentrations above emissions limits specified in the atmospheric emission licence (AEL)
- Failure to comply with the conditions or requirements of the AEL
- Committing an act likely to cause significant pollution of the environment

Eskom appeared in the Witbank Magistrates Court in June 2021, but the hearing was postponed again to August 2021 at the request of the National Prosecuting Authority (NPA). Eskom again appeared in court in August 2021, after which the matter was postponed to January 2022 to allow time for Eskom to prepare representations to the NPA. The matter was presented in January 2022 and was postponed to March 2022 for a pre-trail hearing and setting a trial date. At that point, the magistrate postponed the matter to July 2022. Although Eskom appeared in court in July, the case was postponed again to October 2022. At that point, the case was postponed to February 2023.

Offset programmes

The air quality offset programme aims to reduce particulate matter emissions and thereby improve ambient air quality in communities adjacent to our power stations, by insulating homes with ceilings, switching households from coal to electricity and liquid petroleum gas, and addressing the burning of waste. The programme, which is targeting KwaZamokuhle, Ezamokuhle and Sharpeville, is behind on commitments made to the authorities, mainly due to commercial delays and the lasting effects of the COVID-19 pandemic.

Phase 1 for the physical implementation of the stove swap and house thermal retrofits in KwaZamokuhle (close to Hendrina and Arnot Power Stations) is complete. A total of 250 houses have been retrofitted. The rollout of the programme in Ezamokuhle has commenced.

Gaseous emissions

SO_2 emission limits

Other than Medupi and Matimba, all stations have daily SO_2 limits. No non-compliances with daily limits were recorded. Medupi is operating under an average monthly AEL limit, which was exceeded in April and May 2021 due to the high sulphur content of regional Waterberg coal and combustion processes.

NO_x emission limits

Non-compliances with allowed daily NO_x emissions were recorded at coal-fired power stations on 66 days in total during the year (2021: 75). Of those, 38 were recorded at Lethabo due to combustion process issues which occur at the station at times, with the remainder recorded at Matla and Tutuka.

Ashing facilities and ash utilisation

Ash produced from the combustion of coal by our power stations is the largest source of physical waste from our operations. Our power stations produced 32.90Mt of ash (2021: 30.84Mt), with Lethabo and Matimba the biggest contributors. Ash sold from six stations in terms of our ash utilisation strategy reduced slightly to 2.8Mt for the year (2021: 3.1Mt), and is used in the manufacture of bricks, cement, soil amelioration, road construction and mine backfilling.

As noted earlier, the ash dam solution at Camden Power Station has been completed, with the station now ashing on the new ash dam. There have been no load losses due to ash dam constraints since December 2021.

Reducing water consumption

As a strategic water user, we are assured of water supply in the short to medium term. Nevertheless, given the vast amounts of water we consume, we continue to implement comprehensive strategic water implementation and management plans at all coal-fired power stations to reduce water use and ensure compliance. Disappointingly, implementation of the water strategy has not yet resulted in a reduction in water usage at coal-fired power stations.

Specific water usage

Water performance remains very disappointing. Specific water usage in the generation of electricity deteriorated compared to the prior year and performed worse than target. The deterioration is attributed to poor water management practices at power stations, including leaks and overflows at units; less recovery from on-site dams for reuse due to poor water quality, due to contamination with ash and oil; ashing with cooling water to control cooling water chemistry; as well as losses through discharge of polluted water into the environment, as the pollution control dams on these sites have more water flowing into the dams than can be contained.

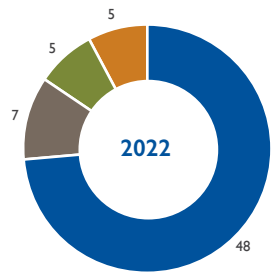
Kendal and Tutuka released water into the environment for the entire financial year, resulting in increased raw water usage. Plans are in place to improve water performance across the power stations and stop continuous discharge at both Kendal and Tutuka. However, there has been slow progress in the implementation of the plans addressing the root causes of poor water performance. The release of water into the environment goes against Eskom's intent to achieve zero liquid effluent discharge and to be compliant with legislation.

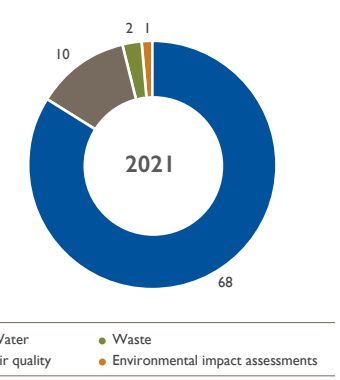
Apart from poor water management practices, the poor technical performance of coal-fired stations is another contributory factor, together with ageing plant. The increase in energy sent out across the fleet also affected the specific water usage.

More focus is still required at power stations to address the root causes of high inflows into dams and prevent contamination of surface water to improve water recovery and water management practices. Regrettably, focused monitoring of the effective implementation of water management action plans, both at power station level and by the Generation Environmental Compliance Steering Committee, has not yet led to a significant decrease in such events when compared to the previous financial year.

Reducing environmental legal contraventions

A total of 65 environmental legal contravention incidents were recorded against a tolerance level of 18 (2021: 81, restated), with the reasons indicated below. Generation was responsible for 58 of the incidents (2021: 78).





Of the environmental legal contravention incidents, seven were escalated as being a result of significant failure of business systems (2021: seven), all of which were water-related and recorded in Generation Division.

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 statistical table on page 144 to 145

Provisions for environmental restoration and rehabilitation

We continue to provide for the following obligations:

- Decommissioning of nuclear plant, which includes rehabilitation of the associated land, as well as managing 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 contractual or constructive obligation exists to reimburse the coal suppliers

We have raised the following provisions relating to environmental rehabilitation and restoration:

R million	Actual 2022	Actual 2021	Actual 2020
Power station-related environmental restoration – nuclear plant	**18 269**	17 317	14 818
Power station-related environmental restoration – other generating plant	**16 293**	14 811	11 806
Mine-related closure, pollution control and rehabilitation	**15 303**	15 259	14 164
Total environmental provisions	**49 865**	47 387	40 788

Refer to note 28 in the consolidated annual financial statements for more information on these provisions

Investing in renewable energy

Eskom's Sere Wind Farm contributed 253GWh to the national grid during the year (2021: 305GWh), with an average load factor of 27.54% and an average availability factor of 77.84% (2021: 33.25% and 94.48% respectively).

We continue to purchase renewable energy from IPPs – sources include wind, solar power, biomass, landfill gas and small hydro technologies.

For capacity and energy supplied by renewable IPPs, refer to page 99

Responding to climate change

Climate change is one of the greatest challenges facing humanity, and a measurable global reality. The world is already experiencing increased temperatures and observing more frequent and severe weather events. If nothing is done, climate change will endanger the livelihoods of hundreds of millions of people around the world and impose increasing costs on society.

Meeting the goals set out in the Paris Agreement is a race against time. Whether we succeed or fail depends on the speed with which we phase out coal-fired electricity production worldwide. According to the 2018 IPCC Report, coal-fired generation needs to be reduced by 78% by 2030 to keep the goal of limiting average global temperatures to within 1.5°C above pre-industrial levels within reach. However, the speed at which coal-fired production can be phased out in South Africa depends on the rate at which replacement generation capacity (renewable generation with battery storage) can be rolled out and on the financial, skills, regulatory and logistical support required to enable that. Otherwise, the country faces dire socio-economic consequences.

OUR INTERACTION WITH THE ENVIRONMENT continued

The Paris Agreement requires governments to put forward 2030 pledges and targets to cut carbon emissions to limit warming. All countries who are signatories to the Paris Agreement, South Africa included, have submitted their own nationally determined contributions (NDCs) to the United Nations Framework Convention on Climate Change (UNFCCC).

South Africa's response to climate change

South Africa is particularly vulnerable to climate change, given that local warming is approximately twice the global rate due to the country's geographical location and socioeconomic state. South Africa is committed to achieving the goals of the Paris Agreement, keeping global warming well below 2°C above pre-industrial levels by 2050 and to pursue efforts to limit the temperature increase to 1.5°C. As part of Eskom's Just Energy Transition (JET) strategy, Eskom has further committed to reach net zero emissions by 2050, while promoting net job creation.

South Africa's first NDC included a target range between 398–614Mt CO_2e in both 2025 and 2030, as part of a "peak, plateau and decline" trajectory to 2050. In September 2021, South Africa submitted its updated NDC to the UNFCCC, indicating an updated target range between 398–510Mt CO_2e in 2025, and between 350–420Mt CO_2e in 2030. This conveys a significantly more ambitious mitigation target that allows South Africa to remain on a pathway well below 2°C, and to continue to strive for a 1.5°C pathway.

Climate change legislation and carbon budgets

South Africa's proposed Climate Change Bill aims to mount an effective climate change response and ensure the long-term, just transition to a climate resilient and lower carbon economy and society, within the context of sustainable development. Cabinet approved the Climate Change Bill to be passed through Parliament. As part of the first phase, it is expected to prescribe mandatory carbon budgets from 1 January 2023 to 31 December 2027, as well as the methodology for allocating budgets. In the interim, companies are required to develop and implement Pollution Prevention Plans that cover a five-year period (from 2021 to 2026) and to report on their progress annually.

DFFE gazetted their intention to extend voluntary carbon budgets for 2021 and 2022, and we have requested an allocation from DFFE.

Carbon tax

The Carbon Tax Act, 2019 (CTA) levies a carbon tax on greenhouse gas (GHG) emissions, to encourage the market to reduce consumption of carbon-intensive products and to shift the country onto a low carbon pathway. National Treasury initially confirmed that the gazetted renewable energy premium applies to 31 December 2022. Subsequently, the National Budget Speech in February 2022 proposed that this be extended until 31 December 2025. It would lead to the first carbon tax liability to Eskom arising in the 2026 financial year, with the first cash payment expected the following year.

According to section 6(2) of the CTA, generators of electricity from fossil fuel are allowed a deduction equal to the renewable energy premium incurred through RE-IPP purchases in the same tax period. It is an unintended consequence of the imminent legal separation of Transmission – the counterparty to RE-IPP purchases – that the remaining Generation business may no longer be able to claim that deduction. The potential financial risk is being monitored.

There is further risk in that the carbon tax in Rand per ton will move from being linked to inflation, to achieving an effective rate of $20/ton by December 2025 and "at least" $30/ton by December 2030, as expressed in the February 2022 National Budget Speech. This increases the price escalation from an average of 4%–5% per year to just under 28% per year from January 2022 to December 2025 (assuming a Rand/Dollar exchange rate of R15). Thereafter, the annual growth is expected to settle at around 8.5% per year. Based on the existing MYPD methodology, this cost is treated as a pass-through to the consumer, implying that the expected liability in the 2027 financial year will require a tariff adjustment of 8.5%–9%.

Eskom's response to climate change

Our climate change policy is intended to support South Africa to meet its nationally determined contribution. The Climate Change and Sustainable Development (CCSD) Department has recently revised Eskom's climate change policy to address the development and implementation of adaptation plans by the electricity value chain. It incorporates Eskom's vulnerability to the negative impacts of climate change, including extreme events, climate variability and long-term climate change in divisional adaptation plans and the integrated risk and resilience management processes.

Generation Division and Eskom Rotek Industries (ERI) have already developed adaptation plans, which are being implemented. Transmission has incorporated climate change risks into their business operations, and the Distribution adaptation plan is being developed. We also provide quarterly feedback to DPE on our climate change adaptation progress and participate in the Climate Change Adaptation Technical Working Group.

We have developed a comprehensive Just Energy Transition (JET) strategy which provides a consolidated view of the approach that we will take to transition away from coal-fired power to more sustainable, lower emitting energy sources. We have set targets for different time horizons, from 2020 as the base year to 2050. The target for 2030 is approximately 130–180Mt CO_2e; the 2040 target is approximately 15–100Mt CO_2e and the 2050 target is approximately 7–50Mt CO_2e.

Climate funding

Over the last year, an Eskom team, led by the GCE, has actively engaged with foreign governments such as the United Kingdom, United States, Germany and France, as well as their lending institutions and multilateral banks who are keen on funding Eskom's JET plans. Consequently, we developed the concept of a financing facility, referred to as the Eskom JET Financing Facility. The GCE presented the Eskom facility to the Presidential Climate Commission and received support.

The concept is to enable and accelerate the Just Energy Transition from coal to other forms of electricity generation through a multi-tranche, multi-year facility, funded by a multi-lender syndicate, which would provide concessional funding to JET projects in South Africa on a "pay for performance" basis. The funds would be advanced as progress payments for different stages of various projects. Should project objectives not be achieved as agreed, or should agreed-upon milestones not be met, future releases of funding tranches may be withheld, and/or concessional interest rates may be increased.

Our efforts to source financing for climate projects culminated in the South African Just Transition financing facility of $8.5 billion that was approved at COP26, coordinated by the Climate Investment Funds. This unprecedented partnership between the SA Government and the UK, US, EU, French and German governments has at its heart the Eskom Just Energy Transition plan. The financing will be used to fund new clean energy generation projects as well as transmission and distribution infrastructure, together with green hydrogen and electric vehicle projects. Other lenders are also showing interest in funding various Eskom JET projects, supporting our net zero emission aspirations.

A technical team, under the auspices of the Presidency, has been set up to coordinate the South African funding deal. We are participating in the task team, which will work on the conditions of the loan, tenure, payback, interest rates, among other factors. A key enabler is the "Just" element as the socio-economic commitments are key to the deal being successful. To enable Government's goals for the JET transaction, we have developed a prioritised list of projects and will advocate for the timeous release of COP26 funding, based on our readiness to execute JET projects across Generation, Transmission and Distribution.

In the meantime, we are proceeding with bilateral engagements with various lenders for the funding of Eskom JET projects, which began prior to the COP26 announcement, and continue to cultivate projects that will qualify for funding under these agreements.

Just Energy Transition

As indicated before, we are committed to transitioning from coal to lower carbon technologies such as renewables, and will ensure that the transition occurs in a "just" manner, by not impeding socio-economic development, but rather increasing sustainable jobs. Grid strengthening in the Northern and Eastern Cape Provinces is a key enabler for the rollout of new renewable capacity in these areas. In addition, repurposing and repowering will allow for the optimisation of grid capacity in the Mpumalanga Province. To this end, Generation has established a Clean Energy Department, to oversee the development, design, building and execution of clean energy projects. This department will also be responsible for setting up and managing investment in clean energy-related ventures or initiatives.

