Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

DEPARTMENT OF ELECTRICITY AND ENERGY

NOTICE 4221 OF 2026

NATIONAL ENERGY ACT, 2008 (ACT NO. 34 OF 2008)

DRAFT NATIONAL ENERGY EFFICIENCY STRATEGY (NEES) 2025-35

I, **Dr. Kgosientsho David Ramokgopa**, the Minister of Electricity and Energy, in terms of section 19(1)(h) of the National Energy Act, 2008 (Act No. 34 of 2008), and after consultation with the Cabinet Ministers whose areas of responsibility will be affected by the National Energy Efficiency Strategy (NEES) 2025-35, intend to put the Strategy in the Schedule.

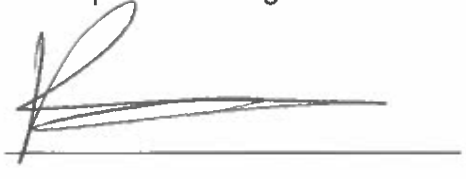
Interested persons are invited to submit, within 60 days of the date of publication of this Notice, any written comments or representations on the proposed National Energy Efficiency Strategy 2025-35 to the Director-General of the Department of Electricity and Energy, for the attention of Mr Mthunzi Mangqalaza by:

(a) Post to: Department of Electricity and Energy, Private Bag x 96, Pretoria, 0001;

(b) Hand to: Matimba House 192 Visagie Street Pretoria 0001 or

(c) Email to: Mthunzi.Mangqalaza@dee.gov.za

Kindly provide the name, address, telephone number, fax number and email address of the person or organisation submitting the comments.



Dr K.D. RAMAKGOPA, MP

MINISTER OF ELECTRICITY AND ENERGY

DATE: 07/10/26

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

electricity & energy
Department:
Electricity and Energy
REPUBLIC OF SOUTH AFRICA

NATIONAL ENERGY EFFICIENCY STRATEGY:

DRAFT: NOT FOR DISTRIBUTION



Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

This report is part of the project to **Update and Draft the 2025 - 2035 National Energy Efficiency Strategy**.



VERSION CONTROL

VERSION	DATE	NOTES
1	01.08.2026	First Full Draft

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Table of contents

List of Figures **3**
List of Tables **3**
List of Abbreviations **4**
Forewords **7**
Minister of Electricity and Energy 7
Deputy-Minister of Electricity and Energy 7
Director General of the Department of Electricity and Energy 7
Executive Summary **7**
Introduction **9**
Part One: Context **11**
Policy 11
Governance 12
Macroeconomic and Energy Efficiency Landscape: 2005–2025 14
Part Two: Strategic Imperatives and Barriers to Energy Efficiency **22**
Part Three: Energy Efficiency Status Quo in South Africa **24**
Part Four: Proposed National Energy Efficiency Strategic Vision and Targets (2025-2035) **31**
Strategic Vision 31
Quantitative Targets (2025-2035) 31
Nation-wide target 31
Industry 32
Transport 34
Residential Sector 35
Commercial and Public Services Sector 36
Conclusion 37
Part Five: Strategic Goals and Objectives **38**
Strategic Goal 1. Strengthen EE Governance and Policy 38
Strategic Goal 2: Establish regulatory and financing mechanisms to promote energy efficiency 39
Strategic Goal 3: To embed energy efficiency across all sectors of the economy 41
Strategic Goal 4: Build Institutional Capacity and Skills for Energy Efficiency 45
Strategic Goal 5: Establish Robust Monitoring, Reporting, and Verification 46
Part Six: Implementation Framework **48**
Policy and Governance 48
Financing Strategy 49
Research, Capacity Building and Awareness 51
Monitoring and Evaluation Framework 52
Risk Management 53
Part Seven: Priority Actions for First Three Years **55**
Year 1 (2026/27): Foundational Ramp Up 55
Year 2 (2027/28): Scale-Up 56
Year 3 (2028/29): Acceleration 56
Part Eight: Alignment with International Commitments **58**
Paris Agreement and NDC Targets 58
Sustainable Development Goals 59
African Union Agenda and Regional Frameworks 59
Strategic Innovation 59
Annex One: Relevant Policies and Legislation **60**
Annex Two: Part Three Gap to Implementation Matrix **65**
Endnotes **67**

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

List of Figures

Figure 1. State-owned entities under the jurisdiction of DEE....12
Figure 2. Annual GDP Growth Rate for South Africa (constant 2015 prices)....15
Figure 3. SA Energy Balance: Total Primary Energy Supply (bottom), Final Energy Consumption (top), 2024....15
Figure 4. Structure of Total Energy Consumption by Sectors, 2024....16
Figure 5. NERSA Standard Tariff Average Increase....17
Figure 6. South African Load Shedding Hours by Stage (2014-2025)....18
Figure 7. Estimated Annual South Africa Solar PV Installed Capacity....18
Figure 8. South Africa Historic Generation Capacity by Technology, GW....19
Figure 9. Passenger rail trips in South Africa per financial year (in millions)....20
Figure 10. Sectoral Energy Consumption: Baseline, Without new EE (BAU), and NEES (PJ and % target)....31
Figure 11. Impact of NEES EE on Industrial Energy Use (PJ)....34
Figure 12. Impact of NEES EE on Transport Energy Use (PJ)....35
Figure 13. Impact of NEES EE on Residential Energy Use (PJ)....36
Figure 14. The Commercial and Public Services Energy Use Comparison: 2024 Baseline vs 2035 Projections (PJ)....37

List of Tables

Table 1. Key Policy and Legislative Framework....11
Table 2: Main EE Functions and the responsible institutions....13
Table 3. National Energy Imperatives and Energy Efficiency....22
Table 4. Key Barrier Groups to Acceleration of Market Uptake of Energy Efficiency....22
Table 5. Energy Efficiency Status Quo....24
Table 6. Indicative energy-intensity improvement targets by 2035 relative to 2024, from the NEES Interventions....32
Table 7. Industrial Energy Use Comparison: 2024 Baseline vs 2035 Projections (PJ)....33
Table 8. Transport Energy Use Comparison: 2024 Baseline vs 2035 Projections (PJ)....34
Table 9. Residential Energy Use Comparison: 2024 Baseline vs 2035 Projections (PJ) in Residential Sector....35
Table 10. The Commercial and Public Services Energy Use Comparison: 2024 Baseline vs 2035 Projections....36
Table 11. Tiered Key Performance Indicator Framework for the NEES....52
Table 12. Principal Implementation Risks and Mitigation Strategies....54
Table 13. Indicative Sequencing of Priority Actions, 2026–2029....57

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

List of Abbreviations

Abbreviation	Full term
AEE	Association of Energy Engineers
AfEES	African Energy Efficiency Strategy and Roadmap
BAU	Business as usual
CBAM	Carbon Border Adjustment Mechanism
CO_2-eq	carbon dioxide equivalent
DBSA	Development Bank of Southern Africa
DCoG	Department of Cooperative Governance
DDMP	Distribution Demand Management Programme
DEE	Department of Electricity and Energy
DFFE	Department of Forestry, Fisheries and the Environment
DoA	Department of Agriculture
DORA	Division of Revenue Act
DoT	Department of Transport
DSTI	Department of Science, Technology and Innovation
DTIC	Department of Trade, Industry and Competition
EE	energy efficiency
EEDSM	Energy Efficiency Demand Side Management
EEPBIP	Energy Efficiency in Public Buildings and Infrastructure Programme
EPC	Energy Performance Certificate
ERAA	Electricity Regulation Amendment Act
ESCO	Energy Service Company
ESMAP	Energy Sector Management Assistance Program
EV	electric vehicle
EWSETA	Energy and Water Sector Education and Training Authority
GBCSA	Green Building Council of South Africa
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GJ	gigajoule
GVA	Gross Value Added
GW	gigawatt
HVAC	Heating, Ventilation, and Air Conditioning
IDC	Industrial Development Corporation
IDM	Integrated Demand Management
IEA	International Energy Agency
IEECC	Intergovernmental Energy Efficiency Coordinating Committee
IEP	Integrated Energy Plan
IEPA	Institute of Energy Professionals Africa
IPCC	Intergovernmental Panel on Climate Change

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Abbreviation	Full term
IRP	Integrated Resource Plan
ISO	International Organization for Standardization
JET	Just Energy Transition
KPI	key performance indicator
kWh	kilowatt-hour
LPG	liquefied petroleum gas
M&E	Monitoring and Evaluation
M&V	Measurement and Verification
MEMS	Municipal Energy Management Systems
MEPS	Minimum Energy Performance Standards
MJ	megajoule
MRV	Monitoring, Reporting and Verification
Mt	million tonnes
MW	megawatt
MWh	megawatt-hour
MYPD	Multi-Year Price Determination
NBEPR	National Building Energy Performance Register
NBI	National Business Initiative
NCPC-SA	National Cleaner Production Centre South Africa
NDC	Nationally Determined Contribution
NECSA	South African Nuclear Energy Corporation
NEEAP	National Energy Efficiency Action Plan
NEES	National Energy Efficiency Strategy
NERSA	National Energy Regulator of South Africa
NEV	New Energy Vehicle
NRCS	National Regulator for Compulsory Specifications
NRWDI	National Radioactive Waste Disposal Institute
PJ	petajoule
PUE	Power Usage Effectiveness
PV	photovoltaic
RE	renewable energy
RISE	Regulatory Indicators for Sustainable Energy
SABS	South African Bureau of Standards
SACAP	South African Council for the Architectural Profession
SADC	Southern African Development Community
SALGA	South African Local Government Association
SANEDI	South African National Energy Development Institute
SANS	South African National Standards
SDG	Sustainable Development Goal

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Abbreviation	Full term
SOE	state-owned entity
TJ	terajoule
ToU	Time of Use
TPES	total primary energy supply
UCT	University of Cape Town
USD	United States dollar

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Forewords (*to be added*)

Minister of Electricity and Energy

Deputy-Minister of Electricity and Energy

Director General of the Department of Electricity and Energy

Executive Summary

This draft of the **National Energy Efficiency Strategy (NEES) 2025–2035** seeks to secure Cabinet endorsement for a stronger national energy-efficiency framework that treats efficiency as a strategic energy resource, not a secondary policy instrument. The strategy is intended to reduce pressure on the electricity system, improve affordability and competitiveness, strengthen energy security, and support South Africa's climate and development objectives. It is positioned as the national framework for coordinated action across government, regulators, municipalities, state entities, and the private sector.

South Africa remains one of the more energy-intensive economies globally, with a historic dependence on coal, persistent electricity supply instability, rising energy costs, and weak growth. Energy efficiency offers one of the fastest and most cost-effective means to reduce demand, ease strain on generation capacity, lower input costs across the economy, and reduce emissions without constraining growth. Cabinet action is therefore required to elevate energy efficiency into the centre of national planning, regulation, and implementation.

Headline National Targets and Outcome: The draft strategy proposes a national target of approximately **132 petajoules (PJ)**[1] of avoided final energy demand by 2035 relative to the business-as-usual trajectory, equivalent to roughly a **5.5% reduction** in projected final energy demand. This avoided demand is allocated primarily across **industry (40.7 PJ; 4.3%)**, **transport (43.3 PJ; 5.5%)**, **commercial and public services (34.8 PJ; 22.6%)**, and **residential (13.3 PJ; 4.7%)**. This establishes a clear national signal that energy savings must be planned, measured, and delivered with the same commitment afforded to new supply. Industry measures centre on energy management, motors, compressed air, and process heating. Transport measures focus on vehicle efficiency and modal shift. Residential measures prioritise appliances, water heating, and thermal performance. Commercial and public-sector measures focus on retrofits, building performance, and energy management of large facilities. Agriculture and power generation still require stronger data before numerical targets can be finalised.

Strategic Goals: The draft Strategy is structured around five goals. **Goal 1** is to strengthen governance through formal adoption of the NEES and an updated action plan, and to recognise energy efficiency as a national planning priority. **Goal 2** is to establish the enabling regulatory and financing framework required for delivery at scale. **Goal 3** is to implement sector-specific interventions across the economy. **Goal 4** is to build institutional capacity and professional skills. **Goal 5** is to establish a credible monitoring, reporting and verification system capable of tracking performance and sustaining

[1] 132 PJ is equivalent to approximately 37 TWh. Sectoral targets converted comprise for industry: 11.4TWh; transport: 12.0 TWh, commercial and public services: 9.6 TWh, and residential: 3.7 TWh. Conversion based on: 1 PJ = 0.277778 TWh.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

accountability. Together, these goals shift the country from fragmented and largely voluntary efforts toward a more disciplined national programme.

Immediate Actions (Foundation and Scale-Up): 2026/27–2027/28: The immediate programme in Parts 6 and 7 is designed around a first implementation cycle from the 2026/27 financial year to 2027/28 financial year. Priorities are Cabinet approval of the NEES, establishment of an Intergovernmental Committee on Energy Efficiency, and promulgation of regulations requiring compulsory energy reporting and energy management plans for large users. It also calls for early, visible "quick wins": strengthening Minimum Energy Performance Standards (MEPS), redesigning appliance labels, launching industrial optimisation programmes, and initiating low-income thermal retrofit pilots. These are presented as urgent measures to demonstrate delivery while the broader institutional architecture is being put in place.

Implementation and Acceleration (2028/29): Following the foundation phase, scale-up centres on a costed action plan, stronger building-code enforcement, wider rollout of Energy Performance Certificates, stronger standards enforcement, and a gradual shift from ad hoc grants toward more durable utility and market-based efficiency obligations. Further focus areas are the commissioning of a National Energy Data Repository, a national energy consumption survey, and stronger delivery mechanisms for public-sector and market implementation.

Governance and Financing Implications: The Department of Electricity and Energy (DEE) is positioned as the lead coordinating institution, with implementation requiring close alignment across transport, local government, standards, industrial, environmental, and public finance institutions. The draft also recognises that the fiscal envelope alone will be insufficient. It therefore envisages a blended financing model comprising public incentives, commercial lending, revolving funds, performance-contracting mechanisms, and concessional climate finance. This is intended to unlock implementation at the scale required while improving certainty for public and private actors.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Introduction

South Africa's economy has historically been energy and carbon intensive, shaped by energy-intensive industries, decades of comparatively low electricity prices, and an electricity system dominated by coal-fired generation. While this structure has supported the country's industrial base, it also creates significant scope to improve energy efficiency.

Energy efficiency is a national energy resource and is a key tool that can increase energy security and improve energy affordability. In addition, given the predominantly coal-based electricity generation of South Africa, every kilowatt-hour avoided through energy efficiency can help decarbonise the economy while reducing harmful local pollutants[i]. Energy efficiency can also boost economic competitiveness by lowering input costs, which will lead to increases in industrial and commercial activity and accelerated investment. Through lowered demand, energy efficiency contributes to reduced instances of load shedding. The jobs that come with energy efficiency, such as those involved in auditing, retrofits, building upgrades, controls, metering, engineering, maintenance, ESCO services, and compliance services, are sustainable employment opportunities.

In recognition of the importance of energy efficiency South Africa's formal commitment to energy efficiency spans almost three decades. The White Paper on the Energy Policy, published in 1998, identified the need to include energy efficiency in energy policy and planning. This policy commitment was given practical expression through the publication of the first National Energy Efficiency Strategy (NEES) for 2005 to 2015, which set an economy-wide target to reduce energy intensity by 12%. This was followed by the publication of a Draft Post-2015 NEES in 2016, which refined the overall energy efficiency targets and set sectoral targets. While the Post-2015 strategy was not formally adopted, it nevertheless shaped the direction of energy efficiency efforts and informed the design of programmes and incentives that have continued to operate in the intervening years. This document was also a core reference to South Africa's 2025 Second Nationally Determined Contribution (NDC) under the Paris Agreement, linking national climate change mitigation efforts to the renewable energy development and advancement of energy efficiency. South Africa also has a well-established history of energy demand management, notably through Eskom’s demand-side management programmes, which have delivered measurable reductions in peak electricity demand.

This NEES, for the period 2025 to 2035 represents the next step in this national commitment to energy efficiency and will continue the approach of integrating demand management into the broader energy-efficiency framework. Its purpose is to set out a roadmap to improve energy efficiency across multiple sectors and to optimise energy demand to support a stable and resilient energy system.

