

ENERGY ACTION PLAN

18 MONTH PROGRESS REPORT: MARCH 2024



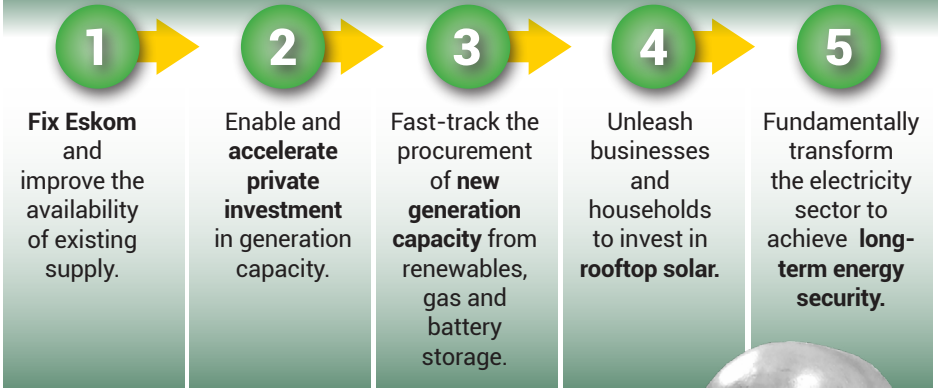
REPUBLIC OF SOUTH AFRICA



INTRODUCTION

The Energy Action Plan (EAP) is South Africa's plan to end load shedding and achieve energy security. Announced by President Cyril Ramaphosa in July 2022, it outlines a bold set of actions aimed at fixing Eskom and adding as much new generation capacity as possible, as quickly as possible, to close the gap in electricity supply.

THE PLAN INCLUDES FIVE KEY PILLARS:



NECOM
NATIONAL
ENERGY CRISIS
COMMITTEE

The National Energy Crisis Committee (NECOM) was established to ensure that the EAP is fully implemented to achieve these objectives.

NECOM is led by the Minister in the Presidency responsible for Electricity, **Minister Kgosisentsho Ramokgopa**.

At a technical level, it is led by the Director-General in the Presidency, Phindile Baleni and includes more than 100 high-level officials from across government and Eskom, working closely with business and other social partners.



NECOM is working hard to remove barriers to new generation capacity to unlock energy from many different sources, including Eskom, independent power producers, businesses and households. This is a collective national effort to ensure South Africa has enough energy now and for the future.

Over the past six months, significant progress has been made in implementing the EAP, with clear signs that the interventions underway are having a positive impact. Following the introduction of powerful tax incentives and financing mechanisms, **the amount of rooftop solar installed by businesses and households has more than doubled to over 5 000 MW**, helping to reduce demand on the grid. The return of three units at Kusile power station months ahead of schedule, together with improved plant performance and intensive maintenance over the summer period, has increased the availability of Eskom's existing generation capacity.



10 600 MW to be added between 2024-2025

An estimated **10 600 MW** of additional generation capacity is expected to be added from various sources in 2024 and 2025, including:

- Additional units returning to service.
- Private sector projects connecting to the grid.
- Projects from previous bid windows reaching completion.
- The continued increase in rooftop solar.



8 000 MW bid window released for new capacity

In December 2023, three further **bid windows** were released for close to **8000 MW** of new capacity from solar, wind, gas, and battery storage.

Every 1000 MW of new power is equivalent to one stage of load shedding.

Progress has also been made in reforming the energy sector to achieve energy security in the long term, with an independent board appointed for the National Transmission Company of South Africa (NTCSA) and the Electricity Regulation Amendment Bill advancing through the Parliamentary process.

Massive investment is underway to expand the transmission network, while an additional **3 400 MW of grid capacity** has been immediately **unlocked in the Cape region** through the implementation of curtailment.

THE SUCCESSES OF THE ENERGY ACTION PLAN

Kusile Unit 3 returns to service ahead of schedule following construction of a temporary stack.

SEPTEMBER

Eskom launches the **Cross-Border Standard Offer Programme** for short-term energy purchases from cross-border utilities. The first projects are expected to provide power by end 2024.

OCTOBER

NOVEMBER

Eskom unveils the **first battery energy storage project in Worcester** in the Western Cape. It is the largest of its kind in Africa, with a **further eight projects** in construction to provide a total of **833 MWh of capacity**.