It is essential to ensure that those who are invested socially and economically in the coal value chain are not adversely affected. Consequently, we are collaborating with the Department of Trade, Industry and Competition (the **dtic**) and others to capitalise on the expected 30GW of renewable construction required in South Africa over the next decade by ensuring that appropriate industrial policy is in place to enable local manufacturing of renewable components. Policy and demand certainty will be crucial to attract investors to set up factories in South Africa, preferably in the coal heartland of Mpumalanga. Eskom's key requirement to investors is that the investment in manufacturing capacity in South Africa forms part of a decarbonisation-funding package.

We are conducting socio-economic impact assessment studies at 10 power stations. The aim is to identify impacts, risks and opportunities to mitigate the economic and societal impacts from station shutdown, and create a basis for continued, sustainable livelihoods for the affected communities and local and district municipalities through a Just Energy Transition.

The socio-economic impact assessment studies for the shutdown of Komati, Grootvlei and Hendrina Power Stations have been completed. The key findings and recommendations of these studies have been evaluated and are being incorporated into socio-economic impact mitigation implementation plans for each of the three power stations. Studies for seven more power stations have commenced, namely Camden, Arnot, Matla, Kriel, Duvha, Tutuka and Kendal. It is anticipated that the studies will take about two years to complete. Through the JET Office and DFFE, we secured a grant of $2.1 million for these seven studies from the National Determined Contribution Partnership (NCD-P) that is supporting national priorities identified by DFFE.

In 2021, the World Bank commissioned technical studies on retiring and repurposing four power stations, being Komati, Hendrina, Grootvlei and Camden. The studies will inform the types of technologies that could be deployed at sites. Selected technologies will be taken through multicriteria evaluation to indicate the preferred technology options. This will support Eskom's mitigation plan by identifying jobs, economic opportunities and localisation potential from the repowering and repurposing programme, in line with Eskom's Just Energy Transition strategy.

OUR INTERACTION WITH THE ENVIRONMENT continued

Discussions are under way for different envelopes of grant funding for feasibility studies of various JET projects. Concessional financing discussions and project parades have been conducted with DFIs. The Industrial Development Corporation and Development Bank of Southern Africa are busy reviewing the project pipeline; appraisal missions are under way with the World Bank and Agence Française de Développement. In November 2022, the World Bank approved a concessional loan facility of $497 million for the repurposing of Komati Power Station.

Pilot at Komati Power Station

Komati Power Station, located in Middelburg, Mpumalanga, was initially commissioned between November 1961 and March 1966. The station was mothballed by 1990, and subsequently returned to service by October 2013. Komati had an installed capacity of 990MW, and the last coal-fired unit of 114MW was shut down in October 2022. The station will serve as the flagship site to demonstrate Eskom's JET commitment to shift from coal dependency to producing power through renewable energy on existing Eskom land using existing infrastructure.

The Komati mitigation plan outlines potential projects that can be undertaken regionally, locally and at the power station to mitigate against indirect and induced effects of the shutdown. The focus is on job creation, economic development, diversifying the local economic base and strengthening human and social capital, manufactured capital as well as political capital in the local area.

We have begun installation of a 500kWp agrivoltaic (aquaponics and raised bed agricultural solutions) demonstration plant. An environmental impact assessment for a solar PV plant supported by battery storage is in progress. In total, 370MW of renewable energy, including wind, solar and battery storage, is planned to be deployed.

A microgrid assembly and fabrication factory is being set up in the disused Komati workshops. The targeted production capacity is 45 containerised microgrids per year.

Skills requirements are being established for each of the interventions, with skills mapping in progress to facilitate internal and external training of local labour to actively participate.

The Komati Training Facility is being established in partnership with the South African Renewable Energy Technology Centre (SARETEC) to facilitate the skilling of Eskom workers as well as the local community in the Komati area, to replace jobs lost in related industries such as coal mining.. It is also envisaged to provide upstream skilling of workers at other power stations. Ash geopolymer manufacturing is to be established to produce concrete products, such as bricks and pavers, from ash that is in abundance in the area.

Eskom HR has developed a draft 15-year Eskom JET skills plan to address the internal "just" element, by ensuring that employees have the required skills to support and implement various technologies. The final skills plan will incorporate inputs from all divisions. Various initiatives are to be explored, such as partnerships with external experts, funders and training service providers in preparation for upskilling and training in new industries, such as microgrid assembly. Preparations are under way to engage organised labour on this plan.

The following principles will be applied to mitigate the impact of power station shutdown on Komati's workforce:

- Transfers to other power stations
- Reskilling and upskilling for deployment to repowered or repurposed units
- Secondments to other critical projects or operations
- Other levers such as voluntary separation packages

Overview of Task Force on Climate-Related Financial Disclosures

Governance

The Board is the focal point for corporate governance, responsible for Eskom's performance and for meeting financial, operational and other business expectations. The Board is supported by three board-level committees in governing climate-related matters. These committees are regularly informed of climate-related risks and opportunities.

SES is responsible for providing oversight of social and economic development; good corporate citizenship; environmental, climate change as well as health and safety programmes; and the sustainability audit. SES reviews key sustainability strategies and debates how best to integrate sustainable development into business strategy.

ARC is responsible for setting the direction for risk management and internal controls, governance of technology and information, compliance, and combined assurance. The Priority 1 JET risk is monitored and tracked at Exco and Board level and is reported to ARC quarterly. A future focus area is to consider sustainability risks relating to financial reporting.

The Board Strategy Committee is responsible for providing oversight of Eskom's response and implementation of Government directives, roadmaps and policy documents related to the restructuring of Eskom and the electricity supply industry. The committee considers the Just Energy Transition transaction, as well as proposals for power plant repurposing and repowering of ageing coal-fired power stations.

The GCE and Exco are responsible for approving, implementing and executing effective risk and resilience management of climate change risks and the JET strategy. The Exco Risk & Sustainability Committee informs the GCE and Exco on the progress made in addressing the climate-related issues.

We established the JET Office to drive Eskom's JET activities, to meet our long-term JET vision of net zero emissions by 2050 with an increase in sustainable jobs. The JET Office is responsible for identifying and assessing JET-related risks and opportunities, controls and treatment plans. These risks and opportunities are directly linked to Eskom's climate change imperatives. The JET risks and progress made on treatment plans and challenges are reported monthly to the GCE and the JET Steering Committee, which consists of Exco members.

Strategy

Climate-related risks and opportunities with high levels of uncertainty regarding their nature, timing, development and deployment were identified for different time horizons. We have prioritised three key climate-related risks and four opportunities, with the highest likelihood of impacting Eskom's business, strategy and financial planning. These climate-related risks and opportunities are crucial to our sustainability and receive consideration at Exco and Board level. We have defined the risks according to the short term (1–3 years) from 2021 to 2023; medium term (3–7 years) to 2030; and long term (7–30 years) to 2050.

Risks	Opportunities
All time horizons: 1 to 30 years (2021–2050) 1. Inability to safeguard Eskom's assets and operations against climate change	**Short term: 1 to 3 years (2021–2023)** 1. Pursuit of partnerships and funding solutions 2. Large-scale rollout of cleaner and greener energy
Medium-term: 3 to 7 years (2023–2030) 2. Failure to meet the 2030 JET targets 3. Evolving climate change legislation	**Medium-term: 3 to 7 years (2023–2030)** 3. Repowering and repurposing existing coal sites 4. Re-energising the manufacturing sector

Previously, two scenarios were considered, namely the "soft decarbonisation" scenario and the "ambitious decarbonisation" scenario. These were based on domestic policy considerations such as South Africa's NDC under the Paris Agreement as well as DMRE's IRP 2019, and what was envisaged beyond that to 2050.

In 2021, our Energy Planning and Market Development Department modelled an energy pathway to 2050 within a set of technical constraints. This pathway considers the optimal coal shutdown plan as part of emission reduction efforts for both GHG and local air pollutants. The preferred pathway has been presented to Board for consideration.

The pathways and scenarios will be benchmarked against four World Energy Outlook scenarios developed by the International Energy Agency, namely the Announced Pledges Scenario (APS); the Stated Policies Scenario (STEPS); the Sustainable Development Scenario (SDS) and the Net Zero Emissions by 2050 Scenario (NTZ).

OUR INTERACTION WITH THE ENVIRONMENT continued

Risk management

The Enterprise Risk and Resilience Department has established risk structures within each division, consisting of risk owners, risk coordinators and risk and resilience practitioners. Risk owners are accountable for the identification, assessment and management of risk, which is integrated in management processes and evident in decision-making processes and outcomes. Risks are classified from Priority I to Priority IV. All Priority I and emerging risks are reported to Exco and the Board, which provides oversight as recommended by King IV™.

For further detail on risk management, refer to "Our strategic context – Integrating risk and resilience" from page 45

Metrics and targets

Eskom's performance metrics include GHG emissions data and compliance with legislation. Additional metrics include Eskom Factor 1 (total energy sold) and Eskom factor 2 (total energy generated).

Refer to "Information on the environmental implications of using or saving electricity" on page 153

Internal carbon dioxide reviews

We conduct annual carbon dioxide reviews at all power stations. Due to COVID-19 lockdown restrictions, the last two reviews have been conducted on 30% of the coal-fired fleet. The purpose of these reviews is to improve the integrity of data which is used to calculate annual emissions.

The reviews involve assessing the processes, systems and documentation (such as policies and procedures) and the ISO compliance self-assessment to ensure the value chain of data flow has the integrity to yield calculations with a high degree of accuracy.

GHG emissions

We submit an annual GHG report to DFFE based on their technical guidelines for scope 1 emissions. These are based on the 2006 Intergovernmental Panel on Climate Change (IPCC) GHG Guidelines and 2019 IPCC Refinements.

Our carbon footprint

A carbon footprint estimates the total GHG emissions (including scope 2 and 3) caused by an organisation expressed in tons of carbon dioxide equivalent (tCO_2e). This provides insights into the sources and magnitude of GHG emissions and allows us to improve the management thereof.

We calculated our annual carbon footprint for the 2021 calendar year, using the same methodology as the carbon footprint study conducted for 2020. The footprint was calculated in line with the globally recognised GHG Protocol: A Corporate Accounting and Reporting Standard. Since the calculation of our carbon footprint covers a different scope and may utilise different assumptions to the regulated reporting requirements, the results are not directly comparable.

The results of the carbon footprint study for the 2021 calendar year, compared to the 2020 results, are presented in the table below:

GHG emissions by source, tCO_2e	2021 calendar year	2020 calendar year
Scope 1		
Stationary combustion	**207 230 321**	201 260 329
Eskom fleet	**78 138**	37 810
Fugitive emissions	**52 841**	73 904
Waste disposal	**3 366**	3 820
Non-combustion product use	**3**	12
Scope 2		
Electricity and heat purchased[1]	n/a	n/a
Scope 3		
Coal delivery to site	**252 743**	238 338
Use of employee vehicles	**6 003**	6 669
Air travel	**937**	1 008
Vehicle rental	**1 216**	2 225
Total[2]	**207 625 568**	201 624 115

1. 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.
2. For coal, an Eskom-specific annual weighted average net calorific value of 0.01901TJ/ton fuel was used based on the actual measured value for 2021.
3. Due to different scopes and input assumptions, the results are not directly comparable with our CO_2 emissions reported in the table on page 144.

The total GHG emissions for 2021 were 207 625 568tCO_2e, which is higher than 2020 due to the relaxation of various lockdown measures implemented in response to the COVID-19 pandemic, and the consequent increase in electricity generated to meet the higher demand. The majority of these emissions were caused by the burning of fossil fuels at our power stations for the generation of electricity. Coal, diesel and kerosene consumption contributed over 99.8% of our GHG emissions.

Coal delivery to site is the second biggest source of GHG emissions. This mainly relates to the transportation of coal to power stations by third-party trucks. The third highest source of GHG emissions was Eskom's fleet – this relates to fuel consumed by the corporate fleet and heavy trucks owned by Eskom, as well as Eskom's helicopters used for power line maintenance and inspections. There was an increase in travel due to the lifting of the national COVID-19 travel restrictions.

Fugitive emissions, which relate to the incidental release or leak of SF6 gas due to the failure or malfunctioning of gas-insulated switchgear (GIS) and circuit breakers used in Transmission and Distribution, reduced compared to the prior year.

CDP disclosure

Since 2009, we have voluntarily disclosed our climate change performance on the Carbon Disclosure Project (CDP), a global platform for investors, companies, cities, states and regions to manage their environmental impacts. As in prior years, we submitted a response in 2021 as well as in 2022.

CDP provides the global financial sector with the most complete source of self-reported corporate environmental data from more than 7 000 of the world's largest companies, in a uniform and comparable manner that is fully aligned with the TCFD. It considers the impact on and management of climate change, water security and deforestation related issues. The information is scrutinised by investors, corporations and regulators in making informed decisions on investing in particular industries, sectors and countries.

Carbon-based market mechanisms

There are several carbon-based market mechanisms that operate globally to promote the scale-up of emissions reductions. This includes the Clean Development Mechanism (CDM), the Gold Standard Foundation, the Voluntary Carbon Standard, Joint Implementation and several others. The CDM is a carbon-offsetting mechanism that is well established nationally and internationally. Its objectives are firstly, to assist developing countries to meet their sustainable development agenda; and secondly, to assist developed countries to achieve their Kyoto Protocol emissions targets through a less costly approach by developing projects in the developing world.

Eskom has a programme and three registered projects under the CDM to implement the national energy efficient lighting programme, known as the compact fluorescent lamp (CFL) national rollout programme. The Sere wind energy facility in the Western Cape is also a registered CDM project. We continue to explore opportunities of registering more eligible projects under the CDM.