This strategy will also align with the African Energy Efficiency Strategy and Roadmap (AfEES), which sets high-level aspirational targets of a 50% improvement in energy productivity by 2050 and a 70% improvement by 2063, in line with the African Union's Agenda 2063.

As with its predecessors, this strategy adopts a sectoral approach because some energy-efficiency and demand-management interventions are sector-specific, while others apply across multiple sectors. It covers six sectors. Primary data was gathered and modelled for the first four, while the Agricultural and Power Sectors rely on secondary research:

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

1. **The Industrial Sector** is the largest consumer of energy and includes energy-intensive sectors such as aluminium, ferroalloys, iron & steel, mining, non-metallic minerals, platinum group metals, other precious and non-ferrous metals, pulp & paper, chemicals, food and beverages and other general manufacturing categories.
2. **The Transport Sector** includes passenger and freight transport across road, rail and aviation; it is a major consumer of liquid fuels, with road transport dominating the energy profile. This sector is the second-largest energy consumer.
3. **The Commercial and Public Sector** covers public and private offices, hotels and other tourism facilities, educational and healthcare institutions, and retail establishments.
4. **The Residential Sector** covers household-level energy use, where electricity is the primary energy source, although many energy-poor households often ration electricity and rely on a mix of fuels such as paraffin, candles, and LPG.
5. **The Agricultural Sector** covers both primary agricultural and crop irrigation.
6. **The Power Sector** includes generation and electricity distribution. Despite not being a traditional energy consumer sector, it is included as generation, transmission and distribution practices have significant potential for improved efficiency and loss reduction.

This strategy is intended to serve as a high-level guide for the decade ahead by setting sectoral energy-efficiency targets for the period 2025 to 2035. Furthermore, it identifies the policy, regulatory, and financing instruments needed to achieve them. This strategy will be followed by the publication of a National Energy Efficiency Action Plan (NEEAP), which will provide a detailed roadmap with sector-specific interventions to achieve the goals and targets set out in the strategy.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Part One: Context

Policy

Under the Constitution of the Republic of South Africa, energy planning and management fall within the national sphere of government, with municipalities responsible for the local distribution of electricity and gas. The White Paper on the Energy Policy (1998) established the overarching national policy framework for the energy sector and identified energy efficiency as a national priority for economic competitiveness, environmental protection, and the reduction of energy poverty.

The first NEES, published in 2005, set an economy-wide voluntary target of a 12% reduction in energy demand by 2015, with sector-specific targets for industry and mining (15%), transport (9%), commercial and public buildings (15%), residential (10%) and power generation (15%). Between 2005 and 2015, progress was made in improving energy intensity, and expectations were exceeded in most sectors. To build on this success, a Post-2015 NEES set an economy-wide target of a 16% overall reduction in energy consumption by 2030. This, the 3rd iteration of the NEES (2025 to 2035) represents the next step in this national commitment to energy efficiency.

An overview of the key policies and legislation to consider when implementing this strategy, including those relevant to climate change and the just energy transition, is provided in Table 1, with additional details provided in Annex One.

Table 1. Key Policy and Legislative Framework

Instrument	Description
Supreme Law	
Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996)	Serves as the supreme law of the country, establishing a democratic framework that protects human rights and ensures the separation of powers. The Constitution guarantees everyone the right to an environment that is not harmful to their health or well-being and places a binding obligation on the state to protect it for present and future generations.
Overarching Policy	
National Development Plan 2030	South Africa's long-term strategy for eliminating poverty and reducing inequality. Calls for a long-term transition to a more efficient, low-carbon economy through improved energy intensity across all sectors.
Energy Policy and Legislation	
White Paper on the Energy Policy of the Republic of South Africa (1998)	Establishes the overarching national energy policy framework and positions energy efficiency as a national priority for economic competitiveness, environmental protection, and reducing energy poverty
National Energy Efficiency Strategy (2005)	The first NEES. It set economy-wide and sectoral energy intensity reduction targets up to 2015.
Electricity Regulation Act, 2006 (Act No. 4 of 2006)	Establishes the national electricity regulatory framework and appoints the National Energy Regulator of South Africa (NERSA) as custodian and enforcer of the framework. The objectives of the Act include promoting energy efficiency.
National Energy Act, 2008 (Act No. 34 of 2008)	Aims to ensure a diverse, sustainable, and affordable energy supply. It includes measures for the collation of energy data and established the South African National Energy Development Institute (SANEDI) with a mandate to increase energy efficiency.
Draft Post 2015 Energy Efficiency Strategy (2016)	The immediate predecessor to this strategy. Set economy-wide and sectoral energy-intensity reduction targets for 2030.
Integrated Resource Plan (IRP)	Provides a national electricity planning framework setting out the long-term electricity supply roadmap. The first IRP was published for 2010, followed by versions in 2019, 2023 and 2025. Although EE was incorporated in 2010 it has not been considered thereafter.
Electricity Regulation Amendment Act, 2024 (Act No. 38 of 2024)	Amends South Africa's Electricity Regulation Act, 2006, to create a competitive electricity market framework, enable third-party access to the transmission network, and establish the National Transmission Company of South Africa to take over the transmission functions of Eskom.
Climate Change	
National Climate Change Response White Paper (2011)	Set out a strategic framework to transition the country toward a climate-resilient and lower-carbon society.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Instrument	Description
Carbon Tax Act, 2019 (Act No. 15 of 2019)	Imposes a tax on Scope One greenhouse gas emissions, creating a financial incentive for energy efficiency improvements.
Low Emission Development Strategy 2050 (2020)	South Africa's first Low Emission Development Strategy in line with the adoption of the Paris Agreement.
Climate Change Act, 2024 (Act No. 22 of 2024)	Enables a long-term transition to a low-carbon economy and allows for the development of a national greenhouse gas emissions trajectory and sectoral emission targets.
Second Nationally Determined Contribution (2025)	The updated climate change mitigation and adaptation commitments under the Paris Agreement (2015).
Draft Sectoral Emission Targets (2024)	Proposed greenhouse gas reduction target for key economic sectors, aiming to limit total emissions to achieve the commitments in South Africa's Nationally Determined Contribution.
Just Energy Transition	
DEE Just Energy Transition Framework (2022)	Presents a vision for the country's shift from coal to a low-emission, climate-resilient economy while ensuring quality of life for all South Africans. It supports the goals of decent work for all, social inclusion, and the eradication of poverty.
Just Energy Transition Investment Plan (2022)	Outlines the investment requirements to achieve South Africa's decarbonisation commitments and highlights the role of energy efficiency in reducing decarbonisation costs and creating employment.
Just Energy Transition Implementation Plan (2023)	Provides a roadmap that converts the financial requirements and funding targets set out in the Just Energy Transition Investment Plan into specific projects. Energy Efficiency was added as an additional portfolio to the Implementation Plan.

Governance

The Department of Electricity and Energy (DEE), formerly the Department of Mineral Resources and Energy, was established in 2025 to provide dedicated oversight and coordination of electricity and energy security. It is the lead national entity responsible for energy efficiency policy, planning, and programme coordination. The DEE exercises oversight over several state-owned entities (SOEs), shown in *Figure 1*.

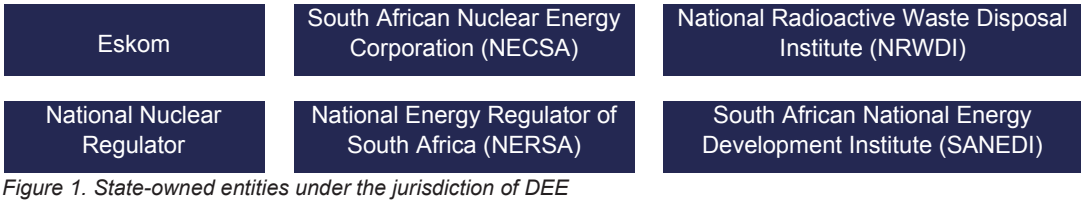


Figure 1. State-owned entities under the jurisdiction of DEE

The SOEs relevant to DEE's energy-efficiency mandate are:

- NERSA, which regulates the electricity, piped gas, and petroleum pipeline industries.
- SANEDI, which is responsible for energy research, the promotion and implementation of energy efficiency, and the facilitation of clean energy technology development.
- Eskom, as the national electricity utility, plays a key role in supply-side efficiency and demand management.

Effective implementation of this strategy also requires coordination with the parent and/or oversight ministries of the sectors covered by the NEES, namely:

- Department of Transport (DoT) for efficient transport systems,
- Department of Trade, Industry and Competition (the dtic) for industrial competitiveness and standards, and its agencies, the South African Bureau of Standards and the National Regulator for Compulsory Specifications,
- Department of Science, Technology and Innovation (DSTI) for research and innovation,
- Department of Agriculture (DoA) for agricultural development, and

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

- Department of Forestry, Fisheries and the Environment (DFFE) for environmental protection and climate change response.

The National Treasury also plays a key role in designing fiscal incentives that support energy efficiency. Municipalities are responsible for local electricity and gas distribution, have authority over local transport systems, and manage the built environment within their jurisdiction.

A more detailed breakdown of institutional functions related to establishing, enforcing and overseeing energy efficiency norms and standards, training and certifying relevant professionals, ensuring data collection, monitoring and verification is presented in the table below:

Table 2: Main EE Functions and the responsible institutions

Function	Responsible Organisations
National EE strategy and planning	The DEE is the lead national entity responsible for energy efficiency policy, planning, and programme coordination.
Setting building energy codes	Department of Trade, Industry and Competition (the dtic) is responsible for the legal framework for building codes, while SABS develops and maintains the technical standards used to comply with it, notably SANS 10400-XA under Part XA of the National Building Regulations.
Enforcing building energy codes	Municipalities are responsible for reviewing plans, approving buildings, and enforcing compliance with the National Building Regulations, including Part XA.
Setting MEPS and labelling standards	The dtic promulgates compulsory specifications that give legal force to MEPS and energy-efficiency labelling requirements. These are informed by cost benefit analysis studies initiated by the DEE. SABS is responsible for developing and maintaining South African National Standards.
Enforcing MEPS and labelling standards	The NRCS enforces compulsory specifications for MEPS and energy efficiency labelling requirements by issuing Letters of Authority to manufacturers and importers, verifying that appliances conform to prescribed MEPS before sale in South Africa. The NRCS also conducts market surveillance to ensure ongoing compliance.
Training / certifying energy manager and auditors	Energy and Water Sector Education and Training Authority (EWSETA) is responsible for education and training in electricity sector. Its work is completement by IEPA a non-profit company and the primary certification body for energy professionals in sub-Saharan Africa. It offers a range of energy management training programmes for both energy management and energy auditing, including the internationally recognised Association of Energy Engineers (AEE) certification programmes.
Training / certifying ESCOs	SANEDI plays the lead enabling role through the national ESCO Register, which classifies firms by tier and supports ESCO market development and capacity building.
Designing / administering EE financial instruments	National Treasury designs fiscal incentives including the Section 12L Energy Efficiency Savings Tax Incentive and also designs carbon tax policy. In addition, Eskom Operates the Distribution Demand Management Programme (DDMP), which provides financial incentives for demand and energy reductions. The IDC and DBSA also finance energy efficiency projects through international climate funds.
Collecting / analysing EE data	DEE is responsible for preparing and publishing the official national energy balance, which provides the primary dataset for tracking national energy consumption and efficiency trends. SANEDI administers the National Building Energy Performance Register (NBEPR), collecting energy performance data from non-residential buildings through the EPC process and collects and analyses M&V data for the Section 12L tax incentive administration. Statistics South Africa also collects socio-economic and household energy consumption data in South Africa.
Initiating/ managing EE outreach / public information	DEE, Eskom, municipalities, and other public entities all play roles in outreach and consumer information.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Function	Responsible Organisations
Providing TA / guidelines / tools	NCPC-SA delivers the Industrial Energy Efficiency (IEE) Programme, providing energy assessments, support for energy management system implementation, benchmarking tools, and best-practice guides to industrial and selected commercial enterprises. SANEDI provides technical resources and guidance through its ESCO support programme and the GBCSA provides technical resources, tools, and educational materials supporting energy-efficient building design and operation, including the Green Star SA rating tool.
Setting M&V protocols	SABS develops and publishes SANS 50010 (Measurement and Verification of Energy Savings), the national standard that prescribes the methodology for quantifying energy efficiency savings. This standard underpins the Section 12L tax incentive and other M&V-dependent programmes.
Performing / verifying M&V	M&V is performed by properly trained professionals.
Programme evaluation	This varies depending on the programme.

Macroeconomic and Energy Efficiency Landscape: 2005–2025

Key Economic Indicators

This overview illustrates how economic shifts have affected energy usage, policy priorities, investment patterns and ultimately how they have impacted the development and direction of energy efficiency initiatives since the previous strategy was published in 2005.

Gross Domestic Product (GDP) in 2005 was just over 288 billion in current USD[ii] and the period started with strong economic growth by capitalising on the global commodities cycle and national infrastructure projects for the 2010 soccer World Cup. This was cut short, first in 2007 by the onset of the electricity crisis when demand exceeded supply and was managed by planned rotational outages (load shedding); and secondly by the global economic crisis of 2008. Collectively, these two events saw the country enter its first recession in 17 years. Economic growth did not return to pre-crisis levels, and averaged between 1.5 to 2.5% through the 2010s, with the country unable to benefit from the post 2009 economic crisis global commodity boom. However, from an energy efficiency perspective it was a strong period: an efficiency target was set in the inaugural integrated resource plan (2010); the Eskom Integrated Demand Management (IDM) programme, delivered large energy savings up to 2015; and the mandatory residential appliance standards and labelling programme was launched (2015).

From 2015 onward, GDP growth decelerated further and averaged 1% reflecting structural bottlenecks: declining productivity, weak investment, governance challenges in state-owned enterprises, and renewed and more acute energy supply constraints. The COVID-19 shock in 2020 caused a severe contraction (around -6%), followed by a partial rebound in 2021 to 2022 and then settled back to low-growth with total GDP for 2024 being just over USD 400 billion in current USD.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

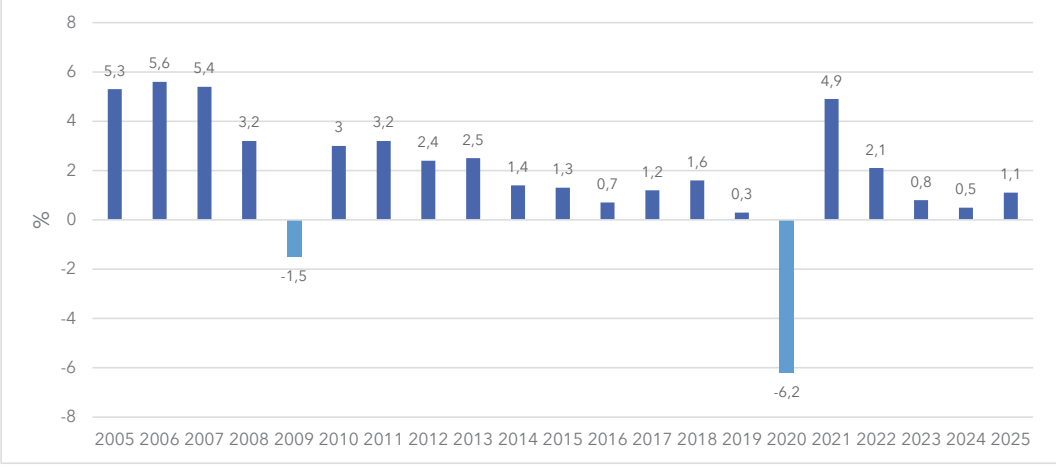
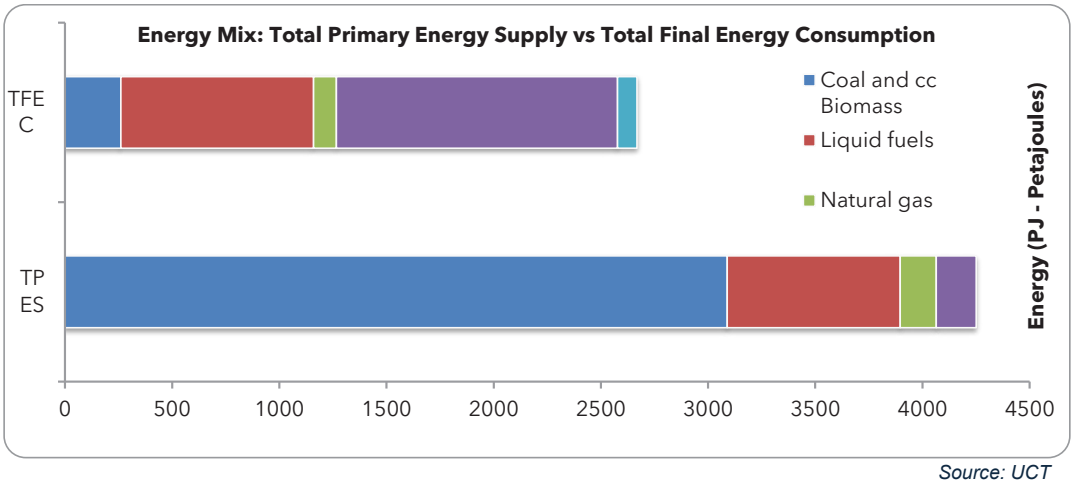


Figure 2. Annual GDP Growth Rate for South Africa (constant 2015 prices)iii

Energy and the Economy

South Africa's abundant coal reserves have long powered its economy, with coal and coke accounting for 3,090 PJ, nearly 70% of total primary energy supply (TPES). Liquid fuels, primarily petroleum, contribute 807 PJ, while renewables, natural gas, and other sources have grown in recent years but remain marginal. The nearly 50% difference between TPES of 4,462 PJ and total final energy consumption of 2,229 PJ across all sectors reflects significant losses in power generation, refining, and distribution, which are typical conversion inefficiencies in energy systems (Source: UCT Figure 3).



