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SUSTAINABILITY REPORT 2021

Eskom

SUSTAINABILITY REPORT

31 March 2021

TOWARDS A NEW
ENERGY FUTURE

ACRONYMS

AEL	Atmospheric emission licence
ARC	Audit and Risk Committee
B-BBEE	Broad-based black economic empowerment
CDM	Clean Development Mechanism
CDP	Carbon Disclosure Project
CFL	Compact fluorescent lamp
COP	Conference of Parties
CSI	Corporate social investment
CSIR	Council for Scientific and Industrial Research
DFFE	Department of Forestry and Fisheries and the Environment
DMRE	Department of Mineral Resources and Energy
DPE	Department of Public Enterprises
Dx	Distribution – one of Eskom's three operational divisions
EV	Electric vehicle
EVP	Employee value proposition
Exco	Executive Management Committee
GCE	Group Chief Executive
GHG	Greenhouse gas
GIS	Gas Insulated Switchgear
GRI	Global Reporting Initiative
Gx	Generation – one of Eskom's three operational divisions
IPP	Independent power producer
JET	Just Energy Transition
King IV™	King IV Report on Corporate Governance for South Africa, 2016
KPI	Key performance indicator
MES	Minimum Emission Standards
NDP	National Development Plan
NERSA	National Energy Regulator of South Africa
NNR	National Nuclear Regulator
NT	National Treasury
RE	Renewable energy
SADC	Southern African Development Community
SDGs	United Nations' Sustainable Development Goals
SED	Socio-economic development
SES	Social, Ethics and Sustainability Committee
SIS	Strategic Intent Statement
SME	Small and medium enterprise
SOC	State-owned company
SSEG	Small-scale embedded generation
TCFD	Task Force on Climate-Related Financial Disclosures
Tx	Transmission – one of Eskom's three operational divisions

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ABOUT THIS REPORT

Report objective

This is our first Sustainability Report. The objective of our report is to provide insight into our sustainable development impact and performance. We believe that our sustainability as an organisation can be achieved through our sustainable development practices.

We subscribe to the definition of sustainable development as defined in the World Commission on Environment and Development Report, 1987 (the Brundtland Commission) which is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

Reporting frameworks

The sustainability report is guided by the reporting principles of the Global Reporting Initiative (GRI) and the United Nations' Sustainable Development Goals (SDGs). This report is supplementary to our integrated report and is also additional to the Eskom Factor report (2019). The Eskom Factor report provides a deep dive into our impact over an extended period of time (the 2019 report assessed the period from 2012 to 2018) while the sustainability report is a snapshot of our impact over a financial year.

This report is largely focused on our performance from 1 April 2020 to 31 March 2021, against material topics related to the environment, society and the economy. We use the GRI's materiality assessment methodology to determine our organisation's significant environmental, social and economic impacts or that which substantively influences the assessments and decisions of our stakeholders. In addition, the report deals with our future aspirations in these areas within the context of national and international priorities on sustainable development.

Reporting boundary

Aligning to our 2021 integrated report, information in this report refers to the performance of the Eskom group, which includes the business of Eskom Holdings SOC Ltd (Eskom) operating in South Africa and our major operating subsidiaries, unless otherwise stated.

Data and assurance

Some of the information in this report was sourced from our 2021 integrated report. For this information, our Assurance and Forensic Department provided reasonable assurance on certain quantitative information, and to a lesser degree, some qualitative aspects of the report. In addition our Assurance and Forensic Department provided limited assurance to ensure alignment of information sourced from the 2021 integrated report.

Approval

The Board Social, Ethics and Sustainability Committee (SES) and the Board have approved the contents of this report on 23 August 2021.

Our suite of reports

Our 2021 suite of reports are available online at www.eskom.co.za/IR2021, and consist of the following:

Integrated report and supplementary information

The integrated report provides an overview of how Eskom creates value by considering our value creation model, strategy, risks and opportunities, performance and outlook, as well as governance of these areas. It is prepared in accordance with the IIRC's International <IR> Framework. Supplementary information of interest to a variety of stakeholders is available as fact sheets at the back of the report. As noted earlier, our Assurance and Forensic Department (A&F) has verified certain aspects of the report, and the external auditors provided reasonable assurance on specific Key Performance Indicators (KPIs).

Annual financial statements

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

Sustainability report

This is our first Sustainability Report. Previously, we used to publish standalone Eskom environmental reports that evolved into integrated reports with the adoption of integrated thinking. We consider it best practice to publish a standalone sustainability report due to our significant positive and negative sustainable development impacts. 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 GRI. It also considers our contribution to the SDGs.

STATEMENT BY THE CHAIRMAN OF THE SOCIAL, ETHICS AND SUSTAINABILITY COMMITTEE

As the Chairman of the Social, Ethics and Sustainability (SES) Committee, which the Eskom Board has delegated to perform the oversight role of all sustainability matters of Eskom, it gives me pleasure to share our Sustainability Report for the 2020/21 financial year.

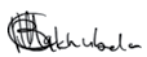
The SES Committee has continuously provided oversight on matters critical to Eskom's operations, including social and economic development, the demonstration of good corporate citizenship, governance, environmental, climate change, health and safety programmes, and sustainability audits, among others.

Eskom is the engine of the economy of South Africa, and stakeholders are at the centre of our business. Therefore, effective stakeholder engagement is a critical enabler of our strategy and a high priority for Eskom. Against this backdrop, we publish the Sustainability Report on an annual basis to complement Eskom's Integrated Report.

The Sustainability Report allows us to restate our commitment to the prosperity of South Africa by demonstrating our support of the Government's priorities as outlined in the National Development Plan (NDP) and towards the SDGs. As stated in the NDP: "South Africa belongs to all its people, and the future of our country is our collective future. Making it work is our collective responsibility." As an organisation, and even more apt for a state-owned enterprise (SOE), Eskom is mindful of this collective responsibility and is committed to creating an enabling environment for sustainable development.

Indeed our challenges as an organisation are many, but so are the opportunities. As you may be aware, there are ongoing efforts to transform and turn around our organisation to be financially secure with good corporate governance and to deliver on our mandate sustainably for the well-being of all South Africans, the environment and the economy.

Through this transparent reporting, I trust that we will be able to objectively share topical issues relating to sustainable development, thereby affirming Eskom's status as a good corporate citizen.



Dr Banothile Makhubela
Chairman:
Social, Ethics and Sustainability Committee

STATEMENT BY THE GROUP CHIEF EXECUTIVE

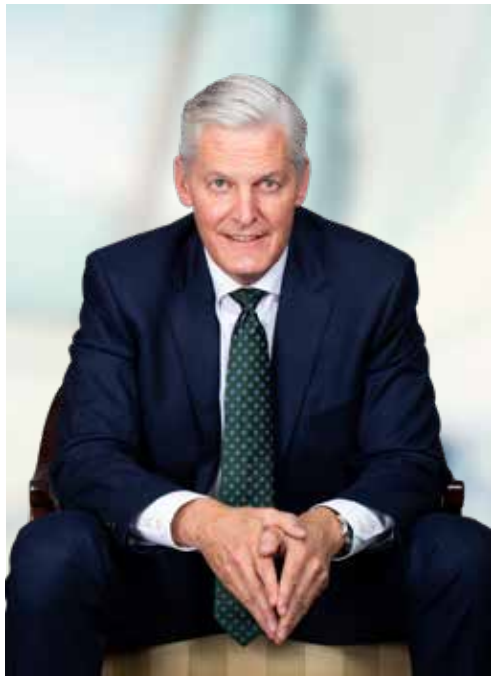
Eskom is mandated by the South African Government to provide a stable electricity supply in a sustainable and efficient manner in order to assist in lowering the cost of doing business in South Africa, thereby enabling economic growth. By virtue of being a state-owned enterprise, Eskom is entrusted with the responsibility to support socio-economic development, transformation, broad-based black economic empowerment, as well as enabling job creation and skills development. Due to the magnitude of our impact on the economy, our existence and sustainability as a company are pivotal to the well-being of South Africans.

We have faced many challenges in the recent past relating to our operations and lapse in governance, which have impacted our ability to deliver satisfactorily on our mandate. As indicated in our 2021 Corporate Plan, we are on the right track to positively transform Eskom through the implementation of our turnaround strategy. This strategy, which outlines how we will transform our organisation and enhance its sustainability using a phased approach, is underpinned by three pillars which are designed to stabilise, optimise and grow the business.

It is therefore important that as we embark on this journey, we continue to build trust with our stakeholders. This Sustainability Report, which provides insight into our social, economic and environmental impact for the 2020/21 financial year gives impetus to our efforts in this regard. Overall, our analysis shows that we have a positive impact on socio-economic development in South Africa. However, due to our high dependence on coal, our environmental footprint remains negative. From an economic perspective, we have both a negative and a positive impact on the country. Through the provision of electricity we fuelled South Africa's economy. At the same time, our operational challenges, which resulted in the implementation of loadshedding have had undesirable consequences on the economy alongside our financial challenges which continue to be a burden on the fiscus.

In efforts to ensure our sustainability, and in keeping with global best practice, we are embarking on an ambitious, unique and transformative Just Energy Transition (JET) strategy. The JET strategy outlines our phased transition towards a cleaner and greener energy future while enabling the creation of sustainable job opportunities for those displaced by the transition. Our ultimate goal is to achieve net zero carbon emissions by 2050, with an increase in sustainable jobs.

Given the multifaceted benefits of the JET strategy, we believe that our environmental and economic challenges will be alleviated, while we continue to contribute positively to socio-economic development. Based on its dependency on coal as the primary source of energy, South Africa can lead the way in demonstrating a replicable Just Energy Transition model. Our unique situation as a country enables us to demonstrate our ability to stand on the precipice of a crisis and use that very pressure point to pivot from crisis to opportunity.



I am confident that with all our efforts, Eskom is on the right path towards financial and operational sustainability.

More than proving a detailed and comprehensive update on Eskom's footprint, the Sustainability Report also highlights our commitment and contribution to both the national and international agendas on sustainable development, namely the NDP and SDGs. As signatory to the United Nations Global Compact, we remain committed to the United Nations Global Compact and its principles relating to Human Rights, Labour, Environment and Anti-Corruption. In the spirit of enhanced disclosure and transparency, I am proud to present the Sustainability Report for the period 2020/21.

André de Ruyter
Group Chief Executive

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Eskom Holdings SOC Ltd Reg No 2002/015527/30
Issued by Eskom Risk and Sustainability July 2018

OUR COMMITMENT TO SUSTAINABLE DEVELOPMENT

It is important to note that our sustainability journey is contextualised and is embedded in our Strategic Intent Statement and our strategic objectives.

Eskom Factor: driver of sustainable development

To comprehensively understand our historical and current sustainable development impact, both positive and negative, we proactively embarked on an Eskom Factor determination journey in 2011 and 2018 that focused on the environmental, social and economic impacts of our organisation. The Eskom Factor identifies key impact areas and allows improved understanding of such areas and their impact on the country, with the goal of improving our performance, especially from a sustainable development perspective. The Eskom Factor report seeks to objectively determine our sustainable development impact and material issues.

Based on the outcomes of the Eskom Factor (2019), we have to:

- Maintain and build on our positive performance in the following areas:
  - Contributing to national transformation imperatives such as employment equity and procurement from local suppliers
  - Positively impacting local communities through various investments and reducing externalities (externality is a positive or negative outcome of a given economic activity that affects a third party that is not directly related to that activity)
- Improve on the following:
  - Positively contributing to and building the South Africa economy through GDP and employment and limiting the strain on public finances
  - Providing reliable, predictable and competitive electricity
  - Continually improving relations with our employees
- Apply stringent measures to continually improve and monitor the following key areas that were of major concern:
  - Reducing Eskom's impact on the environment
  - Governance and leadership

Going forward, we will continue to use the impact areas identified in the most recent Eskom Factor report to improve and inform our sustainable development agenda.

To further integrate, embed and guide sustainable development, we have developed the Eskom sustainable development framework. The framework highlights how we manage and monitor sustainable development, thereby placing us on a path to long-term sustainability. In this framework we also illustrate how we contribute to the NDP and SDGs.

Forthcoming iterations of the Eskom sustainable development framework are aimed at outlining the proposed sustainability leading KPIs in both the integrated report and the sustainability report. This exercise will further allow for more effective contribution to be measured.

It is through this framework that we aim to further embed sustainable development by:

- Influencing the organisation to execute its vision, mission and mandate in the context of sustainable development
- Influencing the implementing our overall strategy
- Further defining governance and leadership requirements and support for the business to meet its strategic vision, intent and objectives

In order to further entrench sustainability throughout the business, we are committed and are implementing both the national (NDP) and international (SDGs) sustainable development agendas.

Our commitment to the NDP

The NDP is a long-term development plan for South Africa that was published in 2012. The NDP aims to alleviate key national challenges and as the triple challenge of poverty, unemployment and social inequality by 2030, on the path towards a sustainable future. As a State-owned Company (SOC), we have the responsibility of supporting Government in achieving the objectives of the NDP and therefore contributing to sustainable development. Our mandate is articulated in Chapter 4 of the NDP: "Economic infrastructure" – the foundation of social and economic development.

As stated in the NDP, Government's aspiration for South Africa is that by 2030, the country should have an energy sector that promotes the following goals:

- Economic growth and development through adequate investment in energy infrastructure. The sector should provide a reliable and efficient energy service at competitive rates, while supporting economic growth through job creation (page 167, NDP)
- Social equity through expanded access to energy at affordable tariffs and through targeted, sustainable subsidies for needy households
- Environmental sustainability through efforts to reduce pollution and mitigate the effects of climate change
- Employment creation
- Building an inclusive economy through the supply chain opportunities
- Improving education, training and innovation through skills development and research programmes
- Building safer communities and improved healthcare through community development and corporate social investment (CSI) programmes

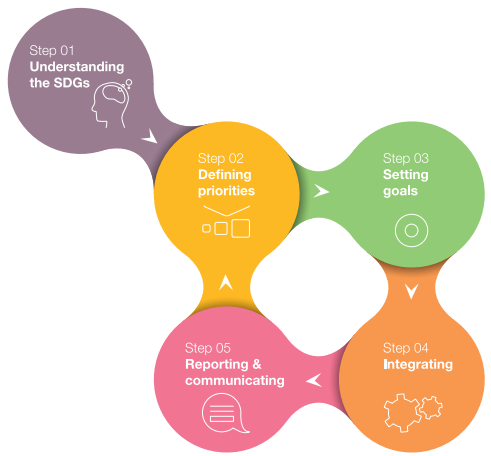
Our contribution and challenges in achieving the above goals are shown in environmental, social performance section of this report. In addition, we explain how we contribute to the NDP through our impact and contribution to:

- National transformation imperatives such as skills development, employment creation, procurement, employment equity, CSI contributions and special projects
- Local communities and our employees
- The green economy and the South African economy

Sustainable Development Goals

From an international perspective, we are committed to supporting and implementing the SDGs. They showcase the risk areas and material matters that a company has to manage to ensure its sustainability. Our approach to the implementation of the SDGs is based on the SDG Compass Report developed by the GRI, UN Global Compact and the World Business Council for Sustainable Development.