Release of RFPs (Request for Proposal) for Bid Window 7, ESIPPPP 2 (battery storage) and the Gas IPPP, for a combined **7615 MW of new capacity**.

DECEMBER

First project from the risk mitigation programme connects to the grid at **Kenhardt in the Northern Cape**, to provide **150 MW of dispatchable power**.

Announcement of the **Board of the National Transmission Company of South Africa (NTCSA)**.

JANUARY

Additional 3.4 GW of grid capacity unlocked in the Cape region through curtailment, to **support Bid Window 7** of the renewable energy programme.

Conclusion of **public participation** and comment into the **Electricity Regulation Amendment (ERA) Bill**. The ERA Bill enables greater competition between power producers, thus minimising the price of electricity for customers.

FEBRUARY

6 MONTHS IN SUMMARY

EAP ACHIEVEMENTS OVER THE LAST 6 MONTHS

OBJECTIVE 1:

Fix Eskom and improve the availability of existing supply



Key indicators suggest an improving trend in the performance of Eskom's power plants. NECOM has been working closely with Eskom on the Generation Recovery Plan, which outlines measures to address the main causes of outages and breakdowns, and to return to service those units which have been taken offline. However, unreliability in the older coal fleet remains high and has contributed to volatility in load shedding.

In response, Eskom has put in place dedicated resources to improve the reliability of six priority power plants with support from NECOM and private sector expertise.

As a result of these interventions in recent months, the energy availability factor (EAF) has moved above the historical downward trend line for the first time in several years.

SUMMARY OF PROGRESS

Commitment in the EAP

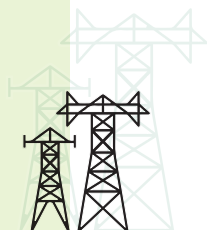
Improve the performance and reliability of existing power stations.

Progress to date

Eskom is implementing the **Generation Recovery Plan** to improve plant performance, with support from private sector experts.

Planned maintenance **increased to more than 8 000 MW** over the summer period to enable improved performance going forward.

While unplanned breakdowns continue to contribute to system volatility, these interventions are expected to stabilise performance going forward.



Commitment in the EAP

Progress to date

Ensure remaining units at Kusile and Medupi are brought online as soon as possible.

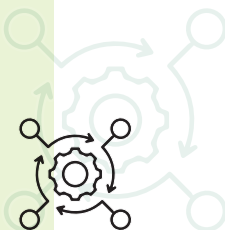


Kusile **Units 1 to 3** have been **returned to service**, adding much-needed capacity to the grid.

Unit 5 was synchronised to the grid in **December 2023**.

Medupi Unit 4 and Kusile Unit 6 are expected to return by **September 2024**.

Implement measures to reduce demand on the grid.



The **Distribution Demand Management Programme** was launched on 13 April 2023, with a budget approved for three years.

The programme follows a performance contracting approach, with an **incentive of R3 million/MW** provided for achieved demand reduction during specified periods.

Finalise Eskom debt relief package to enable investment in necessary maintenance and transmission network.



The **debt relief package for Eskom** has been finalised, as a crucial step to ensure its sustainability and support the response to the energy crisis.

The package includes debt relief measures covering **R254 billion of Eskom debt** (including R168 billion in capital and R86 billion in interest) over the next three years, with strict conditions to safeguard public funds.

The **Eskom Debt Relief Act** was passed in **June 2023**.

OBJECTIVE 2:

Enable and accelerate private investment in generation capacity



Policy and regulatory changes implemented as part of the EAP have opened the energy sector to private sector investment. These changes have had a significant impact, with a growing pipeline of private sector generation projects across the country.

NECOM has focused on accelerating these projects by streamlining the regulatory framework and actively facilitating investment. This is starting to bear fruit with an increasing number of projects entering construction and reaching commercial operation.

SUMMARY OF PROGRESS

Commitment in the EAP

Progress to date

Remove the licensing threshold for embedded generation projects.



The licensing requirement was removed in December 2022.

Since then, the **pipeline of private sector projects** has grown to over 120 projects with **more than 12 000 MW** of capacity, which will begin to connect to the grid in 2024.

Establish a one-stop shop for energy projects to accelerate new capacity.



The **Energy One-stop Shop** was established in June 2023 and is actively facilitating energy projects, including **fast-tracking approvals** from various departments.