Source: UCT

Figure 3. SA Energy Balance: Total Primary Energy Supply (bottom), Final Energy Consumption (top), 2024

The energy transformation from primary into final energy is dominated by electricity as the dominant energy carrier at 47% of final consumption, while coal shrinks to just 12%. Liquid fuels are consumed primarily to supply the transport sector demand (over 85% of all liquid fuels consumed in this sector). This shows that while coal is the country's primary resource, electricity becomes the primary end-use energy form, highlighting the large potential for fuel-switching to supply electricity with cleaner fuels

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

and renewable energy sources. At the same time, as electricity accounts for nearly half of final energy consumption, energy efficiency in electricity consumption offers a significant opportunity to reduce the energy and carbon footprint of the national economy. SA's final energy consumption is distributed across five key sectors, each with its own energy demands and decarbonisation challenges.

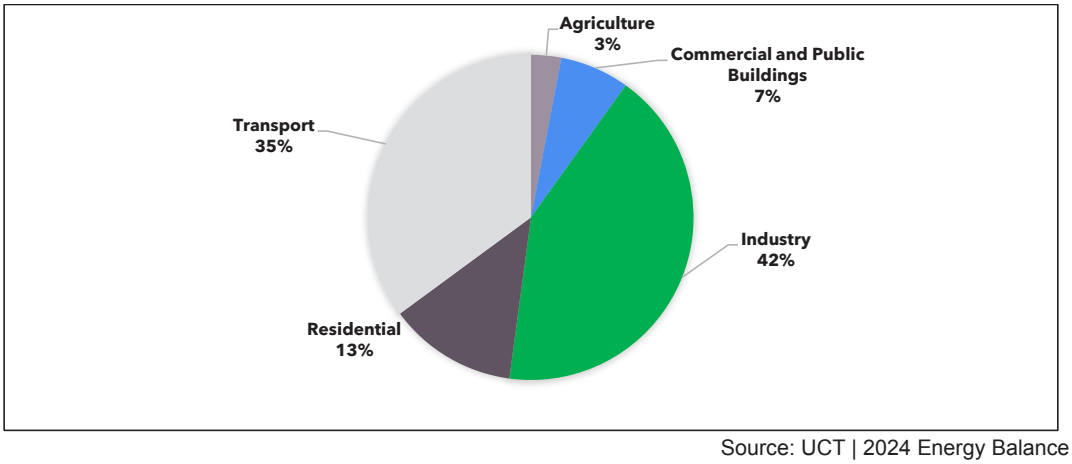
According to the 2024 energy balance, the industrial sector is the largest energy consumer, accounting for 42% of total consumption, reflecting the economy's resource-intensive nature, driven by mining, metal processing, chemicals, and manufacturing. Heavy industry's energy intensity makes it both critical to economic performance and a major target for efficiency improvements.

The next growing challenge is the transport sector, the second largest consumer, accounting for 35% of all final energy. This high share is a particular area of focus, considering that SA is a car-dependent economy, with high energy demands of freight and logistics. Transport is also almost entirely dependent on liquid fuels (petroleum). As the economic welfare improves in the next decade, so will the car ownership rate, making it a priority sector for electrification strategies.

The Residential Sector accounts for 13% of all final energy consumption, serving heating, cooling, cooking, and appliances in SA's over 12 million households. Unlike industry and transport, residential energy use is more dispersed across many small consumers, dominated by the low-income households, making targeted efficiency improvements such as insulation, heat pumps, solar water heaters, and appliance standards both achievable and cost-effective. The residential sector's energy intensity per capita remains high, suggesting considerable potential for demand-side management through behavioural change and technology retrofits.

The commercial and public sector uses 7% of all final energy, supporting retail, offices, hospitals, hotels.

Agriculture accounts for 66.9 PJ (3%), a relatively modest share reflecting the sector's limited mechanisation or its relatively small contribution to overall energy demand despite being economically important.



Source: UCT | 2024 Energy Balance

Figure 4. Structure of Total Energy Consumption by Sectors, 2024

The population has grown steadily, rising from roughly 47 million in 2005 to over 60 million by the mid-2020s, and has consistently exceeded GDP growth from 2008, resulting in a deterioration in average living standards, particularly when combined with high inequality and unemployment. The deterioration

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

in living standards, coupled with a steep rise in electricity tariffs, has increased energy poverty. Between 2004 and 2025, South Africa has seen significant tariff increases (Figure 5). The electricity crisis, which resulted in high levels of load shedding which have also weighed heavily (Figure 6), with Stage 1 resulting in the reduction of 1 GW of demand nationally, Stage 2 in 2 GW, Stage 3 in 3 GW and so forth. These events have impacted all households and all economic sectors.

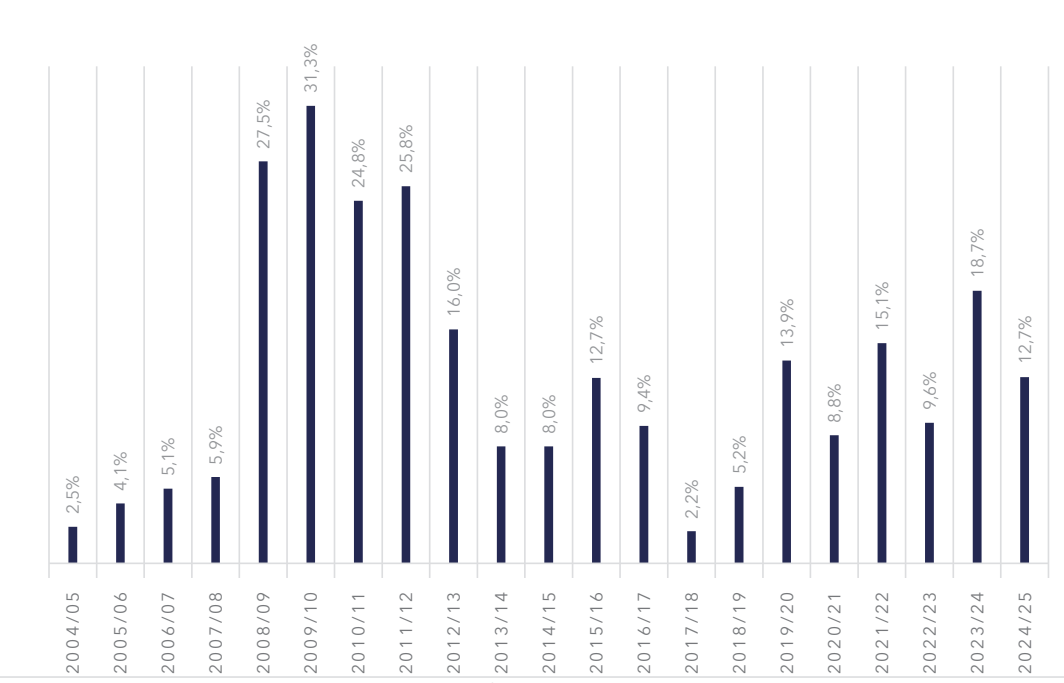
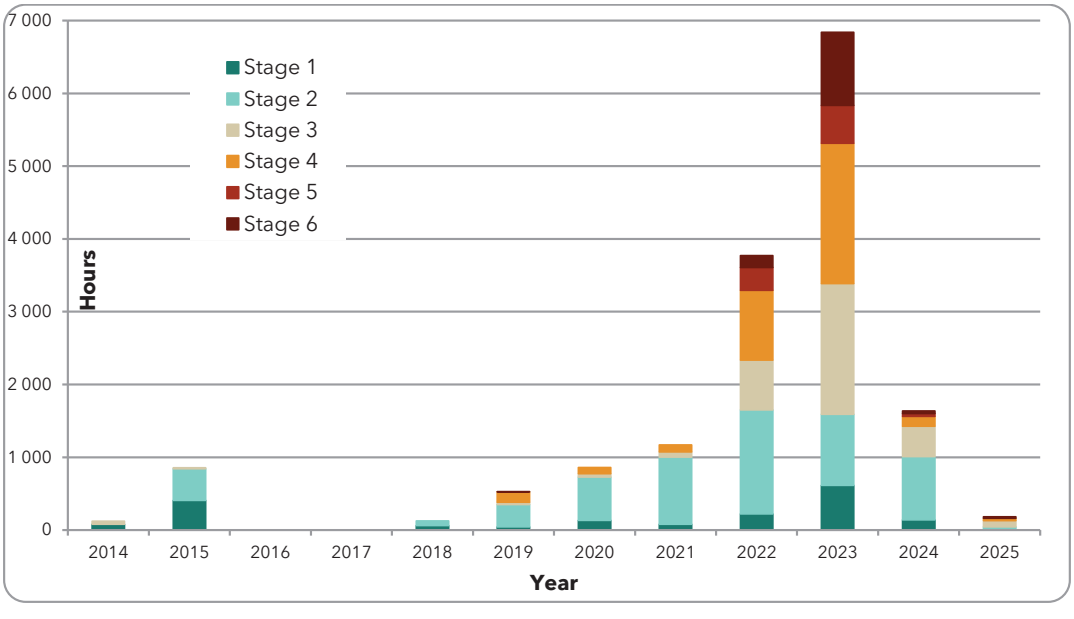


Figure 5. NERSA Standard Tariff Average Increase[iv]



Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Figure 6. South African Load Shedding Hours by Stage (2014-2025)[v]

The combination of load shedding and a sharp decrease in solar PV costs, of as much as 75% in the last decade, has seen an exponential growth of rooftop solar and the extension of the national Renewable Energy Independent Power Producer Programme (REIPPP).
Figure 7 shows how utility scale solar, which commenced from 2013, has been superseded by customer owned systems. The 2025 general household survey also found that 675,000 households now own solar panels.

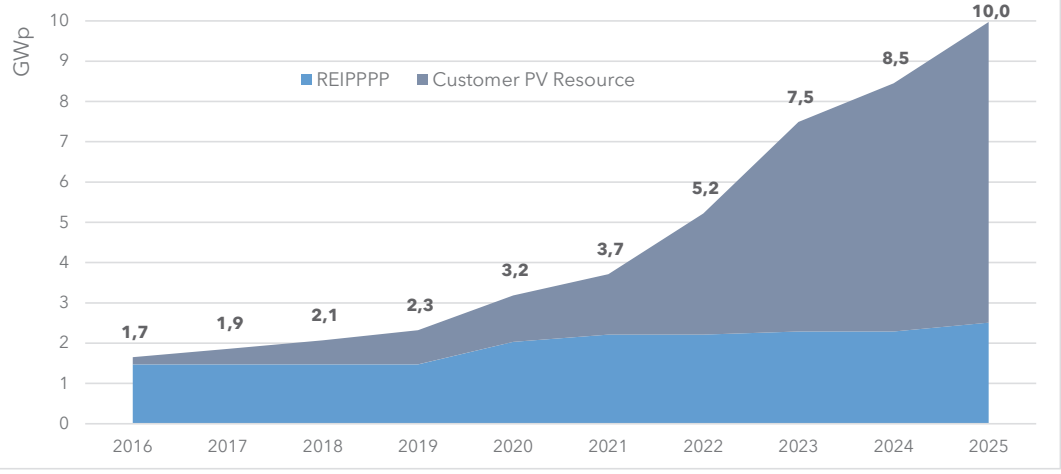


Figure 7. Estimated Annual South Africa Solar PV Installed Capacity[vi]

Notwithstanding these large increases in renewable energy, the grid is still dominated by coal.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

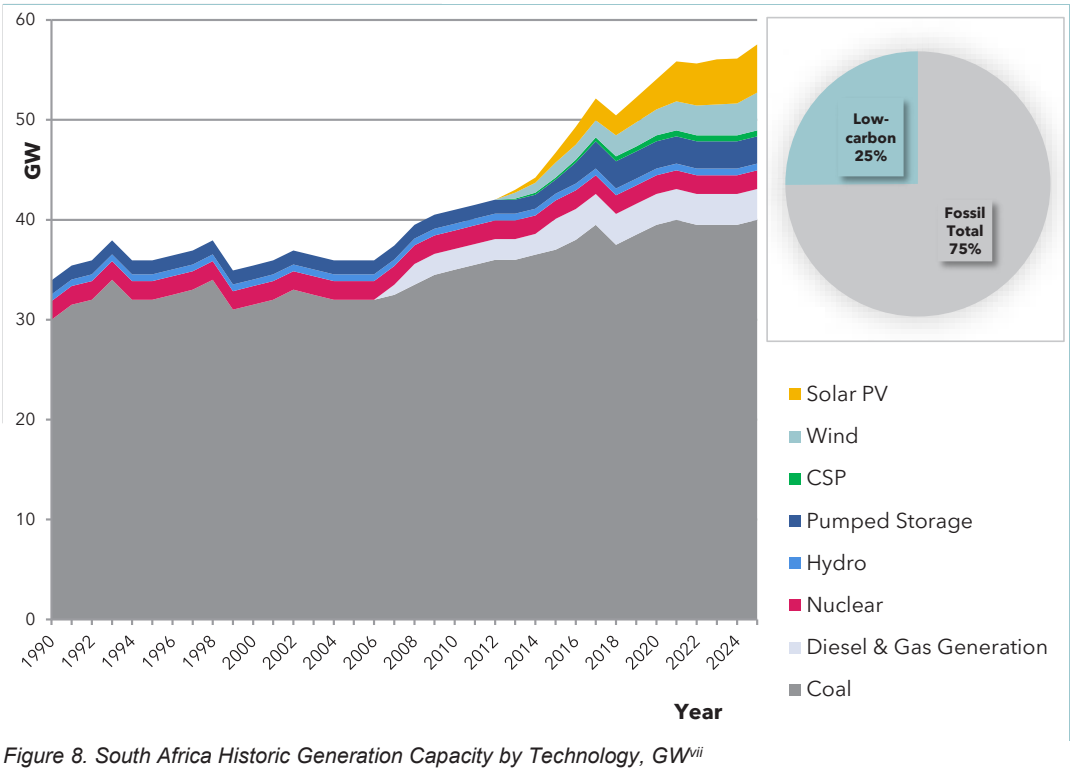


Figure 8. South Africa Historic Generation Capacity by Technology, GW[vii]