Our approach to implementing the SDGs



Our overall progress on the implementation of the SDGs is as follows:

- We understand that the SDGs support the NDP's mandate by highlighting risk areas we face in South Africa and in Eskom. These risks are already being addressed through our comprehensive enterprise risk management process
- We have selected seven priority SDGs to deliver against. Our criteria for selecting these SDGs are based on the significance of the impact (materiality, intensity of likely risks and those that support and enhance the execution of our mandate and priority as a company). Below we have outlined priority SDGs and their alignment with the NDP 2030

OUR COMMITMENT TO SUSTAINABLE DEVELOPMENT continued

Priority	Objective	Strategic objective	Summary of our impact and management
13 CLIMATE ACTION	**Chapter 5:** Environmental sustainability and transition to a low carbon economy	Strive towards net zero carbon dioxide emissions by 2050 with an increase in sustainable jobs	We have a negative impact due to greenhouse gas emissions and we mitigate this through our climate change strategy and our draft JET strategy (See more details in section on climate change)
7 AFFORDABLE AND CLEAN ENERGY	**Chapter 4:** Economic infrastructure	Facilitate future open energy industry	**Positive impact:** We support economic growth and improve the quality of life in South Africa and region through our electrification programme **Negative impact:** Our emissions impact: (See more details in section on climate change)
8 DECENT WORK AND ECONOMIC GROWTH	**Chapters 3** Economy and Employment **Chapters 4** Economic infrastructure	Pursue financial and operational sustainability and strive towards net zero carbon dioxide emissions by 2050 with an increase in sustainable jobs	Through our electrification programme we support economic growth and improve the quality of life in South Africa and the region (See more details in sections on social and economic performance)
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	**Chapters 1** Key drivers of change **Chapters 4** Economic infrastructure	Modernise the power system	Through our electrification programme, we support economic growth and improve the quality of life in South Africa and the region (See more details in section on social performance)
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	**Chapter 5:** Environmental sustainability	Strive towards net zero carbon dioxide emissions by 2050 with an increase in sustainable jobs	**Negative impact:** Our impact on biodiversity **Positive impact:** We declared three nature reserves through the National Environmental Management Protected Areas Act, 2003 (See more details in section on environmental performance)
6 CLEAN WATER AND SANITATION	**Chapter 5:** Environmental sustainability	Strive towards net zero carbon dioxide emissions by 2050 with an increase in sustainable jobs	**Negative impact:** High water consumption at power stations **Positive impact:** We fully supports the achievement of the goals and targets of SDG 6 through our environmental and water management policies, strategies, performance scorecards and management action plans. (See more details in section on environmental performance)
17 PARTNERSHIPS FOR THE GOALS	**Chapter 15** Transforming society and uniting the country	Pursue financial and operational sustainability	We have various partnerships across Government, society and business spheres

We continue to challenge ourselves in:

- Setting ambitious goals and performance targets that can enhance the implementation of the NDP and SDGs
- Identifying and mobilising key enablers and resources to achieving the ambitious goals and targets we have set
- Fostering a culture of sustainable development and integration across the organisation and our supplier and customer value chain

We are committed to reporting and communicating our contribution to sustainable development through our suite of reports. Going forward, our sustainability journey and progress will be reported in the sustainability report.

Future aspirations

We are aware of our positive and negative sustainable development impacts. We strive to maximise our positive impacts and mitigate the negative ones. In line with this, our future aspirations are as follows:

- Gradually shift from fossil fuel-based power generation to cleaner power generation, while managing the impact on the livelihoods of communities dependent on our operations
- The Just Energy Transition is about a transition towards a cleaner and greener energy future while enabling new job opportunities and socio-economic growth through reindustrialisation, and exciting career paths for our youth
- The Just Energy Transition will focus on transitioning efforts over a 30-year time horizon between 2020 and 2050. The key aspirations for 2050 are:
  - To achieve net zero emissions in partnership with other businesses and industries
  - To promote net job creation from a national perspective
- We believe that by following a Just Energy Transition pathway, it will be possible to simultaneously spur economic growth, which will invite investment into our country, create sustainable jobs and put emissions into structural decline, thereby ensuring an electricity supply that enhances our competiveness
- The added benefits of transitioning are that we simultaneously deal with the challenges of poor air quality, reduced water consumption which consequently frees up desperately needed water for household consumption, and improved land use over time
- We aspire to build large-scale renewables aligned with the DMRE's Integrated Resource Plan between 2022 and 2030. The availability of green financing on concessionary terms together with a risk mitigation measure of procuring such plants with engineer, procure and construct contracts allow us to build renewable energy plants at costs that are lower than IPPs, thus adding significant value to South Africa. We would also welcome opportunities for public-private partnerships
- To participate in the small-scale embedded generation business on a commercial basis

GOVERNANCE AND STRATEGIC CONTEXT

GOVERNANCE & LEADERSHIP OF SUSTAINABLE DEVELOPMENT AND RELATED ISSUES

The Board has expressed its commitment to rooting out corruption and addressing issues related to past corporate governance breaches, in order to restore our reputation as a trusted corporate citizen and further, to improve the organisation's sustainability.

Governance and leadership are cornerstones to our sustainability as an electricity utility, hence our leadership has implemented a number of measures to restore ethical practices in Eskom. Such measures include the strengthening of ethics and fraud frameworks and enhancement and focus on consequence management.

For further details, refer to the governance, leadership and ethics section in the 2021 integrated report

In relation to sustainability, the following governance structures are in place:

Board

Governance of the group and the responsibility for promoting good corporate citizenship is vested in the Board. For ease and effectiveness of its function, the Board has delegated a number of responsibilities to its various committees. The committees that influence our sustainability matters are briefly discussed below.

Board Strategy Committee

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 the transfer of assets, liabilities and resources, as well as functional and legal separation
- Interacting with Government and associated offices on these matters

Audit and Risk Committee

The committee's roles and responsibilities include:

- The statutory functions of an audit committee set out in the Companies Act, 2008 and the PFMA, 1999, including oversight of financial reporting and disclosure, risk and compliance management and internal control systems, as well as the internal and external audit functions
- Oversight of strategic and business risks and opportunities
- Governance of information and technology
- Serving as the 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.

Social, Ethics and Sustainability Committee

The Board delegates the leadership of sustainability and ethics matters to the Social, Ethics and Sustainability (SES) Committee.

The committee's responsibilities include:

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

Executive Management Committee (Exco)

Exco is established by the GCE, and is accountable for executing the strategy of the Board, as well as exercising executive control over day-to-day operations. Exco is supported by various subcommittees in the execution of its duties.

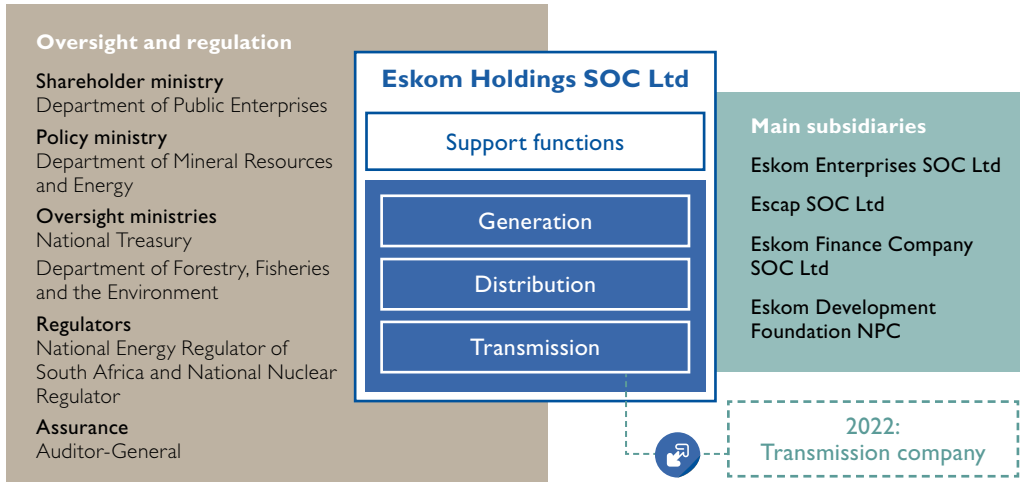
Risk and Sustainability Division

The Risk and Sustainability Division is mandated to drive long-term sustainable business performance through functional leadership, assurance and oversight in the areas of integrated risk and resilience management; research and development; innovation; safety, health, environment and quality; and sustainable development thereby enabling a low-carbon energy company.

OUR STRATEGIC CONTEXT

Our group overview

Our mandate is to provide stable electricity in an efficient manner to contribute to lowering the cost of doing business in South Africa and thereby enabling economic growth. This mandate is executed by the Eskom group below.



Sustainability practices are embedded and detailed plans are unpacked in the corporate and divisional plans for implementation throughout the group.

Risk and resilience

For an entity to be sustainable it should manage risk and be resilient. This translates into the ability to manage the effect of uncertainty on objectives, and the ability to anticipate and adapt, respond and recover, and transform itself in the face of uncertainty, change and disruption. We have established an integrated management approach to risk and resilience.

Our risk and resilience policy, risk and resilience management plan and risk appetite and tolerance framework are the key governing documents approved by the Eskom Board. This is aligned to the recommendations on good governance in the King IV™ Report on Corporate Governance for South Africa, 2016 (King IV™), which has introduced the oversight of resilience (business continuity) as a board-level priority.

Our business is governed by standards for integrated risk management, emergency preparedness, business continuity management, disaster management and incident command. These standards are consistently applied across Eskom and our subsidiaries for the management of all types of risks (including risks impacting on our strategy). Performance against the strategic plan as well as all priority 1 and emerging risks are reported quarterly to Exco and the Board who provide oversight as recommended by King IV™.

The effective management of risk is essential for Eskom, given the role we play in the South African economy and our impact on society and the environment. Hence, management of risk is the accountability of the risk owners, which mainly happens in the divisions/ subsidiaries in their own management processes and is evident in their decision-making processes and the outcomes. All divisions are required to develop a risk and resilience management plan aligned to the divisional business plan. A single Integrated Risk Management Information System is used for risk management information across the organisation.

Our risk landscape is currently being monitored, tracked and reported in the seven risk categories approved by the Board, namely financial, operations, people, information technology, stakeholder management, compliance/ governance and environment/climate change.

Risks affecting organisational and business continuity objectives are identified, and robust treatment plans are developed, and implementation is tracked and monitored through embedded governance structures (in line with King IV™). Risks are rated according to Eskom's consequence and likelihood table. High consequence and likelihood are referred to as priority 1 risks which require the focus of Exco and the Board.

Sustainable development risks are related to environmental and climate change, people (including safety), stakeholder management, financial sustainability, governance and compliance matters – all of which impact Eskom's operations. The priority 1 risk for climate change is our failure to transition and implement low carbon initiatives, potential loss of our licence to operate due to poor performance on social matters and non-compliance with environmental requirements and legislation. The priority 1 risk for environmental is "the loss of licence to operate due to environmental performance and regulation/legislation non-compliance leading to plant shut down and/or litigation".

Opportunity management is essential in treating these risks for the long-term sustainability of Eskom and South Africa. The Just Energy Transition (JET) is Eskom's strategy to manage the sustainable development risks indicated above. Risks and treatment plans are undertaken by the Climate Change and Sustainable Development Department within the Risk and Sustainability Division as well as the appropriate line divisions.

The Enterprise Resilience Programme addresses our readiness to respond to disruptions and disasters – based on our compliance with legislation (the Disaster Management Act, 2002, as amended), international good practice (ISO 22301 for business continuity management) and the FEMA/ZA Incident Command System. Functional accountability for shaping site-level emergency preparedness lies with Eskom's Occupational Health and Safety function. The divisional oversight role of risk and resilience includes the status of these emergency plans. Eskom has established integrated emergency command structures at strategic, tactical and operational levels. Group Executives are required to assign the necessary roles and responsibilities to these in terms of our Incident Command standard.

Group/Divisional Executives are accountable for resilience planning within their divisions including:

- Emergency and disaster planning at site level
- Business continuity planning for all critical business processes and operations
- Disaster planning within their functional areas

This accountability includes the need for management oversight and adequate resourcing.

Business continuity plans and site emergency plans developed in the divisions are the cornerstones of national and provincial disaster contingency plans.

Refer to section on risk and opportunities in the 2021 integrated report for our detailed risk information

Our strategy

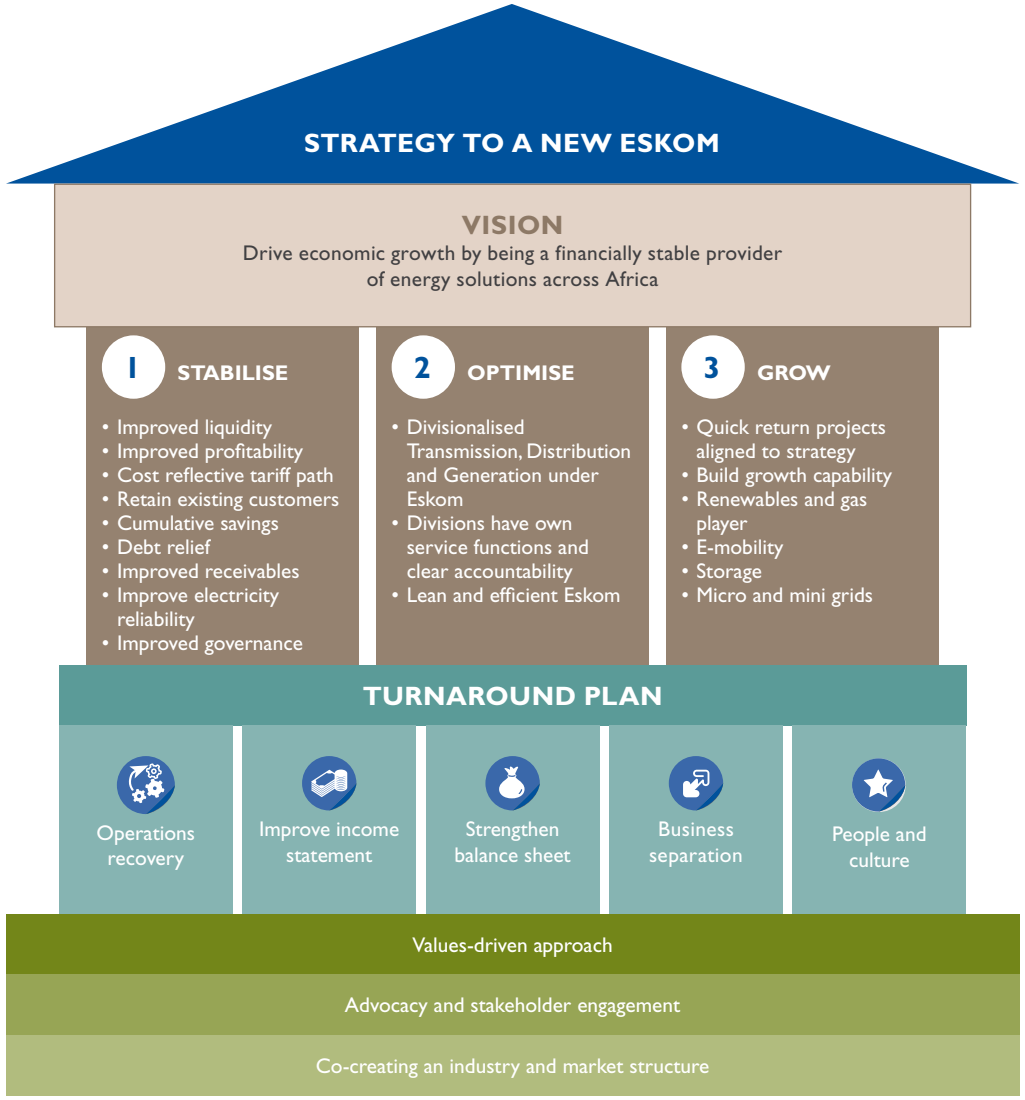
Our immediate priority is to address our financial and operational issues to stabilise the business to create a sound platform to leverage our capabilities, to pursue a growth trajectory that supports national strategic imperatives such as the prevailing South African Economic Reconstruction and Recovery Plan and the JET. Our strategy remains aligned to the key areas set out in the Department of Public Enterprise's Strategic Intent Statement (SIS) as depicted below:

Eskom strategic objectives	2021 – 2023 SIS objective[1]
Pursue financial and operational sustainability	Ensure and maintain a financially viable and sustainable company
	Support transparency including divisional reporting to improve line of sight of operations and align to regulatory framework
Facilitate future open energy industry	Provide reliable, predictable and affordable electricity in line with NERSA models
Modernise the power system	Respond to the changing energy landscape
Produce net zero emissions by 2050 with an increase in sustainable jobs	Reduce the impact of Eskom's operations on the environment
	Consolidate socio economic contribution to ensure alignment to national imperatives for economic growth, industrialisation, skills development and job creation

OUR STRATEGIC CONTEXT continued

Short to medium-term strategy

Our short to medium-term strategy is as follows:



Long-term strategy

The long-term strategy positions our organisation as an enabler to the JET . We intend to be an enabler and driver of the JET in the energy sector. The long-term strategy is underpinned by five industry trends that are shaping the future of the electricity sector, namely decarbonisation, decentralisation, deregulation, digital transformation and democratisation.