Future focus areas

- Continuing to implement the long-term coal strategy to ensure security of coal supply, at an optimal cost
- Pursuing the following high priority levers to support the objectives of the long-term coal strategy:
  - Extending cost-plus contracts to match power stations' lifespan and utilising the dedicated coal reserve for supply to other power station. It includes reinvestment in cost-plus mines to enable contractual supply and more, thereby ensuring optimal cost of coal and security of coal supply from dedicated sources
  - 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
  - Striving to move coal as economically as possible, leaning towards a tied colliery model delivering coal by conveyor, with rail and road transportation as less preferred alternatives
- Engaging with DFFE on the MES decision, which has significant implications for available capacity, putting 16 000MW at immediate risk, although Eskom's subsequent appeal will result in a consultative process
- Driving a combination of interventions, such as increased training and assurance reviews both at divisional and corporate level, focused on implementing requirements related to atmospheric emissions, incident management, water, waste and biodiversity to assist divisions in turning around the negative environmental performances, to achieve Zero Harm and to maintain Eskom's licence to operate
- Addressing instances of non-compliance and shortcomings to ensure full compliance with licences and permits
- Leading the Just Energy Transition by using generating plant approaching the end-of-life, through repurposing and repowering as alternatives to full decommissioning of power station sites. The priorities are to fast-track the repowering project implementation at Komati Power Station, and to work with the Presidential Task Team to finalise the COP26 financing deal

OUR PEOPLE

Highlights

- Launched the *Eskom Rising* campaign to engage employees on our turnaround plan
- Adopted a hybrid work model to take advantage of the benefits of remote working
- Initiated Eskom's culture transformation programme to drive a shift to a high-performance ethical culture

Improvements

- Employee benefits costs were successfully contained, driven by a reduction in headcount and no or limited salary increases
- Learner intake targets were achieved, supporting Eskom's skills pipeline
- Commenced with a skills audit to develop a fit-for-purpose skills strategy, although the project has experienced delays

Challenges

- Ensuring an adequately skilled workforce while meeting racial, gender and disability transformation targets, given financial constraints and headcount targets
- Loss of institutional knowledge and risk to succession planning due to staff turnover
- Low employee morale caused by a lack of incentive bonuses in recent years and no or limited salary adjustments
- Containing overtime costs given continued poor generating plant performance
- Reducing the number of lost-time incidents, given our value of Zero Harm

Lowlights

- Six fatalities recorded among employees and contractors
- No agreement with organised labour on the 2021 salary negotiations, requiring arbitration by the CCMA

Our people are critical to successfully achieving our mandate and strategic objectives. A high-performance ethical culture is seen as a key enabler for driving our turnaround plan and our vision of powering growth sustainably. To deliver on this, effective employee engagement and performance management, as well as enhancing our employee value proposition, are necessary to improve employee productivity and morale.

We seek to recruit and retain a skilled workforce, as well as develop and source leadership and other critical and scarce skills, by identifying skills gaps, training our people, maintaining a diversified learner pipeline and enabling talent development opportunities.

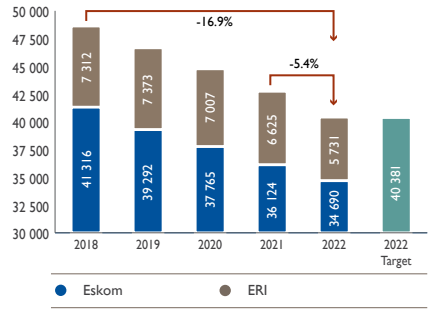
We are committed to our value of Zero Harm by promoting safety excellence in all areas. We collaborate with organised labour, employees and contractors on initiatives that create a safe working environment and mitigates safety risks.

Our workforce

Group headcount stood at 40 421 at year end (2021: 42 749), including permanent staff and fixed-term contractors. We have achieved a notable reduction in our headcount over recent years, mainly through natural attrition and, to a lesser extent, voluntary separation packages, while prioritising the retention of critical workforce segments. Contributing most to the decline in the past year is a net reduction of 1 103 fixed-term contractors in Eskom Rotek Industries (ERI) due to contracts coming to an end.

Headcount is expected to remain mostly stable over the next five years, with a target of 40 381 by the 2027 financial year, as we aim to replenish skills lost through natural attrition.

Change in group headcount



We have completed two rounds of voluntary separation packages (VSPs) for managerial staff, with 259 managerial employees exiting the organisation in the 2021 financial year. Following engagements with our recognised trade unions (NUM, NUMSA and Solidarity) in November 2021, Eskom implemented a third round of VSPs, which was limited to bargaining unit employees. The process excluded positions classified as core, critical or scarce skills to minimise the impact on operations.

A total of 252 applications were received, of which 161 were approved. Of those, 143 offers were accepted, at a cost of R107 million. The separations are not reflected in the headcount movement below, as employees were required to exit Eskom on 30 April 2022. To enhance their skills, exiting employees were offered training in basic welding or workshop management within six months of the date of exit.

Our gross staff turnover rate during the past year was approximately 7.9% (2021: 4.8%). This is higher than the norm of 4% due to the exit of ERI contractors mentioned above. The movement in our headcount for the year is shown below.

Number of employees	2022	2021	2020
Headcount at 1 April	**42 749**	44 772	46 665
Add: Appointments	**1 064**	157	524
Less: Resignations[1]	**(2 223)**	(670)	(1 188)
Retirements	**(755)**	(824)	(960)
Deaths in service	**(281)**	(318)	(161)
Dismissals	**(129)**	(96)	(127)
Absconded	**(4)**	(10)	(10)
Separation packages	**–**	(259)	–
Other	**–**	(3)	29
Headcount at 31 March	**40 421**	42 749	44 772

1. The substantial increase in this category is due to a net reduction of 1 103 fixed-term contractors in ERI during the 2022 financial year.

Employee benefit costs amounted to R33 billion (2021: R32.9 billion) and constitute about 15% of operating costs, remaining the second largest component of operating costs after primary energy (both coal and IPP expenditure).

For a discussion of employee benefit costs, refer to "Our finances – Other operating costs" on page 78

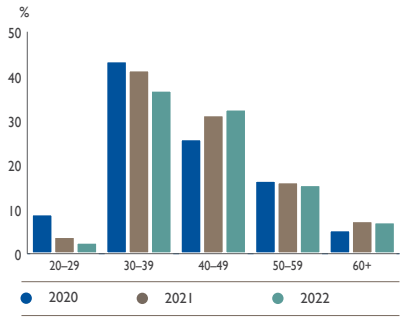
We continue to explore opportunities to contain employee benefit costs and build a more sustainable organisation by controlling headcount and managing overtime. We ensure that any decisions around remuneration and benefits are made within the context of our financial challenges.

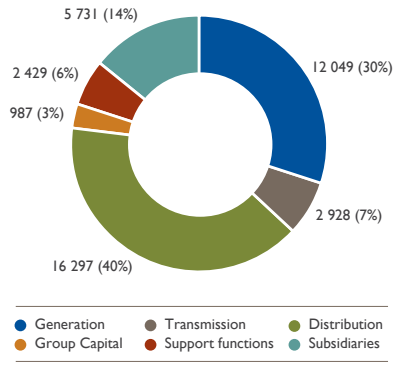
While headcount targets are on track and salary increases have been contained, overtime remains a challenge due to the increasing levels of unplanned maintenance over the past year.

The composition of our employee benefit costs is set out in note 34 of the consolidated annual financial statements

OUR PEOPLE continued

The age and divisional breakdown of our workforce at year end is shown below.





Over three-quarters of employees (including direct support staff) are involved in the generation, transmission and distribution of electricity to customers, with the remainder employed in the new build programme, corporate support functions and our subsidiary ERI, which supports the electricity business.

For information on the racial and gender breakdown of our workforce, refer to "Improving internal transformation" from page 127

Building and retaining strong skills

Our skills development programme supports the national objectives of poverty reduction, economic transformation and job creation in terms of the National Skills Development Plan 2030. The recruitment of learners and the management of our learner pipeline aims to address the critical skills requirements of Eskom and the Government.

Retention and development of skills through a targeted employee value proposition is essential to ensure that we have the required skills to meet the organisation's needs, especially in light of operational challenges and financial constraints.

The changing world of work, Just Energy Transition and evolving energy industry require the reskilling and upskilling of our workforce. In July 2021, we commenced with a skills audit to determine skills requirements, assess our current skills base, and identify future training and development needs. The skills audit covers all technical roles across Generation, Transmission and Distribution. Unfortunately, progress has been slow due to low participation by employees; the audit has been extended into the 2023 financial year and is ongoing. The results of the skills audit will aid the development of a fit-for-purpose skills strategy that drives the development of future-fit career paths, redeployment strategies and training interventions.

Learner pipeline

Our learner pipeline constituted 1 238 learners at year end (2021: 1 465), including 1 219 technical and 19 non-technical learners. The learner pipeline represented 3.6% of company headcount, with artisans making up the majority.

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Learner intake: Artisans, number[SC]	300	100	105	●	106	–	91
Learner intake: Engineers, number[SC]	150	50	50	●	58	–	16
Learner intake: Technicians, number[SC]	150	50	45	●	51	–	11
Learner intake: Plant operators, number[2]	n/a	n/a	90	●	120	–	n/a
Training spend as % of gross employee benefit costs[SC]	3.75	3.75	3.75	■	2.70	2.58	3.67

1. The 2025 target for learner intake is the cumulative figure targeted over the next three years.
2. No targets are set for plant operators over the next three years. Therefore, targets are shown as not applicable.

Learners on a "workplace integrated learning" programme will be exiting Eskom once they have obtained their trade test certificates, in line with the agreement to provide them with the necessary skills and qualifications to be job market ready.

TRAINING SPEND
R855 million (2021: R820 million) ▲ 4%

FURTHER STUDIES
843 employees enrolled (2021: 303), of which 57% are women

Learning and development

Learning and development includes internal and external training interventions, further studies as well as on-the-job training for our people.

Regrettably, external training opportunities remain limited due to our financial challenges. In response to the COVID-19 pandemic, many training interventions have transitioned to online platforms which has also led to some cost savings. There has been increased uptake in further study programmes, with employees obtaining qualifications related to their line of work, thereby building skills and expanding the leadership potential within our workforce.

Remuneration and benefits

Our aim is to attract and retain skilled, high-performing employees and provide market-related remuneration, benefits and conditions of service, within the guidelines set by the shareholder.

Managerial employees receive a guaranteed package, including benefits such as medical aid, pension, dread disease cover, group life and death benefits. In line with the conditions attached to the Government support, no increases were awarded to managerial employees during the year.

2022 CBF negotiations

At the outset of negotiations, many of the trade unions' initial demands were similar to those from the 2021 CBF.

In the first round, Eskom offered a 1.5% increase in basic salary, effective from 1 July 2022, which was rejected. In the second round, Eskom offered 2.7%, 3.7% and 4.7% salary adjustments based on an employee's position within the overall bargaining unit salary scales. This offer was also rejected, with NUMSA and NUM tabling a new demand of 12% – lower than their initial demand of 15% – while Solidarity's demand was CPI plus 2.5%.

In the final round of negotiations, Eskom revised its offer to 4%, 4.5% and 5.3% across the various salary scales. This was also rejected and a deadlock was reached. Eskom declared a dispute with the CCMA on 22 June 2022 to expedite the resolution of the wage dispute.

Following the deadlock, we experienced unprotected protests at many power stations. The Labour Relations Act, 1995, classifies the generation, distribution, and transmission of electricity as an essential service. As such, Eskom employees are prohibited from participating in industrial action. On 24 June 2022, we obtained an urgent interdict from the Labour Court.

Regrettably, the unlawful and unprotected industrial action continued, manifesting in acts of harassment, intimidation, sabotage, arson and violence, despite calls from both Eskom and trade union leadership to desist from such behaviour and return to work. This action resulted in severe generation supply constraints and led to implementation of stage 6 loadshedding from 28 June 2022.

Engagements were held between Eskom and trade union leadership, and an agreement was reached to return to the CBF negotiations on 1 July 2022. Eskom proposed a final settlement offer, with a 7% increase in basic salary, along with reinstatement of previous conditions of service. The trade unions accepted the offer on 5 July 2022, bringing an end to the damaging, disruptive and costly wage dispute.

Bargaining unit employees receive a basic salary, which includes a thirteenth cheque (referred to as an annual bonus) as well as other benefits, such as pension, medical aid, death benefits, as well as housing, cell phone and car allowances, subject to qualifying criteria. Around 83% of our workforce are covered by collective bargaining agreements with trade unions.

Regrettably, we could not come to an agreement with organised labour during the 2021 Central Bargaining Forum (CBF) negotiations and the matter was referred to the Commission for Conciliation, Mediation and Arbitration (CCMA) for arbitration. While awaiting the outcome of the arbitration, we implemented our final offer of a 1.5% basic increase for bargaining unit employees from 1 July 2021. In September 2022, the CCMA issued its arbitration award, ordering Eskom to provide an additional 1.5% increase, backdated to 1 July 2021. This amounts to a total increase of 3% for the period 1 July 2021 to 30 June 2022.

Executive remuneration is discussed under "Governance, leadership and ethics – Remuneration and benefits" on page 63

Given Eskom's financial results, no performance bonuses have been paid to employees since 2018. Furthermore, it is a condition of the Government support that no incentive bonus be paid to managerial employees in the 2022 financial year.

Production bonuses of R172 million were awarded to qualifying bargaining unit employees during the year. The self-funded production bonus scheme was implemented from 1 May 2020 to reward qualifying employees, in areas with a direct impact on production, for improved productivity that results in a financial benefit for Eskom.

Organisational effectiveness

We aim to drive organisational effectiveness and a sense of belonging and connectedness to our business by offering a rich employee value proposition (EVP), engaging with employees and fostering a high-performance ethical culture.

In response to the national lockdown, we expanded our EVP to include psychosocial resources and activities to help employees and their families adapt to new ways of work. Based on feedback from employees, we developed a business case to design new working models and take advantage of the benefits brought about by remote working. A hybrid work model was implemented in January 2022.

OUR PEOPLE continued

Hybrid work

Our approach to developing a hybrid work model was focused on four key areas:

- Strategy: Design a world of work that aligns to and enables our strategic objectives
- People practices: Evolve people practices to enable flexibility and agility; improve safety, health and wellness; encourage innovation; and ultimately, contribute to a high-performing workforce
- Digital working environment: Empower the workforce by maturing digital workplace capabilities leading to cost and waste reduction, information security and an improved user experience
- Real estate and facilities: Optimise our property portfolio and prepare the workplace for hybrid work

The adoption of a hybrid work model means that qualifying employees may apply to work remotely, with approval subject to operational requirements and the type of work performed. Hybrid workers are still required to work from an Eskom site periodically, as determined by their division. The hybrid work model aims to contribute to creating a high-performing workforce by enabling agility, innovation and efficiency.

Two new talent development programmes are being implemented to enhance our EVP, build and retain leadership skills and improve succession planning for general manager and group executive positions as well as middle and senior management positions. A total of 39 participants were selected, based on nominations from divisional talent boards; these inaugural talent programmes will run from October 2022 to March 2024, whereafter the next cohort will be selected.

Employee engagement initiatives continue to be delivered through various platforms, including leadership site visits, live events, interviews with executives, strategic forums, digital publications and surveys. These all play a key role in rebuilding morale by improving the sense of employees' connection to the business and one another. We launched the Eskom Rising campaign, a series of webinars where executives share details and progress on Eskom's turnaround plan to improve employee understanding and awareness.

In February 2022, we launched Eskom's culture transformation programme as we embark on one of our most ambitious and challenging transformation journeys yet.

Our 1:1:6:10 culture transformation programme is a key enabler for delivering a high-performance ethical culture to drive our turnaround plan and power growth sustainably through our legally separated businesses. Our cultural aspiration is supported by six cornerstones which should be reflected in everything we do, including how employees interact with one another, and with our customers, suppliers, business partners, key stakeholders and the public.