Road has historically dominated the transport sector with private car use and road freight transport being the two primary consumers of transport energy. South Africa's legacy of structural inequality consigned many households far from work. This legacy has not been substantively addressed since the democratic elections in 1994. In addition, the last decade has seen a major decline in commuter rail with COVID leading to the temporary closure of the service altogether in 2020. In 2025, commuter rail usage has stabilised and is on an upward trend it remains significantly below 2015 levels, as shown in Figure 9. Rail freight has also experienced declines. In 2018, 226 million tonnes of freight were transported by rail, whereas in 2025, this had decreased to 169 million tonnes.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

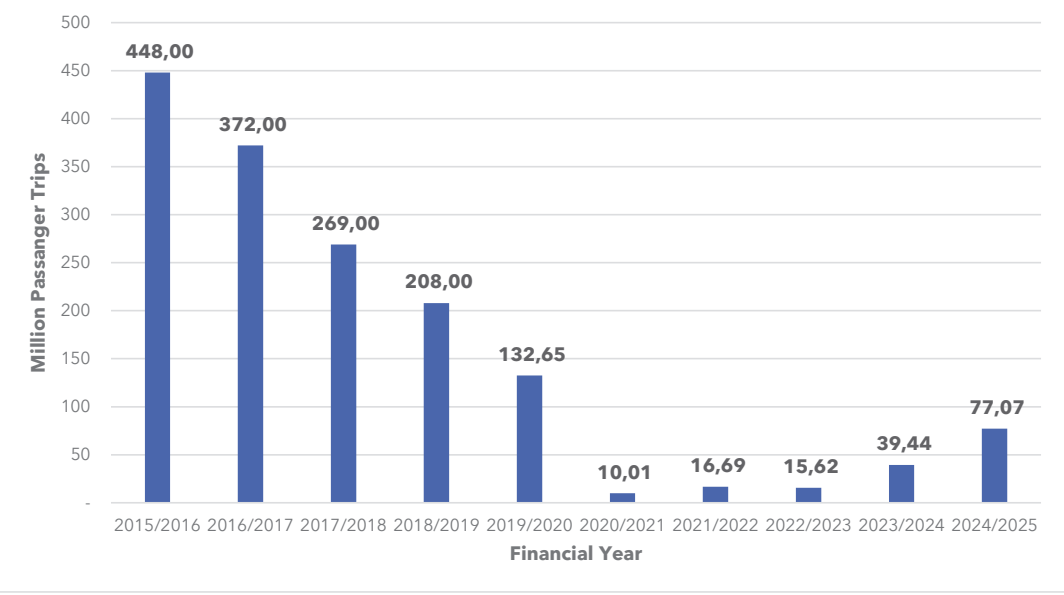


Figure 9. Passenger rail trips in South Africa per financial year (in millions)[viii]

Over the past decade, South Africa's energy landscape, predictable and stable for more than a century, has undergone fundamental change. Historically, two energy sources met almost all requirements: oil for transport and coal for nearly everything else, including transport-related energy needs. This transformation has been shaped by policy but complicated by several external factors. Policy instruments such as successive iterations of the IRP and the NDC demonstrate government's commitment to decarbonisation, as illustrated in Figure 8. At the same time, external disruptions have been significant, including extreme levels of loadshedding, where recorded consumption reflects what the system could supply rather than what the economy required; sustained above-inflation tariff increases affecting affordability; the closure of energy-intensive industrial manufacturing facilities; rapid growth in rooftop PV adoption due to declining costs of Solar PV and energy security; stagnant economic growth; and the COVID-19 pandemic, among others.

Taken together, these factors have impacted national energy data collection making reliable and timely data, for the purposes of the NEES, difficult to obtain. Where data is available, evidence based conclusions can be inconclusive as changes may reflect temporary disruptions rather than fundamental shifts. Moreover, an indicator that registers economic contraction as a policy success is undesirable as a target and thus economy-wide energy intensity cannot serve as a reliable performance indicator for this Strategy.

As a result, this Strategy does not use existing data to draw quantitative conclusions about energy efficiency. Instead, it adopts sectoral intensity metrics, based on physical output, floor area, and transport activity, as its primary measures of progress. Economy-wide intensity is retained only as a contextual indicator, while the establishment of a reliable statistical foundation under Goal 5 is treated as a precondition for meaningful performance assessment in the next strategy cycle.

Summary and Conclusion

Overall, for the period under review (2005 to 2025) carbon intensity has decreased slightly, but with a slight acceleration in the post-COVID and load shedding period. The reduction can be linked to a

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

combination of low economic growth and a sizable increase in renewables. However, coal remains the dominant energy source in industrial processes, with a high reliance on liquid fuels for transport. As such, South Africa is still the largest GHG emitter in Africa and 15th largest in the world. The country's grid emission factor was 0.942 tCO_2e/MWh in 2023, 45% higher than the global average. The Government of South Africa is determined to continue reducing its reliance on fossil fuels to improve its competitiveness and meet its international climate obligations, as evidenced by national climate mitigation strategies, to which this NEES aims to contribute meaningfully. (unpack this sentence) Sentence to articulate a supporting tool to address the above – NEES is a response measure to this problem being outlined

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Part Two: Strategic Imperatives and Barriers to Energy Efficiency

South Africa's energy system faces several interlinked pressures, including energy security concerns, rising energy supply costs, tariff increases, and climate commitments. Together, these pressures make energy efficiency an important national priority. This section outlines the strategic imperatives for energy efficiency and identifies the barriers that have limited its uptake at scale.

Table 3. National Energy Imperatives and Energy Efficiency

Title	Description
Strategic Imperatives	
National energy security	Energy efficiency and demand-side management, both generally and in response to the electricity crisis, offer the most immediate way to reduce peak demand and overall consumption, improving grid stability. Because South Africa is highly dependent on crude oil imports, reducing liquid fuel demand also lowers exposure to global oil price volatility and balance-of-payments pressures.
Minimising energy system costs	The Integrated Resource Plan 2025 sets out an investment plan of R 2.33 trillion covering the capital, fixed and operational costs of energy generation in South Africa until 2050[ix]. By reducing the need for infrastructure expansion, energy efficiency lowers total future investment of the energy system, which, in turn, lowers tariff increases.
Economic growth and competitiveness	Sustained increases in electricity tariffs, which have outpaced inflation, have increased costs for business and industry. Increased energy efficiency can lower costs and improve competitiveness.
Energy affordability and poverty alleviation	With 37.9 % of the population living below the lower-bound poverty line in 2023[x] energy poverty is a significant concern. Energy-efficiency measures can lower energy costs for low- and middle-income households and continue towards overcoming suppressed demand.
Just transition through job creation	The high unemployment rate of 31.4 %[xi] means job creation is a key component of just transition planning. Energy-efficiency interventions are labour-intensive, and the development of the sector will stimulate the creation of new employment opportunities.
Climate change mitigation commitments	The Second NDC under the Paris Agreement commits South Africa to an economy-wide greenhouse gas emissions target of 320–380 million tonnes of carbon dioxide equivalent (Mt CO_2-eq) by 2035 and highlights an ambition to achieve net-zero CO_2 emissions by 2050[xii]. Energy efficiency is incorporated in these NDC commitments.
Improving air quality	Local air quality is a challenge, particularly in the Highveld Priority Area and Vaal Triangle Airshed Priority Area, which are dominated by coal-fired power generation and heavy industry. Energy efficiency can reduce air pollution by lowering energy consumption.
Creating coherence between energy efficiency and renewable energy	The deregulation of the electricity sector to enable greater private-sector participation, combined with rapid reductions in the cost of renewable energy installations and steep increases in electricity tariffs, has driven an uptake in Solar PV installations by private-sector companies and homeowners. Energy efficiency reduces upfront capital investment in renewable energy generation and battery storage by decreasing total load.
Promoting energy efficiency generating dependable megawatts	Promotion of energy efficiency through policies, regulations, standards and awareness measures has the potential to reduce the energy consumption by an average of 5% in all sectors, and up to 20% in commercial and public buildings, improving competitiveness, creating jobs, reducing air pollution.

The above imperatives will require eliminating a number of market, institutional, technical and capacity/awareness barriers, which are summarised in the table below.

Table 4. Key Barrier Groups to Acceleration of Market Uptake of Energy Efficiency

Title	Description
Economic and Market Barriers	
Legacy of low electricity tariffs	Decades of underpriced electricity delayed efficiency adoption across all sectors. As the supply crisis deepened, consumers redirected capital toward energy security first to backup generators and then to solar PV, pushing efficiency further down the agenda.
High transaction costs	For many organisations, especially smaller enterprises, the costs of identifying opportunities, procuring advice, navigating incentive programmes, and managing implementation can outweigh the energy savings.
Fiscal constraints on public investment	Competing spending pressures limit state resources for efficiency programmes. As such, public expenditure cannot be the primary method of driving energy efficiency at scale.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Title	Description
Economic and Market Barriers	
Limited access to finance	Financial institutions have limited familiarity with energy efficiency project appraisal and tend to favour larger, more predictable renewable energy investments. Without dedicated financing products, cost-effective efficiency opportunities remain unrealised.
Absence of lifecycle costing	Procurement in both the private and public sectors defaults to the lowest upfront cost rather than the total cost of ownership, disadvantaging energy-efficient equipment that carries higher capital costs but lower operating costs.
Institutional and Governance Challenges	
Policy Framework	The 2005 NEES remains the most recently adopted NEES, meaning it lacks institutional force. Moreover, a National Energy Efficiency Action Plan to support the strategy's implementation has never been adopted.
Limited institutional prioritisation of energy efficiency	There is limited recognition of the strategic importance of energy efficiency within key institutions and policy documents. In particular, there is insufficient acknowledgement that energy efficiency and demand-side management measures are generally cheaper per unit of energy saved than new generation capacity. This imbalance has resulted in energy efficiency being consistently deprioritised, and even omitted, relative to supply-side interventions in energy planning, budget allocation, and institutional mandates.
Municipal revenue disincentives	Many municipalities derive a portion of their revenue from electricity sales creating a disincentive for municipalities to support energy-efficiency and demand-management programmes that would reduce municipal income. Increases in tariffs are increasingly driving municipal customers to adopt Solar PV, placing additional pressure on this municipal revenue source.
Non-mandatory policy approach	The voluntary nature of most energy efficiency measures has resulted in low uptake, making them insufficient mechanisms to drive energy efficiency at the scale and pace required to meet national energy security and climate objectives.
Termination of Eskom's Integrated Demand Management Programme	Between 2004 and 2013, Eskom's Integrated Demand Management (IDM) programme delivered savings in demand and energy, funded through a demand-side management levy. This levy was progressively reduced and ultimately withdrawn, removing the dedicated financing mechanism. The end of the programme resulted in a loss of the institutional capacity and technical expertise that had developed within Eskom. Despite the split-incentive challenges it faced, the IDM programme demonstrated that well-designed, adequately funded demand-side management can deliver energy savings at scale and at a cost well below that of new generation capacity.
Technical and Capacity Barriers	
Emerging ESCO Sector	The ESCO sector is still at an early stage of development and is dominated by a few large companies. The small scale of the sector means that is not able to respond to the scale of the energy efficiency opportunity. A mature ESCO market is essential to scaling energy-efficiency implementation, particularly for larger commercial and industrial projects.
Skills shortages across the energy efficiency value chain	There are insufficient energy managers, auditors, and technical specialists to deliver energy efficiency at scale. In addition, maintenance managers, electricians, plumbers, and other trades professionals who commission, install, and maintain key equipment have limited knowledge of energy efficiency principles and practices.
Absence of comprehensive monitoring, reporting, and verification:	There is a lack of monitoring, reporting, and verification for the energy-efficiency outcomes of regulations, levies, standards, and programmes. This impedes progress tracking against national targets, regulations and programme evaluations, and reporting. Without monitoring, reporting, and verification, it is not possible to assess the cost-effectiveness of interventions, identify underperforming programmes, or provide the evidence base needed to sustain political and fiscal support for energy efficiency.
Data availability and quality	There is no centralised, regularly updated database of energy consumption and efficiency data. The available data is incomplete and inconsistent, hindering evidence-based policymaking, baseline setting, and programme targeting. The absence of comprehensive, regularly updated energy consumption data makes it difficult to identify priority sectors and end-uses, quantify savings potential, and design appropriately targeted interventions.
Awareness and Behavioural Barriers	
Low general awareness of the value of energy efficiency	Despite steep increases in electricity tariffs, awareness of energy efficiency as a response remains low relative to the uptake of solar PV and backup generation, meaning that energy efficiency competes poorly for capital and management attention, even where it offers a faster payback than generation alternatives.
Decision-Making Limits	In organisations where energy management is not a core function, most decision-makers operate under "bounded rationality," meaning they have limited mental energy and time to devote to non-core tasks. In an organisation where energy isn't the main business, efficiency opportunities often are ignored because decision-makers are stretched and/or not technically able to evaluate them.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Part Three: Energy Efficiency Status Quo in South Africa

This chapter presents a high-level assessment of South Africa's energy efficiency landscape across 16 indicators. This assessment draws on the Regulatory Indicators for Sustainable Energy (RISE) framework, developed by the World Bank's Energy Sector Management Assistance Program (ESMAP). RISE is a globally recognised scorecard that benchmarks countries' policy and regulatory frameworks covering 140 economies and providing a structured basis for cross-country and longitudinal comparison.

In applying the RISE framework to the energy efficiency regulatory landscape, this report uses RISE regulatory sub-categories without assigning binary yes/no scores to individual policy and regulatory questions, instead RISE sub-categories and sub-indicators are used as an organising framework to assess the completeness and maturity of regulatory reform across each dimension. This adapted approach is intended to provide a more contextually appropriate assessment of South Africa's regulatory readiness than binary scoring allows, while preserving the analytical structure and international comparability that the RISE framework affords. However, the ratings reflect a more subjective assessment which is based on a review of publicly available legislation, regulations, policy documents, and sector reports current at the time of writing. Importantly, they do not represent official RISE scores, nor do they constitute an endorsement or position of the World Bank Group or ESMAP. Users are encouraged to consult the official RISE platform at rise.esmap.org for standardised country scores.

Regulatory progress is characterised using a three-tier rating scale:

🔴 Low (Red) — The regulatory or policy element is absent, nascent, or insufficiently developed to drive meaningful change.

🟡 Medium (Amber) — A regulatory or policy foundation exists but is incomplete, inconsistently applied, or not yet operationalised at scale.

🟢 Advanced (Green) — A comprehensive and functional regulatory or policy framework is in place, with evidence of implementation and enforcement.