Refer to section on strategy overview in our 2021 integrated report for our detailed strategy information.

Just Energy Transition (JET) as a pivot for our long-term strategy

As an organisation, we are no stranger to change and upheaval. Our 98-year history is testament to the organisation's tenacity and resilience in good and bad times. While we have been experiencing the troughs in recent years, our challenges, ironically, provide the ideal opportunity for us to peak again. As the world acknowledges that climate change poses a significant threat to our environmental health, we know that our best chance to decarbonise the economy quickly and efficiently is to transition to a lower carbon electricity supply. The confluence of the decarbonisation drive, the need for socio-economic growth and the fact that we are shutting down coal plants, provides an extraordinary opportunity for Eskom to pivot to an electricity company at the forefront of a JET.

Our JET strategy aims to advance a lower carbon, socially inclusive future, while also contributing to solving our capacity and financial constraints. Additionally, we will collaborate with Government, labour, civil society and business to stimulate local manufacture, reindustrialisation and contribute to a Just Energy Transition for South Africa.

The JET occurs in a phased manner. To ensure that we succeed and have a focused drive on this JET strategy, we have established a JET office, a first among businesses in South Africa.

Definition of "net zero" carbon emissions in our context

Our carbon emissions will be reduced as much as is technically and financially feasible over the next 30 years; the pace at which this occurs will take into account socio-economic impacts, system requirements, costs, and our ability to build and scale up rollout of the new capacity.

The "net" in the net zero target means that we will still have residual emissions over the coming years as we work towards decarbonising the grid. At the end of the period, remaining emissions left in the system may be balanced by:

- Investing in projects that remove carbon emissions from the atmosphere, e.g. agriculture and forestry projects
- Deploying technologies that will help us achieve this goal, when these technologies become commercially available

The transition is not without its challenges, including job losses and the negative impact on the coal industry. Financing the transition is also a challenge that requires innovation in financing models, sources of revenue and new ways of financing projects (e.g. climate and green financing). Our strategy will provide details of these potential challenges and how they will be addressed.

Success factors for the JET strategy

Our JET journey is dependent on a number of enablers such as policy and financial support. Other important enablers include cost-reflective and unbundled tariffs that provide clear signals for services provided by the network as well as resourcing and enabling a rapid, large-scale expansion of the Transmission network.

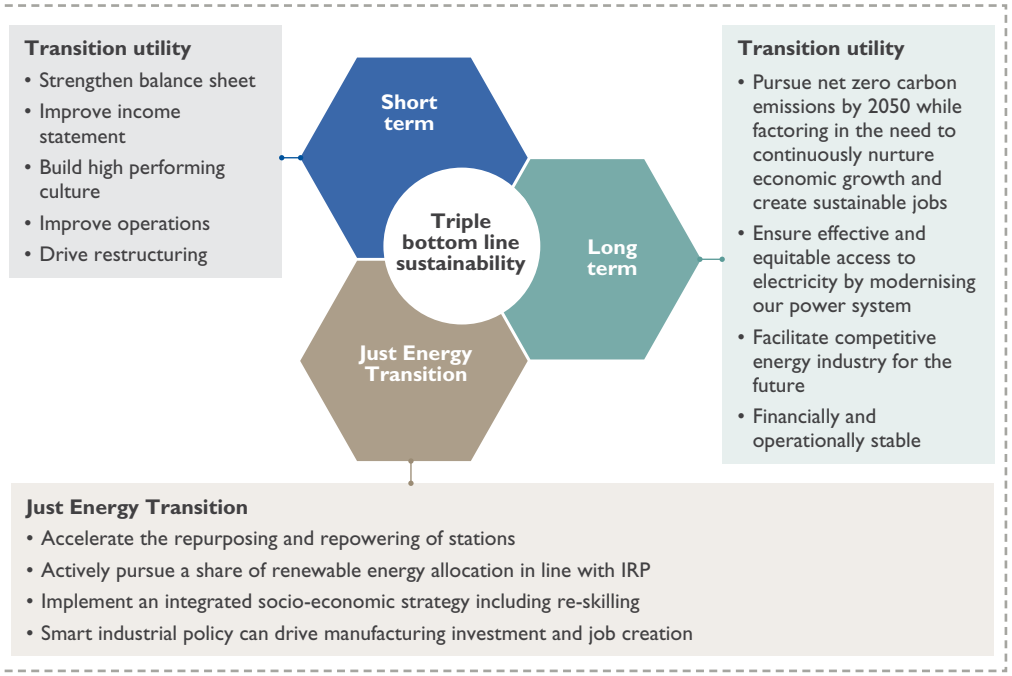
To date our strategic objectives include:

- **Clean energy technology pathways**
  - Acceleration of large-scale renewables build
  - Acceleration of repurposing and repowering of power plants
  - Research into technological solutions for the 2050 roadmap, including storage (battery, pumped storage, etc.) options in the short to medium and the hydrogen economy in the far future.
- **Social elements**
  - Detailed social impact –studies for the shutdown of coal plant
  - Assessing reindustrialisation and local manufacturing capability – including skills requirements, retraining and quantifying the potential for local manufacture and supporting the reindustrialisation agenda – pursuing job creation
- **Financing**
  - Optimising green and climate financing opportunities.
  - Agreements with funders for repurposing power plants, greenfield renewables, SSEG options and grid strengthening
- **Communication, engagement and collaboration**
  - Collaboration with government, business, business associations, academia and civil society to drive the Just Transition in the country
  - Increased transparency of our JET initiatives through local, national and international standards for disclosures and reporting
  - Input to country level JT roadmaps through the National Business Initiative, Business Unity South Africa, and the policy landscape through the The Presidency, Department of Public Enterprises, Department of Mineral Resources and Energy, Department of Forestry, Fisheries and the Environment, National Treasury, National Planning Commission and the Presidential Climate Commission.

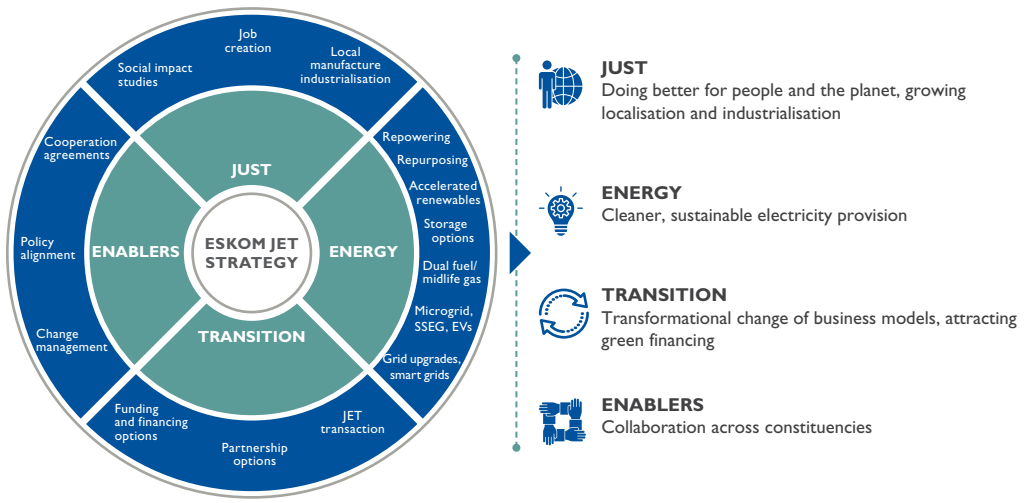
OUR STRATEGIC CONTEXT continued

In summary, JET presents a unique opportunity to pivot our organisation into a sustainable energy industry beyond the turnaround, thereby underpinning South Africa's economic growth.

The JET strategy is part of our corporate strategy to assist us to pivot into a sustainable organisation



The five year priority landscape of our JET strategy is captured as follows:



Our stakeholder engagement

Line mentioned in our 2021 integrated report, Eskom faces unprecedented business challenges in a context where disruption is the new norm. Operating in a highly regulated market that is undergoing fundamental reform in the context of South Africa's energy security, decarbonisation and transformation agendas, all have implications for our approach to stakeholder engagement. The Government and Regulatory Affairs Division (GRAD) is responsible for inclusive relationship management – with Government, various regulators, as well as domestic and international stakeholders – as well as effective communication, image and brand building.

Through SES, the Board provides oversight of the effectiveness of stakeholder engagement, and delegates the management of stakeholder relationships to Exco. Various functions within Eskom are responsible for engagements with different stakeholder groups, under the oversight of Exco.

Restoring stakeholder trust in Eskom is critical to our future success. By improving the way we engage with stakeholders and seeking to understand and respond to stakeholder interests and needs – including trade-offs and opportunities – we aim to promote energy security in the long term.

Stakeholder groups

Our key stakeholder groups have been classified as authorisers, influencers, partners or enforcers. Stakeholder groups have been categorised based on their perceived influence on Eskom, and our impact on them.

Improving quality of relationships

Like stated in our 2021 integrated report, we recognise the importance of rebuilding and strengthening confidence and trust in Eskom by implementing our turnaround plan and improving our performance, to ensure that we are able to deliver on our mandate and the *Roadmap for Eskom in a Reformed Electricity Supply Industry* released by DPE in October 2019 (DPE's Roadmap) to transform the electricity industry. As part of that process, we need the continued support and commitment of our employees and all stakeholders as we transition towards a more desirable future for Eskom and the country. Improving the quality of our relationships with stakeholders will enable that process.

Matters raised by stakeholders

Environmental matters

- Environmental compliance monitoring at Medupi during construction
- Eskom air quality improvement plans
- Compliance with environmental legislation
- Environmental authorisation and waste management licences
- Application to delist ash as a waste and to exempt the ash utilisation programme
- Tracking and expediting the Eskom Water Use Licence application
- Conservation of the high-altitude 8 000 hectares of grassland at Ingula

Social matters

- Transformation of Eskom and the upliftment of women, youth and small, medium and micro enterprises
- Tender and business opportunities

Economic and financial matters

- Eskom's escalating debt
- Eskom's turnaround plan or unbundling/privatisation
- Eskom's procurement processes and the Public Finance Management Act, 1999
- Loadshedding challenges
- Cable theft and vandalism
- Unreliable power supply
- Birds and power lines – to reduce the risk of bird mortalities and improve the quality of power supply

Governance and leadership matters

- Governance and corruption challenges

We are addressing all the above issues, because we understand that our sustainability is dependent on resolving these. Most importantly, we are always striving to be a responsible corporate citizen, ethically and socially.

Refer to section on stakeholder engagement in our 2021 integrated report for our detailed information on stakeholder engagement.

Our material topics

We understand that our sustainability as a company is based mainly on how well we address and manage our material topics. The material topics addressed in this report are based on the GRI materiality principle. In line with the GRI materiality principle, this sustainability report reflects the broader lens of materiality, our organisation's significant environmental, social and economic impacts that substantively influence the assessments and decisions of our stakeholders. These material impacts include those that have a direct or indirect impact on our ability to create, preserve or erode environmental, social and economic value for us, our stakeholders, the environment and society at large. This approach assists us in mitigating and improving our impact on society, the local economy and the environment.

Our material topics reported include:

Environmental and climate change material topics

The environmental issues that we have reported on are based on those aspects that are material to us and our stakeholders. We have determined environmental materiality though our environmental management system of quantifying the significant impacts arising from the environmental aspect of our activities undertaken in the generation, transmission and distribution of electricity. We also take into account the environmental legislative framework in which we operate, our environmental licences and the conditions on these as well as the expectations of our stakeholders.

The key material topics are:

- Particulate and gaseous emissions
- Water use
- Waste production
- Environmental incidents and compliance
- Biodiversity and land use
- Climate change

Social material topics

The key material topics are:

- Contributing to national transformation imperatives including employment equity and contribution to local suppliers
- Skills development
- Impacting on local communities: through various investments and reducing externalities
- Being a good employer
- Safety (see 2021 integrated report for safety performance)

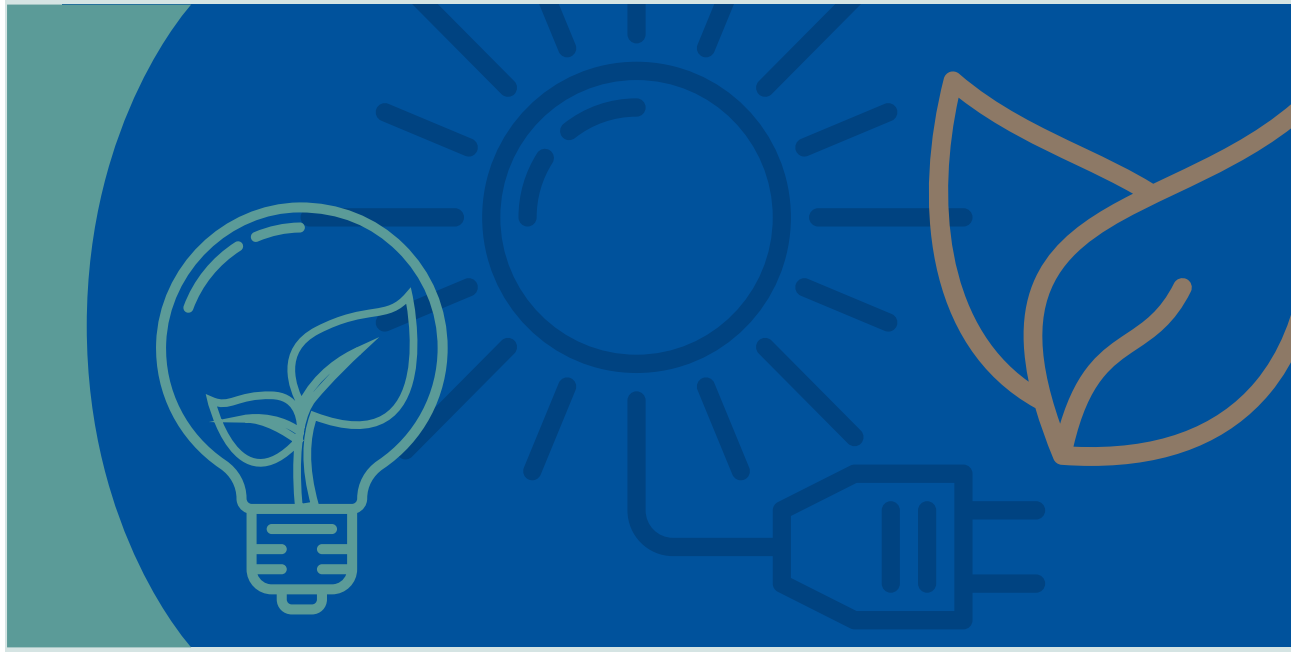
Refer to further details on the above in the social performance section of this report

Economic sustainability topics

The key material topic is driving the economy by providing electricity, contributing to public finances and employment.