Effective performance management practices are seen as increasingly important to enable our aspirational culture and improve employee morale. We are developing an integrated system of incentives and disincentives, linked to key performance indicators, to deliver on our high-performance ethical culture.

1:1:6:10

Eskom culture transformation programme

1	1	6	10
Purpose	**Aspirational culture**	**Culture cornerstones**	**Key levers of organisational culture**
Powering growth sustainably	High-performance culture	Accountability Operational excellence People prioritisation Financial prudency Values-driven culture Customer-centricity	Empowerment Governance and ethics Teamwork Engagement Wellness Technology Change agility Celebration Leadership Strategy

Health and wellness

The health and wellbeing of our people are important to us, with improved work attendance and productivity as added benefits. We seek to ensure the early detection and prevention of occupational and lifestyle diseases and injuries through periodic medical surveillance, fitness-for-duty assessments and other wellness programmes.

SICK ABSENTEEISM FREQUENCY RATE (SAFR)
1.46% against a tolerance of 2.04% (2021: 0.94%)

GROSS SICK ABSENTEEISM RATE (GSAR)
2.32% against a tolerance of 3.50% (2021: 1.63%)

While levels of sick leave have increased with employees returning to the workplace, they remain well within our tolerance levels. All employees with high SAFR and GSAR rates are referred to Eskom clinics for fitness-for-duty assessments.

Our employee assistance programme (EAP) offers counselling and various other psychosocial support programmes. Mental health and stress-related problems, which have increased during the COVID-19 pandemic, are receiving attention through awareness and education programmes.

Since the start of the COVID-19 pandemic to 21 June 2022, Eskom has recorded 11 626 positive cases, comprising 9 535 employees and 2 091 contractors, with 11 435 recoveries. Sadly, 161 employees and 24 contractors have succumbed to the disease. All affected employees and their families are offered psychosocial support.

To support the national strategies put in place to curb the spread of COVID-19, we empowered employees with accurate information and made accredited vaccination facilities available at major Eskom sites. With the relaxation of South Africa's lockdown measures in June 2022, our response to the COVID-19 pandemic has been integrated into normal business operations.

Industrial relations

We promote sound and fair labour practices and aim to deal with grievances, suspensions, disciplinary action and disputes appropriately, to ensure a productive partnership between Eskom, our people and our trade unions.

GRIEVANCES
268 lodged, with 173 resolved

DISCIPLINARY ACTION
964 disciplinary cases, with 175 employees found not guilty

CCMA DISPUTES
52 cases completed, with 37 decided in Eskom's favour

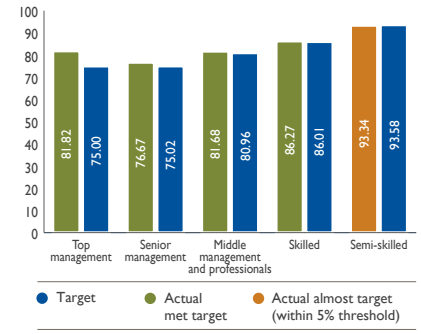
Improving internal transformation

We continue to make progress in building a more diverse and inclusive workforce that reflects the demographics of the country. In the medium term, we plan to develop a diversity and inclusivity policy to expand our diversity goals beyond race, gender and disability to cultural, generational and other diversity needs.

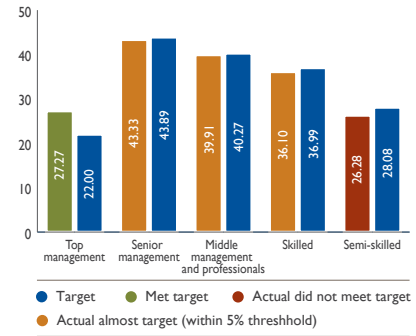
Our group and company employment equity performance at senior management level, as well as at professional and middle management levels, is set out in the statistical tables on page 146 to 149

Racial and gender equity at senior management and middle management/professionally qualified levels have shown improvement over the past year, although gender equity requires more focus to meet our targets. The racial and gender equity breakdown of our workforce is shown below.

Racial equity by level of employment, %



Gender equity by level of employment, %



Unfortunately, the achievement of transformation targets in some areas are hindered by attrition, limited recruitment opportunities and ongoing financial challenges.

OUR PEOPLE continued

Proportional representation of persons living with disabilities remains a concern, as they are well represented at lower occupational levels, but not across all levels. Group disability equity amounted to 2.94% against a target of 3.3% (based on the target in the White Paper on the Rights of Persons with Disabilities).

The overall gender ratio has improved to 66% male and 34% female employees (2021: 67% and 33%), although our aim is to achieve 50:50 representation by 2030. Gender equity in Exco has improved significantly, with five out of the nine Exco members being female. Learning and development programmes, ring-fencing of vacancies and initiatives under the Eskom Women Advancement Programme are key to improving our employment equity performance further.

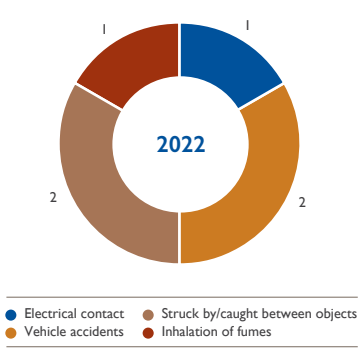
Focus on safety

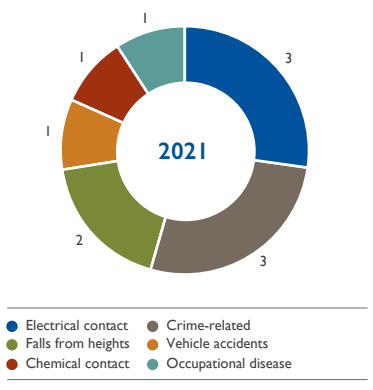
Our operations are subject to legal, regulatory and licence conditions surrounding occupational health, safety and environmental compliance. In addition to ensuring compliance with statutory requirements, we continue to pursue safety initiatives, such as training and awareness, safety assessments and contractor workshops, to address safety risks.

We use the lost-time injury rate (LTIR) to assess our safety performance, together with the number of fatalities among employees and contractors. Although our true target is zero in line with our value of Zero Harm, the LTIR target reflected in the table below indicates our tolerance level.

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Fatalities (employees and contractors), number	–	–	–	■	6	11	9
Fatalities (public), number	–	–	–	■	21	20	17
Lost-time injury rate, index (including occupational diseases) – group[SC]	0.30	0.30	0.30	●	0.24	0.22	0.30

Sadly, we recorded four employee fatalities (2021: three, restated) and two contractor fatalities (2021: eight) during the year, despite our commitment to safety. The causes of all fatalities are shown below.





IN MEMORIAM

We offer our sincere condolences to the families, friends and colleagues of the following people who lost their lives in service to Eskom and our customers:

Employees
Pieter Willem Coetzer
Mogaswi Juliet Mokoena
Lazarus Lefa Nyamane
Alwyn Herculaas Scholtz

Contractors
Asenu Marnet Siliya Phiri
Jan Boetijie Sefako

The main causes of lost-time incidents are falls from the same level, vehicle accidents, and incidents related to being struck by or caught between objects.

A total of 15 occupational disease incidents have been confirmed for the year (2021: 11). As in the past, these relate mainly to noise-induced hearing loss incidents, which account for more than 60% of cases.

Physical threats to our employees and contractors remain a concern, particularly due to community unrest during removal of illegal connections and when implementing load reduction. We condemn all violent behaviour against our people.

Public fatalities are discussed under "Our role in communities – Public safety" on page 133

Future focus areas

- Driving a high-performance ethical culture through Eskom's culture transformation programme
- Containing employee benefit costs, in particular overtime
- Implementing new talent development programmes to build and retain leadership skills and improve succession planning
- Concluding the skills audit and workforce planning to address operational skills shortages, particularly in Generation
- Reskilling and upskilling staff to enable the Just Energy Transition
- Developing Eskom's diversity and inclusivity policy to expand our diversity goals beyond race, gender and disability
- Achieving racial, gender and disability equity targets and extending the reasonable accommodation of persons living with disabilities
- Continuing to safeguard the lives of employees and contractors as they perform their duties
- Adopting data analytics and digitisation to enhance employee productivity, reduce costs and improve decision-making

OUR ROLE IN COMMUNITIES

Highlights

- Regular media briefings on system challenges during periods of loadshedding to enhance transparency
- Launched Eskom's customer chatbot, Alfred, to facilitate 24/7 customer service
- Commenced a pilot project for repowering and repurposing at Komati Power Station to deliver on the Just Energy Transition
- Supplier development and National Industrial Participation Programme targets achieved

Improvements

- Eskom's B-BBEE score improved significantly, from level 8 to level 4
- Customer satisfaction improved, although unreliability of supply remains a concern for key customers

Challenges

- Procurement spend with most supplier categories remains below target, mainly due to the classification of IPP procurement spend
- CSI and electrification programme targets not achieved

Lowlights

- Eskom's reputation remains poor, based on the results of a recent study
- Public fatalities remain unacceptably high, with electrical contact incidents the primary cause

Social and relationship capital considers our impact on the communities in which we operate as well as our relationships with customers, suppliers, beneficiaries of our electrification and CSI programmes, and the public in general.

We understand the significant impact that communities and stakeholder relationships have on our business, and acknowledge that the level of trust in our organisation has dwindled over the past decade. We are striving to improve transparency and enhance our engagement with stakeholders as we transition to a Just Energy future.

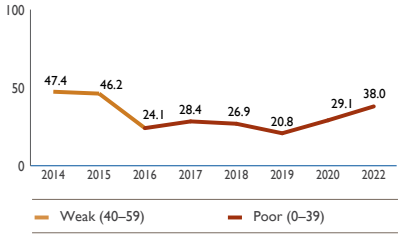
Eskom adds value to the lives of ordinary South Africans through our commercial mandate to supply electricity as well as our developmental responsibilities, by delivering on South Africa's economic empowerment, skills development and transformation efforts. We strive to be a customer-centric organisation that delivers world-class customer service, and we are committed to protecting members of the public from exposure to the hazards of our operations and infrastructure through education on the safe use of electricity.

Our reputation

We participate in an independent Reputation Pulse study which scores reputation along seven key drivers, including products and services, innovation, workplace, governance, citizenship, leadership as well as performance.

The latest study shows that our efforts in restoring trust are starting to bear fruit, leading to an improvement in our reputation since 2020. All reputation drivers are showing an upward trajectory, with Eskom's leadership achieving the largest increase, followed by performance, governance and innovation.

Eskom's Reputation Pulse score



No study was undertaken during the 2021 calendar year. The latest study was performed in May 2022.

A company's reputation affects its social licence to operate, its ability to attract and retain skills, its access to customers and the support it receives from stakeholders. Therefore, rebuilding and strengthening the public's confidence and trust in Eskom remains one of our key priorities through effective communication and inclusive relationship management.

To improve transparency, we have begun hosting regular media briefings on Eskom's system challenges during periods of loadshedding, which have been well received. We continue to publish current operational, system performance and environmental data through the Eskom Data Portal on our website. Where applicable, historic and forecast data are also made available.

The Eskom Data Portal can be accessed at www.eskom.co.za/dataportal/

OUR ROLE IN COMMUNITIES continued

Customer service performance

Customer satisfaction is measured using a range of independent perception- and interaction-based customer surveys. These allow us to better understand and respond to the needs of our customers, which is critical for stimulating sales and improving revenue collection.

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Key Customer Delight, %	80.0	80.0	**80.0**	●	**85.0**	86.2	81.5
CustomerCare, index	8.5	8.4	**8.2**	●	**8.9**	8.4	8.5

Key Customer Delight, which measures the satisfaction of large industrial customers, continues to perform above target. Regrettably, poor generating plant performance is impacting reliability of supply, which remains a concern for key customers.

CustomerCare measures satisfaction following interaction with our contact centres. We have exceeded our target service levels and are pleased by the positive trend in customer perception and satisfaction.

During the year, we launched Alfred, our customer chatbot, and upgraded our telephony system to an interactive voice response system, to facilitate 24/7 service, minimise queues and reduce waiting times for customers.

Alfred makes interactions seamless, fast, socially distanced and safe. Alfred allows customers to log a power interruption in real time and provides feedback on previously reported faults.

Chat to Alfred at https://alfred.eskom.co.za/chatroom/

Eskom remains committed to customer excellence and continues to seek innovative ways to improve the customer experience. We have great plans for Alfred, including additional services for customers.

Our contribution to supplier development

We aim to support sustainable supplier development, localisation and industrialisation by leveraging our procurement spend to deliver on Government's policies and transformation objectives.

Our contribution to nation building includes supplier development programmes agreed with the shareholder.

Targets for enterprise and supplier development and the National Industrial Participation Programme were achieved for the year.

Eskom's latest B-BBEE certificate was issued in October 2021, improving our B-BBEE recognition level to 100% and our B-BBEE status from level 8 to level 4 at year end.

ESKOM-WIDE
In 2022, we awarded 1 971 contracts worth R77.6 billion
Local content of R67.4 billion

NEW BUILD
In 2022, we awarded 129 contracts worth R7.6 billion
Local content of R4.4 billion

The group and company procurement equity performance is set out in the non-technical statistical tables on page 146 to 149

Total measured procurement spend (TMPS) for the group on all active contracts amounted to R176.8 billion for the year, of which 75.89% was spent with B-BBEE compliant suppliers (2021: R155.6 billion, and 64.51%). Procurement spend with black-owned and black youth-owned suppliers improved to 47.08% (2021: 34.60%) and 5.40% (2021: 3.46%) of TMPS respectively, exceeding their targets of 40% and 2%.

Regrettably, procurement spend targets in the remaining categories were not met due to previously compliant suppliers not renewing their B-BBEE certificates, as well as IPP contracts negotiated by DMRE. If IPP expenditure were excluded from TMPS, preferential procurement would have improved to approximately 92%, against a target of 75%. We are seeking to resolve the classification of IPP expenditure with DMRE and the Department of Trade, Industry and Competition given the planned growth of the RE-IPP Programme.

Maximising our socio-economic contribution

Measure and unit	Target 2025	Target 2023	Target 2022	Target met?	Actual 2022	Actual 2021	Actual 2020
Total electrification connections, number[SC]	312 835	101 899	**99 724**	▲	**97 947**	106 669	163 613
Corporate social investment committed spend, R million[SC]	400.2	131.0	**125.3**	■	**75.1**	67.4	123.8
Corporate social investment, number of beneficiaries	2 325 000	750 000	**700 000**	●	**785 085**	802 635	1 479 395

1. The 2025 target is the cumulative target over the next three years.

Electrification

Our most direct socio-economic contribution is the connection of previously disadvantaged households and farm dweller houses in our licensed areas of supply through DMRE's electrification programme. Reductions in allocated funding, together with challenges during the national lockdown, have led to a decline in new connections over the past two years. Since 1991, we have connected around 5.9 million households.