Table 5. Energy Efficiency Status Quo

Indicator	Overview	Status	Next Steps
A: National Energy Efficiency Planning	South Africa has enabling legislation: the Electricity Regulation Act (2006), which establishes a national regulatory framework for the electricity supply industry, which includes the promotion of energy efficiency as an objective; the National Energy Act (2008), which aims to ensure a diverse, sustainable, and affordable energy supply; the 2005 and Post-2015 Draft NEES set sector-specific targets for the residential, commercial, industrial, and transport sectors. A NEEAP has not been adopted, and the IRP does not include energy efficiency as an energy source in its own right.	**Amber - Partially addressed or underperforming**	This 2025 – 2035 Strategy should be finalised and formally adopted, followed by the development of a NEEAP. The role of energy efficiency as an energy source should be recognised within the IRP.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Indicator	Overview	Status	Next Steps
B: Energy Efficiency Entities	A well-established institutional architecture for energy efficiency exists. DEE is responsible for setting the energy efficiency strategy, while the South African National Energy Development Institute (SANEDI), established under the National Energy Act (2008), is mandated to increase energy efficiency throughout the economy. The South African Bureau of Standards (SABS) develops and maintains national standards, including those governing energy efficiency. The NERSA regulates the electricity supply industry, and the National Regulator for Compulsory Specifications (NRCS) enforces minimum energy performance standards and labelling requirements. Municipalities are responsible for certifying compliance with building energy codes, and the South African Council for the Architectural Profession (SACAP) registers and certifies building control officers.	**Green — Well established**	
C: Information Provided to Consumers About Electricity Usage	Consumer billing is handled by Eskom and municipalities, with clear pricing information generally included in bills. The 2025 Net-Billing Rules introduced billing-transparency and metering-accuracy requirements, though these apply only to net-billing customers. The Consumer Protection Act (2008) obligates suppliers to ensure accurate metering and fair billing. However, historical usage comparisons are rarely provided, real-time feedback on energy usage is not technically available, and utilities do not offer remote energy management tools.	**Amber - Partially addressed or underperformin g**	Consumers should be enabled to compare their current electricity usage against historical consumption patterns through enhanced billing information. Real-time energy feedback and remote energy management tools for consumers should be explored.
D: Energy Efficiency Incentives from Electricity Rate Structures	All customer categories (residential, commercial, and industrial) pay for energy charges per kWh. Demand charges and reactive power charges are typically applied to larger commercial and industrial customers. Similarly, time-of-use tariffs with peak, off-peak, and standard periods are generally applied to larger commercial and industrial customers. The Electricity Regulation Amendment Act (ERAA) of 2024 and the forthcoming Wholesale Market Code are expected to enable real-time, variable peak, and critical peak pricing within a competitive market framework.	**Amber - Partially addressed or underperforming** **Trending upwards**	Seasonal and time-of-use tariff differentiation should be extended to more residential and small commercial customers to provide behavioural signals for energy efficiency. Real-time pricing, variable peak pricing, and critical peak pricing should be implemented by building on the enabling framework provided by the ERAA 2024 and the forthcoming Wholesale Market Code.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Indicator	Overview	Status	Next Steps
E: Incentives and Mandates – Large Consumers	South Africa has virtually no mandatory energy efficiency requirements for large energy consumers. There are no mandated energy audits, efficiency targets, energy management systems, or measurement and verification programmes for large-scale users. However, two financial incentives exist: Eskom's Demand Management Programme offers performance-based incentives, and the Section 12L Income Tax Allowance provides a 95 cents per kilowatt-hour deduction for verified energy savings, extended to 31 December 2030. In terms of energy data collection, there are regulations in place allowing DEE to secure energy data from a variety of entities. However, limited use is currently made of this authority.	**Red — Largely unaddressed**	The regulatory framework for large energy consumers requires strengthening. Mandatory energy audits and efficiency targets should be implemented, along with additional incentives for large-scale energy users. A measurement and verification programme is needed to track and validate energy savings. DEE's existing authority to secure energy data from a variety of entities should be more actively utilised to support evidence-based policy and compliance.
F: Incentives and Mandates – Public Sector	The public sector has no binding energy savings obligations for its buildings or other public facilities, and energy savings from efficiency activities are not systematically tracked. However, Energy Performance Certificates (EPCs) for Buildings regulations published in 2020 require the display and submission of EPCs for government buildings over 1 000 square metres (offices, entertainment and public assembly, theatrical and indoor sport, and places of instruction). There are no dedicated public procurement guidelines for energy-efficient products. However, public entities may retain energy savings from efficiency measures, and public procurement allows for life-cycle costing and the application of international standards in bid evaluations. Obligatory energy efficiency requirements exist for construction works through the National Building Regulations (Part XA), and the Standards and Labelling Programme partially covers goods.	**Amber - Partially addressed or underperforming**	Energy savings obligations and tracking requirements for public buildings and facilities should be established. Public procurement provides an opportunity to advance energy efficiency, and guidelines that encourage the specification of energy-efficient products will leverage the scale of government purchasing. The scope of EPC obligations should be broadened to cover a wider range of public building categories.
G: Incentives and Mandates – Utilities	South Africa imposes almost no energy efficiency obligations on utilities (Eskom and municipalities) across electricity generation, transmission and distribution, or demand-side management. There are no mandatory requirements, performance targets, third-party verification, or penalties for non-compliance in any of these areas. Eskom operates a Distribution Demand Management Programme (DDMP) and offers customer incentives for demand response, but municipalities lack similar programmes. There are some cost-recovery mechanisms for energy-efficiency activities as allowed by NERSA.	**Red — Largely unaddressed**	Energy efficiency obligations for utilities, starting with Eskom and the eight Metropolitan Municipalities, should be put in place. More cost-recovery mechanisms are needed for utility-led energy efficiency and demand management programmes. Design of utility programmes should draw on the experience of the Eskom IDM programme. Municipalities should continue to be supported in revising their tariffs to ensure revenue protection.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Indicator	Overview	Status	Next Steps
H: Financing Mechanisms for Energy Efficiency	Financing for energy efficiency varies by sector. In the residential sector, green mortgages are available through commercial banks for EDGE-certified developments, and commercial loans are accessible. The commercial and industrial sectors benefit from the Section 12L tax allowance and some preferential green-loan products and government financing through the Industrial Development Corporation and the Development Bank of Southern Africa (DBSA) exist, including the DBSA-managed Green Fund, which offers project preparation grants and finance for initiatives supporting energy efficiency. Municipalities benefit from the Municipal Energy Efficiency Demand Side Management (EEDSM) Programme, operating since 2009, which provides grants to municipalities to reduce their electricity consumption. However, on-bill financing, green bonds, vendor credit, partial risk guarantees, and ESCO financing are largely unavailable across all sectors. There are no tax incentives for residential investments.	**Amber - Partially addressed or underperforming**	A more comprehensive suite of financing instruments for energy efficiency is needed. The systematic quantification of energy savings would support the investment case and help to address the general underfunding of energy efficiency initiatives. The potential for tax incentives for residential energy efficiency investments should be evaluated.
I: Minimum Energy Efficiency Performance Standards	South Africa's Standards and Labelling Programme mandates minimum energy performance standards (MEPS) for a range of appliances, including refrigerators, freezers, washing machines, dryers, dishwashers, electric ovens, air conditioners, light bulbs, storage water heaters, and electric motors. The Compulsory Specification VC 9008 (2014) covers most appliances, VC 9006 (2014, amended 2016) covers hot water storage tanks for domestic use, VC 9109 (2024) introduced phased minimum efficacy levels for general service lamps, and VC 9113 (2024) introduced compulsory efficiency requirements for Electric Motors. Enforcement is carried out by the National Regulator for Compulsory Specifications (NRCS). However, enforcement capacity is limited, and there is a lack of reliable, accredited test laboratories to support compliance verification.	**Amber - Partially addressed or underperforming** **Trending downwards**	The MEPS for most residential appliances (excluding lighting) were set in 2014. These were updated (strengthened) during the development of this Strategy[2]. This is a positive development but it is important for review cycles to be undertaken more regularly, typically every five years. Enforcement capacity within the NRCS requires strengthening, and the lack of reliable, accredited test laboratories to support compliance verification requirements needs to be addressed.
J: Energy Labelling Systems	Mandatory energy efficiency labelling is in place for refrigerators, AC, electric ovens, light bulbs, storage water heaters, tumble dryers, washing machines, and dishwashers through the S&L Programme. These labels are government-mandated and enforced by the NRCS. However, the current energy labelling programme does not extend to industrial equipment, vehicles, or cookstoves, and the existing energy label format is outdated.	**Amber - Partially addressed or underperforming** **Trending downwards**	The scope of the energy labelling programme should be expanded to include industrial equipment, vehicles, and cookstoves. The existing energy label format should also be updated to ensure it remains relevant and effective in supporting consumer decision-making.

[2] Government Gazette Vol 734 Number 55257 Published 28 August 2026

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Indicator	Overview	Status	Next Steps
K: Building Energy Codes	South Africa has mandatory energy efficiency codes for both new and renovated buildings through Part XA of the National Building Regulations, underpinned by the Regulations for Energy Usage in Buildings (Notice R. 711 of 2011), supported by SANS 10400-XA:2021 and implemented by municipalities. The code applies to most building classes, including public venues, schools, hospitals, shops, offices, hotels, and homes. EPCs are mandatory for certain building categories (private buildings over 2 000 m² and government buildings over 1 000 m² in specified use classes), with ratings from A to G based on SANS 1544:2014. There are no incentives or mandates for high-performance green building certifications, and there are no requirements for energy disclosure at the point of sale or lease for residential or commercial buildings.	**Amber - Partially addressed or underperforming**	Municipalities should be supported in improving the enforcement of the mandatory energy-efficiency codes. The potential of energy disclosure requirements at the point of sale or lease for residential and commercial buildings should be evaluated. The extension of EPC obligations to residential buildings would improve transparency around building energy performance. Incentives or mechanisms to encourage green building certifications could further drive improvements in energy performance in the built environment.
L: Carbon Pricing	South Africa has a fully operational carbon pricing mechanism. The Carbon Tax, enacted through the Carbon Tax Act (2019), came into effect on 1 June 2019. The act is complemented by the Carbon Fuel Levy (effective June 2019) on petroleum products and the Environmental Levy on CO_2 Emissions of Motor Vehicles (effective September 2010). There is also a comprehensive monitoring, reporting, and verification (MRV) system under the National Greenhouse Gas Emissions Reporting Regulations (2016, amended 2020), which requires companies performing listed activities above specified thresholds to annually measure and report facility-level greenhouse gas emissions using methodologies aligned with the Intergovernmental Panel on Climate Change (IPCC).	**Green — Well established**	Evaluate the possibility of apportioning carbon tax as a potential funding source for energy efficiency and demand-side management.
M: Energy Statistics	The DEE is the agency responsible for preparing South Africa's official national energy balance. However, energy balance information is not available in a timely manner and lacks accuracy, and there is no active monitoring of the effectiveness of various energy efficiency programmes to guide decision-making. There is also no centralised and up-to-date repository for energy data.	**Red — Largely unaddressed**	Establish a centralised and up-to-date national energy data repository. The timeliness and accuracy of the national energy balance should be improved. Design and implement a M&E framework to systematically track the performance of energy-efficiency and demand-management programmes.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Indicator	Overview	Status	Next Steps
N: Energy Efficiency Development Tools	A functioning national Energy Service Company (ESCO) Register was established in 2017 by SANEDI, with 144 registered ESCOs across three tiers in 2024. National standards exist for energy audits (SANS 50002/ISO 50002) and energy management systems (SANS/ISO 50001), although neither audits nor energy management systems are mandatory.	**Amber - Partially addressed or underperforming**	The voluntary nature of energy audits and energy management systems limits uptake. Evaluate the impact of making these requirements compulsory for designated categories of energy consumers. Continue to support ESCO capacity building and market development.
O: Education and Capacity Development	There are no formal requirements or structured programmes for energy efficiency education and capacity development. However, numerous programmes and organisations contribute to energy-efficiency capacity development. These include the Energy and Water Sector Education and Training Authority (EWSETA), the SANEDI ESCO Register and support programme, the Energy Efficiency in Public Buildings and Infrastructure Programme (EEPBIP), the Municipal Energy Management Systems (MEMS) Programme, the National Cleaner Production Centre South Africa (NCPC-SA), the Institute of Energy Professionals Africa (IEPA), and the Green Building Council of South Africa (GBCSA).	**Amber - Partially addressed or underperforming**	Explore the potential of formal requirements for structured energy efficiency capacity development programmes, building on the existing contributions of organisations and programmes such as SANEDI, EEPBIP, MEMS, NCPC-SA, IEPA, and GBCSA.
P: Public Awareness	There are no formal requirements for public awareness of energy efficiency in South Africa. However, DEE, Eskom and other entities undertake awareness-raising efforts across a range of areas. Most notably during the electricity crisis, Eskom's Power Alert initiative during peak time television was particularly effective.	**Amber - Partially addressed or underperforming**	Fund and expand government-led information and awareness channels.

South Africa's energy efficiency framework spans more than twenty years and covers two previous strategy cycles: the 2005 NEES, which set a voluntary economy-wide target of a 12% reduction in energy-intensity demand by 2015, supported by discrete sectoral targets; and the 2016 Draft Post-2015 NEES, which proposed a 16% reduction in consumption by 2030. However, a National Energy Efficiency Action Plan (NEEAP) was never adopted. In developing this third iteration of the NEES, the DEE has reflected on past experience and key events to inform its design. The main considerations include:

- **Prioritise adoption and implementation**: The 2005 NEES remains the only adopted strategy, but it is now outdated. Stronger policy signals are therefore required to provide an authoritative basis for action, anchored in Cabinet adoption of the NEES 2026–2035 and a supporting NEEAP.
- **Responsibilities and funding**: Energy efficiency is cross-cutting and has multiple cost-effective economic, social and environmental benefits. However, its success relies on inter-departmental implementation, which is accountable and adequately funded. The IDM programme's funding mechanism demonstrates what can be achieved with dedicated and reliable funding sources.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

- **Data collection and performance management**: A failure to adequately and consistently collect data and performance outcomes means that there is limited evidence for ongoing policy making and funding. How centre of excellence will consider demand. Internal unit as first collection with dedicated support for analysis
- **Metrics:** As has been noted in the previous chapter, inappropriate metrics may lead to the wrong conclusions. By example, energy efficiency should not record deindustrialisation (plant closures) as a positive outcome. UCT data reports the metrics needs to be updated for future iterations of the NEES (modalities between modelling and centre of excellence)
- **Efficiency and supply side interventions:** If not embedded in planning with regular review efficiency loses to supply-side priorities. During the electricity crisis, capital moved to backup generation and rooftop solar ahead of efficiency despite shorter paybacks, and efficiency has not been treated as a resource in the IRP since 2010. Minimum energy performance standards for large household appliances set in 2011 and 2014 and are now outdated and rated as trending downwards.

With the benefit of hindsight, the Government of South Africa recognises that the constraint on delivery has not been technical potential, cost-effectiveness or awareness of the opportunity, but the absence of adopted instruments, assigned responsibility, durable financing and verified measurement. Goals 1, 2, 4 and 5 are structured accordingly, on the basis that the sectoral interventions under Goal 3 will not deliver at scale without them.de

Going forward these are the planning tools that would need to be considered

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Part Four: Proposed National Energy Efficiency Strategic Vision and Targets (2025-2035)

Strategic Vision

To make energy efficiency a practical driver of South Africa's energy security, affordability, competitiveness and resilience through strong institutions, effective regulation, coordinated investment and economy-wide implementation.

Quantitative Targets (2025-2035)

The projections have estimated that the baseline energy consumption of 2,229 PJ (~619TWh) will grow by approximately 11%, which would be equivalent to 2,474 PJ (~687 TWh) in 2035. The NEES targets are derived from energy-demand modelling only covering the industrial, transport, residential, commercial & public services sectors. The modelling indicates energy demand increase from approximately 2,162 PJ (or 601TWh) in 2024 to 2,401 PJ (667 TWh) in 2035 in these four sectors. This does not include energy demand in agriculture and own consumption in the power sector.

Nation-wide target

By 2035, this Strategy targets a reduction in national final energy demand (*or avoided energy use*) of approximately **132 PJ (or nearly 37 TWh), reducing** the projected energy demand to 2,401 PJ (or 630 TWh) for the four modelled sectors by **5.5%** compared to the projected national final energy demand in 2035 (which is equivalent to 6.1% of energy consumption in 2024 baseline for the four modelled sectors). This is the headline commitment of the NEES 2025–2035 across large energy-consuming sectors.