Aligned to the GRI, we aware that our material impacts create both risks and opportunities for us as a company. Our sustainability is therefore dependent on how well we manage these material topics. Refer to sections on environmental, climate change and social performances for further information.

OUR ENVIRONMENTAL PERFORMANCE



OUR ENVIRONMENTAL PERFORMANCE continued

Our alignment with the NDP

In ensuring our contribution to the NDP, our environmental management practices are undertaken in pursuit of our value of Zero Harm, which is underpinned by the framework of our environmental compliance obligations set out in South African legislation and our shareholder compact. Our environmental management practices are based on understanding the impact of our activities on the environment, what our stakeholders' expectations are, setting environmental objectives and KPIs, putting in place the controls to monitor and report on performance and also respond to risks, incidents and shortcomings in our performance.

Our environmental sustainability matters

We have a responsibility to ensure our operations are not contributing to an environment that is harmful to the health and wellbeing of our society. Our environmental strategy, which is in line with our zero-harm value, aims to ensure the ongoing improvement in our controls and practices, through visible felt leadership behaviours that effectively prevent harm to people and the environment. As a corporate citizen of South Africa, we continue to ensure our processes and practices reduce the impact of our operations on the environment.

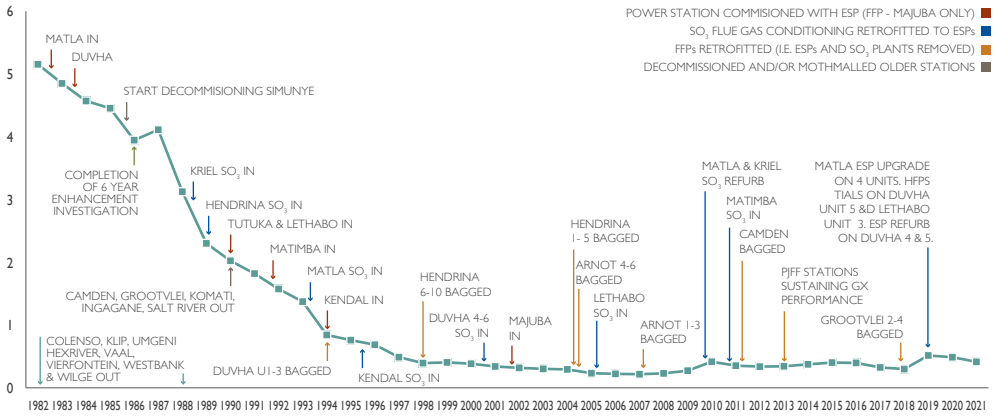
Eskom's environmental management policies, strategies and systems provide the framework for ensuring we have our plant and equipment correctly installed and maintained. We set out standards and procedures that require compliance with applicable environmental laws, regulations and authorisations granted to us. Lastly, we maintain a high-performance culture that strives for zero harm, zero contraventions and zero incidents.

Over the last few years our environmental performance was well outside tolerance levels we set ourselves in relation to relative particulate emissions, specific water use, environmental compliance and our impact on red data bird species that are classified as "critically endangered" in South Africa, Lesotho and Eswatini.

Air emissions: Particulate and gaseous emissions

We started implementing pollution reduction technology as early as the 1980s and have successfully reduced particulate matter emissions by more than 80%. Unfortunately, particulate emission performance in 2019 and 2020 were the worst in 20 years, primarily because of operational challenges experienced at Kendal Power Station. However, there was a marked improvement towards the end of the 2020/21 financial year.

Eskom emission reduction history



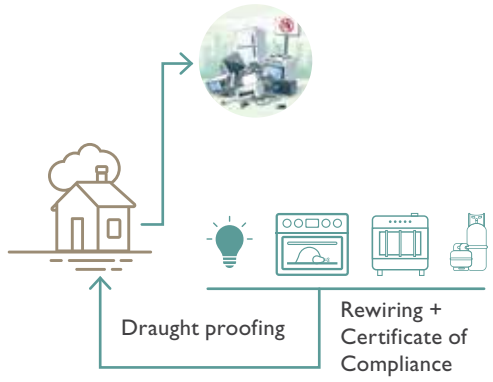
Air quality improvement programme: The Generation nine-point recovery plan includes fixing the emissions through two key objectives. Firstly, by ensuring that the retrofit projects required to meet existing and new plant standards by 2025, as committed to in the postponement applications in 2014 and 2020, are completed on time. Secondly, by improving the compliance and performance of operating power stations in line with their atmospheric emission licences (AELs).

We have adopted a phased approach to our air quality improvement programme that considers the remaining lives of the power stations and their impact on the ambient air quality. In terms of the National Environmental Management: Air Quality Act, 2004, all of Eskom's coal and liquid fuel-fired power stations are required to meet the Minimum Emission Standards (MES).

The South African MES were published in 2010, requiring Eskom to reduce its sulphur dioxide and nitrogen oxide gaseous emissions, in addition to particulate matter, in line with the stipulated emission limits. This required Eskom to comply with existing plant standards by April 2015, while more stringent limits had to be met by April 2020. In this regard, we committed to retrofitting several power stations in 2014 and again in 2019 to reduce emissions; continued focus resulted in general improvements in the delivery of these projects. Several of the particulate matter projects are progressing and will be completed by 2025. However, there is an increasing risk of delays to the completion dates of these projects.

In March 2019, we submitted MES postponement applications for most of our power stations. On 14 July 2020, the Department of Forestry and Fisheries and the Environment, (DFFE) provided approval to Eskom to operate its stations under pre-1 April 2020 emission limits until decisions on the MES applications had been finalised; this approval was subject to Eskom providing all outstanding information by August 2020. As required by the DFFE, Eskom submitted the information for the 2019 MES applications and additional applications for Grootvlei, Acacia, Port Rex, Medupi and Matimba power stations by the end of August 2020. In November 2020, the DFFE indicated that it hoped to process all the submitted applications within 12 months.

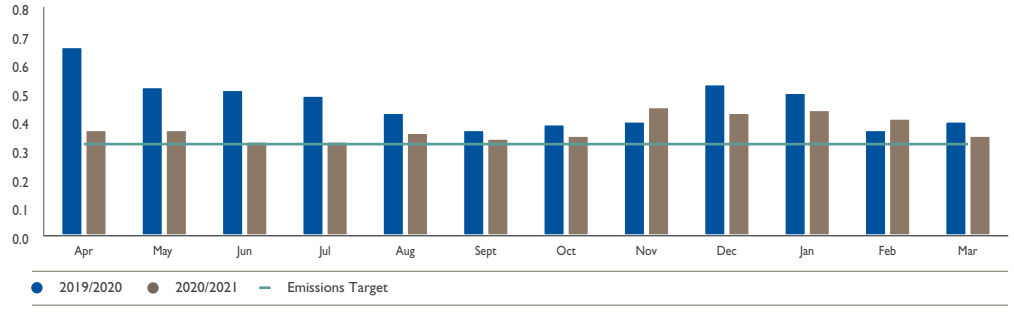
Air quality offset programmes: The amended AELs for our coal-fired power plants require us to implement an offset programme to reduce particulate matter pollution in the receiving environment adjacent to the power stations. The offset will be carried out on specific low-income houses and includes the installation of ceilings to improve insulation as well as electric and gas stoves to replace coal stoves.



Four contracts have been signed to date, namely the health study; planning, monitoring and verification; the Kwaza project management office; and Kwaza insulation. The initial engagements between the Kwaza community and some of the appointed service providers took place in October and November 2020. Unfortunately, this offset project has been delayed and it is anticipated that the retrofitting of houses will start during 2021.

Managing emissions at Kendal Power Station: As reported in Eskom's 2020 integrated report, Kendal Power Station's electrostatic precipitators and flue gas conditioning were designed to emit below the existing plant limit of 100mg/Nm^3 for particulate matter. During the strike action in 2018, the units at Kendal continued to run to avoid system failure, however, operating with ash backlogs led to significant damage to some of the units and affected their ability to operate within the legal limits. There are instances when our power stations are not able to comply with the emission limits set out in their AELs, and in such cases load losses are taken and appropriate reporting mechanisms implemented in terms of the AELs. There has been a significant improvement (19%) in our fleet of coal-fired power stations' relative particulate emission performance in this financial year compared to the previous two financial years, with the year-end performance at 0.38kg/MWh sent out (2020: 0.47kg/MWh sent out). Two of the Kendal units are off on long-term outages and will return after full refurbishments of the electrostatic precipitators.

Relative particulate emissions performance (kg/MWh sent out) for the 2020 and 2021 financial years



OUR ENVIRONMENTAL PERFORMANCE continued

In September 2019, we were served notice of criminal charges in respect of alleged contraventions of the National Environmental Management Act, 1998 and the National Environmental Management: Air Quality Act at Kendal Power Station. In November 2020, Eskom was issued with a summons in connection with these charges and was represented in court on 28 January 2021. The matter was postponed to 20 August 2021.

Gaseous emissions

SO_2 emission limits

Exceedances of daily SO_2 limits have been recorded by all coal-fired power stations on 279 days in total during the year (2020: 449). Of those exceedances, 160 occurred at Matimba, which is now operating under a monthly AEL limit rather than a daily limit. Medupi, which also operates on a monthly AEL limit, reported 86 exceedances on its units. The poor SO_2 emissions performance at these stations is due to the generally higher sulphur content of Waterberg coal.

NO_x emission limits

Exceedances of allowed daily NO_x emissions have been recorded by all coal-fired power stations on 125 days in total during the year (2020: 409). Lethabo reported 65 exceedances during the year. The remainder of the exceedances were reported at Kendal and were generally due to monitoring issues.

Water management

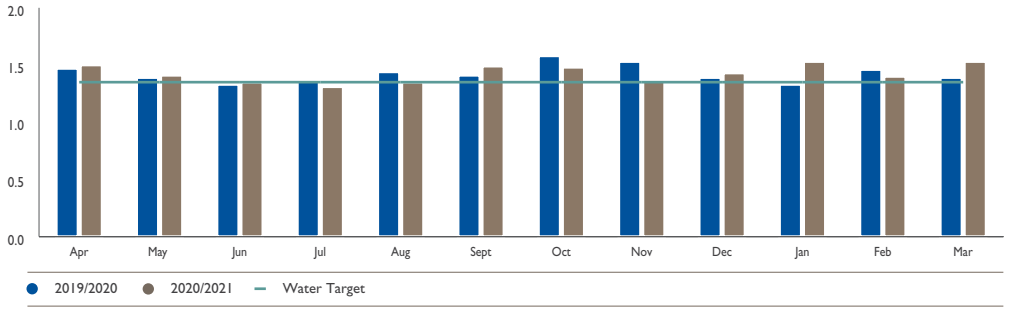
Reducing water consumption

South Africa is water-scarce due to low average rainfall and Eskom accounts for about 2% of the country's total freshwater consumption annually. Eskom is classified as a strategic water user and has a responsibility to manage water efficiently in the generation and distribution of electricity.

We are implementing comprehensive water strategy implementation and management plans across all coal-fired power stations to reduce water consumption, ensure compliance with water use licences and maintain our assurance of water supply.

Specific water performance is dependent on a number of variables, including load factor, energy mix, rainfall and overall water management efficiencies at power stations. Regrettably, our water use performance remains unsatisfactory, mainly due to poor technical performance at stations, ageing plants and long lead times to address root causes of high water consumption, such as leaks from the plant and poor water management on site. Our year-end performance for specific water use was 1.42ℓ/kWh sent out, the same as the previous financial year (2019/20: 1.42ℓ/kWh sent out).

Specific water use performance (ℓ/kWh sent out) for the 2020 and 2021 financial years



Over the past financial year, more focus was given to improving water management practices at power stations. The monthly Generation Environmental Compliance Steering Committee meeting, chaired by the Group Executive: Generation, focused on the review of stations' water management action plans to ensure that the treatment actions are viable, approved and tracked.

Despite the poor water use performance, our total water usage (million cubic metres per annum) has been steadily reducing over the past 10 years and will continue to do so over the next 10 years if one excludes the water use requirements for any FGD retrofits beyond Kusile and Medupi power stations, due to the implementation of efficient boiler technologies, dry cooling technologies, diversification of the energy mix towards renewables and use of alternative water resources such as mine water. This trend will continue with the decommissioning of more coal-fired power stations thus making Eskom less reliant on limited freshwater resources and more resilient to the impacts of droughts.

We monitor and report on our progress and performance to the Department of Human Settlements, Water and Sanitation on the following SDG 6 goals and targets:

SDG 6.3 (Water Quality and Wastewater):

- Water use licences/general authorisations for various sites
- Reuse and recycling of water on site as per Eskom's zero liquid effluent discharge (ZLED) philosophy
- Reuse of mine water at some of the power stations (Lethabo and Tutuka)
- Water monitoring programme (surface and groundwater)

SDG 6.4.1 (Water use efficiency)

- Monitoring of water use efficiency at the power stations and facilities
- Reuse of mine water at some power stations
- Reuse and recycling of water at the power stations
- Water accounting programme at the power stations
- Drought risk management plans

SDG 6.6 (Water-related ecosystem)

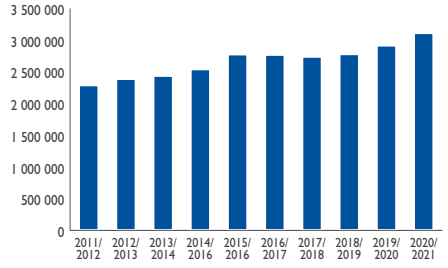
- Environmental and water authorisations
- Biomonitoring programmes
- Alien species eradication plan
- Partnership with NGOs for the management of wetlands and wildlife

Waste management

We support the Government's commitment to waste management in order to protect human health and the environment as defined in the National Environmental Management Act and the national waste management strategy which is a legislative requirement of the National Environmental Management: Waste Act, 2008.

Ash utilisation/beneficiation: There has been an increase in the utilisation of ash produced through the electricity generation process at our coal-fired power stations, predominantly in the brick and block industry.

Total ash utilised during a 10-year period, tons



In March 2020, the Minister of the DFFE approved our application to exclude ash and gypsum at our sites from the definition of waste when extracted for beneficial use. The exclusion by DFFE of ash and gypsum from waste requiring a waste management licence, when extracted for beneficial use at our sites, provides additional opportunities for ash beneficiation – such as the use of ash in bricks, cement, soil amelioration, road construction and mine backfilling.

Our ash is sold from five of our 13 coal-fired power stations. These ash sales are contracted to commercial partners. Over the past 10 years, ash sales by volume have increased steadily. Camden Power Station has had portions of its ash utilised for mine backfilling during this last financial year. A total of 668kt of ash was diverted to a nearby mine as backfill material during the year. Despite zero ash sales due to COVID-19 in April 2020, total ash sold in the 2021 financial year was 3.1 Mt, a 6.7% increase on the 2.9Mt reported during 2020.

Phasing out polychlorinated biphenyls (PCBs):

In terms of the Stockholm Convention, South Africa is required to phase out PCBs contaminated equipment by 2025. The DFFE published regulations in 2014 under section 44 of the National Environmental Management Act, 1998 to phase out the use of PCB materials and contaminated materials (>49ppm) by 2023. In 2015, we submitted our PCB phase-out plan to the DFFE. This plan was independently audited in 2020 and submitted to the DFFE in fulfilment of the requirements of the regulations for the phase-out of PCBs. We currently have less than 50 pieces of PCB contaminated equipment that remain to be phased out by 2023.

Environmental compliance

Regrettably, there were 80 reported environmental contravention incidents[1] that occurred during the financial year (2020: 59). Most of these were water-related incidents and all occurred at power stations. All the incidents were investigated to determine the root causes to ensure corrective and preventative measures were put in place. Eskom Rotek Industries and the Distribution and Transmission divisions did not record any environmental contravention incidents during the past two financial years.