Corporate social investment

The Eskom Development Foundation NPC (the Foundation), our wholly-owned subsidiary, is responsible for delivering CSI initiatives in communities in which we operate. Initiatives focus on improving quality of life through enterprise and rural infrastructure development, skills development, education, social upliftment, health, philanthropy and welfare programmes.

During the year, we approved 112 projects, grants and donations to the value of R75.1 million, assisting 785 085 beneficiaries. Unfortunately, COVID-19 restrictions and financial constraints continued to prevent us from executing all our planned initiatives.

The Foundation is focusing its efforts on optimising the value, impact and sustainability of its programmes given prevailing funding constraints.

A selection of our flagship CSI projects is highlighted in Eskom's sustainability report, which is available online

Just Energy Transition

We define our Just Energy Transition as a transition towards a low carbon, climate resilient economy and society in a manner that results in an increase in sustainable jobs.

Refer to "Strategic direction – Just Energy Transition as a thrust to our strategy" from page 38 for additional information

The potential benefits of Eskom's repowering and repurposing programme in the Mpumalanga Province are encouraging. The Just Energy Transition will support workers, communities and the region, while scaling South Africa's renewable energy and alternative green industries. Our primary focus is to ensure reskilling of workers and minimise job losses in communities surrounding these projects.

With Komati Power Station's last coal-fired unit having shut down in October 2022, the station offers a unique opportunity to pilot the repowering and repurposing of a power station on Eskom land using existing infrastructure. We have begun the installation of a microgrid assembly plant as well as an agrivoltaic plant, to demonstrate the simultaneous use of land for power generation and agriculture. An environmental impact assessment for a solar PV plant supported by battery storage is in progress. In total, 370MW of renewable energy – including wind and solar – and battery storage, is planned to be deployed.

Public safety

We are strongly committed to Zero Harm, which includes safety of the public. Sadly, we recorded 21 public fatalities, excluding coal haulage incidents, during the year (2021: 20), with 17 due to electrical contact.

Various media platforms are used to educate the public on how to use electricity safely and correctly. We conduct nationwide public safety campaigns, raising awareness about the hazards of illegal connections, overloading electrical plugs and purchasing prepaid electricity from ghost vendors. Our safety campaigns also encourage the public to report low-hanging power lines, meter tampering and vandalism to electrical infrastructure in their communities.

Future focus areas

- Restoring our reputation and the public's confidence and trust in Eskom
- Enhancing stakeholder engagement to bring visibility to strategic issues and thereby influence policy, legislative and regulatory reforms to enable Eskom's strategic intent
- Enhancing the customer experience further by adapting to customer needs
- Improving delivery against our electrification and CSI programmes
- Increasing procurement spend and supplier development programmes with designated groups
- Engaging with communities, investors and Government on Eskom's Just Energy Transition
- Continuing to raise awareness and educate the public on electricity safety and the hazards of illegal activities

SUPPLEMENTARY INFORMATION

WHAT YOU WILL FIND IN THIS SECTION

6

ABBREVIATIONS

AEL	Atmospheric emissions licence
ARC	Audit and Risk Committee
B-BBEE	Broad-based black economic empowerment
CAGR	Compound annual growth rate
CCMA	Council for Conciliation, Mediation and Arbitration
CFO	Chief Financial Officer
COGTA	Department of Cooperative Governance and Traditional Affairs
CSA	Coal supply agreement
CSI	Corporate social investment
DFFE	Department of Forestry, Fisheries and the Environment
DFI	Development finance institution
DWS	Department of Water and Sanitation
DMRE	Department of Mineral Resources and Energy
DoA	Delegation of authority
DPE	Department of Public Enterprises
EAF	Energy availability factor (see glossary)
EBITDA	Earnings before interest, taxation, depreciation and amortisation and fair value adjustments
ECA	Export credit agency
ERI	Eskom Rotek Industries SOC Ltd
ESP	Electrostatic precipitator
EUF	Energy utilisation factor (see glossary)
Exco	Executive Management Committee
FFP	Fabric filter plant
FGD	Flue gas desulphurisation
GCE	Group Chief Executive
GCOO	Group Chief Operating Officer
GDP	Gross domestic product
GE	Group executive
GW	Gigawatt = 1 000 megawatts
GWh	Gigawatt-hour = 1 000MWh
IEA	International Energy Agency
IFC	Investment and Finance Committee
IFRS	International Financial Reporting Standards
IPP	Independent power producer (see glossary)
IRP	Integrated Resource Plan
King IV™	King IV Report on Corporate Governance for South Africa, 2016
kℓ	Kilolitre = 1 000 litres
KPI	Key performance indicator
kt	Kiloton = 1 000 tons
kV	Kilovolt = 1 000 volts
kWh	Kilowatt-hour = 1 000 watt-hours (see glossary)
kWhSO	Kilowatt-hour sent out
LPU	Large power user
LTIR	Lost-time injury rate (see glossary)
MES	Minimum Emission Standards
Mℓ	Megalitre = 1 million litres
MOI	Memorandum of Incorporation
mSv	Millisievert
Mt	Million tons
MVA	Megavolt-ampere
MW	Megawatt = 1 million watts
MWh	Megawatt-hour = 1 000kWh
MWhSO	Megawatt-hour sent out
MYPD	Multi-year price determination
NDP	National Development Plan 2030
NERSA	National Energy Regulator of South Africa
NNR	National Nuclear Regulator
OCGT	Open-cycle gas turbine (see glossary)
OCLF	Other capability loss factor
OEM	Original equipment manufacturer
OHS	Occupational health and safety
PAIA	Promotion of Access to Information Act, 2000
PAJA	Promotion of Administrative Justice Act, 2000
PCLF	Planned capability loss factor
PFMA	Public Finance Management Act, 1999
PGC	People and Governance Committee
PPA	Power purchase agreement
PV	(Solar) photovoltaic
RCA	Regulatory clearing account
RE-IPP	Renewable energy independent power producer
RMIPPPP	Risk Management Independent Power Producer Procurement Programme
SADC	Southern African Development Community
SAIDI	System average interruption duration index
SAIFI	System average interruption frequency index
SALGA	South African Local Government Association
SAPP	Southern African Power Pool
SARS	South African Revenue Service
SCOA	Standing Committee on Appropriations
SCOPA	Standing Committee on Public Accounts
SES	Social, Ethics and Sustainability Committee
SIU	Special Investigating Unit
SOC	State-owned company
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

Arrear debt as percentage of revenue	Gross arrear debt written off (relating to electricity receivables only) divided by gross electricity revenue multiplied by 100
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: • 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 and fatalities
Lost-time injury rate (LTIR)	Proportional representation of the occurrence of lost-time injuries over 12 months per 200 000 working hours
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, diesel, uranium, sunlight, wind 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 2022

Prof. Malegapuru (MW) Makgoba (69)

Interim Chairman
Independent non-executive director
Appointed to 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 College of Physicians of South Africa (*ad eundem*)
Fellow of the Royal Society of South Africa
Member of the Academy of Science of South Africa
Advanced Management Program (INSEAD)
Order of Mapungubwe in Silver

Skills

Science, engineering and technology
Legal, governance and risk management
Social and human sciences

Directorships

None

Mr André (AM) de Ruyter (54)

Group Chief Executive
Executive director
Appointed to 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

National Transmission Company South Africa SOC Ltd

Mr Calib (C) Cassim (50)

Chief Financial Officer
Executive director
Appointed to 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
National Transmission Company South Africa SOC Ltd

Dr Rod (RdeB) Crompton (69)

Independent non-executive director
Appointed to 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

South African National Energy Association (SANEA)
Council Member of the South Africa Association for Energy Economics (SAAEE)

Dr Banothile (BCE) Makhubela (37)

Independent non-executive director
Appointed to Board in June 2017

Qualifications

B Sc (University of Zululand)
B Sc (Hons) Chemistry (University of Cape Town)
M Sc Chemistry (University of Cape Town)
Ph D Chemistry (University of Cape Town)

Skills

Science, engineering and technology

Directorships

Chemical Industry Education and Training Authority (CHIETA)
MJW Construction (Pty) Ltd
Plero (Pty) Ltd
Ukhulile Khubela General Trading (Pty) Ltd

Ms Busiswe (B) Mavuso (43)

Independent non-executive director
Appointed to 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

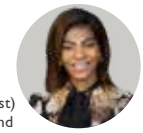
Directorships

Business Leadership of South Africa NPC (BLSA)
Business Unity South Africa NPC (BUSA)
Nsilingwane Investments (Pty) Ltd
Resultant Finance (Pty) Ltd

Board of Directors continued

at 31 March 2022

Dr Pulane (PE) Molokwane (45)



Independent non-executive director
Appointed to 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 (Pty) Ltd
Litestone Mzansi (Pty) Ltd
Nzuri Resources (Pty) Ltd
Oloenviron (Pty) Ltd
Pulane Murimba Trust
Priority Performance Projects (Pty) Ltd
Tinungu (Pty) Ltd

Prof. Tshepo (TH) Mongalo (48)

Independent non-executive director
Appointed to 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)
Postgraduate Diploma in Higher Education (University of Witwatersrand)

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
Men of Truth NPC
Novalex Holdings Ltd
Pholo Mohau Property Investment Trust
Tong-Mongalo Corporate Services cc

Executive Management Committee

at 31 March 2022

Mr André (AM) de Ruyter (54)

Group Chief Executive
Appointed to Exco in January 2020
2 years 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

National Transmission Company South Africa SOC Ltd

Mr Calib (C) Cassim (50)

Chief Financial Officer
Appointed to Exco in July 2017
20 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
National Transmission Company South Africa SOC Ltd

Mr Jan (JA) Oberholzer (63)

Group Chief Operating Officer
Appointed to Exco in July 2018
29 years in Eskom (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

Eskom Enterprises SOC Ltd
Eskom Rotek Industries SOC Ltd
Jafram Projects (Pty) Ltd
Wild Senna Investments (Pty) Ltd

Ages are shown at 31 March 2022.
Only active directorships are reflected.

LEADERSHIP QUALIFICATIONS AND DIRECTORSHIPS continued

Ms Faith (FS) Burn (53)
Chief Information Officer
Appointed to Exco in May 2020
1 year in Eskom

Qualifications
B Sc Mathematics and Computer Science (University of Johannesburg)
B Sc (Hons) Mathematics (University of Johannesburg)
M Sc Mathematics (University of Johannesburg)
Master of Business Leadership (Unisa)
Certified Internal Auditor (CIA)

Skills
Science, engineering and technology
Legal, governance and risk management

Directorships
Hlahlamelisa International Ministry NPC
Kingdom Consultant Center NPC
South African National Blood Services NPC (SANBS)

Ms Mel (M) Govender (40)
Group Executive: Legal and Compliance
Appointed to Exco in October 2021
<1 year in Eskom

Qualifications
LLB (University of KwaZulu-Natal)

Skills
Legal, governance and risk management

Directorships
None

Ms Nthato (N) Minyuku (43)
Group Executive: Government and Regulatory Affairs
Appointed to Exco in October 2020
1 year in Eskom

Qualifications
B Architectural Studies (University of Witwatersrand)
Master of City Planning and Urban Design (University of Cape Town)
Leadership in Context (GIBS)

Skills
Science, engineering and technology
Commerce and industry
Legal, governance and risk management
Social and human sciences

Directorships
South African Maritime Safety Authority

Ms Elsie (EM) Pule (54)
Group Executive: Human Resources
Appointed to Exco in November 2014
24 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
Eskom Rotek Industries SOC Ltd

Ms Jainthree (J) Sankar (50)
Chief Procurement Officer
Appointed to Exco in March 2021
28 years in Eskom

Qualifications
B Com (Unisa)
B Com (Hons) Business (Unisa)
National Diploma in Electrical Engineering (Durban University of Technology)
MBA Sustainable Business (University of Southern Queensland)
Master of Project Management (University of Southern Queensland)

Skills
Science, engineering and technology
Commerce and industry
Social and human sciences

Directorships
None

Mr Vuyolwethu (V) Tuku (46)
Group Executive: Transformation Management Office
Appointed to Exco in July 2020
1 year in Eskom

Qualifications
B Sc Electrical Engineering (University of Cape Town)
MBA (University of Witwatersrand)

Skills
Science, engineering and technology
Commerce and industry
Finance, accounting and economics

Directorships
Genesis Strategy Partners

Ages are shown at 31 March 2022.
Only active directorships are reflected.

BOARD AND EXCO MEETING ATTENDANCE

Attendance at Board and committee meetings
for the year ended 31 March 2022

Members	Board	Audit and Risk	Investment and Finance	People and Governance	Social, Ethics and Sustainability	Board Strategy Committee
Total number of meetings	**10**	10	10	4	5	5
Current directors						
Non-executive directors						
Prof. Malegapuru Makgoba (Interim Chairman)	**10/10***			2/4	4/5	5/5
Dr Rod Crompton	**9/10**	9/10				5/5*
Dr Banothile Makhubela	**8/10**		9/10		4/5*	
Ms Busisiwe Mavuso	**8/10**		9/10*	4/4		
Dr Pulane Molokwane	**10/10**	10/10*			4/5	
Prof. Tshepo Mongalo	**10/10**	7/10		4/4*		
Executive directors						
Mr André de Ruyter	**10/10**	<7/10>	<7/10>	<3/4>	<3/5>	<2/5>
Mr Calib Cassim	**10/10**	<10/10>	<9/10>	<3/4>		<4/5>
Previous directors						
Ms Nelisiwe Magubane	**4/5**		5/5			2/3

Attendance as reflected above refers to directors who were members of that committee during the year to 31 March 2022 and reflects changes in committee composition during the year.
* denotes the chairmanship of the Board or committee at 31 March 2022.
<> denotes meetings attended as an official.