Work is underway to create a single electronic entry point for energy-related authorisations.

Commitment in the EAP

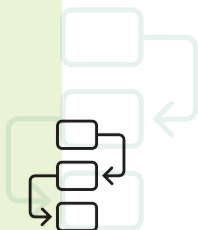
Progress to date

Reduce timeframes for grid connection.



Progress has been made in **clearing the backlog of cost estimate letters and budget quotes**, with the aim of clearing the backlog entirely by May 2024.

Unlock grid capacity.

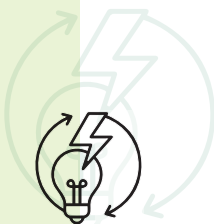


Eskom has published the updated **Generation Connection Capacity Assessment (GCCA) 2025**. This indicates that there is 19.94 GW of available grid capacity across Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West and the Free State.

An **additional 3.4 GW of grid capacity** has been unlocked in the Cape region through curtailment.

Eskom has prioritised 47 transmission projects which will add **37 GW of capacity** to the grid by 2033. More than 14 000 km of new high-voltage transmission lines will be built through the **Transmission Development Plan**.

Develop a national wheeling framework.



The **National Wheeling Framework** has been finalised and was submitted to NERSA in December 2023.

The framework sets out principles for non-discriminatory rights of access to wheel electricity and the charges to be raised, and will **enable a standardised approach to wheeling across the country** once approved by the regulator.

OBJECTIVE 3:

Fast-track the procurement of new generation capacity from renewables, gas and battery storage



The EAP has sped up the procurement of new generation capacity from multiple energy sources. Further bid windows have been released, while several projects from previous bid windows have either reached commercial close or connected to the grid.

During this period there has been a successful uptake of the Standard Offer and Emergency Generation Programmes, which will add over 1 000 MW to the grid.

SUMMARY OF PROGRESS

Commitment in the EAP

Issue a standard offer for additional energy available from existing private generators.

Progress to date

The **Eskom Standard Offer Programme** has been implemented with a total of **1 136.5 MW** approved to date, exceeding the target of 1 000 MW.

The **Emergency Generation Programme** is being implemented alongside the standard offer to secure dispatchable generation capacity, with **60 MW secured to date** and contracting underway for a further **240 MW** from multiple generators.

Import additional power from countries in the region.

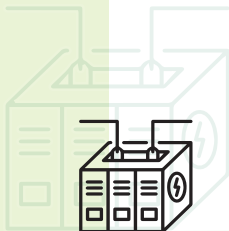
Eskom released a request for proposal (RFP) for the **Cross-border Standard Offer Programme (CBSOP)** in October 2023, which will procure a maximum of **1 000 MW in additional power** from neighbouring countries such as Mozambique for a period of three years.

The **first projects** are expected to provide power through this programme by the **end of 2024**.

Commitment in the EAP

Progress to date

Complete Eskom battery storage programme (BESS Phase 1 and 2).



The first project from Eskom's **Battery Energy Storage System (BESS)** programme has been connected to the grid, and will provide **100 MWh of storage capacity**.

Seven other projects are in construction as part of **Phase 1** of the programme, which will together provide a **total of 833 MWh of capacity**.

Ensure commercial close of remaining projects from previous bid windows.



Seven preferred bidders for the **Risk Mitigation Independent Power Procurement Programme (RMIPPPP)** have **completed construction** or reached legal close to date, while the remaining four preferred bidders failed to meet the long-stop deadline.

Eleven preferred bidders for **Bid Window 5** have reached commercial close and entered construction, while **six preferred bidders** from **Bid Window 6** have reached legal close.

Accelerate release of further bid windows for battery storage, wind, solar and gas.



RFPs were issued for **Bid Window 7, Energy Storage Independent Power Procurement Programme (ESIPPPP)** 2 (battery storage) and the **Gas Independent Power Producers Procurement Programme (IPPPP)** on 14 December 2023, for a combined **7 615 MW of new capacity**.

OBJECTIVE 4:

Unleash businesses and households to invest in rooftop solar



Rooftop solar photovoltaics (PV) installations have exceeded expectations, with small-scale embedded generation now contributing at least 4% of South Africa's electricity generation.

NECOM's current focus is on implementing measures that will incentivise households and businesses to feed excess power into municipal and Eskom distribution grids and drive increased uptake.