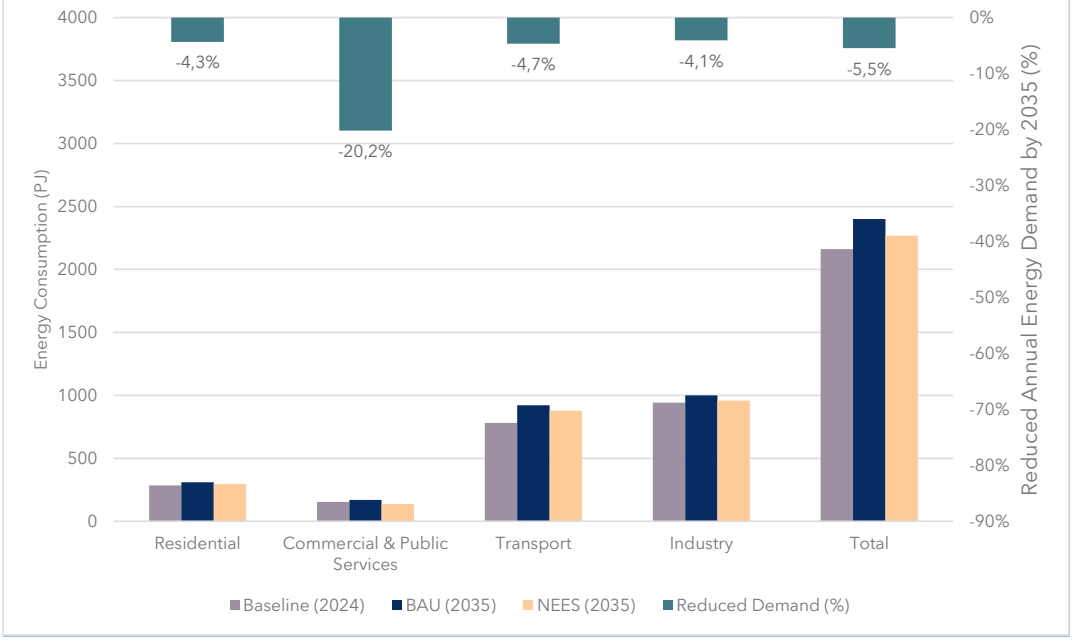


Figure 10. Sectoral Energy Consumption: Baseline, Without new EE (BAU), and NEES (PJ and % target)

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Because absolute demand is shaped by economic and population growth, energy intensity (energy used per unit of activity) is a complementary measure of efficiency progress that is less sensitive to growth. The Strategy adopts the following intensity-improvement targets by 2035 for each of the sectors.

Table 6. Indicative energy-intensity improvement targets by 2035 relative to 2024, from the NEES Interventions

Sector	Segment	Intensity metric	BAU*	EE (target)
Industry	**Heavy industry:**	GJ per tonne		−5%
	Iron & Steel	GJ/t	-3%	-4%
	Ferroalloys	GJ/t	-7%	-9%
	Aluminium	GJ/t	0%	-1%
	Pulp & Paper	GJ/t	-2%	-1%
	Non-Metallic Minerals	GJ/t	-3%	-4%
	Platinum Group Metals	GJ/t	-2%	-4%
	Other industry:	GJ / Rand Gross Value Added (GVA)		−8%
	Mining	GJ/R bn GVA	-9%	-18%
	General Manufacturing	GJ/R bn GVA	-1%	-10%
	Chemicals	GJ/R bn GVA	+16%	+4%
	Other Precious & Non-Ferrous Metals	GJ/R bn GVA	+1%	-2%
	Food & Beverages	GJ/R bn GVA	-5%	-11%
Transport	**Passenger**	MJ / passenger km		−14%
	Freight	MJ / tonne km		−12%
Commercial and Public Services	**Buildings**	GJ / m²		−26%
Residential	**Household**	GJ / household		−9% to −15%

* In some subsectors the forecasting assumed that the enterprises will increase own steam and electricity generation, which will transfer some of the primary fuel use on-site. This will lead to increased energy intensity of the given industrial process.

Industry

Industrial final energy demand is estimated to increase from approximately 940.5 PJ in 2024 to 999.6 PJ in 2035 if no new energy efficiency measures are introduced (6.28%). Industrial energy demand will continue to remain high and grow further due to the large share of energy-intensive commodity-producing sectors and the growing volumes of economic output. Some of the key industrial subsectors drive the demand and display high energy intensities:

- Pulp and paper remains the largest energy-consuming industrial subsector throughout the projection period, driven by increasing demand for paper, packaging and forestry products.
- Mining will continue to be a large consumer of energy, despite a gradual decline over time.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

- The non-metallic minerals subsector will experience the most significant growth among all industrial subsectors due to the increased production of cement, lime, glass and other construction materials.
- Ferroalloys will continue as an energy-intensive subsector due to the nature of smelting.
- General Manufacturing will show strong and sustained growth throughout the projection period.
- The Chemicals subsector remains relatively stable through 2035, reflecting the sector's large existing energy base.
- Iron and steel subsector is expected to register increased production and the gradual introduction of new production technologies. 76% of all primary energy consumption in this sector is comprised of electricity, bituminous coal and natural gas.

Thermal processes account for 77% of total industrial energy demand, including process heating applications such as industrial boilers, furnaces, kilns, dryers, smelters, cement production processes, lime kilns, glass furnaces, iron and steel production technologies, ferroalloy smelting operations, and combined heat and power systems.

Targeted efficiency measures have the potential to reduce industrial energy consumption by 40.7 PJ by 2035. To utilise this potential, the NEES proposes a number of measures for the industrial sector in Part Five.

Table 7. Industrial Energy Use Comparison: 2024 Baseline vs 2035 Projections (PJ)

Scenario	Energy Use (PJ)	Change vs 2024 (PJ)	Change vs 2024 (%)	Note
2024 Baseline	940.5	0.0	0.0%	Reference year
2035 Projected (No Intervention)	999.6	+59.1	6.3%	With no new energy efficiency measures
2035 with NEES EE Interventions	958.9	+18.4	+2.0%	After efficiency measures
Reduced Annual Energy Demand by 2035 due to EE	40.7	vs 2024 baseline	-4.3%	Impact of NEES EE measures
Cumulative Annual Saving during 2025-35 NEES timeframe	294.6	vs 2025-2035 baseline		Aggregate of annual NEES Impacts

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

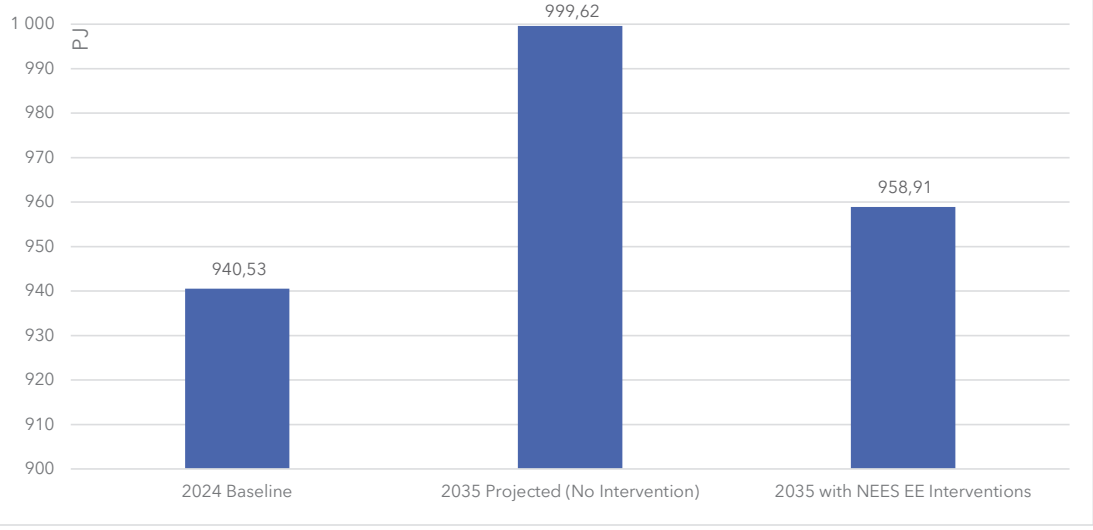


Figure 11. Impact of NEES EE on Industrial Energy Use (PJ)

Transport

Rising demand for transport services is expected to increase associated energy consumption from 782 PJ in 2024 to 921.4 PJ in 2035, a 17.8% increase, assuming current policies, existing efficiency gains, and projected economic growth continue. In 2024, diesel accounted for more than half of primary transport energy use at 52%, followed by gasoline at 38%.

Additional energy-efficiency measures, including greater use of public transport, increased freight movement by rail, and wider electrification of transport services, have the potential to reduce transport energy consumption by 43.3 PJ by 2035. Most of the savings are expected from passenger transport through a higher public transport share, followed by freight shifts to rail and the associated use of electricity. To realise this potential, the NEES proposes transport-sector policy measures in Part Five.

Table 8. Transport Energy Use Comparison: 2024 Baseline vs 2035 Projections (PJ)

Scenario	Energy Use (PJ)	Change vs 2024 (PJ)	Change vs 2024 (%)	Note
2024 Baseline	782.0	0.0	0.0%	Reference year
2035 Projected (No Intervention)	921.4	+139.4	+17.8%	With no new energy efficiency measures
2035 with NEES EE Interventions	878.1	+96.1	+12.3%	After efficiency measures
Reduced Annual Energy Demand by 2035 due to EE	43.3	vs 2024 baseline	-5.5%	Impact of NEES EE measures
Cumulative Annual Saving during 2025-35 NEES timeframe	250.9	vs 2025-2035 baseline		Aggregate of annual NEES Impacts

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

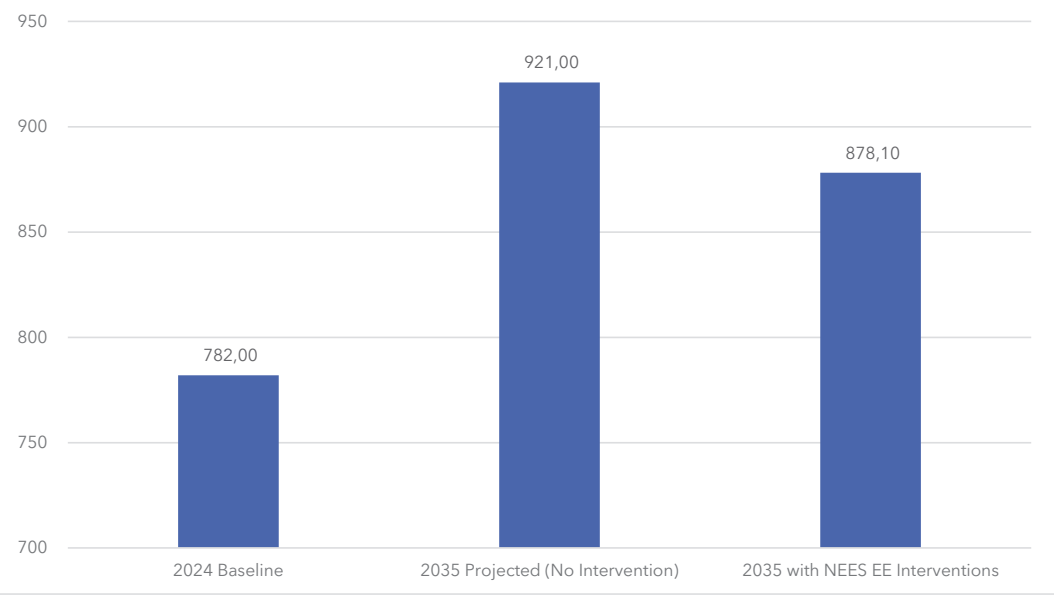


Figure 12. Impact of NEES EE on Transport Energy Use (PJ)

Residential Sector

Residential energy consumption is projected to rise by 8.5%, from 285.2 PJ in 2024 to 309.4 PJ in 2035. This growth is driven by population growth, increased electrification, and rising incomes associated with GDP growth, which increase demand for energy services and appliances such as water heaters, refrigerators, stoves, and televisions. In addition, it is expected that air-conditioning demand will rise both in response to increases in temperatures associated with climate change and rising incomes and it is crucial that performance standards are introduced to avoid the lock-in of inefficient units. Under baseline conditions, growth remains limited to around 9% because existing policies, including appliance MEPS and SANS 10400-XA building codes, are expected to continue delivering efficiency gains, provided they are regularly reviewed and strengthened.

Electricity is the main provider of energy in the residential sector; however, low-income households are still making use of coal, paraffin or wood for cooking and water heating. There are opportunities to support low-income households to shift away from wood, paraffin and coal towards electricity for water heating and cooking, as electricity is more efficient and has other non-energy related benefits such as improved air quality, reduces deforestation, and frees up time, especially for women, for other activities. Large energy efficiency opportunities also exist in improving the efficiency of lighting, refrigeration (fridges and freezers), and air-conditioners as discussed in the national cooling plan, improving the thermal efficiency of homes, as well as the transition to PV.

Fuel shifts combined with improvements in appliance efficiency, lighting technologies, water heating systems and building thermal performance have the potential to reduce energy use intensities between 9-15% per household leading to a 4.30% reduction in 2035 in addition to the continued momentum of existing policies. The NEES proposes a number of measures for the residential sector in Part Five.

Table 9. Residential Energy Use Comparison: 2024 Baseline vs 2035 Projections (PJ) in Residential Sector

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Scenario	Energy Use (PJ)	Change vs 2024 (PJ)	Change vs 2024 (%)	Note
2024 Baseline	285.2	0.0	0.0%	Reference year
2035 Projected (No Intervention)	309.4	+24.2	8.5%	With no new energy efficiency measures
2035 with NEES EE Interventions	296.1	+11.0	+3.8%	After efficiency measures
Reduced Annual Energy Demand by 2035 due to EE	13.3	vs 2024 baseline	-4.7%	Impact of NEES EE measures
Cumulative Annual Saving during 2025-35 NEES timeframe	76.3	vs 2025-2035 baseline		Aggregate of annual NEES Impacts

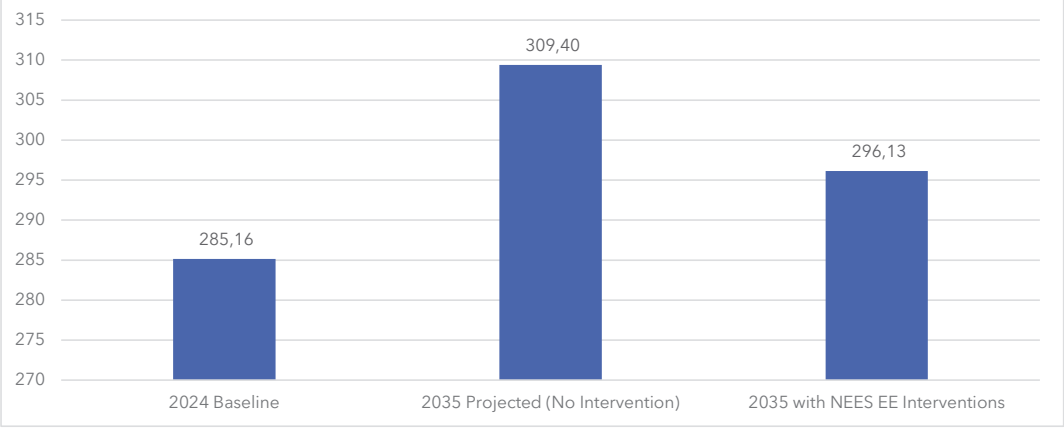


Figure 13. Impact of NEES EE on Residential Energy Use (PJ)

Commercial and Public Services Sector

The energy consumption in the commercial and public sector is expected to grow from 153.9 PJ in 2024 by 10.72%, reaching 170.4 PJ in 2035. This growth is driven by increases with GDP with an expectation that every 1% increase in GDP results in a 0.4% increase in commercial and service building floor space, including private and public offices, retail buildings, hotels, restaurants, public water services, and other commercial and public services. Growth in school and hospital floor space is expected to grow in-line with demographic trends. As floor space expands, digital infrastructure is also expected to grow, increasing IT loads and data centre capacity.

Energy use in this sector is closely tied to building type and the activities carried out within those spaces. Energy consumption is largely driven by building operations. However, offices, retail spaces, hotels, hospitals, schools, and government buildings each have distinct energy profiles depending on occupancy patterns, operating hours, equipment intensity, and service requirements. There are opportunities for efficiency gains through improved efficiency in new buildings, upgrades to HVAC systems, improvements in lighting and appliance efficiency, introduction of energy management systems and building controls, as well as deployment of rooftop solar PV and other distributed renewable energy systems.

With NEES EE interventions, energy consumption will decrease by 18.3 PJ below 2024 baseline, resulting in total avoided energy in 2035 due to EE measures: 34.8 PJ (vs projected 2035). The relevant policy measures to achieve these are presented in Part Five.