Attendance at Exco meetings
for the year ended 31 March 2022

Members	Divisional responsibility	Number of meetings attended
Total number of meetings		**16**
Current executives		
Mr André de Ruyter	Group Chief Executive	**14/16**
Mr Calib Cassim	Chief Financial Officer	**16/16**
Mr Jan Oberholzer	Group Chief Operating Officer	**13/16**
Ms Faith Burn	Chief Information Officer	**16/16**
Ms Mel Govender	Group Executive: Legal and Compliance	**7/9**
Ms Nthato Minyuku	Group Executive: Government and Regulatory Affairs	**14/16**
Ms Elsie Pule	Group Executive: Human Resources	**15/16**
Ms Jainthree Sankar	Chief Procurement Officer	**15/16**
Mr Vuyolwethu Tuku	Group Executive: Transformation Management Office	**14/16**
Previous executives		
Ms Nerina Otto	Acting Group Executive: Legal and Compliance	**7/7**

TECHNICAL STATISTICS

Measure and unit	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Customer statistics										
Arrear debt as % of revenue, %	**3.91**	3.24	3.69	4.30[RA]	2.73[RA]	2.42	1.14	2.17	1.10	0.82
Debtors days – municipalities, average debtors days	**149.6**	140.7	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**	15.0	14.6	13.5[RA]	13.9[RA]	15.3[RA]	15.5	16.8	14.5	12.3
Debtors days – other large power users (<100 GWh p.a.), average debtors days	**17.5**	17.5	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	**47.7**	50.1	44.1	42.6[RA]	43.4[RA]	48.8[RA]	48.2	49.1	50.2	48.2
Key Customer Delight, %[1]	**85.0**	86.2	81.5	81.7	79.5	107.0	104.3[RA]	108.7	108.7	105.8
CustomerCare, index	**8.9**	8.4	8.5	8.5	9.9	9.8	8.4	8.0	8.3	8.4
Sales and revenue										
Total sales, GWh[2]	**198 281**	191 852	205 635	208 319	212 190	214 121	214 487	216 274	217 903	216 561
(Reduction)/growth in GWh sales, %	**3.4**	(6.7)	(1.3)	(1.8)	(0.9)	(0.2)	(0.8)	(0.7)	0.6	(3.7)
Electricity revenue, R million	**243 387**	202 644	197 307	177 312	174 905	175 094	161 688	146 268	136 869	126 663
Growth in revenue, %	**20.1**	2.7	11.3	1.4	(0.1)	8.3	10.5	6.9	8.1	12.1
Electricity output										
Power sent out by Eskom stations, GWh (net)	**205 688**	201 400	214 968	218 939	221 936	220 166	219 979	226 300	231 129	232 749
Coal-fired stations, GWh (net)	**184 568**	183 553	194 357	200 210	202 106	200 893	199 888	204 838	209 483	214 807
Hydroelectric stations, GWh (net)	**1 943**	1 387	688	1 029	709	579	688	851	1 036	1 077
Pumped storage stations, GWh (net)	**4 743**	4 795	5 060	4 590	4 479	3 294	2 919	3 107	2 881	3 006
Gas turbine stations, GWh (net)	**1 826**	1 457	1 328	1 202	118	29	3 936	3 709	3 621	1 904
Wind energy, GWh (net)	**253**	305	283	328	331	345	311	1	2	1
Nuclear power station, GWh (net)	**12 355**	9 903	13 252	11 580	14 193	15 026	12 237	13 794	14 106	11 954
IPP purchases, GWh	**15 973**	13 526	11 958	11 344	9 584	11 529	9 033	6 022	3 671	3 516
Wheeling, GWh[3]	**2 499**	2 310	2 491	2 750	2 266	2 910	3 930	3 623	3 353	2 948
Energy imports from SADC countries, GWh[3]	**8 500**	8 812	8 568	7 355	7 731	7 418	9 703	10 731	9 425	7 698
Total electricity available (generated by Eskom and purchased), GWh[2]	**232 660**	226 048	237 985	240 388	241 517	242 023	242 645	246 676	247 578	246 911
Consumed by pumped storage stations, GWh[4]	**(6 434)**	(6 625)	(6 629)	(5 981)	(6 031)	(4 808)	(4 046)	(4 114)	(3 862)	(4 037)
Total available for distribution, GWh	**226 226**	219 423	231 356	234 407	235 486	237 215	238 599	242 562	243 716	242 874
Supply and demand										
Total Eskom power station capacity – installed, MW	**51 866**	51 115	49 517	48 029	48 039	46 407	45 075	44 281	44 189	44 206
Total Eskom power station capacity – nominal, MW	**47 145**	46 466	45 117	44 172	45 561	44 134	42 810	42 090	41 995	41 919
Total IPP power station capacity – nominal, MW	**6 831**	6 083	5 206	4 981	4 779	5 027	3 392	2 606	1 677	1 135
Peak demand on integrated Eskom system, MW	**31 953**	31 470	32 948	34 256	35 301	34 122	33 345	34 768	34 977	35 525
Peak demand on integrated Eskom system, including load reductions and non-Eskom generation, MW	**35 005**	34 155	34 510	35 345	35 613	34 913	34 481	36 170	36 002	36 345
National rotational loadshedding	**Yes**	Yes	Yes	Yes	No	No	Yes	Yes	Yes[RA]	No[RA]
Asset creation										
Generation capacity installed and commissioned, MW	**794[RA]**	1 598[RA]	1 588[RA]	0[RA]	2 387[RA]	1 332[RA]	794[RA]	100[RA]	120[RA]	261[RA]
Transmission lines installed, km	**180.5[RA]**	65.6[RA]	127.9[RA]	378.7[RA]	722.3[RA]	585.4[RA]	345.8[RA]	318.6[RA]	810.9[RA]	787.1[RA]
Substation capacity installed and commissioned, MVA	**1 065[RA]**	750[RA]	250[RA]	540[RA]	2 510[RA]	2 300[RA]	2 435[RA]	2 090[RA]	3 790[RA]	3 580[RA]
Total capital expenditure – group (excluding capitalised borrowing costs), R billion	**30.2**	23.9	23.4[RA]	33.9	48.0	60.0	57.4	53.1[RA]	59.8[RA]	60.1
Safety										
Employee lost-time injury rate (LTIR) – group, index[6, 7]	**0.24[RA]**	0.22[RA]	0.30[RA]	0.31[RA]	0.24	0.39	0.30	0.33	0.31	–
Fatalities (employees and contractors), number[8]	**6**	11	9	7	14	10	17	10	23[RA]	19[RA]
Employee fatalities, number[8]	**4**	3	–	3	3	4	4	3	5[RA]	3[RA]
Contractor fatalities, number	**2**	8	9	4	11	6	13	7	18[RA]	16[RA]
Plant performance										
Energy availability factor (EAF), %[9]	**62.02[RA]**	64.19[RA]	66.64[RA]	69.95[RA]	78.00[RA]	77.30[RA]	71.07[RA]	73.73[RA]	75.13[RA]	77.65[RA]
Planned capability loss factor (PCLF), %[9]	**10.23[RA]**	12.26[RA]	8.92[RA]	10.18[RA]	10.35[RA]	12.14[RA]	12.99	9.91[RA]	10.50[RA]	9.10
Unplanned capability loss factor (UCLF), %[9]	**25.35**	20.04	22.86	18.31	10.18	9.90	14.91[RA]	15.22[RA]	12.61[RA]	12.12[RA]
Other capability loss factor (OCLF), %[9]	**2.40**	3.51	1.58	1.56	1.47	0.66	1.03	1.14	1.76	1.13
Unit capability factor (UCF), %[9]	**64.42**	67.70	68.22	71.51	79.47	78.00	72.10	74.87	76.90[RA]	78.80[RA]
Generation load factor, %[9]	**49.5**	49.0	52.6	54.4	55.9	57.9	58.8	61.5	62.8	63.6
OCGT load factor trend, %	**8.7**	6.9	6.3	5.7	0.6	0.1	18.6	17.6	19.3[RA]	10.4[RA]
Unplanned automatic grid separations (UAGS trips), number[9]	**697[RA]**	527[RA]	594[RA]	517	333	444	469	575	527	409
Integrated Eskom system load factor (EUF), %[9]	**79.8**	76.3	79.0	77.8	71.6	75.0	82.7	83.4	83.6	81.9

1. These measures were introduced in 2020 and are calculated on a 12-month moving average. Prior to 2020, the comparatives 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 since 2020.
6. The employee LTIR includes occupational diseases and fatalities.
7. Prior to 2014, only company numbers were reported. From 2020, only group numbers are reported.
8. A Generation employee was diagnosed with an occupational disease and passed away in the 2021 financial year. Confirmation that the fatality was a result of an occupational disease was only received in the 2022 financial year. The figures for 2021 have been restated to include this fatality.
9. Medupi Units 2, 3, 4, 5 and 6 as well as Kusile Units 1 and 2, having completed their first year after commissioning, have been included in the calculation of KPIs for 2022. The calculation of KPIs only include units one year after achieving commercial operation and exclude units synchronised but not yet in commercial operation.

RA Reasonable assurance provided by the independent assurance provider. Refer to page 154 to 156 of the integrated report.

TECHNICAL STATISTICS continued

Measure and unit	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Primary energy										
Coal stock, days	**76**[RA]	82	81	67	68	74	58	51	44[RA]	46[RA]
Road-to-rail migration (additional tonnage transported on rail), Mt	**2.5**[RA]	3.6[RA]	7.5[RA]	8.2[RA]	11.6[Q]	13.2[Q]	13.6[RA]	12.6[RA]	11.6[RA]	10.1[RA]
Coal purchased, Mt	**108.7**	110.0	119.3	118.3	115.3	120.3	118.7	121.7	122.0	126.4
Coal burnt, Mt	**110.3**	104.9	108.6	113.8	115.5	113.7	114.8	119.2	122.4	123.0
Average calorific value, MJ/kg	**19.64**	19.82	19.08	19.24	19.81	20.05	19.57	19.68	19.77	19.76
Average ash content, %	**31.39**	31.24	29.65	30.98	30.92	28.62	28.19	27.63	28.56	28.69
Average sulphur content, %	**0.83**	0.82	0.78	0.84	0.87	0.84	1.07	0.80	0.87	0.88
Overall thermal efficiency, %[1]	**30.05**	30.61	30.65	30.99	31.22	31.20	31.08	31.44	31.30	32.00
Diesel and kerosene usage for OCGTs, Mℓ	**580.4**	458.7	426.2	385.0	37.8	10.0	1 247.8	1 178.6	1 148.5[RA]	609.7[RA]
Network performance										
Total system minutes lost for events <1, minutes	**2.88**[RA]	3.48[RA]	4.36[RA]	3.16[RA]	2.09[RA]	3.80	2.41[RA]	2.85[RA]	3.05[RA]	3.52[RA]
Major incidents, number	**2**	2	3	3	0	0	1	2	0[RA]	3[RA]
System average interruption frequency index (SAIFI), events[2]	**12.3**[RA]	13.2[RA]	14.4[RA]	14.9[RA]	17.5[RA]	18.9	20.5[RA]	19.7[RA]	20.2[RA]	22.2[RA]
System average interruption duration index (SAIDI), hours[2]	**35.5**[RA]	35.4[RA]	36.9[RA]	38.0[RA]	34.9[RA]	38.9	38.6[RA]	36.2[RA]	37.0[RA]	41.9[RA]
Total energy losses, %	**10.9**	11.8	9.9	9.7	9.1	8.9	8.6	8.8	8.9	9.1
Transmission energy losses, %	**2.3**	2.3	2.2	2.2	2.0	2.2	2.6	2.5	2.3[RA]	2.8[RA]
Distribution energy losses, %	**9.6**[RA]	10.1[RA]	8.8[RA]	8.5[RA]	7.7[RA]	7.6[RA]	6.4	6.8	7.1[RA]	7.1[RA]
Environmental statistics										
Emissions										
Relative particulate emissions, kg/MWh sent out[3, 4]	**0.34**[RA]	0.38[Q]	0.47[RA]	0.47[RA]	0.27[RA]	0.30[RA]	0.36[RA]	0.37[RA]	0.35[RA]	0.35[RA]
Carbon dioxide (CO_2), Mt[3]	**207.2**[RA]	206.8[RA]	213.2[RA]	220.9[RA]	205.5[RA]	211.1[RA]	215.6[RA]	223.4	233.3[RA]	227.9[RA]
Sulphur dioxide (SO_2), kt[3]	**1 671**	1 604	1 721	1 853	1 802	1 766	1 699	1 834	1 975[RA]	1 843[RA]
Nitrous oxide (N_2O), t[3]	**1 561**	1 527	2 826	2 844	2 642	2 782	2 757	2 919	2 969[RA]	2 980
Nitrogen oxide (NO_x) as NO_2, kt[5]	**822**	804	851	890	859	885	893	937	954[RA]	965[RA]
Particulate emissions, kt	**66.65**	71.35	94.92	99.87	57.13	65.13	78.37	82.34	78.92[RA]	80.68[RA]
Water										
Specific water consumption, ℓ/kWh sent out[1]	**1.45**[RA]	1.42[RA]	1.42[RA]	1.41[RA]	1.30[RA]	1.42[RA]	1.44[RA]	1.38[RA]	1.35[RA]	1.42[RA]
Net raw water consumption, Mℓ[1]	**283 610**	270 736	286 553	292 344	276 335	307 269	314 685	313 078	317 052	334 275
Waste										
Ash produced, Mt	**32.90**	30.84	32.04	33.23	31.65	32.61	32.59	34.41	34.97[RA]	35.30[RA]
Ash sold, Mt	**2.8**	3.1	2.9	2.8	2.7	2.8	2.7	2.5	2.4	2.4
Ash (recycled), %	**11.0**	10.1	9.1	8.4	8.6	8.5	8.3	7.3	7.0[RA]	6.8[RA]
Asbestos disposed, tons	**39.5**	22 475.8	59.8	464.1	144.9	383.0	274.5	991.0	458.0	374.6
Material containing polychlorinated biphenyls thermally destroyed, tons	**46.5**	134.3	238.3	43.1	26.3	61.9	59.8	0.0	10.2	0.9
Nuclear										
Public individual radiation exposure due to effluents, mSv[6]	**0.0010**	0.0014	0.0004	0.0026	0.0012	0.0005	0.0006	0.0010	0.0012	0.0019
Low-level radioactive waste generated (steel drum), cubic metres	**158.9**	147.6	159.3	188.3	164.2	162.9	176.1	164.1	180.7[RA]	188.2[RA]
Low-level radioactive waste disposed of, cubic metres	**98.1**	117.0	98.3	99.0	118.8	108.0	213.1	377.6	324.0[RA]	54.0[RA]
Intermediate-level radioactive waste generated (concrete drum), cubic metres	**34.2**	31.2	22.3	20.8	20.8	11.4	33.4	27.6	28.7[RA]	35.7[RA]
Intermediate-level radioactive waste disposed of, cubic metres	**88**	18	38	0	0	0	0	138	178[RA]	0[RA]
Used nuclear fuel, number of elements discharged[7]	**56**	116	48	56	116	60	56	112	48	56
Used nuclear fuel, number of elements discharged, cumulative figure	**2 681**	2 625	2 509	2 461	2 405	2 289	2 229	2 173	2 061	2 013
Legal contraventions										
Environmental legal contraventions, number[8]	**65**	81	59	24	30	29	20	20	34[RA]	48
Environmental legal contraventions reported as a result of significant failure of business systems, number[9]	**7**	7	5	2	2	0	1	1	2[RA]	2

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. SAIDI and SAIFI are reported after allowing for exclusions defined in the National Regulated Standards adopted from 1 April 2018.
3. 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.
4. At power stations with unusually high particulate emission levels, such as Kendal Power Station, the monitors often exceed their maximum limits. 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.
5. NO_x reported as NO_2 is calculated using average station-specific emission factors (which are measured intermittently) and tonnages of coal burnt.
6. The limit set by the National Nuclear Regulator is ≤ 0.25mSv.
7. The gross mass of a nuclear fuel element is approximately 670kg, with Uranium mass typically between 462kg and 464kg.
8. An incident at Tutuka Power Station which occurred in the 2021 financial year was finalised in the current year. The figure for 2021 has been restated.
9. Prior to 2022, referred to as "legal contraventions reported in terms of the Operational Health Dashboard".