This includes the finalisation of the Net-billing Framework and the design of a feed-in tariff system.

SUMMARY OF PROGRESS

Commitment in the EAP

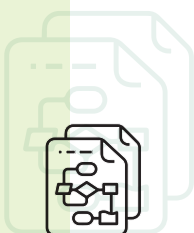
Progress to date

Accelerate uptake of rooftop solar.



Installed **rooftop solar capacity** in South Africa has more than doubled since July 2022 to **over 5 000 MW**, through **expanded tax incentives** introduced from March 2023 and the Bounce-back Loan Guarantee Scheme.

Develop a Net-billing Framework.

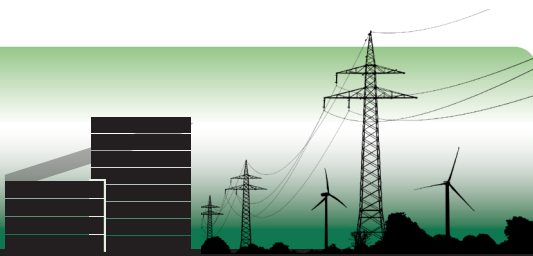


The Net-billing Framework was developed by NECTOM and submitted to NERSA in March 2023.

Once implemented, it will ensure that **all municipalities have net-billing systems** in place to **enable surplus power** to be fed into the grid from rooftop solar.

OBJECTIVE 5:

Fundamentally transform the electricity sector to achieve long-term energy security



The Energy Action Plan outlines a path to fundamentally reforming South Africa's energy sector to achieve long-term energy security. Significant progress has been made over the last six months in restructuring Eskom, including the appointment of an independent board for the National Transmission Company of South Africa (NTCSA), which will soon be fully operational.

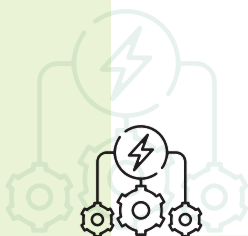
The Electricity Regulation Amendment Bill, which will establish a competitive electricity market for the first time, has been passed in the National Assembly and is now under consideration in the National Council of Provinces.

SUMMARY OF PROGRESS

Commitment in the EAP

Progress to date

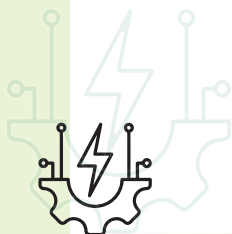
Establish a competitive market for electricity.



The **Electricity Regulation Amendment (ERA) Bill** is currently in the National Assembly, and has undergone public consultations in all nine provinces.

The Bill will **establish a competitive electricity market** for the first time, and outline the powers and functions of the Transmission System Operator.

Establish the National Transmission Company of South Africa as an independent transmission system operator.



An **independent board has been appointed** for the NTCSA, and NERSA has approved the licences needed for the company to operate.

Final preparatory steps are underway, including consent from lenders, to enable the NTCSA to commence trading as an independent entity.

Once in place, the NTCSA will create **a level playing field for competition** in electricity generation.