Table 10. The Commercial and Public Services Energy Use Comparison: 2024 Baseline vs 2035 Projections

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Scenario	Energy Use (PJ)	Change vs 2024 (PJ)	Change vs 2024 (%)	Note
2024 Baseline	153.9	0.0	0.0%	Reference year
2035 Projected (No Intervention)	170.4	+16.5	10.7%	With no new energy efficiency measures
2035 with NEES EE Interventions	135.6	-18.3	-11.9%	After efficiency measures
Reduced Annual Energy Demand by 2035 due to EE	34.8	vs 2024 baseline	-22.6%	Impact of NEES EE measures
Cumulative Annual Saving during 2025-35 NEES timeframe	213.1	vs 2025-2035 baseline		Aggregate of annual NEES Impacts

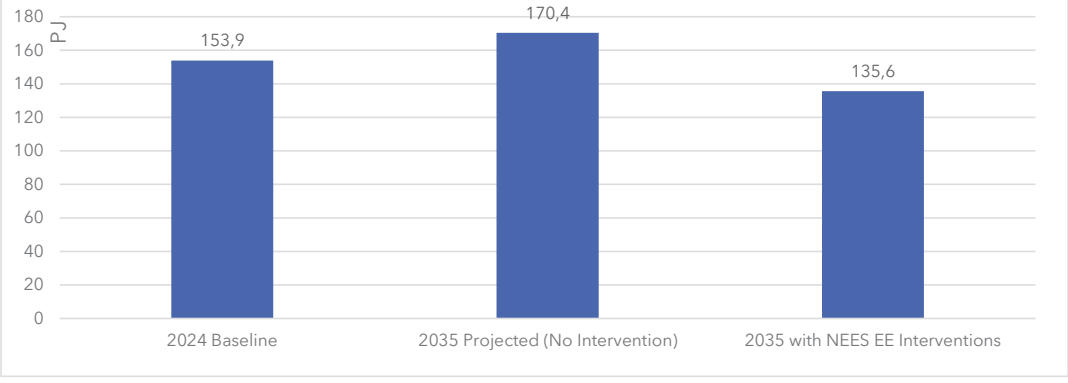


Figure 14. The Commercial and Public Services Energy Use Comparison: 2024 Baseline vs 2035 Projections (PJ)

Conclusion

The sectoral modelling discussed above demonstrates that energy efficiency can make a significant contribution to moderating South Africa's future energy demand and so supporting wider objectives of energy security, affordability, competitiveness and decarbonisation. Across the four modelled sectors, a variety of expanded energy efficiency opportunities are identified that will result in a reduction of final demand by 132 PJ relative to the projected energy demand in 2035. The strategic goals and associated actions set out in Part Five translate these opportunities into the policy.

It is important to note that data quality and completeness on energy use technologies, fuels and energy use intensities for all sectors create a significant uncertainty in energy use analytics and projections. Furthermore, load shedding and embedded generation (shifting a growing share of commercial energy use behind the meter) have reduced observed grid electricity consumption, making measured energy consumption appear artificially low in some cases.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Part Five: Strategic Goals and Objectives

The NEES establishes an ambitious 2035 target to achieve 132 PJ of avoided energy through efficiency measures across all sectors of the economy. This represents a fundamental shift from business-as-usual, such as controlling residential energy consumption despite rising incomes, reducing commercial energy intensity, ensuring that industrial energy consumption grows slower than the output, and improving transport sector efficiency.

The targets for each sector are grounded in energy modelling and represent the cumulative impact of interventions in each sector. However, these targets can only be accomplished with a coherent framework of governance structures, regulatory instruments, financing mechanisms, sectoral strategies, capacity building, and robust monitoring systems. To advance towards the set targets, NEES sets five strategic goals and their supporting objectives that collectively address the critical regulatory gaps which pose barriers to energy efficiency implementation identified by the Traffic Light Analysis in Part Three. These goals are deeply interconnected, one building on the progress of others.

Strategic Goal 1. Strengthen EE Governance and Policy

South Africa has well-established energy efficiency institutions but lacks a coordinated approach, and energy efficiency is not yet designated as an energy resource across relevant policies and plans. The last formally adopted NEES dates from 2005, and no NEEAP has been adopted.

Required actions are:

1.1 Formally adopt this 2025–2035 NEES: Adoption of the NEES by Cabinet provides the policy certainty needed for implementation across all sectors.

1.2 Establish institutional arrangements for implementation: Clear institutional mandates are essential for successful implementation. The lead department for the strategy is the DEE. A lead agency for each of the sectors and the lead agency for key elements such as data collection should also be identified. Institutions must be allocated sufficient funding to fulfil their mandates.

1.3 Establish a dedicated budget allocation for EE oversight. Dedicated funding is needed to ensure continuity of EE oversight, planning, implementation and monitoring, enabling effectiveness of work under objective 1.2.

1.4 Develop and adopt a NEEAP: A costed NEEAP is needed to operationalise this strategy. The NEEAP must be developed and adopted in close succession to the adoption of the NEES, detailing actions for each objective with a costed implementation schedule, assigned primary and supporting institutional responsibilities aligned with the institutional arrangements from 1.2, and a funding approach.

1.5 Adopt a five-year NEEAP review cycle: In line with international experience, a regular review cycle ensures that the NEEAP is dynamic and responsive to change. The NEEAP must be reviewed in five-yearly intervals.

1.6 Establish an Intergovernmental Energy Efficiency Coordinating Committee (IEECC): For the strategy targets to be achieved cross-government coordination and oversight is necessary. The IEECC, to be convened by the DEE must build on existing and proposed structures. In so doing EE will be recognised in key policies and plans, and implemented through regulations, incentives and procurement.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

1.7 Establish National EE Large Consumers Coordinating Committee: To ensure significant reductions in energy consumption, coordination with large energy consumers and relevant representative bodies is required. A key role of the National EE Large Consumer Coordinating Committee will be to establish energy efficiency compacts for key energy consumer sectors that include commitments to energy efficiency targets.

1.8 Recognise energy efficiency as a national energy resource: Treating EE as a resource elevates its role in national planning. In key instruments such as the IRP and Integrated Energy Plan (IEP), EE must be incorporated as a defined supply-side equivalent resource, not merely a downward demand adjustment. It should further be properly accounted for through long-term, least-cost national energy demand planning modelling. Including EE into energy system planning in the IRP and the IEP will help avoid the possibility of having excess capacity in outer years.

Strategic Goal 2: Establish regulatory and financing mechanisms to promote energy efficiency

Foundational regulation is in place, including MEPS for certain product categories; EE provisions in the National Building Regulations; and the Section 12L tax incentive for investment. However, notwithstanding the recent revision of MEPS for certain appliances, many of these have not been reviewed since their implementation, with the consequence that they are outdated (and thus no longer deliver meaningful savings), or sub-optimal (due to unintended consequences), or do not leverage new opportunities to expand their reach (extensions or new measures).

Energy efficiency is also underfunded. There is no dedicated national funding mechanism for energy-efficiency programme management and implementation; commercial lenders have prioritised renewable energy over energy efficiency; and the ESCO and performance contracting market remains underdeveloped. The current financing landscape is insufficient to mobilise the scale of private, public, and international capital required to implement a comprehensive NEES.

Required actions are:

2.1 Update and expand the MEPS and labelling programme: Strengthen outdated MEPS and improve labelling to accelerate the removal of inefficient products from the market and support informed consumer choice. The MEPS must be regularly benchmarked against current international standards, tightened progressively and extended to further appropriate product categories. Labelling must be updated to ensure labels can be interpreted by consumers across all income groups.

2.2 Implement a tightening cycle for building energy efficiency regulations: A tightening cycle is required to progressively reduce the energy requirements of new and renovated buildings. Review the energy performance requirements of SANS 10400-XA to incorporate lessons learned from implementation, assessments of effectiveness and compliance, new cost-effective technologies, and energy efficiency–renewables synergies and set a scheduled strengthening cycle for new construction and major renovations, each revision informed by compliance data, cost-benefit analysis and international benchmarks. Standards must be progressively improved every 5 years based on market evidence, cost-benefit and cost-optimality analysis and technological advancement. The achievement of this objective will be enabled in combination with the development and enhancement of necessary skills and certification of professionals involved in both compliance and enforcement, as laid out in Objective 4.1.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

2.3 Progressively expand and strengthen the EPC Programme: Progressive expansion of the EPC will drive increased building energy efficiency. In the short term the EPC Programme will be expanded to include additional building categories as well as a requirement for buildings to improve their energy efficiency rating by one class per five year EPC auditing cycling. In the longer term consideration will be given to a range of options such as the introduction of incentives for poor performing facilities, the consideration of EPC results of public procurement decisions regarding leasing and the adoption of MEPS for building categories. Consideration will also be given to enforcement through municipal building code compliance, title deed recording, and real estate transaction documentation. Disclosure is required via public EPC registry for transparency and market accountability, as well as allowing energy-efficient properties to capture market value premiums in real estate transactions.

2.4 Improve the accessibility of financial incentives: Financial incentives that are accessible will increase the uptake of energy efficiency measures. Section 12L will introduce a simplified claiming mechanism for smaller projects using deemed savings or standardised baseline approaches that cut M&V costs; and, based on a review of 12L uptake and barriers, design a broader suite of incentives reaching more commercial and agricultural users.

2.5 Support the continued transition to time of use tariffs: Time of use tariffs provide a strong price signal that results in reduced demand in peak periods. Eskom and municipalities must be supported to continue transitioning tariffs to include time of use.

2.6 Move towards obligation-based energy saving requirements: Initiate the transition of the utility led energy efficiency and demand site management programmes from grant funding towards obligation-based delivery with NERSA-approved cost-recovery mechanisms in the Multi-Year Price Determinations (MYPD), standardised measurement and verification under SANS 50010, and phased extension from Eskom and the metropolitan municipalities to other municipalities with distribution responsibilities.

2.7 Establish a National EE funding plan: A comprehensive funding plan is essential to support implementation. The plan must quantify the investment needed to implement the NEES, identify the optimal mix of funding sources that minimises the burden on the fiscus and maximises private and international leverage, consolidate funding and prioritise actions that will yield the biggest results versus investment.

2.8 Undertake a study of commercial and industrial financing instruments: A range of different financing mechanisms will fast-track uptake. Commission a study of viable, context-specific options (on-bill financing, credit guarantees, fiscal incentives), identifying the legal/regulatory enablers and responsible mandate for each, addressing consumer protection and drawing on relevant precedent.

2.9 Establish a Super ESCO: A super ESCO will accelerate energy efficiency projects across the public sector. Establish a government-backed Super Energy Service Company (Super ESCO) to finance, facilitate, and accelerate energy efficiency upgrades across public sector facilities to be implemented by ESCOs. Instead of acting as an aggregator, the super ESCO will act as a market facilitator, which is backed by public or IFI funds, offers technical assistance in quality assurance of investment project identification and design work, facilitates procurement of energy performance contracts to qualifying ESCOs, derisks flow of repayment funds from guaranteed/shared savings, implements robust MRV protocols to ensure project performance and documentation of results for gradual scale-up and roll-out to commercial banks.

2.10 Mobilise commercial finance: Private sector finance is critical for scaling the level of EE investment. Develop a plan to crowd in commercial lending through instruments such as partial risk

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

guarantees, standardised project appraisal guidelines and support schemes for energy performance contracting, particularly through the super-ESCO risk mitigation mechanism discussed in 2.9.

2.11 Strengthen and institutionalise the ESCO and performance contracting market: To deliver EE through performance-based models, SANEDI will transition its existing ESCO Register to an ESCO accreditation scheme; standardise national performance contracting frameworks and templates; improve access to project finance; formalise a public-sector procurement route for EE services enabling the ESCO/Energy Performance Contracting application for municipalities.

Strategic Goal 3: To embed energy efficiency across all sectors of the economy

The sectoral targets in Part Four translate into priorities for each NEES sector. The modelling shows transport and commercial buildings offer the largest savings, industry the deepest single pool of thermal-process savings, and residential the need to act before rising incomes lock in inefficient equipment.

Agriculture[3] and Power Generation sectors lack numerical targets due to lack of data-driven quantitative estimates for these sectors. While current NEES focuses primarily on demand-side measures, it highlights the need to explore the potential for fundamental supply-side energy transformation.

3.1 Industry

3.1.1 Industrial process heating, motors and compression optimisation programme: Thermal processes (process heat, process heating, boilers, kilns and steam systems) dominate industrial energy consumption and represent the largest opportunity for EE, while motors and compression offer the next largest opportunity. The DEE, in partnership with the National Cleaner Production Centre South Africa (NCPC-SA), shall establish sector-specific industrial heating optimisation networks, prioritised by energy intensity and savings potential, that create industry knowledge-sharing working groups, develop costed process heating efficiency roadmaps, and conduct targeted energy audits (partially co-funded by NCPC for mid-size enterprises, and grant-funded for small ones).

3.1.2 Mandate energy management plans for large industrial consumers: Energy management remains fragmented across large industrial facilities, limiting cost-effective savings identification. DEE should require all large energy consumers (threshold to be set in NEEAP) to implement energy audits and energy management plans every five years, with annual reporting of energy intensity improvements to DEE. Industrial groups, associations and SANEDI should provide technical support and capacity-building to assist smaller participants in accessing these systems.

3.1.3 Develop industrial EE financing instruments: Capital constraints limit the adoption of efficiency measures despite strong payback periods. DEE and commercial lenders should co-design tailored financing products (equipment financing (leasing), energy-performance contracts) that address industrial sector needs, establish risk-mitigation instruments such as partial guarantees, subsidised technical assistance (energy audits, feasibility studies), and work with SANEDI to expand ESCO availability for industrial clients.

Cross-Cutting Elements:

[3] It should be noted that agro-processing is included in industrial manufacturing

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

- Relies on: Goal 5 sectoral energy data collection; Goal 4 operator training; Goal 2 EE obligation mandates
- Uses: Tax incentive mechanisms from Goal 2.4

3.2 Residential Sector

3.2.1 Establish a residential water heating efficiency programme: Water heating remains a major consumer of household energy consumption. The successful introduction in 2016 of VC9006, which significantly reduced standby losses on electric water heaters cannot be strengthened further. Moreover, many municipal distributors have existing energy saving programmes, such as ripple relays and technological advances offer consumers multiple choices at different price points. It is therefore crucial that a localised, rather than national, approach be coordinated by the DEE.

3.2.2 Progressively tighten MEPS for residential appliances: As detailed in Goal 2.

3.2.3 Launch a low-income residential thermal retrofit programme: Thermal envelope losses represent significant savings potential but are underfunded for lower-income households. DEE and municipalities should establish a dedicated programme funded through EEDSM grants to provide ceiling insulation, glazing upgrades, and cool-roof coatings for lower-income dwellings, with implementation through local municipal structures and community contractors to maximise local employment benefits.

.

3.2.4 Develop and execute a Clean Cooking Implementation Plan: Many low-income and rural households still use fuels such coal, wood and paraffin for cooking exposing these households to safety and health risks. These risks disproportionately fall on women in households who are more likely to be responsible for cooking. DEE with the support of the World Bank has developed a Roadmap for Reducing Energy Poverty through Clean Cooking and Heating. Based on the recommendations of the roadmap an implementation plan will be developed that includes delivery and funding models for implementation. Once the implementation plan is developed secure funding and start phased implementation.

3.2.5 Implement residential energy performance certification: as described in Objective 2.3.

Cross-Cutting Elements:
- Relies on: Goal 2 MEPS, building codes and labelling; Goal 4 awareness; Goal 5 appliance data

3.3 Commercial and public buildings

3.3.1 Launch a mandatory commercial building EE & RE retrofit programme: Existing commercial stock (207 million m²) operates 30-40% less efficiently than new construction and offers the largest near-term opportunity. DEE and SANEDI should establish mandatory retrofit targets for commercial buildings >5,000 m² covering HVAC, lighting, refrigeration, rooftop PV and controls, with a 10-year implementation timeline. The programme should leverage performance contracting (via Objective 2.10) to enable owners to finance retrofits through energy savings, with standardised project appraisal guidelines to crowd in commercial lending.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

3.3.2 Strengthen commercial building energy performance standards: Lack of mandatory standards allows poor-performing buildings to continue inefficiently (as described in Objective 2.3)

3.3.3 Establish a public-sector energy performance financing mechanism (crosscutting with Objective 2.9, 2.10 and 2.11): Public-sector capital constraints limit EE implementation despite cost-effective savings. There should be a phased evolution of the Division of Revenue Act (DORA) funded EEDSM component of the Integrated National Electrification Programme grant programme into an energy performance contracting model for Category B (local) and Category C (district) municipalities. Repayments from verified savings should recycle capital back into the fund, ensuring long-term financial sustainability and expanding scope to municipalities and provincial government.