Our focus remains on improving water management practices across the power stations to prevent legal contravention incidents due to non-compliance with the conditions of the water use licences. The Generation Environmental Compliance Steering Committee focuses on emission, water and ash disposal facilities at the power stations. In addition, the Generation Division's maintenance plan, which aims to improve the performance of the plant, will in turn address many of the environmental challenges being experienced with regard to emissions and water.

Environmental management systems

All our operational divisions (Generation, Transmission, Distribution and Group Capital) and our subsidiary (Eskom Rotek Industries) have maintained certification against the ISO 14001 environmental management system standard.

The assessment of our environmental performance using several key performance indicators (KPIs) is an integral part of our environmental management system to drive continual improvement. Our KPIs include air, water, waste and biodiversity management. Red data bird mortalities are monitored, together with proactive and reactive mitigation programmes to prevent mortalities.

1. *2.3.6.2 Environmental legal contravention incident: An incident where a provision of environmental legislation (national, provincial, or local) and/or a condition of an environmental approval (for example, environmental authorisation, water use licence, waste licence, licence in terms of the National Forests Act) or any other legal document issued in terms of environmental legislation is contravened. (An environmental legal contravention incident is considered a breach in terms of compliance reporting.)*

OUR ENVIRONMENTAL PERFORMANCE continued

Biodiversity

We also contribute to improving the natural environment through our responsibility to protect, manage and mitigate the impact of our activities on the biodiversity. This is in support of our objective to minimise the impact of our activities on ecosystems and to enhance ecosystem services through responsible land management practices.

One of our material impacts relates to birds being injured and killed on our power lines. We track, investigate, take action and keep record of all reported incidents, in particular the red data bird mortalities. Regrettably, at the end of the 2021 financial year 359 (2020: 392) such mortalities had taken place. The key initiatives we are undertaking to address this environmental impact include:

- Implementing proactive bird mitigation programmes on high risk powerlines
- Implementing the recommendations that emanated from investigations undertaken on red data bird mortalities
- Research work through our own Research, Testing and Development function in partnership with the Endangered Wildlife Trust

In order to share our best practices, we hosted a World Bank and utilities delegation from West Africa in September 2019. The purpose of the engagement was to assist the World Bank and the utility on the current practices associated with wildlife interaction on electrical infrastructure and the feasibility of implementing mitigation.

Nature reserves: In consultation with both national and provincial authorities, we have formally declared three nature reserves (Ingula Nature Reserve, Majuba Nature Reserve and Koeberg Nature Reserve) through the National Environmental Management: Protected Areas Act, 2003. The declaration of the nature reserves enables us to have the licence to operate our power generation activities within these natural environmental areas where the power stations have been constructed while protecting South Africa's biodiversity and ensuring the long-term security of our country's natural heritage.

In 2019, our Ingula Partnership won the Stewardship category at the South African Wetland Society Awards. This partnership is between Eskom, BirdLife South Africa and Middelpunt Wetland Trust for the work completed in the declaration of the Ingula Nature Reserve and the securing of vital wetland habitats.

In May 2021, the Ingula Nature Reserve was included in the International Ramsar[2] Convention on Wetlands of International Importance, an international treaty for the conservation and sustainable use of wetlands. This international acclaim is the culmination of many years of hard work by the Ingula Partnership to preserve the wetland that hosts Eskom's Ingula Pumped Storage Scheme.

Environmental management approach and governance

Environmental duty of care in terms of air quality, land use, biodiversity, water, waste and ash management ensures our operational sustainability. It is critical to maintaining Eskom's licence to operate, and also underpins our principle of zero harm to the environment while operating under complex and evolving environmental requirements.

Zero Harm is one of Eskom's six values and is defined as "the prevention of harm to people and the environment brought about through visible and felt leadership, including the implementation of effective controls and practices".

Our environmental management is undertaken in pursuit of our value of Zero Harm, which is underpinned by the framework of our environmental compliance with South African legislation and what our stakeholders expect of us. Our environmental management is therefore based on our management systems and understanding the impact of our activities on the environment, what our stakeholders' expectations are, setting environmental objectives and KPIs, putting in place the controls to monitor and report on performance and to respond to risks, incidents and shortcomings in our performance.

Our environmental practices are supported by a team of environmental professionals, an environmental strategy, policies, procedures, standards and improvement plans.

Our green economy contribution

We are a critical and strategic contributor to ensuring the security of electricity supply in the country. We are also seen as underpinning economic growth and development in order to support the transition to the green economy. In line with relevant legislation, such as the National Development Plan 2030 and the Green Economy Accord of 2011, we have to drive green economy development through our business activities. We define "green economy" as reducing the environmental footprint by pursuing and investing in low-carbon technical growth opportunities; social inclusivity; growing the economy through the supply of electricity which is in line with the South African Government; and international institutions' plans and programmes to promote sustainable living.

The Green Economy Accord was signed between Government and its social partners in November 2011 as an outcome of a social dialogue on the New Growth Path. The Accord consists of the following 12 commitments:

- Commitment 1: Rollout of solar water heaters
- Commitment 2: Investment in the green economy
- Commitment 3: Rollout of renewable energy
- Commitment 4: Energy efficiency
- Commitment 5: Waste recycling, reuse and recovery
- Commitment 6: Biofuels
- Commitment 7: Clean coal initiatives
- Commitment 8: Retrofitting
- Commitment 9: Reducing carbon emission on our roads
- Commitment 10: Electrification of poor communities and reduction of fossil-fuel, open-fire cooking and heating
- Commitment 11: Economic development in the green economy and promotion of localisation, youth employment, cooperatives and skills development
- Commitment 12: Cooperation around the United Nations' COP17 and its follow-up

We report to the Department of Economic Development by giving feedback on these four requested commitments: Clean Coal initiatives (7); Retrofitting (8); Economic development in the green economy (11); and Cooperation around the United Nations' COP17 and others to form a basis for the report to the Minister of Trade, Industry and Competition and also to the Department of Public Enterprises. This reporting is done every year with the exception of last year when reporting was not done due to the COVID-19 pandemic.

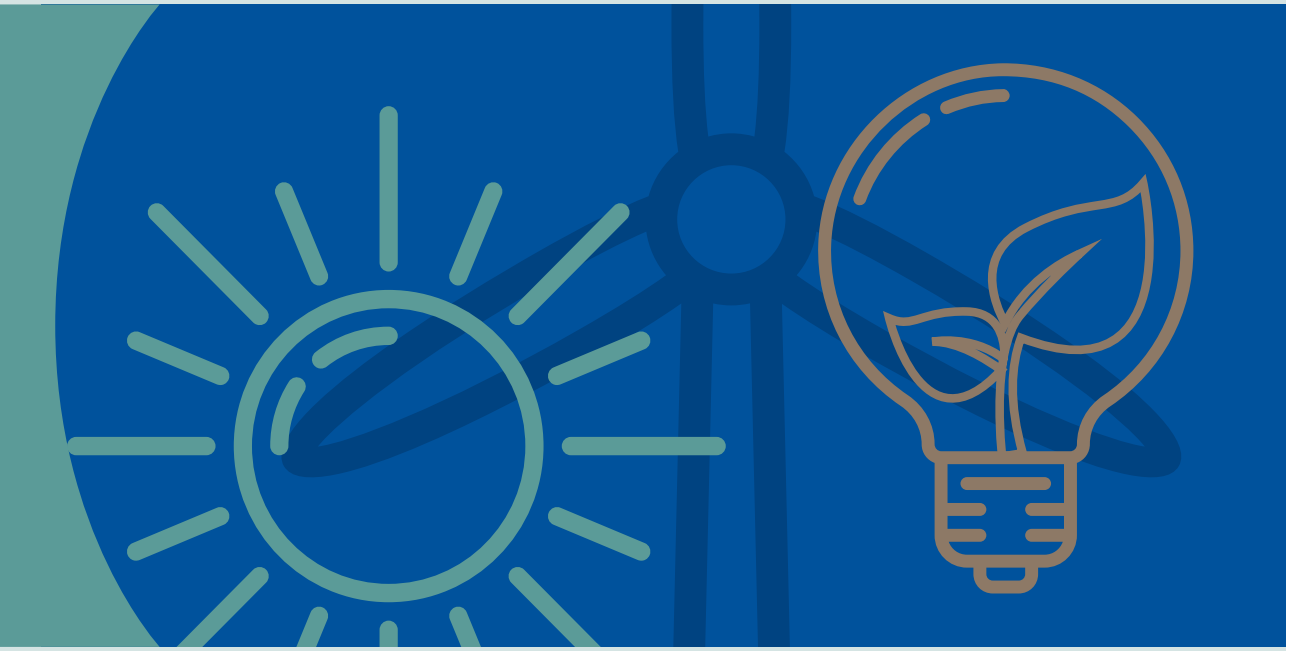
Our Green economy contribution linked to the NDP and SDGs

OUR ENVIRONMENTAL PERFORMANCE continued

Commitments	Eskom projects/activities	NDP	SDGs
Commitment 7 Clean coal initiatives	• Torrefied biomass co-firing as a renewable alternative to coal-firing power stations • Carbon capture and storage to reduce carbon emissions • Medupi and Kusile	Investment in green technologies and agricultural technologies; adaptation strategies; growth in renewable energies; reduction of carbon emissions; creation of awareness. South Africa will also explore other opportunities to diversify its energy mix away from fossil fuels through, for example, partnering with neighbouring countries to develop hydropower resources, initially in Mozambique and Zambia and eventually in the Democratic Republic of Congo.	
Commitment 8 Retrofitting for improved energy efficiency	• Koeberg Power Station steam turbines • EtaPRO software tool commissioned to measure station thermal efficiency in real time. Status remains unchanged • Remote Monitoring and Diagnostic Centre (RMDC). Status remains unchanged • In-house plant performance-testing capability established at Eskom's Research, Testing and Development in Rosherville. Status remains unchanged • Plant automation software position paper completed by Eskom's Group Technology. Status remains unchanged • Fuel oil consumption reduction • Online coal analysers at Eskom coal-fired power stations. Status remains unchanged • Eskom Power Plant Engineering Institute (EPPEI) research strategic plan • Inter-university programme • Emissions reduction programme • Offset programmes	Investment in green technologies and agricultural technologies; adaptation strategies; growth in renewable energies; reduction of carbon emissions; and creation of awareness.	
Commitment 11 Economic development in the green economy; promoting localisation, youth employment, cooperatives and skills development	• Local content contracted (procurement spend (B-BBEE)) • Eskom Contractor Academy • Eskom skills development initiatives • Eskom Business Investment Competition • Small Business Expo • Integrated Demand Management energy services company development	Improving education, training and innovation; leveraging the local procurement accord to promote stronger buyer-supplier relations and deeper localisation; involved in public-private partnerships and support from Government. Developing partnerships to play a strong role in national and regional initiatives. Creating employment.	

Commitments	Eskom projects/activities	NDP	SDGs
Eskom's contribution to other commitments of the Green Economy Accord	• Waste management: Coal ash [Commitment 5]	Developing partnerships to play a strong role in national and regional initiatives	
	• Masibambisane: Working together for cleaner air [Commitment 10]	Developing partnerships to play a strong role in national and regional initiatives	
	• Mainstreaming biodiversity	Conservation and restoration of protected areas and management of biodiversity.	

CLIMATE CHANGE



There is a compelling case for us to transition from a coal based to a lower carbon and more climate-resilient company. Our country, and by extension our organisation, is extremely vulnerable to the adverse impacts of climate change. In addition, we have a significant environmental footprint due to our high reliance on coal, and there is mounting pressure against coal use, with little or no financing available for electricity from coal.

As we embark on this transition, we continue to implement an array of mitigation and adaptation measures:

- Mitigation refers to our activities to reduce greenhouse gases (GHGs); these include the use of lower carbon-emitting technologies (e.g. renewables and nuclear) and the promotion of energy-efficient technologies and activities.
- Adaptation to climate change is a response that seeks to reduce the vulnerability of systems to the effects or the impacts of short to long-term climate changes. The response includes adapting to the changes in weather, climate variability and long-term changes in the climate baseline, thus allowing systems to build their adaptive capacity and long-term resilience; for example, agricultural systems through the introduction of drought-resilient seeds and energy systems through investments in drought- or flood-resilient technologies.

Our mitigation measures

The production of electricity from our coal-fired power stations results in approximately one tonne CO_2 for every MWh produced. There is currently no commercially feasible end of pipe technology to reduce carbon dioxide from the large coal-fired power stations. The reduction of carbon dioxide emissions in South Africa's electricity sector is therefore projected to come from the gradual de-loading and closure of existing coal-fired power stations as they reach the end of their operational lives. We anticipate the replacement of our coal fleet with lower carbon electricity generation facilities such as wind and solar plant in combination with gas and battery storage. This change in the generation mix is detailed in the DMRE's Integrated Resource Plan, the most recent publication being gazetted in 2019. As the energy mix transitions, we are undertaking a number of activities to support this process:

- Investigating the opportunity to repurpose coal-fired electricity generation facilities for lower carbon electricity production, grid support and/or community development
- Investigating new opportunities for demand side management, combined with ongoing operation of existing measures
- As the counterparty to RE-IPP Programme
- Construction and operation of our own renewable energy sources
- Technology demonstration projects in off-grid and battery storage systems
- Ongoing research into new renewable energy, storage and grid stabilisation technologies, as well as technologies that improve the environmental performance of coal-fired electricity generation, including future opportunities for biomass co-firing and carbon capture, utilisation and storage
- Expanding the transmission grid to connect utility-scale renewable energy projects from around the country
- Expansion of the distribution grid to accommodate the connection of mini-grid systems
- Ongoing promotion and deployment of smart metering systems
- Studies to enable the deployment of gas and/or hydrogen infrastructure to support the electricity grid as the supply mix transitions
- Promotion of market models that accommodate demand side management, self-generation and independent power producers
- Engaging with NERSA on tariff structures that send accurate price signals to all market participants to drive the optimal mix and use of electricity

Our implementation of carbon-based markets 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 Verra, Joint Implementation and several others. We currently have 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. Our Sere wind energy facility in the Western Cape is also registered as a CDM project.

The CFL projects, which were not eligible for CDM, were registered as one large-scale project under the Gold Standard Foundation. This project primarily comprises installed light bulbs that were rolled out prior to the CFL national rollout programme. We continue to explore opportunities of registering more eligible projects under the CDM. It must also be noted that the Second Commitment Period of Kyoto Protocol has now come into force. However, the Paris Agreement has proposed new market mechanisms, which are still under multilateral negotiations in the annual Conference of Parties.

CLIMATE CHANGE continued

The CDM is a carbon-offsetting mechanism that is well established at national and international levels. The CDM has two objectives; firstly, to assist the developing countries (known as non-Annex I) to meet their sustainable development agenda; and secondly, to assist developed countries (Annex I) to achieve their Kyoto Protocol emissions targets by taking a less costly approach by developing projects in the developing world. The CDM is governed by internationally agreed rules and procedures under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC). There is an independent governance body established under Kyoto Protocol, known as the CDM Executive Board which oversees the administration and implementation of the CDM. As the CDM winds down and the new mechanisms under the Paris Agreement come into operation, we will assess the applicability of these for our carbon-reducing projects,

Engagements, compliance and disclosures

Prior to the currently developing legislation, Eskom had implemented and maintained a proud history of measuring, reporting and verifying GHGs; we also actively participate in the studies that have established the basis for South Africa's climate change response, including among others the introduction of GHG emissions limit in the Integrated Resource Planning Process in 2010.