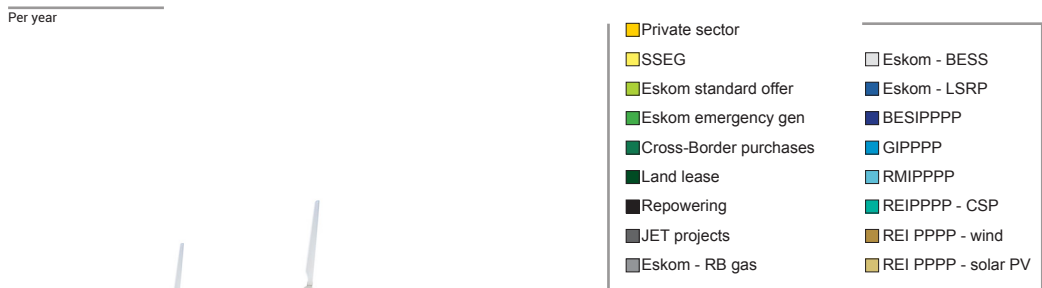
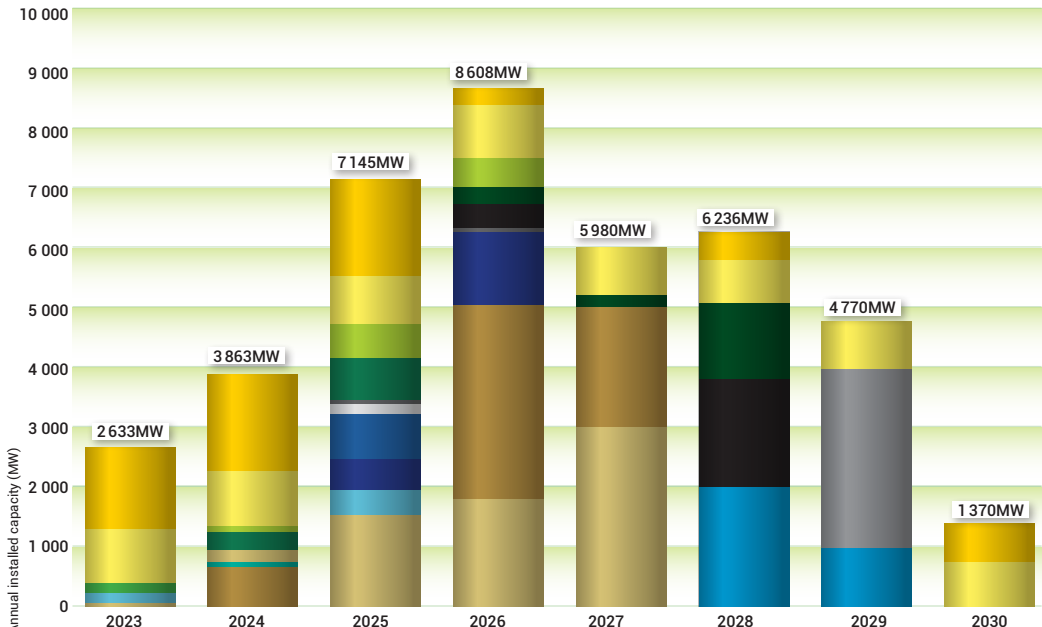
LOOKING AHEAD

Over the next six months, NECOM is focused on delivering ten key priorities of the Energy Action Plan:

1. Deploying **technical experts** at identified power stations to support the Generation Recovery Plan and improve plant performance.
2. Ensuring that the **remaining units** of Kusile and Medupi power stations are **completed on schedule**.
3. **Releasing further bid windows** for new generation capacity from solar, wind, gas and battery storage, and procuring additional dispatchable power in the short term through the Load Shedding Reduction Programme.
4. Ensuring that the remaining projects from **Bid Window 6** proceed to commercial close.
5. Codifying the **grid capacity allocation rules** (GCAR) to provide certainty on grid capacity allocation.
6. Securing the adoption of the **National Wheeling Framework** and **Net-billing Framework** to create an enabling environment for investment.
7. Streamlining and **enhancing the grid connection process** to reduce timeframes for cost estimate letters (CELs) and budget quotations (BQs).
8. Completing the establishment of the **National Transmission Company** of South Africa.
9. Securing passage for the **Electricity Regulation Amendment Bill**.
10. Implementing the **National Energy Savings campaign**.

These actions will ensure the complete implementation of the Energy Action Plan as set out by President Ramaphosa in July 2022, significantly reducing the severity of load shedding in the short term and ensuring energy security in the long term.

PROJECTED MEGAWATTS COMING ONTO THE GRID





LIST OF ACRONYMS:

BESS	Battery energy storage system
BQ	Budget quotes
CBSOP	Cross-border Standard Offer Programme
CEL	Cost estimate letters
EAF	Energy availability factor
EAP	Energy Action Plan
EG	Embedded generation
ERA	Electricity Regulation Amendment Bill
ESIPPPP	Energy Storage Independent Power Producers Procurement Programme
Gas IPPPP	Gas Independent Power Producers Procurement Programme
GCAR	Grid capacity allocation rules
GCCA	Generation connection capacity assessment
IPP	Independent power producers
MW	Megawatt
MWh	Megawatt-hour
NECOM	National Energy Crisis Committee
NERSA	National Energy Regulator of South Africa
NTCSA	National Transmission Company of South Africa
PV	Photovoltaics
RFP	Request for proposal
RMIPPPP	Risk Mitigation Independent Power Procurement Programme