RA Reasonable assurance provided by the independent assurance provider. Refer to page 154 to 156 of the integrated report.
Q Qualified by the independent assurance provider.

NON-TECHNICAL STATISTICS: GROUP

Measure and unit	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Finance[1]										
Electricity operating costs, R/MWh	**979.45**	895.05	791.04	712.87	622.41	651.98	617.02	587.97	528.70	495.31
EBITDA margin, %	**21.25**	15.96	18.46	17.46	25.57	21.19	20.29	16.54	17.23	16.98
EBITDA, R million	**52 374**[RA]	32 608[RA]	36 816[RA]	31 417	45 359	37 532	32 811	24 186	23 586	21 511
Cash interest cover, ratio	**1.68**[RA]	0.85[RA]	0.94[RA]	0.94	1.22	1.73	1.73	1.75	2.15	3.84
Debt service cover, ratio	**0.76**[RA]	0.30[RA]	0.52[RA]	0.47	0.87	1.37	1.14	0.91	1.24	1.93
Current ratio	**0.90**	0.95	0.82	1.00	1.03	0.85	0.83	0.81	0.71	0.68
Gross debt/EBITDA, ratio	**8.63**	13.98	14.43	15.73	9.74	10.84	10.95	13.60	11.77	10.48
Debt/equity (including long-term provisions), ratio	**1.82**	2.04	2.44	3.17	2.58	2.11	1.65	2.50	2.00	1.84
Gearing, %	**65**	67	71	76	72	68	62	71	67	65
Free funds from operations, R million	**63 215**	42 972	41 120	29 047	40 022	47 571	39 443	36 179	31 158	25 277
Free funds from operations after net interest paid, R million	**31 324**	6 496	2 606	(5 940)	9 147	21 148	17 927	20 564	20 139	18 074
Free funds from operations as % of gross debt, %	**13.98**	9.42	7.74	5.88	9.06	11.69	10.98	11.00	11.22	11.22
Building skills										
Headcount (including fixed-term contractors)	**40 421**	42 749	44 772	46 665	48 628	47 658	47 978	46 491	46 919	47 295
Transformation										
Socio-economic contribution										
Corporate social investment committed spend, R million	**75.1**[RA]	67.4[RA]	123.8[RA]	132.4[Q]	192.0[RA]	225.3	103.6	115.5	132.9[RA]	194.3[RA]
Corporate social investment, number of beneficiaries	**785 085**	802 635	1 479 395	933 139	1 116 044	841 845	302 736	323 882	357 443[RA]	652 347[RA]
Procurement equity										
B-BBEE attributable expenditure, R billion	**134.2**	100.4	101.7	84.5	102.3	127.7	125.0	116.0	119.4[RA]	96.0[RA]
Black-owned expenditure, R billion	**83.2**	53.8	46.9	52.1	57.6	53.9	52.9	49.4	45.8[RA]	–
Black women-owned expenditure, R billion	**16.4**	19.0	15.6	18.8	20.9	19.4	30.8	9.3	9.8[RA]	6.0[RA]
Black youth-owned expenditure, R billion	**9.5**	5.4	4.1	3.5	3.9	2.0	1.4	0.9	1.3[RA]	–
Procurement from B-BBEE compliant suppliers, %[2]	**75.89**	64.51	65.97	58.66	80.25	98.25	81.65	89.39	91.80[RA]	82.10[RA]
Procurement from black-owned (BO) suppliers, %	**47.08**	34.60	30.38	36.17	45.20	41.49	33.61	34.41	35.30[RA]	–
Procurement from black women-owned (BWO) suppliers, %	**9.26**	12.24	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, %	**5.40**	3.46	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	**0.16**	0.22	0.17	0.22	0.20	0.02	0.01	0.00	0.00	–
Procurement spend with qualifying small enterprises (QSE), % of TMPS	**4.91**	4.29	4.08	5.17	8.86	8.91	4.62	6.75	15.09	–
Procurement spend with exempted micro enterprises (EME), % of TMPS	**7.88**	8.07	9.77	14.01	10.21	11.24	5.89	5.78	–	–
Employment equity										
Disabilities, number of employees	**1 188**	1 252	1 348	1 416	1 441	1 396	1 311	1 325	1 305[RA]	1 137[RA]
Employment equity – disability, %	**2.94**	2.93	3.01	3.03	2.96	2.93	2.73	2.89	2.77[RA]	2.43[RA]
Racial equity in senior management, % black employees	**76.67**	73.72	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	**81.68**	80.10	78.04	76.22	75.27	73.50	71.68	71.77	70.60[RA]	69.00
Gender equity in senior management, % female employees	**43.33**	41.99	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	**39.91**	38.95	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 154 to 156 of the integrated report.
Q Qualified by the independent assurance provider.

NON-TECHNICAL STATISTICS: COMPANY

Measure and unit	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Finance[1]										
Electricity revenue per kWh (including environmental levy), c/kWh	**127.32**	111.04	101.86	90.01	85.06	83.60	76.24	67.91	62.82	58.49
Electricity operating costs, R/MWh	**990.31**	906.36	803.01	729.26	634.69	662.98	628.00	600.72	535.08	487.92
EBITDA margin, %	**20.52**	15.48	17.65	16.21[RA]	24.48	20.32	19.13	16.28	16.15	17.48
EBITDA, R million	**50 598**	31 633	35 199	29 168	43 428	35 989	30 932	23 811	22 101	22 147
Cash interest cover, ratio	**1.61**	0.81	0.90	0.91[RA]	1.18[RA]	1.73	1.64	1.62	2.14	3.97
Debt service cover, ratio	**0.70**	0.29	0.49	0.46	0.84	1.37	1.09	0.82	1.28	1.98
Current ratio	**0.89**	0.94	0.82	0.99	1.04	0.86	0.86	0.82	0.70	0.67
Gross debt/EBITDA, ratio	**8.97**	14.48	15.22	17.08	10.26	11.39	11.71	13.84	12.59	10.09
Debt/equity (including long-term provisions), ratio	**2.02**	2.26	2.68	3.50[RA]	2.77[RA]	2.22[RA]	1.71	2.67	2.12	1.96[RA]
Gearing, %	**67**	69	73	78	73	69	63	73	68	66
Free funds from operations, R million	**60 495**	41 470	39 465	27 318	39 064	46 336	37 954	36 032	29 528	26 124
Free funds from operations after net interest paid, R million	**28 473**	4 864	818	(7 897)	8 017	19 776	16 260	20 343	18 455	19 090
Free funds from operations as % of gross debt, %	**13.33**	9.06	7.37	5.48[RA]	8.77[RA]	11.30[RA]	10.48[RA]	10.93	10.61	11.69
Building skills										
Headcount (including fixed-term contractors)	**34 690**	36 124	37 765	39 292	41 316	41 940	42 767	41 787	42 923	43 402
Training spend as % of gross employee benefit costs, %	**2.70[RA]**	2.58[RA]	3.67[RA]	3.85[RA]	5.21[RA]	4.89[RA]	4.45[RA]	6.18[RA]	7.87[RA]	–
Learner intake – Engineers, number[2]	**58[RA]**	0[RA]	16[RA]	10	1 241	1 480	895	1 315	1 962[RA]	2 144[RA]
Learner intake – Technicians, number[2]	**51[RA]**	0[RA]	11[RA]	3	838	1 209	415	826	815[RA]	835[RA]
Learner intake – Artisans, number[2]	**106[RA]**	0[RA]	91[RA]	0	1 815	2 155	1 955	1 752	2 383[RA]	2 847[RA]
Total learner intake (including plant operators)[2]	**335**	0	118	21	726[Q]	3 048[Q]	1 370	–	–	–
Transformation										
Socio-economic contribution										
Total number of electrification connections, number[3]	**97 947[RA]**	106 669[RA]	163 613[RA]	191 585[RA]	215 519	207 436	158 312	160 933	202 780	139 881
Procurement equity										
Local content contracted (Eskom-wide), %[4]	**86.89**	65.99[Q]	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), %[4]	**57.53**	56.94	88.53	81.14[RA]	85.59[RA]	85.78[Q]	84.04[RA]	33.62[LA]	54.60[RA]	80.20[RA]
B-BBEE attributable expenditure, R billion	**131.4**	98.8	97.1	80.3	97.0	137.3	132.0	120.8	125.4[RA]	103.4[RA]
Black-owned expenditure, R billion	**78.6**	50.1	43.7	48.8	53.5	50.4	51.0	47.5	43.6[RA]	26.47[RA]
Black women-owned expenditure, R billion	**14.6**	17.4	14.6	18.1	19.7	17.3	30.2	8.9	9.6[RA]	5.7[RA]
Black youth-owned expenditure, R billion	**7.9**	4.4	3.7	3.1	3.4	1.7	1.3	0.9	1.3[RA]	1.20[RA]
Procurement from B-BBEE compliant suppliers, %[5]	**73.35[RA]**	62.34[RA]	61.57[RA]	54.41[Q]	74.24[RA]	100.75[RA]	83.08[RA]	88.89[RA]	93.90[RA]	86.30[RA]
Procurement from black-owned (BO) suppliers, %	**43.85**	31.62	27.70	33.08[Q]	40.93[RA]	36.98[RA]	30.98[RA]	34.91	32.70[RA]	22.10
Procurement from black women-owned (BWO) suppliers, %	**8.13**	10.98	9.27	12.28[Q]	15.08[RA]	12.67[RA]	17.72[RA]	6.61	7.20[RA]	4.70[RA]
Procurement from black youth-owned (BYO) suppliers, %	**4.43**	2.76	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	**0.14**	0.15	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	**4.01**	3.36	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	**6.24**	6.83	9.12	13.32[Q]	9.32[RA]	10.15[RA]	4.81[RA]	5.12	–	–
Employment equity										
Disabilities, number of employees	**1 057**	1 113	1 198	1 265	1 292	1 263	1 271	1 294	1 283[RA]	1 126[RA]
Employment equity – disability, %	**3.05[RA]**	3.08[RA]	3.16[RA]	3.22[RA]	3.13[RA]	3.01[RA]	2.97[RA]	3.12[RA]	2.99[RA]	2.59[RA]
Racial equity in senior management, % black employees	**76.80[RA]**	73.67[RA]	70.72[RA]	69.44[RA]	67.97[RA]	65.77[RA]	60.90[RA]	61.58[RA]	59.50[RA]	58.30[RA]
Racial equity in professionals and middle management, % black employees	**81.71[RA]**	80.18[RA]	78.06[RA]	76.25[RA]	75.35[RA]	73.60[RA]	71.98[RA]	72.28[RA]	71.20[RA]	69.60
Gender equity in senior management, % female employees	**43.89[RA]**	42.63[RA]	41.71[RA]	39.90[RA]	38.25[RA]	36.69[RA]	28.07[RA]	29.83[RA]	28.90[RA]	28.20[RA]
Gender equity in professionals and middle management, % female employees	**40.59[RA]**	39.69[RA]	38.99[RA]	38.63[RA]	38.06[RA]	36.65[RA]	36.01[RA]	36.10[RA]	35.80[RA]	34.60

1. Ratios impacted by the restatements in the annual financial statements were restated where possible.
2. 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.
3. Electrification connections includes farmworker connections.
4. Local content contracted is measured as a percentage of TMPS. A new definition for local content is reported in terms of the shareholder compact in the directors' report, which measures local content from designated sectors as a percentage of the total contracts awarded for all Eskom company procurement.
5. 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 154 to 156 of the integrated report.
Q Qualified by the independent assurance provider.
LA Limited assurance provided by the independent assurance provider.

PLANT INFORMATION

Power station capacities

at 31 March 2022

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)				**44 013**	**39 456**
Arnot	Middelburg	Sep 1971 to Aug 1975	6x370	2 220	2 100
Camden[1, 3]	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, 3]	Balfour	Apr 2008 to Mar 2011	4x200; 2x190	1 180	570
Hendrina[3]	Middelburg	May 1970 to Dec 1976	5x200; 1x195; 1x191; 1x170; 1x167	1 723	1 098
Kendal[4]	Emalahleni	Oct 1988 to Dec 1992	6x686	4 116	3 840
Komati[1, 3]	Middelburg	Mar 2009 to Oct 2013	4x100; 4x125; 1x90	990	114
Kriel	Bethal	May 1976 to Mar 1979	6x500	3 000	2 850
Kusile[4]	Ogies	Aug 2017 to Mar 2021	3x799	2 397	2 160
		Under construction	3x800	–	–
Lethabo	Vereeniging	Dec 1985 to Dec 1990	6x618	3 708	3 558
Majuba[4]	Volksrust	Apr 1996 to Apr 2001	3x657; 3x713	4 110	3 843
Matimba[4]	Lephalale	Dec 1987 to Oct 1991	6x665	3 990	3 690
Matla	Bethal	Sep 1979 to Jul 1983	6x600	3 600	3 450
Medupi[4]	Lephalale	Aug 2015 to Jul 2021	6x794	4 764	4 317
Tutuka	Standerton	Jun 1985 to Jun 1990	6x609	3 654	3 510
Nuclear (1)					
Koeberg	Cape Town	Jul 1984 to Nov 1985	1x970; 1x964	**1 934**	**1 854**
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)[5]				**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)[6]				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				**51 705**	**47 043**
Renewable energy					
Wind energy (1)[7]					
Sere	Vredendal	Mar 2015	46x2.2	**100**	**100**
Total capacity including renewable energy				**51 805**	**47 143**
Other hydroelectric stations (4)[7]				61	2
Mbashe	Mbashe River		3x14	42	–
First Falls	Umtata River		2x3	6	–
Ncora	Ncora River		2x0.4; 1x1.6	2	2
Second Falls	Umtata River		2x5.5	11	–
Total Eskom power station capacities (30)				**51 866**	**47 145**
Available nominal capacity – Eskom-owned					**90.90%**

Name of station	Total nominal capacity MW
Nominal capacity of Eskom-owned power stations	**47 145**
Independent power producers (IPP) capacity	**6 831**
Biomass	25
Concentrating solar power	500
Gas/liquid fuel	1 005
Hydroelectric	18
Landfill	8
Solar PV energy	2 212
Wind	3 063
Total nominal capacity available to the grid – Eskom and IPPs	**53 976**

1. 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, some units at these stations have been derated.
2. The Duvha Unit 3 recovery project was cancelled, and the unit removed from the installed base.
3. Certain units are under extended inoperability and their capacity removed from the nominal base, in line with the Generation 2035 Shutdown Plan.
4. Dry-cooled unit specifications based on design back-pressure and ambient air temperature.
5. 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.
6. Use restricted to periods of peak demand, dependent on the availability of water in the Gariep and Vanderkloof Dams.
7. Installed and operational, but not included for technical performance KPIs.