As the domestic regulatory regime unfolds, there are three pieces of legislation that GHG-emitting companies need to comply with: the mandatory GHG Reporting Regulations 2017 promulgated under the National Environmental Management: Air Quality Act, 2004; the National Pollution Prevention Plans Regulations 2017; and the Carbon Tax Act 2019. Internal processes have been implemented to ensure that timeous and accurate submissions are prepared. To date, all submissions have been deemed compliant.

We also look forward to the upcoming Climate Change Bill that will consolidate South Africa's climate change response.

Annual internal carbon dioxide reviews

We conduct annual carbon dioxide reviews (ACRs) within the power stations in our Generation business. The purpose of these ACRs is to improve the data integrity within Eskom's power generation fleet, which is used as inputs to calculate our annual emissions. These reviews prepare our power stations for external audits, especially on the CO_2 KPI. The externally audited emissions figures are reported in Eskom's integrated report and are also used for the annual reporting to the Department of Forestry, Fisheries and the Environment (DFFE). This ACR involves assessing the processes, systems and documentation (i.e. work instructions, policies and procedures) put in place and the ISO self-assessment compliance to ensure value chain of data flow has high integrity to yield calculations of higher accuracy.

Disclosures: Carbon Disclosure Project

Our annual Carbon Disclosure Project

Since 2009, we have voluntarily disclosed our climate change performance on the global platform called the Carbon Disclosure Project (CDP). Since 2000, the CDP, on behalf of institutional investors and stakeholders, has challenged the world's largest corporate companies to measure and disclose their carbon emissions. This is done to encourage them to integrate climate change considerations into their business strategies. The CDP also motivates corporate entities to disclose their climate change opportunities and risks. It further fosters these entities to demonstrate their tangible efforts in reducing GHG emissions, climate risks and vulnerabilities.

We are not a listed company and were not required to report to the CDP during the early 2000s. However, we willingly participated in the form of a case study submission at that time. In 2012, the CDP rules were amended allowing for the full disclosure of non-listed companies. Therefore, we decided to voluntarily submit our full climate change disclosure, which was highly welcomed by international stakeholders and investors. As the biggest state-owned electricity utility in Africa, we play an important role in stimulating South Africa's economy. We were unable to participate in 2020 due to the delayed release of our 2020 integrated report. However, we will continue to participate in the annual CDP reporting in 2021.

Disclosures: Carbon footprint and TCFD

Our carbon footprint

We conducted a carbon footprint study to calculate our annual carbon footprint for the 2020 calendar year. A carbon footprint estimates the total (i.e. including scope 2 and 3) GHG emissions generated by an organisation, expressed in tons of carbon dioxide equivalent (tCO_2e). This provides insights into the sources and magnitude of our GHG emissions and allows us to improve the management of our GHG emissions.

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, these results are not directly comparable.

The results of the 2020 carbon footprint study, compared to the 2019 results, are presented in the table below:

Eskom's GHG emissions

GHG emissions by source, tCO_2e	2020	2019
Scope 1		
Stationary combustion	201 260 329	212 192 077
Eskom motor vehicle fleet	37 810	81 797
Fugitive emissions	73 904	36 212
Waste disposal	3 820	3 468
Non-combustion product use	12	9
Scope 2		
Electricity and heat purchased[1]	n/a	n/a
Scope 3		
Coal delivery to site	238 338	269 963
Use of employee vehicles	6 669	12 627
Air travel	1 008	3 368
Vehicle rental	2 225	1 903
Total[2]	201 624 115	212 601 425

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. Due to different scopes and input assumptions, the results are not directly comparable with our CO_2 emissions reported in the table on page 130 in the integrated report.

The total GHG emissions for 2020 were 201 624 115tCO_2e – this is favourable compared to the 2019 GHG emissions of 212 601 425tCO_2e. This indicates a decrease in Eskom's overall carbon footprint as a result of decreased electricity demand (and therefore production) attributable to the various lockdown measures implemented in response to the COVID-19 pandemic. 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 to over 99.8% of our GHG emissions.

The second significant source of GHG emissions was coal delivery to site (238 338tCO_2e). These emissions mainly relate to the transportation of coal to power stations by third-party trucks. However, this was still less than the reported "delivery to site" GHG emissions in 2019.

The third highest source of GHG emissions was fugitive emissions (73 904tCO_2e). This relates to the incidental release or leak of sulfur hexafluoride (SF_6) gas due to the failure or malfunctioning of Gas Insulated Switchgear (GIS), circuit breakers and current transformers. Both the Transmission and Distribution operations were considered, hence the significant increase in SF_6 emissions compared to 2019.

There was a considerable reduction in GHG emissions associated with all travel. The Eskom fleet emissions, official mileage and air travel emissions reduced significantly as a result of the COVID-19 pandemic's national travel restrictions. (See the full 2020 Carbon Footprint Study on our website.)

CLIMATE CHANGE continued

Climate-related targets
Eskom's climate change policy is intended to support South Africa to meet its nationally determined contribution for the country's GHG emissions at "Peak" level (between 398 and 614Mtpa by 2025), "Plateau" level (for up to a decade) and "Decline" (in absolute terms thereafter). The DFFE has proposed an enhanced ambition to the current targets and Eskom will review its climate change strategy accordingly.

Eskom previously participated in the DFFE voluntary carbon budget process (2016-2020) and will continue to do so until the expected mandatory company-level carbon budgets are implemented under the proposed Climate Change Bill. We also submitted our progress report in 2020 for the previous Pollution Prevention Plan and a subsequent Pollution Prevention Plan for the 2021-2026 period.

The JET strategy aims to set targets for three different time horizons – 2030, 2040 and 2050. The aspirational goals will be further refined by the ongoing systems modelling work that will be an aid in defining future electricity net zero pathways and appropriate electricity mix.

Carbon tax
Eskom is not expected to have a carbon tax liability until January 2023 due to the rebates allowed in the Carbon Tax Act. After that, the carbon tax liability is expected to be more than R11 billion per year, which would add 4% to 5% to the required tariff increases.

Implementation of the TCFD recommendations

In 2020, we disclosed climate-related information aligned to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). This year Eskom aims to disclose further relevant climate-related information to build an improved understanding of our climate-related risks, opportunities and the associated financial impacts.

Governance

Board and Executive oversight of climate change
The Eskom Board is responsible for examining and approving the integrated report, corporate plan, corporate strategy and the annual financial statements. The strategy incorporate the objective to strive for net zero emissions by 2050, with an increase in sustainable jobs.

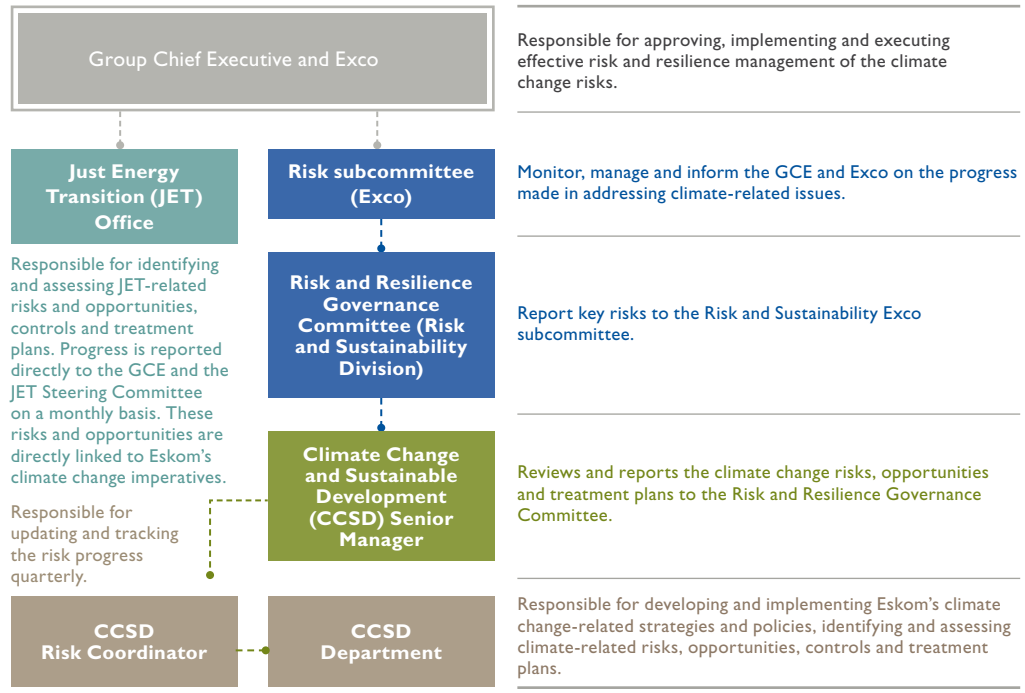
The Board is supported by two board-level committees which govern all climate-related issues:

- The Board Social, Ethics and Sustainability Committee (SES) is responsible for providing oversight of social and economic development; good corporate citizenship; environmental, climate change, health and safety programmes; and the sustainability audit. The committee reviews key sustainability strategies for the organisation and debates how best to integrate sustainable development into the corporate strategy. The SES comprises three independent non-executive directors. In 2020, the SES held four meetings and the committee considered and/or recommended two issues connected to climate change and the environment for approval or noting by the Board. An example of two climate-related issues shared with this committee in 2020 and 2021 include the TCFD recommendations and the sustainability report.
- The Board Audit and Risk Committee (ARC) is responsible for setting the direction for risk management and internal controls; governance of technology and information; compliance; and combined assurance. The committee is comprises three independent non-executive directors. An example of this committee's key responsibilities is the examination of the information to be disclosed in the integrated report. In 2019, the climate change priority I risk was shared with this committee.

The Board subcommittees are regularly informed of climate-related risks and opportunities. These issues are discussed at scheduled annual Board subcommittee meetings, following the approved governance processes. The proceedings of each meeting are governed by an agenda plan that is monitored and updated as it progresses from one meeting to the next meeting. Priority I climate-related risks are monitored and tracked at Exco and Board levels.

Management's role and responsibilities
The Group Chief Executive (GCE) is the highest management level position responsible for relaying the main climate change decisions and guidelines set by the Board to the rest of the organisation. The GCE and the Chief Financial Officer serve as the interface between the Board and executive management.

The process by which management (through specific positions and/or management committees) is informed of climate-related issues is noted below.



Strategy

Eskom climate-related risks and opportunities
Climate-related risks and opportunities with high levels of uncertainty regarding their nature, timing, development and/or deployment were identified for the different time horizons. Three key climate-related risks and four opportunities have been identified. These risks have ultimate relevance and the highest likelihood of impacting our business, strategy and financial planning. These climate-related risks and opportunities are paramount for our sustainability and are considered at both Exco and Board levels.

We have defined the risks that are short term (1 to 3 years from 2021 to 2023 – aligned to the Corporate Plan FY22-24); medium term (3 to 7 years from 2023 to 2030); and long term (7 to 30 years from 2030 to 2050 – aligned to the Eskom JET strategy). In future we will prioritise climate-related risks that may have a substantive financial impact on the company's earnings (EBITDA) and define quantifiable indicators. At present, only high-level financial risks and opportunities have been identified and described.

Climate-related risks and opportunities

RISKS
All time horizons
Potential damage to Eskom's assets and operations due to extreme weather events

Medium term (3–7 years)
Failure to transition and implement low-carbon initiatives, including associated socio-economic initiatives
Potential loss of Eskom's social licence to operate

OPPORTUNITIES
Short term (1–3 years)
Pursuit of public-private partnerships
Large-scale rollout of cleaner and greener energy, such as solar PV, battery storage and microgrids

Medium term (3–7 years)
Repowering and repurposing existing coal sites
Re-energise the manufacturing sector

CLIMATE CHANGE continued

Climate-related scenarios
In the 2019 integrated report two scenarios were considered:

- The soft decarbonisation scenario was built on domestic policy considerations such as South Africa's nationally determined contribution (NDC) under the Paris Agreement and the DMRE's 2019 Integrated Resource Plan (IRP).
- The ambitious decarbonisation scenario requires more ambitious action beyond what has been specified in the DMRE's 2019 IRP and is envisaged to 2050.

These scenarios were considered in order to understand how climate-related risks and opportunities may impact Eskom over time and to test our strategy resilience to different futures. There are numerous other studies looking at aggressive decarbonisation (e.g. the Council for Scientific and Industrial Research (CSIR) and the University of Cape Town), and the Department of Forestry, Fisheries and the Environment is also proposing an enhanced nationally determined contribution.

Furthermore, our system modelling team has been developing Eskom-specific scenarios, which are currently under discussion.

Risk management

Identification and assessment of risks
The Enterprise Risk and Resilience Department have established risk structures within each division, consisting of risk owners, risk coordinators, and risk and resilience practitioners. The risk owners are accountable for the identification, assessment and management of risk, which is integrated in the management processes and is evident in decision-making processes and outcomes. Risks are classified from priority I to priority IV.

Risk management at Eskom
We apply an integrated approach to managing risks according to the Integrated Risk Management (IRM) Framework and Standard. Climate-related risks are managed by the CCSD Department, line operations (Generation, Transmission and Distribution) and the JET office, respectively.

Integration into Eskom's overall risk management
Our enterprise risk and resilience policy, risk and resilience management plan and risk appetite and tolerance framework comprise the key governing documents approved by the Eskom Board. This risk management is aligned to the recommendations on good governance contained in King IV™, which introduced the oversight of resilience (business continuity) as a board-level priority. All priority I and emerging risks are reported to Exco and the Board, which provide oversight as recommended by King IV™.

Metrics and targets

Metrics
Our performance metrics include GHG emissions data and compliance.

GHG emissions
We submit an annual GHG report to the DFFE according to their Technical Guidelines (for Scope 1 emissions).

These are based on the 2006 Intergovernmental Panel on Climate Change (IPCC) GHG Guidelines and 2019 Refinement.

Our climate adaptation measures

Adaptation to climate change focuses on the anticipated climate change and seasonal forecast impacts on our infrastructure, assets, systems and people. It should be noted that climate change remains a priority 1 risk for us and initiatives undertaken as part of adaptation to climate change are aimed at managing this risk.

Climate change science, extreme weather patterns, seasonal forecasts and shifts are integral to enabling adaptation to climate change. As such, to develop climate change science and seasonal forecasts data, we have been collaborating with the CSIR for a number of years on the projection of future climate change in South Africa, in the context of plausible impacts of climate change on our business and the country as a whole. We have been storing and generating information from the CSIR's projected climate and lately seasonal data. All generated information from these maps is presented in GIS format for our integration and suitable spatial analysis use.

The research on climate change science is the latest science and the first time that such a high level of detail has been produced for South Africa. On a global scale, this research has placed South Africa at the forefront on climate change modelling for the African region. Through this research, Eskom and the CSIR have been able to contribute projections of future climate change over Africa to the Co-ordinated Regional Downscaling Experiment (CORDEX) of the World Climate Research Programme (WCRP). These projections are therefore not only informing strategies for climate change adaptation in our company and for South Africa, but also for the entire African continent. This set of high-resolution projections (at both 50km and 8km resolution) of climate change on South Africa detail the future occurrences of extreme events under the enhanced greenhouse effect (i.e. climate change). This data set is also of value in performing an in-depth analysis of the plausible impacts of extreme weather events on our operations and infrastructure, for near future periods (2021-2050) through to the end of the 21st century. The CSIR and our teams are also focusing on the following:

- The development of a seamless forecasting system to monitor climate conditions that may lead to high energy demand in South Africa; affect the output of power generation in South Africa; pose operational stakes to our infrastructure and assets, frequency and intensity including seasonal shifts that may pose operational stakes and changes in our resilience response systems and infrastructure damages, including importing and exporting infrastructure to neighbouring countries.
- Provision of a monthly narrative on anticipated weather risks for our infrastructure and assets projected on a six-monthly basis.
- Undertaking case-studies (inter-basin water transfers and energy demand, efficiency and supply for Eskom) on selected sites to assess vulnerability to climate change and climate variability.
- Provision of unrestricted access to a range of relevant high-resolution raw or derived model data within the bounds of what the model can produce.
- Promotion of a collaborative partnership in research, training and exchange of experience between CSIR and Eskom researchers within the framework of the Memorandum of Understanding.