Power lines and substations in service

at 31 March 2022

Category	2022	2021	2020	2019	2018
Power lines					
Transmission power lines, km[1]	**33 193**	33 158	33 027	32 698	31 951
765kV	**2 784**	2 784	2 784	2 784	2 784
533kV DC (monopolar)	**1 032**	1 032	1 032	1 035	1 035
400kV	**19 916**	19 760	19 743	19 421	18 804
275kV	**7 342**	7 342	7 228	7 218	7 218
220kV	**1 352**	1 351	1 351	1 351	1 221
132kV	**766**	889	889	889	889
Distribution overhead power lines, km	**363 286**	358 100	351 023	347 284	341 874
132kV and higher	**27 265**	26 441	24 777	24 666	24 646
44 to 88kV[3]	**22 359**	21 367	20 767	20 735	23 904
33kV[3]	**3 851**	3 730	3 563	3 420	–
1 to 22kV	**309 811**	306 561	301 916	298 463	293 324
Distribution underground cables, km	**8 339**	8 288	7 734	7 651	7 769
132kV and higher	**97**	97	86	86	79
44 to 88kV[2]	**215**	209	190	189	415
33kV[2]	**323**	323	4	4	–
1 to 22kV	**7 704**	7 659	7 454	7 372	7 275
Total all power lines, km	**404 818**	399 546	391 784	387 633	381 594
Total transformer capacity, MVA	**301 381**	310 123	306 949	297 512	285 737
Transmission, MVA[3]	**155 250**	154 500	153 135	152 415	151 105
Distribution and reticulation, MVA	**146 131**	155 623	153 814	145 097	134 632
Total transformers, number	**414 568**	420 455	391 231	385 085	383 284
Transmission, number	**451**	449	446	444	442
Distribution and reticulation, number	**414 117**	420 006	390 785	384 641	382 842

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	2022	2021	2020	2019	2018
Number of Eskom customers					
Distributors	**799**	804	805	800	800
Residential[1]	**6 833 928**	6 720 150	6 577 905	6 358 523	6 120 122
Commercial	**52 736**	52 880	52 909	52 556	51 848
Industrial	**2 601**	2 649	2 684	2 705	2 703
Mining	**926**	945	961	981	993
Agricultural	**77 692**	79 115	80 451	81 303	81 638
Rail	**471**	475	475	493	501
International	**11**	11	11	11	11
	6 969 164	6 857 029	6 716 201	6 497 372	6 258 616
Electricity sales per customer category, GWh					
Distributors	**83 931**	82 446	85 984	87 236	87 133
Residential[1]	**10 520**	10 949	11 293	11 748	12 302
Commercial	**9 872**	9 696	10 486	10 558	10 539
Industrial	**45 120**	40 881	45 610	48 717	47 854
Mining	**28 030**	26 991	28 703	28 972	30 235
Agricultural	**5 382**	5 461	5 770	5 796	5 711
Rail	**2 128**	1 931	2 600	2 831	3 148
International	**13 298**	13 497	15 189	12 461	15 268
	198 281	191 852	205 635	208 319	212 190
International sales to countries in southern Africa, GWh	**13 298**	13 497	15 189	12 461	15 268
Botswana	**851**	785	1 261	247	147
Eswatini	**713**	677	1 011	766	839
Lesotho	**341**	324	426	292	276
Mozambique	**8 215**	8 263	8 358	8 339	8 326
Namibia	**1 653**	1 493	2 013	1 518	2 147
Zambia	**6**	78	238	258	362
Zimbabwe	**1 456**	1 791	1 245	456	2 250
Short-term energy market	**63**	86	637	585	921
Electricity revenue per customer category, R million					
Distributors	**105 369**	90 228	85 656	77 231	72 935
Residential[1]	**18 680**	16 924	16 069	14 771	14 585
Commercial	**16 723**	14 304	14 067	12 385	11 726
Industrial	**47 944**	36 805	37 762	36 047	33 798
Mining	**36 630**	30 708	29 968	26 550	26 277
Agricultural	**11 600**	10 262	9 839	8 682	8 154
Rail	**3 477**	2 977	3 323	3 119	3 151
IPP network charge	**260**	221	184	121	198
International	**11 450**	10 383	12 229	8 241	9 530
Gross electricity revenue	**252 133**	212 812	209 097	187 147	180 354
Less: Revenue capitalised[2]	**(1 074)**	(3 991)	(5 683)	(3 393)	(2 172)
Less: Revenue not recognised[3]	**(14 215)**	(12 112)	(10 190)	(8 914)	(3 635)
Add: Recognised on the cash basis[4]	**6 543**	5 935	4 083	2 472	358
Electricity revenue less capitalised revenue per note 31 in the annual financial statements	**243 387**	202 644	197 307	177 312	174 905

1. Prepaid electricity and public lighting are included under the residential category.
2. Revenue from the sale of production, while testing generating plant not yet commissioned, is capitalised to plant.
3. 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 of R14 215 million was thus not recognised at 31 March 2022.
4. Under IFRS 15, certain supplies to distributors were recognised on the cash basis, due to uncertainty around collectability at the time of sale.

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 CO_2 emissions, divide the quantity of CO_2 emitted by electricity sales:

207.2Mt of CO_2 ÷ 198 281GWh sales = 1.04 tons per MWh

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 CO_2 emissions, divided by (electricity generated less Eskom's electricity consumption):

207.2Mt of CO_2 ÷ (205 688GWh generated less 6 434GWh own consumption) = 1.04 tons per MWh

Figures represent the 12-month period from 1 April 2021 to 31 March 2022.

	Factor 1 (total energy sold)	Factor 2 (total energy generated)	If electricity consumption is measured in:			
			kWh	MWh	GWh	TWh
Coal use	0.56	0.55	kilogram	ton	thousand tons (kt)	million tons (Mt)
Water use[1]	1.43	1.42	litre	kilolitre	megalitre (Mℓ)	thousand megalitres
Ash produced	166	165	gram	kilogram	ton	thousand tons (kt)
Particulate emissions	0.34	0.33	gram	kilogram	ton	thousand tons (kt)
CO_2 emissions[2]	1.04	1.04	kilogram	ton	thousand tons (kt)	million tons (Mt)
SO_x emissions[2]	8.43	8.38	gram	kilogram	ton	thousand tons (kt)
NO_x emissions[3]	4.14	4.12	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 NO_2 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	**Using Factor 1**
Used 90MWh of electricity	Used 90MWh of electricity
90 x 1.43 = 128.7	90 x 1.04 = 94
Therefore 128.7 kilolitres of water used	Therefore 94 tons CO_2 emitted
Using Factor 2	**Using Factor 2**
Used 90MWh of electricity	Used 90MWh of electricity
90 x 1.42 = 128.1	90 x 1.04 = 93.6
Therefore 128.1 kilolitres of water used	Therefore 93.6 tons CO_2 emitted

INDEPENDENT SUSTAINABILITY ASSURANCE REPORT

Independent reasonable assurance report to the directors of Eskom Holdings SOC Ltd

Introduction

We have performed our reasonable assurance engagement for Eskom Holdings SOC Ltd (Eskom) in respect of selected key performance indicators (KPIs) for the year ended 31 March 2022.

Subject matter

The subject matter comprises the KPIs disclosed in accordance with management's basis of preparation, as prepared by the responsible party, during the year ended 31 March 2022.

The terms of management's basis of preparation comprise the criteria by which Eskom's compliance is to be evaluated for purposes of our reasonable assurance engagement.

The selected KPIs are as follows:

No.	Key performance indicator	Unit of measure
Focus on safety		
1.	Lost-time injury rate (including occupational diseases, excluding third party at fault incidents and all passengers in commuting incidents)	Index
Improve operations		
2.	Planned capability loss factor (PCLF)	%
3.	Energy availability factor (EAF)	%
4.	Unplanned partial load losses (UCLF PLL)	Average MW
5.	Unplanned automatic grid separations (UAGS) trips	Number of trips
6.	Post-philosophy outage unplanned capability loss factor (UCLF)	%
7.	EAF and UCLF post-CO and official – Medupi Power Station	%
8.	EAF and UCLF post-CO and official – Kusile Power Station	%
9.	System minutes lost <1	Minutes
10.	Payment levels excluding Soweto interest	%
11.	Distribution total energy losses	%
12.	Total electrification connections	Number
13.	System average interruption duration index (SAIDI)	Hours
14.	System average interruption frequency index (SAIFI)	Number
15.	Restoration time	%
Primary energy optimisation		
16.	Migration of coal delivery volume from road to rail	Mt
17.	Coal purchases Rand/ton % increase	%
18.	Coal stock days	Days
Deliver capital expansion		
19.	Generation capacity installed and commissioned (commercial operation)	MW
20.	Transmission lines installed	km
21.	Transmission transformer capacity installed and commissioned	MVA
Legal separation		
22.	Transmission, Distribution and Generation are functionally separated (functionally unbundled)	Date
Socio-economic impact: human capital		
23.	Training spend as % of gross manpower costs	%
24.	Learner intake – Engineers in training	Number
25.	Learner intake – Technicians (P1 and P2)	Number
26.	Learner intake – Plant operators	Number
27.	Learner intake – Artisans	Number
28.	Disability equity in total workforce	%
29.	Racial equity in senior management	%
30.	Gender equity in senior management	%
31.	Racial equity in professionals and middle management	%
32.	Gender equity in professionals and middle management	%
Reduce environmental footprint in existing fleet		
33.	Relative particulate emissions	kg/MWh sent out
34.	Specific water usage	ℓ/kWh sent out
35.	Carbon dioxide emissions (CO_2)	Mt
36.	Carbon dioxide emissions (from fossil fuel generation)	kg/kWh sent out
Socio-economic impact: corporate social investment (CSI)		
37.	CSI committed spend	R million
Industrialisation and localisation		
38.	Research and development	%
39.	Preferential procurement	%
40.	Local content	%
41.	B-BBEE score level	Number
42.	Enterprise and supplier development	R billion
43.	National industrial participation programme	%
Ensure financial sustainability		
44.	EBITDA	R million
45.	Cash interest cover	Ratio
46.	Debt service cover	Ratio
47.	Savings from turnaround initiatives	R million

INDEPENDENT SUSTAINABILITY ASSURANCE REPORT continued

Directors' responsibility

The directors, being the responsible party, and, where appropriate, those charged with governance, are responsible for the KPI information, in accordance with management's basis of preparation.

The responsible party is responsible for:

- Ensuring that the KPI information is properly prepared and presented in accordance with management's basis of preparation
- Confirming the measurement or evaluation of the underlying KPIs against the applicable criteria, including that all relevant matters are reflected in the KPI information
- Designing, establishing and maintaining internal controls to ensure that the KPI information is properly prepared and presented in accordance with management's basis of preparation

Assurance practitioner's responsibility

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised), *Assurance Engagements Other Than Audits or Reviews of Historic Financial Information*. This standard requires us to comply with ethical requirements and to plan and perform our reasonable assurance engagement with the aim of obtaining reasonable assurance regarding the KPIs of the engagement.

We shall not be responsible for reporting on any KPI events and transactions beyond the period covered by our reasonable assurance engagement.

Independence and other ethical requirements

We have complied with the independence and other ethical requirements of the *Code of Professional Conduct for Registered Auditors* issued by the Independent Regulatory Board for Auditors (IRBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. The IRBA Code is consistent with the corresponding sections of the International Ethics Standards Board for Accountants' *International Code of Ethics for Professional Accountants (including International Independence Standards)*.

Deloitte & Touche applies the International Standard on Quality Control 1, *Quality Control for Firms that Perform Audits and Reviews of Financial Statements and Other Assurance and Related Services Engagements*, 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.

Summary of work performed

We have performed our procedures on the KPI events and transactions of Eskom, as prepared by management in accordance with management's basis of preparation for the year ended 31 March 2022.

Our evaluation included performing such procedures as we considered necessary, which included:

- Interviewing management and senior executives to obtain an understanding of the internal control environment, risk assessment process and information systems relevant to the sustainability reporting process for the KPIs
- Assessing the systems and processes to generate, collate, aggregate, validate and monitor the source data used to prepare the KPIs for disclosure in the reports
- Inspecting supporting documentation and performing analytical review procedures
- Evaluating whether the KPI disclosures are consistent with our overall knowledge and experience of sustainability processes

Our assurance engagement does not constitute an audit or review of any of the underlying information conducted in accordance with International Standards on Auditing or International Standards on Review Engagements and accordingly, we do not express an audit opinion or review conclusion.

We believe that our evidence obtained is sufficient and appropriate to provide a basis for our reasonable assurance conclusion.

Conclusion

In our opinion the KPIs are prepared, in all material respects, in accordance with management's basis of preparation.

DocuSigned by:
Deloitte & Touche
D5603634159749...

Deloitte & Touche
Registered Auditors

Per *Mark Victor CA(SA)*
Partner

16 December 2022

5 Magwa Crescent
Waterfall City, Waterfall
Private Bag X6, Gallo Manor, 2052
South Africa

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
Eskom whistle-blowing hotline	0800 112 722	Forensic investigations	forensic@eskom.co.za
DPE whistle-blowing hotline	0801 212 136	DPE whistle-blowing website	www.behonest.co.za dpe@behonest.co.za
Eskom Development Foundation	+27 11 800 8111	Eskom Development Foundation	www.eskom.co.za/about-eskom/corporate-social-investment/
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	CustomerServices@eskom.co.za
Facebook	EskomSouthAfrica	YouTube	EskomOfficialSite
Twitter	Eskom_SA	MyEskom Customer app	App Store / Google Play

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

Feedback on or queries relating to our report may be directed to IRfeedback@eskom.co.za
Our suite of reports covering our integrated results for 2022 is available at www.eskom.co.za/investors/integrated-results