Lastly, our key businesses, namely Nuclear Business, Rotek, Transmission and Generation are in the process of developing or implementing their adaptation plans or merely integrating climate information utilising the abovementioned customised risk maps. Each divisional plan provides activities preparing for and responding to the current impacts of weather variability, both forecasted climate variability and long-term climate change impacts. Each plan's objective is to provide current weather impact risks, management plans in place, forecasted climate change variables, the impacts and proposed adaptation plans. As part of Eskom's Adaptation Strategy, our procedure for adaptation to climate change planning provides a step-by-step guide on how to manage the adverse impacts of weather changes, seasonal shifts, extreme weather events, disasters and long-term climate change on our infrastructure and systems.

Climate change management approach

Through our extensive enterprise risk management process, climate change is identified as a priority 1 risk that has the potential to prevent the achievement of our organisational objectives. Quarterly reviews are undertaken to assess the effectiveness of the risk treatment tasks, which include initiatives such as the development of our JET strategy and the climate measures mentioned above. See the Task Force on Climate-related Financial Disclosures section of this report for details on the governance measures on climate change.

Based on the environmental and climate change performance we impact the following SDGs:

Material topic	NDP contribution	Associated SDG where applicable	Positive (+) or Negative (–) impact	Summary of impact/ contribution to NDP and SDGs
Climate change	**Chapter 5:** Environmental sustainability and transition to a low carbon economy	7 AFFORDABLE AND CLEAN ENERGY; 13 CLIMATE ACTION	–	Dealt with through Eskom climate change strategy and draft JET strategy
Particulate and gaseous emissions	**Chapter 5:** Environmental sustainability	3 GOOD HEALTH AND WELL-BEING; 7 AFFORDABLE AND CLEAN ENERGY; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	–	Dealt with through an emissions improvement plan and offset project
Water use	**Chapter 5:** Environmental sustainability	6 CLEAN WATER AND SANITATION; 11 SUSTAINABLE CITIES AND COMMUNITIES; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 17 PARTNERSHIPS FOR THE GOALS	–	Dealt with through a water implementation plan to address our negative impact as a net user and our impact on water quality
Waste production	**Chapter 5:** Environmental sustainability	8 DECENT WORK AND ECONOMIC GROWTH; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 17 PARTNERSHIPS FOR THE GOALS	+	Ash beneficiation
			–	Our need to dispose of waste
Environmental incident and compliance	**Chapter 5:** Environmental sustainability	6 CLEAN WATER AND SANITATION; 11 SUSTAINABLE CITIES AND COMMUNITIES; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 15 LIFE ON LAND	–	Dealt with through a Generation Environmental Compliance Steering Committee to address the environmental legal contravention incidents at power stations
Biodiversity and land use	**Chapter 5:** Environmental sustainability	1 NO POVERTY; 2 ZERO HUNGER; 3 GOOD HEALTH AND WELL-BEING; 6 CLEAN WATER AND SANITATION; 8 DECENT WORK AND ECONOMIC GROWTH; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 13 CLIMATE ACTION; 15 LIFE ON LAND; 17 PARTNERSHIPS FOR THE GOALS	–	The impact between wildlife and our infrastructure
			+	Management of nature reserves

OUR SOCIAL PERFORMANCE

We intend to remain a key player in the electricity sector and a vital contributor to economic growth, job creation, socio-economic development, and the creation of a stable, equitable and cohesive South Africa. We contribute to the national long-term development vision – the NDP. We are mandated by our shareholder as an SOC to play a developmental role, promoting transformation, economic development and broad-based black economic development. We also understand that this mandate enables our social licence to operate.

Based on the outcomes of the Eskom Factor 2.0 report, our social impact is positive due to:

- Our contribution to national transformation imperatives such as employment equity and local suppliers
- Our impact on local communities through various investments and by reducing externalities (externality is a positive or negative outcome of a given economic activity that affects a third party that is not directly related to that activity)
- Our development of internal and external know-how

Contributing to national transformation imperatives

We continue to make significant contributions to national transformation imperatives, although there are areas for improvement. In terms of aspects on socio-economic development, our positive contributions related to employment, employment equity, training and skills development, investment in local communities, supplier development and localisation, and being a good employer.

Our B-BBEE Recognition Level is 10%, resulting in the B-BBEE Level 8 status. The new certificate is valid from 22 October 2020 to 21 October 2021. The process is underway to appoint an advisory consultant to assist us in improving our B-BBEE status level.

Summary

Spend 2021 highlights

• Socio-economic development	R9 billion
• Skills development	R0.82 billion
• Salaries and benefits	R32.9 billion
• Placed 1 299 procurement contracts worth	R102.5 billion
• Procurement spend to B-BBEE compliant suppliers amounted to	R100.4 billion
• Local content contracted amounted to	R67.7 billion
• Number of employees	42 749
• COVID-responsive online employee assistance programmes (psychosocial services, awareness and education programmes and sports, recreation and culture (SRC) activities)	29 292

Employees

Employment	• We contribute to job creation and reduce unemployment – our group headcount (including fixed-term contractors) was 42 749 at 31 March 2021 (2020: 44 772).
Salaries	• Eskom's salaries are competitive. • Invested in our employee value proposition to promote retention of workers.
Skills development Quality education	• Invested R0.82 billion in skills development (2020: 1.1 billion). • CSI initiatives on education through the Eskom Foundation, Generation and Transmission operational divisions and Group Capital Division (GCD).
Gender equality	• We are committed to achieving gender representation and inclusivity across the business at senior and middle management levels. • The Eskom Women Advancement Programme has developed Women Mentoring Circles and furthered Women in Operations programmes.
Reduce inequality	• The Employee Relations Department ensures sound relations in the workplace by facilitating discussions between our leadership, our employees and organised labour. • Our relationship with organised labour is well regulated, with agreements and formalised processes in place. • Our leaders are integral to supporting meaningful engagement through the Eskom employee engagement programme
CSI and SED	• Total CSI investment of R67.4 million benefitting 802 635 people (2020: R123.8 million benefitting 1 479 395 people). • Provided basic services to communities near some of our power stations. • Socio-economic development (SED) spend was R9 billion (2020: R5.5 billion).

Our people

We are one of the largest employers in the country.

We employed

42 749

people at 31 March 2021 (2020: 44 772).

The slight decrease is due to natural attrition and voluntary severance packages.

The employee benefit cost has remained stable at

R32.9 billion

(2020: R33.2 billion).

Skills development

We are an active participant and major partner in skills development. We have been at the forefront of skills development since the advent of democracy to satisfy the needs for the national future pipeline. Our programmes increase access to high quality and relevant education, training and development opportunities in the form of technical and non-technical bursaries, apprenticeships, learnerships and workplace integration learning (WIL) to enable effective participation in the economy by all South Africans and to reduce inequalities.

We have become a host employer to provide WIL to learner artisans, technicians and engineers, benefiting young people across all demographics, with a particular focus on the previously disadvantaged sectors of our society. In partnership with the Energy & Water Sector Education and Training Authority (EWSETA) we have implemented a successful artisan programme which has changed the lives of many young people. We invest extensively in developing our employees through various skills programmes comprising short programmes, Eskom Academy of Learning (EAL) programmes, conferences and further studies for employee development.

We support a healthy and leaner pipeline of technical disciplines. Eskom invested R0.82 billion in training and skills development (2020: R1.1 billion), constituting 2.58% of gross employee benefit cost. The slight reduction is due to COVID restrictions. In total, 1 465 learners (2020: 1 517) were in our pipeline, comprising 1 440 in technical disciplines (of whom 59% are artisans) and 25 in non-technical disciplines.

Being a good employer

Over the years we have made a strong contribution to employment equity in South Africa from both an overall employment perspective as well as representation at various management levels. We promote inclusivity and diversity in terms of race, gender, culture and disability through our employment equity plan, supporting the NDP goal of transforming society and uniting the country. We have tailor-made programmes focused on improving our diversity status; one on these interventions is the Eskom Women Advancement Programme, which promotes the participation of women in technical and management positions.

In January 2021, we became one of 83 signatories to the United Nations Women Empowerment Principles in South Africa, amongst the 3 300 in the world. We are also one of the top 2% of organisations in the world to achieve a Leader in Gender Equality result based on the UN Women SA assessment.

Racial equity at senior management and at middle management/professionally qualified levels has shown significant improvement over the past year, while also achieving the target set by the shareholder. Gender equity at senior management and at middle management/ professionally qualified levels has shown some improvement since the prior year, although targets have not been achieved. It can be assumed that this is solely based on roles being more technical at this level.

At year end, 85% of all Eskom employees were black, 33% female and 30% black females. In total, 2.93% were employees with disabilities, which is above the Eskom target of 3.30% and the market average of less than 1%. There has been a decline in persons with disabilities from 3.01% to 2.93% due to retirements during the stipulated period. Our Employment Equity Plan is a commitment to develop and grow persons with disabilities with a purpose to drive equitable representation of persons with disabilities across all occupations.

Organisational effectiveness

Our organisational effectiveness (OE) strategic framework focuses on three multi-dimensional and integrated areas to drive a desired culture of performance, enable a productive workforce and contribute to the upliftment of the HR function, all directly aligned to and in support of the HR strategic objectives. Employee Value Proposition, Employee Engagement, and Organisational Culture and Change Management are the three core areas of Organisational Effectiveness which directly and indirectly contribute to employee recruitment and retention in Eskom.

Employee value proposition

Eskom is well positioned to attract talent in the engineering field, where it rates as a top employer for both students and professionals. The EVP programme consists of five key enablers that will drive value for employees across the business, and contribute to employee engagement and the building of a high-performance culture based on the dimensions of "work, rewards, organisational, opportunity and people". Eskom's EVP is exclusive, relevant and compelling. It is critical in understanding what talent wants and desires in the organisation to develop and embed an appropriate, need-meeting EVP.

Work environment

- An exciting innovative work environment offering national opportunities and exposure to the full value chain of electricity generation
- Biggest build projects in the world that have celebrated many achievements
- Our African footprint is expanding and employees have an opportunity to partner with the member states in the Southern African Development Community (SADC), ensuring that demand is met within the country as well as across the border

Opportunities

- Cross-functional career opportunities using processes such as "Secondment" as well as prospects of working on high profile projects
- Development through further studies process as well as available international programmes.
- Access to the latest trends in the energy sector especially renewable energy
- Opportunities to network and establish relationships with subject matter experts in the field

Reward and benefits

- Competitive compensation
- Above average suite of benefits (i.e. health benefits, retirement benefits, death benefits and leave benefits)
- Attitude of Gratitude Initiative unpacks and promotes benefits across the organisation
- The Eskom Nkanyezi Programme is designed to provide Eskom Guardians (employees) with discounts on products and services from our external partners

Organisational

- Promoting diversity, gender-focus and embraces transformation on all fronts.
- A strong environmental as well as a social focus, by supporting community initiatives.
- The Eskom Business Appreciation and Induction (BAI) Programme ensures that employees remain connected to the business

People

Benefits available to employees such as having:

- Opportunities to work in diverse teams, eligibility for flexi hours and working from home
- A suite of programmes designed to promote engagement, development, agility, resilience and provide Guardians with psycho-social support
- Eskom's mentorship programme, the management development programme, employee engagement programme, the Eskom change management programme, health and wellness programme, COVID-19 change management and engagement plan as well as the Eskom EVP lockdown programme
- Culture of high performance and recognition

We conduct an annual Eskom Human Capital OE Survey where line divisions define their optimal "future fit" to improve productivity, and drive business efficiencies. The Survey achieved a 12.6% response rate which was a significant increase from the previous year (2020: 7.1%). The Eskom Employee Engagement Survey had an overall index score of 3.62 (2020: 3.48) indicating an improved participation rate. The Eskom Culture baseline/index which assessed employees' views across the 10 culture dimensions for the Eskom "to be" score was 3.53 (2020: 3.4) indicating the improved understanding of the culture to support transformation the organisation is undergoing.

Employee engagement

Employee engagement initiatives are in place to create a harmonious workplace, increase employee engagement levels and to help employees feel a sense of connection and alignment to the business and one another, thereby rebuilding employee morale and creating a common vision as enablers towards driving a high-performance culture. Given the COVID-19 pandemic, associated initiatives had to be adapted to accommodate the "new normal", by leveraging digital and virtual technology.

OUR SOCIAL PERFORMANCE continued

Health and wellness

The health and wellness of our people is important to us. We seek to improve work attendance and productivity as well as the health and wellbeing of every employee, through the prevention of occupational diseases and injuries, early detection of occupational and lifestyle diseases (such as hypertension, diabetes and HIV), medical surveillance and fitness-for-duty assessments, as well as other wellness programmes. We also run an employee assistance programme (EAP) of psychosocial services including counselling, financial wellness and trauma assistance. The sports, recreation and cultural (SRC) activities is a programme that is available to employees across the business and it promotes team cohesion and is used as an EVP. SRC teams also compete with neighbouring companies thus promoting partnerships.

The COVID-19 pandemic has impacted our normal method of service delivery, and therefore our wellness services have been conducted virtually rather than face to face, protecting our wellness resources and our employees. The online programmes included psychosocial services, awareness and education programmes and SRC activities. A total of 26 938 employees were reached by internal EAP advisors and 2 354 by external service providers.

We launched an internal digital publication, The Guardian, which features key strategic business updates and inspiring stories from across the business; celebrates and recognises employees who have achieved excellence; and promotes leadership visibility. Furthermore, the Advice for André engagement platform and mobile application was designed and developed in-house. The response has been overwhelmingly positive, with employees engaging with the GCE and sharing their innovative ideas on how to improve Eskom. The Eskom EVP National Lockdown Programme was launched at the start of the COVID-19 pandemic. It provides employees with access to useful psychosocial resources, tips and activities to benefit the employees and their families during the national lockdown.

Organisational culture

Eskom has embarked on one of its most ambitious and possibly most challenging transformation journeys. Appropriate and effective culture transformation and change management strategies are critical in supporting DPE's Roadmap and our turnaround plan. The Eskom change management strategy and customised initiatives have been implemented across all key Eskom-wide strategic projects. The Organisational Culture and Change Management Programme was designed to capacitate employees and empower leaders with knowledge, change management skills and practical tools to drive the desired culture. The uptake of this programme has been extremely successful, with over 12 700 employees registered and actively utilising the platform.

Procurement and supply chain managment

We support economic development and supplier transformation to foster the creation of a sustainable economy advancing the NDP goals. We also support Government's commitment to local development programmes, including development of local industries thereby enhancing local production and manufacturing as prescribed in the Preferential Procurement Policy Regulations (PPPR) of 2017. We leverage our relatively large procurement spend to stimulate black economic empowerment, support localisation and promote local content through our emphasis on local supply sectors important to our industry.

The ramping down of the capital expansion projects within the new build programme has significantly reduced opportunities to contribute towards industrial development. Consequently, the shareholder granted Eskom permission to implement the National Industrial Participation Programme (NIPP) from August 2020 going forward.

Total measured procurement spend (TMPS) for the group at end March 2021 amounted to R155.6 billion, of which R100.4 billion (64.51%) was spent on B-BBEE compliant suppliers (2020: R154.2 billion, and 65.97%). Procurement spend with black youth-owned and black women-owned suppliers improved to 3.46% (2020: 2.65%) and 12.24% (2020: 10.10%) of TMPS respectively, exceeding their targets of 2% and 12%.

On the negative side, our B-BBEE status has remained at level 8 since 2018 due to new rules introduced in the Broad-Based Black Economic Empowerment Act, 2003 under the B-BBEE Codes of Good Practice and spend against independent power producer (IPP) contracts which were concluded in terms of the DMRE's renewable energy IPP (RE-IPP) Programme over which we had no control. Engagements with DMRE and the Department of Trade, Industry and Competition are intended to discuss the appropriate classification of IPP expenditure.

Electrification

We contribute positively through the electrification programme funded by the Department of Energy. 106 669 previously disadvantaged households were connected to the grid (2020: 191 585 household connections). The electrification programme promotes the NDP goal of provision of economic infrastructure which is the foundation of social and economic development. Since 1991, we have connected approximately 5.8 million households.

Capital expansion programme

Our capital expansion programme comprises the Medupi and Kusile new build sites, and on large Transmission projects is one of our greatest contributors to socio-economic development. These projects support the NDP goals through procurement, job creation, skills development and CSI.

By 31 March 2021 contracts to the value of R227 billion have been awarded from inception of the projects, with local content accounting for R169.5 billion. The total spend by Eskom with (first tier) suppliers for subcontracting was R136 billion:

- R86.9 billion was spent with large black suppliers
- R18.9 billion was spent with black women-owned companies
- R18.1 billion was spent with small and medium enterprises (SMEs)/small black enterprises
- R12.1 billion was spent with suppliers located within and surrounding projects site

Our capital expansion project offers employment opportunities directly and indirectly through our suppliers. During the financial year, total of 13 480 people were employed on the capacity expansion programme as a direct result of contractual obligations (2020: 13 318). We also drive skills development and transfer with our construction partners in the new build. About 11 400 individuals have been trained by suppliers over the lifetime of these major projects as a direct result of contractual obligations. The skills development initiatives focus on employees being upgraded or given an opportunity to acquire market-related skills.

Demobilisation has a negative impact on the economy, the life and people in the area. Demobilised contractors are offered life skills training to assist them with getting new opportunities. We mitigate the impact of job losses by collaborating with local and provincial government structures to address some of the challenges faced by local communities surrounding our new build projects.

Impacting local communities

We engage in CSI and SED projects with our contractors for social upliftment and community development to empower local communities and to foster relationships with our stakeholders. We also invest in providing basic services within these communities, such as electricity, potable water and waste removal services around some of the power stations, which supports livelihoods in these communities.

Our capital expansion programme made a CSI contribution to the surrounding local communities, positively touching many lives. The CSI programmes focused on education and social upliftment, with contractors supplying food during the COVID-19 pandemic. These programmes also focused on health interventions as the priority need in the country and enterprise development.

The Eskom Foundation implements CSI programmes to address developmental needs across the country. The flagship and national CSI programmes contribute towards the upliftment of communities and create jobs through enterprise development initiatives. The Foundation is a wholly owned subsidiary of, and receives its mandate from, Eskom. A CSI investment of R67.4 million was made by the Eskom Foundation and other divisions, impacting 802 635 beneficiaries (2020: R123.8 million and 1 479 395 beneficiaries). The decrease in the investment is due to limitations posed by COVID-19 restrictions.

OUR SOCIAL PERFORMANCE continued

Eskom Rotek Industries uses CSI as a stakeholder management tool to promote stability in hotspot areas and as a goodwill tool to contribute to SED within the areas where it is operational.

One of our flagship projects is discussed below.

Eskom Business Investment Competition

The Eskom Business Investment Competition (BIC) rewards outstanding work in entrepreneurship, and encourages SMEs from previously disadvantaged backgrounds to thrive and lead the country's economic development. The competition is open to South African, black-owned and registered SMEs that have been operating for more than two years in several sectors, such as agriculture and agriprocessing, engineering and construction, manufacturing, and trade and services. With prizes worth approximately R1.3 million, the competition supports enterprises in taking their operations to the next level. Over and above the financial rewards, business skills and training are provided to contribute towards the sustainability of these small businesses.

COVID-19 response

The impact of COVID-19 on the economy and on our lives will be felt for many years to come. The global response to COVID-19 – both economically and to the pandemic – has shown a multitude of different approaches. We have developed a COVID-responsive CSI programme that implements projects in communities with needs.

Coal

We play a major role in the coal industry due to our large offtake, accounting for about 50% of total national coal production. In the 2021 financial year, 110Mt of coal was purchased and transported to the power stations (2020: 119.3Mt). About 50% of coal was delivered by means of road or rail during the 2020 financial year. Our large coal purchases, which accounts for the majority of our operational expenditure, offer opportunities to contribute to development and transformation across the value chain – sourcing, transport (haulage) and disposal, supporting NDP goals of inclusive economic growth and employment through shareholding of suppliers, supplier development and localisation, transportation contracts with B-BBEE suppliers and CSI interventions.

We are transforming the mining industry by purchasing from companies with shareholdings which are above the mining charter requirement of 26%. In our current portfolio of long-term cost plus and fixed price contracts (38%), the majority of the short and medium-term contracts have more than 51% black shareholding. Approximately 1 419 jobs have been created from supplier development and localisation (SD&L) obligations in these contracts. Coal haulage by road since inception in 2008 also created 5 000 direct and 5 000 indirect jobs. Furthermore, these companies run various CSI initiatives in areas where they operate, such as building schools and houses for the indigent, offering bursaries, etc. A negative impact is the damage to the road infrastructure in Mpumalanga due to the high number of trucks delivering coal to the power stations. Our rail delivery of coal is through Transnet Freight Rail, utilising B-BBEE compliant loading sidings and offloading sidings.

Our long-term coal strategy to supply about 800Mt of coal to selected power stations was approved in 2019, and will lead to economic opportunities in the area and stimulate the regional economy.

We purchase about 116kt of limestone per annum from Idwala Lime in Danielskuil from the Northern Cape. Idwala has an obligation to subcontract/procure goods and services from entities that are black-owned within its immediate location as a way of transforming its value chain and stimulating economic activity in the Northern Cape. It also undertake skills development for its employees.

Ash beneficiation

Our power stations generate about 33Mt of ash per year, of which 10.1% was available for beneficiation in the 2021 financial year. We beneficiate the bottom, fly and clinker ash. There has been an increase in the utilisation of ash produced through the electricity generation process at our coal-fired power stations, predominantly in the brick and block industry. About 72% of the coal ash sold in South Africa goes into cement blending and 10% into ready-mix.

Our ash sales play a key role in business development, job creation and localisation in the brickmaking and construction industries. This supports the national development goal of an inclusive economy and employment. In January 2020, Eskom's Exclusion Regulations application for use of ash in cement, bricks and blocks, road construction, mine backfilling, treatment of acid mine drainage and other various uses was approved. A fair, equitable, transparent and competitive process has to be followed to allow for new players (see further details on ash amounts in the environmental section)

In March 2020, the Minister of the DFFE approved our application to exclude ash and gypsum at our sites from the definition of waste when extracted for beneficial use. The exclusion by DFFE of ash and gypsum from waste requiring a waste management licence, when extracted for beneficial use at our sites, provides additional opportunities for ash beneficiation – such as the use of ash in bricks, cement, soil amelioration, road construction and mine backfilling.

Our ash is sold from five of our 15 coal-fired power stations. These ash sales are contracted to commercial partners. Over the past 10 years, ash sales by volume have increased steadily. Camden Power Station has had portions of its ash utilised for mine backfilling during this last financial year. A total of 668kt of ash was diverted to a nearby mine as backfill material during the year. Despite zero ash sales due to COVID-19 in April 2020, total ash sold in the 2021 financial year was 3.1Mt, a 6.7% increase on the 2.9Mt reported during 2020.

In 2020 an ash offtakers forum was established between Eskom, industry and academia to promote the sales of ash and find solutions to the barriers to entry to new participants in ash beneficiation in terms of infrastructure, huge capital investment and national policy position.

Socio-economic impact studies for the shut down and repurposing of Eskom power stations

We are making progress with plans to seek a sustainable solution to our ageing power station fleet through repurposing in line with our JET strategy. A socio-economic impact study for the shutdown of Hendrina, Komati and Grootvlei power stations commenced in January 2020 and has been completed. Mitigation plans are currently being developed with an implementation programme. These are the first of 10 coal plants scheduled for decommissioning by 2040. The goal is to support the JET and ensure that affected workers and communities are not left worse off. This will assist in managing and mitigating societal risks brought about by the shutdown of three power stations through identification of possible socio-economic options that will promote job creation, industrialisation and localisation.

We have also initiated a process to assess the potential for repowering some of the stations using alternative generation technologies, including renewables, gas, biomass, battery storage and hydrogen. In parallel, the utility is assessing prospects for repurposing the sites for non-energy-related economic activities, such as agriculture and the provision of bulk water services and water treatment.

Our overall social impact and contribution to the NDP and SDGs is shown below.

Material matters	NDP contribution	Associated SDG where applicable	Impact/contribution to SDGs (positive/negative)
Contributing to national transformation imperatives	• Economy and employment • Improving education, training and innovation • Transforming society and uniting the country • Nation-building and social cohesion		• Positive in terms of our procurement, reducing inequality, skills and CSI
Skills development	• Improving education, training and innovation		• Positive contribution leading to employability and career growth
Impacting local communities	• Transforming society and uniting the country • Improving education, training and innovation • An integrated and inclusive rural economy • Nation-building and social cohesion		• Positive developmental and infrastructure development • Negative in terms of capital projects • Managed with CSI and SED interventions
Being a good employer	• Economy and employment • Improving education, training and innovation • Transforming society and uniting the country		• Positive in terms of job creation, skills development and employment equity

ECONOMIC PERFORMANCE

Refer to the financial review section in our 2021 integrated report for our detailed financial performance and the initiatives we have embarked on to improve our performance.

For the context of the sustainability report, our economic performance contribution is as follows:

Just Energy Transition Transaction opportunity

Through our JET strategy, we are currently investigating the feasibility of the JET Transaction (JETT) opportunity as a lever for improving our financial performance, therefore contributing to our turnaround initiatives. The JETT is an opportunity that is being explored to crowd in funding from the domestic and international markets to support Eskom's transition towards cleaner energy, thereby also supporting South Africa's energy transition. This large-scale investment will be conditional on a significant reduction in carbon dioxide emissions over the next 30 years, in line with national and international commitments.

The JETT proposal is two-fold. Firstly, to obtain funding to assist Eskom's transition and shutdown of coal plants in order to achieve a significant carbon emission reduction while investing in renewable energy. Secondly, to secure transition finance which is aimed at promoting the socio-economic development of affected communities and workers as the organisation transitions from coal-fired electricity generation to a renewable energy-based energy system.

The following positive financial benefits are envisaged from this transaction:

- Provide an enabling platform with lenders who are encouraged to see the transition
- Access to cheaper financing
- Concessions and favourable terms

Financial risks posed by climate change

The global drive to urgently address the devastating repercussions of climate change impacts us directly within the production of the electricity value chain, and indirectly through many of our customers who will face similar pressures to reduce their carbon footprint.

1. Market access to raise funding and the export of goods and services by our customers are becoming increasingly restricted as investors call for a faster transition away from fossil fuels.
   - A number of institutional investors have already withdrawn from financing new coal projects. A faster transition to renewable energy sources is required to reinstate and retain the eroding investor base.
   - International governments and trading partners have also started to exert pressure on manufacturers to reduce their carbon footprint. Failure to comply with the minimum standards will result in duties and penalties being imposed thus negatively impacting the competitiveness of goods and services.
2. The existing, predominantly coal-based generation fleet will increasingly be subject to various external cost pressures driven by climate change, which will become more costly over time. A number of costs within the existing fleet have steadily escalated including coal costs, environmental abatement capex and various taxes on fossil-based generation, before factoring in externality costs. A continued rise in these costs will potentially threaten the long-term viability of coal generation in the future as renewables become cheaper.
3. Over the longer term, failure to address climate change will result in an increased exposure and vulnerability to us, our communities and customers to adverse climatic events such as floods, heatwaves, etc. Such events may result in damage to infrastructure, supply interruptions, etc. all leading to an increase in costs if not adequately addressed.

Financial sustainability – a risk to climate change efforts

Climate change will exacebate our financial woes. Unless we manage the climate change risks, our financial position will worsen.

We are currently addressing the challenges of a weak balance sheet; a large unsustainable debt burden; the unreliability of an ageing fleet; and a tariff level that is not reflective of prudent efficient costs. Investors in the power sector, whether Eskom or IPPs, require the ability to recover costs that are prudently and efficiently incurred, and earn an adequate return on the assets. Like many regulated markets, we suffer from under recovery of costs and earn insufficient returns.

The industry requires a sustainable tariff level to encourage investment in the sector and to deliver the much needed clean additional capacity required. If the sustainable tariff level is not achieved, there will be no incentive for the accelerated ramp-up of renewable energy. Furthermore, if we continue as the single procurer of all the power from IPPs in the absence of a cost-reflective tariff, then the new power purchases will negatively impact our financial position.

Sustainable tariff levels need to be balanced with addressing the affordability of such tariffs by customers as well as ensuring that the tariffs are set at an optimum level to ensure that local industry remains competitive in the global market. The impact that tariffs have on our customers is clearly illustrated by the erosion of the South African industrial base over the past decade with sales decreasing from ~90TWh to the current level of ~70TWh, together with the spiralling arrear debt accumulation of municipalities and end-customers.

Financial sustainability and a just transition are interdependent.

Opportunities brought about by climate change

The current landscape and favourable market conditions aimed at accelerating efforts to combat climate change present significant opportunities that can be leveraged to transform the various risks and challenges we face into opportunities.

1. The country currently has an immediate need for a substantial amount of additional generation capacity to meet demand. A number of the coal-fired fleet plants are reaching end of life, with a significant amount of capacity due to be decommissioned by 2030. The rapid decline in the cost of renewable technologies along with the abundant natural wind and solar resources have made renewables an economically viable new capacity option to start filling the gap with the benefit of shorter construction times.

   A mix of the existing coal fleet combined with renewable options will ensure an optimal least cost total power system that will ensure an affordable, reliable and stable power supply.

   In order to achieve the objective of a transition to the cleaner sources of power, the new capacity would have to be developed across the country. This will require significant investment in the Transmission grid in order to integrate the system. This expansion will also take time and would need to be addressed as a matter of urgency.
2. We currently face the challenge of a large unsustainable debt burden that has been characterised by an eroding investor base that is averse to lending to finance coal, high interest costs, shorter debt tenors and lower than required tariffs leading to reliance on the shareholder for support.

   Access to funding from concessional financiers with specific mandates to drive climate change to substitute the current debt can provide finance at lower rates over longer tenors to assist us in managing the debt burden and keep the lights on, while we embark on our transition to cleaner sources of power.
3. We are on a journey to return to financial sustainability, of which an integral component is achieving cost-reflective tariffs. The pursuit of the most optimal, least cost future expansion pathway will ensure that this element of the cost base can be defended, and allow appropriate recovery of the costs in the revenue streams. This can contribute to help reset the relationship with the Regulator (i.e. NERSA) and contain the future required rise in tariffs to reach cost-reflective levels.

   The rise in tariffs will require a solution to address the affordability challenges for customers deemed to be vulnerable, of which inclusion of the least cost options in the mix would assist in keeping the tariffs at the lowest possible levels.

   The transition to cleaner sources of power is inevitable. The risks posed by climate change are known and can be transformed into economically viable and environmentally sustainable opportunities within the current landscape, while assisting us in dealing with the various challenges we face.

We are committed to fast-track the transition in a responsible way that considers all aspects, including those of the coal mining communities that will be affected by the transition. Careful analysis of all the trade-offs will be undertaken to manage security of supply in the short run and system stability, including the impacts on communities.

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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 2021 is available at http://www.eskom.co.za/IR2021

NOTES

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