3.3.4 Mandate data centre EE reporting and standards: IT and data centre energy demand is rapidly growing but lacks transparency and standards. DEE should require large data centres to implement mandatory Power Usage Effectiveness (PUE) reporting with public disclosure on a national register within 18 months. SABS should develop a national data-centre energy efficiency standard aligned with ISO/IEC 30134, with waste-heat recovery requirements for facilities above a set capacity threshold *(capacity thresholds to be established under NEEAP)*.

Cross-Cutting Elements:

- Relies on: Goal 2 financing; Goal 4 ESCO training; Goal 5 building data
- Uses: EPC baseline data from Goal 2.3

3.4 Transport

NEES transport objectives shall remain in harmony with other policies in transport sector aimed at unlocking the transport sector's air pollution and climate change mitigation potential through sustainable mobility alternatives, modal shifting, and promoting behavioural change.

3.4.1 Implement mandatory light-vehicle fuel-economy standards: To sustain competitiveness in international markets, by not being phased out from export markets where fuel efficiency standards exist, SA needs mandatory fuel economy standards. The DoT and DEE should jointly commission a feasibility / calibration study, then use its findings to introduce CO_2-equivalent fuel-economy standards for light vehicles, aligned with current international norms. Standards should apply to all new vehicle sales and be progressively tightened every three years based on technology cost analysis, with exemptions for manufacturers.

3.4.2 Expand the vehicle CO_2 levy into a feebate system: The existing CO_2 levy does not incentivise efficiency across the market. The levy must be restructured into a revenue-neutral feebate system paying rebates for efficient vehicles (below-standard emissions) funded by levies on inefficient vehicles (above-standard). The feebate structure should be transparent, with annual threshold adjustments reflecting improving fleet average, and should include incentives for new energy vehicles (NEVs) and hybrid technologies.

3.4.3 Support passenger transit modal shift to public transportation and unmotorized mobility: Insufficient integration of public transit networks, limited accessibility in underserved areas, and affordability barriers prevent greater uptake of public transportation. A comprehensive public-transit acceleration programme must be established targeting a shift of passenger transport from private vehicles to public modes (quantitative target to be set in NEEAP, following origin-destination surveys, route optimisation models, unified ticketing systems, etc.), with particular focus on integrating fragmented bus and commuter rail systems, improving the quality of the passenger rail service, generating advocacy guidance for local authorities on transit-oriented development, establishing

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

affordability mechanisms through income-adjusted fare structures or transit subsidies for low-income users to ensure equitable access, etc. Public transit promotion must be complemented with investments in safe, accessible unmotorised mobility (walking, cycling), ensuring seamless multimodal journeys for commuters across all income levels. The NEEAP should address the need for a dedicated, multi-year funding mechanism and cross-government coordination structure to ensure sustained implementation, integration with spatial planning and urban development, and alignment of modal shift targets with national energy efficiency, transport and climate commitments.

3.4.4 Support freight modal shift to rail: Freight remains locked into road transport due to fragmented rail infrastructure. There must be an increase in rail's share of freight through investment in rail-road interface facilities, standardised container systems, and modal shift incentives. The programme should target high-volume freight corridors (e.g., long-distance, bulk commodities) where rail offers 40-60% energy savings versus road transport.

3.4.5 Integrate eco-driving into national driver education: Driver behaviour influences vehicle fuel consumption by 15-20%, but eco-driving is not systematised. Eco-driving modules must be integrated into the national driving-licence curriculum, mandatory professional driver certification programmes (heavy vehicle, taxi, bus operators), and public awareness campaigns.

3.4.6 Restructure automotive incentives to prioritise new energy vehicles (NEVs): Current incentive schemes do not adequately support the transition to electric and hybrid vehicles needed to decarbonise transport. The Department of Trade, Industry and Competition (dtic) should revamp existing automotive manufacturing incentives to specifically accommodate NEV and hybrid production, including local assembly incentives, component development support, and preferential government procurement targets. The restructuring should align with industrial policy goals for green manufacturing competitiveness.

Cross-Cutting Elements:

- Relies on: Goal 2 fuel economy standards (legal framework)
- Implements market acceleration through information and incentives (Goal 4 deployment)

3.5. Power Generation and Distribution

Generation, transmission and distribution efficiency is a significant long-term opportunity, but one shaped by the ongoing restructuring of the electricity sector. Rather than setting supply-side targets at this stage, this Strategy commits only to preparatory work, so that the next NEES can address supply-side efficiency on an informed basis. There is no quantitative target for this sector due to the lack of aggregate research data, which is why, to pursue comprehensive strategic course of action, the following intervention is required within the first NEEAP period:

3.5.1 Continue the roll out of smart meters: Smart meters support revenue collection, reduce electricity losses, provide consumers with real-time data to manage their usage more efficiently and allow for detailed electricity consumption data to be collected. A smart meter project was initiated in 2024 by the National Treasury, and the project should continue to be rolled out until there has been a full conversion to smart meters. Smart meters also support Objective 2.5 as they allow for the implementation of time of use tariffs.

3.5.2. Undertake a scoping assessment of supply-side efficiency opportunities: Supply-side energy efficiency opportunities are currently not well understood. A scoping assessment should be undertaken covering generation fleet performance and transmission and distribution technical losses

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

to establish an evidence base for inclusion of supply-side internal energy efficiency actions in the next NEES. For the second NEEAP, the study must cover generation fleet performance and efficiency assessment; mapping of cogeneration and waste-heat recovery potential; opportunities for fuel-switching and fleet decarbonisation efficiency gains and identify loss-reduction opportunities.

3.6. Agriculture

Given the growing climate change challenges, SA will continue to face increasing challenges in irrigation, where the energy efficiency opportunity is embedded in motor-driven irrigation systems. While no credible data is available on sectoral energy consumption and energy use technologies in place, a comprehensive programme aimed at agricultural sector energy efficiency would:

- Reduce energy and carbon footprint of agricultural produce
- Reduce the energy and carbon intensity of agricultural sector GDP
- Improve competitiveness, climate resilience and sustainability of the sector.
- Protect exports from international climate change regulations, such as Carbon Border Adjustment Mechanism (CBAM)

To pursue a comprehensive strategic course of action, the following intervention is required:

3.6.1 Build a robust agricultural energy consumption evidence base: Current agricultural energy data is fragmented, limiting evidence-based policy. A comprehensive research programme analysing energy consumption patterns across the sector should be undertaken. The programme should deliver baseline data and establish reliable monitoring systems to track sectoral trends and inform the next NEEAP. Upon completion of the analysis, generate robust, data-driven interventions aimed at the following:

- Optimising Motor-Driven Agricultural Systems for Electricity Savings
- Reducing Liquid Fuel Consumption Through Fuel-Efficient Agriculture Practices
- Developing Accessible Agricultural Energy Efficiency Financing Mechanisms

Strategic Goal 4: Build Institutional Capacity and Skills for Energy Efficiency

The country's long history in energy efficiency means that there is an established base of energy efficiency expertise in the public and private sectors. However, data and skills shortages persist across the value chain, and consumers frequently lack the information needed to understand and manage their energy consumption effectively, while policymakers lack the information necessary for strategic course-setting. Sustained energy efficiency depends on a growing pool of qualified professionals and adequate capacity within government to drive implementation, as well as a solid statistical foundation for data-driven policymaking.

Required actions:

4.1 Establish a national EE skills development plan: Skills are critical for scaling up EE implementation. Current and projected skills gaps must be identified and a targeted plan established, including training, bursaries, mentorship, recognition of prior learning and the integration of EE modules into relevant trades and tertiary engineering qualifications.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

4.2 Build EE capacity within government: EE capacity is required to implement EE in the public sector. Designate energy management responsibilities within existing structures in national, provincial and municipal government, supported by a standardised competency framework and centralised training resources.

4.3 Improve consumer energy information: Consumers need a clear understanding of their energy consumption to make informed decisions on EE interventions. Electricity bills must present consumption in a simple, standardised format (kWh cost, historical use) that lets consumers track changes over time, accompanied by practical efficiency guidance.

4.4. Develop and implement awareness campaigns on NEES and EE: The benefits of energy efficiency are still not well understood at all levels, from senior policy makers to citizens. An awareness campaign should be developed and implemented to maintain a regular flow of information and outreach events on the NEES with the implementing entities to raise awareness of EE and its benefits with sectoral energy consumers as well as the wider public.

Strategic Goal 5: Establish Robust Monitoring, Reporting, and Verification

South Africa has existing energy data collection processes, including the national energy balance compiled by the DEE, energy performance certification for certain building categories, and programme-level reporting by entities such as Eskom and SANEDI. However, a centralised energy data repository is lacking that can produce and analyse timely and accurate energy balance data and that can systematically monitor of energy efficiency programme outcomes. Without this dedicated institutional capacity it is not possible to assess the cost-effectiveness of interventions, report credibly on national targets, or sustain the political and fiscal support that energy efficiency requires.

Required actions:

5.1 Develop and adopt a formal M&E methodology for the NEEAP: M&E is critical for tracking progress and ensuring accountability. DEE in consultation with data-holding institutions must establish a standardised KPI framework and verification protocols, assign reporting responsibilities, and mandate annual NEEAP progress reports and biennial synthesis reports.

5.2 Establish dedicated M&E capabilities within the DEE: Credible measurement underpins the strategy. Without it, the cost-effectiveness of interventions cannot be assessed, national targets cannot be reported on, and political and fiscal support cannot be sustained. A dedicated M&E coordination capability should be established to collect and manage energy efficiency data, track implementation, operate the framework, and publish an annual public progress report against NEES targets.

5.3 Establish a National Energy Data Repository: Easily accessible data is critical for assessing impact and selecting priority actions. A centralised and publicly accessible data repository must be established, including the national energy balance, sectoral consumption, energy intensity indicators, programme performance and MEPS and EPC data, supported by data-sharing agreements and mandatory reporting by large consumers. Data will be analysed and made publicly available by sub-sector so entities can benchmark their energy efficiency performance against their peers.

5.4 Publish a sectoral energy balance annually: An energy balance is the evidence base for target-setting, IRP modelling and NEEAP assessment. A sectoral-based energy balance should be published annually.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

5.5 Establish a regular national energy consumption survey programme: A regular national energy consumption survey would significantly improve the quality of future energy demand modelling, provide better visibility on end-use consumption patterns and support more targeted policy design, implementation and evaluation. The national energy consumption survey should cover the residential, commercial, industrial, agricultural and transport sectors at intervals of approximately four to five years and should collect detailed information on end-use energy consumption, technology ownership and fuel use patterns. Additional surveys, reporting systems and data collection mechanisms are required to better understand thermal energy use across sectors and identify opportunities for fuel switching and industrial decarbonisation.

The linkages of the gaps identified in Part Three, goals set in Part Four, and Objectives above are summarized in Annex Two.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Part Six: Implementation Framework

This Part sets out the implementation framework through which the objectives set in Part Five will be delivered. It outlines the governance and regulatory arrangements, financing strategy, research, capacity-building and awareness programmes, monitoring and evaluation system, and risk-management approach that together constitute the delivery mechanism of the NEES, which will further be operationalised through the NEEAP.[xiii]

Policy and Governance

Roles and Responsibilities across government levels

Effective implementation requires that every NEES objective has a clearly designated owner, that mandates do not overlap or leave gaps, and that the three spheres of government act in a coordinated manner and are accountable for their designated obligations.

DEE is the focal point of the NEES and is responsible for overall coordination, for the development and periodic review of the NEEAP, and for reporting on progress against the national and sectoral targets in Part Four. This custodianship gives effect to establishing institutional arrangements. As part of the NEEAP, the most effective NEES and NEEAP oversight scheme shall be proposed, ensuring the necessary staffing, functionality, collaboration and partnership arrangements with implementing partners, academia, public and private sector, general population (Objective 1.2).

Within this overarching arrangement, lead agencies should be designated for key initiatives building on the existing institutional roles and functions mapped in Annex Two.

Each designated institution shall establish a budget including sourcing funding from National Treasury and other financing institutions for its mandate, in line with Objective 1.3. On establishing a sustainable funding mechanism for EE oversight the assignment of responsibilities will be formalised in the NEEAP through a responsibility-assignment matrix covering every objective in Part Five.

Responsibilities are distributed across the three spheres of government according to their constitutional and statutory competences, with further details on responsibilities outlined in Annex Two. Table 1 earlier in this document presents the main existing policy instruments for NEES implementation, some of which would need to be strengthened.

Coordination across departments and spheres will be institutionalised through the IEECC established under Objective 1.6. The Committee, convened by the DEE and functional by the financial year-end of 2026/27, will bring together the DEE, the dtic, the DoT, National Treasury, the DFFE, the Department of Cooperative Governance (DCoG), the Department of Science, Technology and Innovation (DSTI), the Department of Public Works and Infrastructure, DOA, with a standing secretarial support provided by the DEE. Its functions are to ensure that EE is recognised in key national policies and plans, to resolve mandate conflicts, to coordinate the regulatory pipeline described below, and to report annually to Cabinet on implementation progress. The Committee, which reports directly to the Director General of the Department of Electricity and Energy and will meet on a quarterly basis, provides the institutional home to prioritise the most urgent actions needed to institutionalise energy efficiency by assigning and overseeing obligation owners as the corresponding regulatory instruments are introduced.

In addition, a National EE Large Consumers Coordinating Committee convened by DEE will bring together representatives of key energy consumers will also be established to promote the implementation of the strategy with large energy consumers (Objective 1.7).

Policy and Regulations

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

The NEES will be delivered by converting the objectives in Part Five into binding and enforceable regulatory instruments. This builds on the finding in Part Three that SA's energy efficiency implementation is challenged by outdated regulations and standards associated with insufficiently stringent enforcement. Implementation is further hindered by the absence of mandatory reporting and energy savings requirements for large consumers and utilities. These regulatory instruments will always be accompanied by the information and financial measures that make compliance achievable.[xiv]

The regulatory work programme will comprise the following streams, each anchored in an objective from Part Five:

- **Formal adoption and planning instruments:** Cabinet adoption of this Strategy (Objective 1.1); development and adoption of a costed NEEAP (Objective 1.4) with a five-year review cycle (Objective 1.5); and recognition of energy efficiency as a supply-side-equivalent resource and in the inclusion of demand modelling in the IRP and IEP (Objective 1.8), consistent with the treatment of efficiency as the 'first fuel' in international planning practice.[xv]
- **Product and building standards:** benchmarking and progressive tightening of MEPS and modernisation of the energy label (Objective 2.1); a scheduled five-yearly strengthening cycle for SANS 10400-XA informed by analysis of the effectiveness of the current regulations, compliance data and cost-optimality analysis (Objective 2.2); and progressive expansion of the Energy Performance Certification of buildings, including an expansion of certified EPC practitioners, expansion of building categories and requirements to improve efficiency grading over each EPC cycle (Objective 2.3).[xvi]
- **Mandates for large consumers and utilities:** Regulations requiring large consumers to provide an energy audit and an energy management plan every five years (Objective 3.1.2), The establishment of EE compacts with large energy consuming sectors via the National EE Large Consumers Coordinating Committee (Objective 1.7), and the phased evolution of the DORA funded EEDSM component of the Integrated National Electrification Programme grant programme into an energy performance contracting model for Category B (local) and Category C (district) municipalities and/or obligation-based energy-saving requirements on Eskom and metropolitan municipalities, with cost-recovery protections outlined in the Multi-Year Price Determinations that are approved by NERSA (Objective 2.6).[xvii]
- **Transport instruments:** CO_2-equivalent fuel-economy standards for light vehicles, introduced on the basis of a joint DoT–DEE calibration study and tightened every three years, together with the restructuring of the vehicle CO_2 levy into a revenue-neutral feebate (Objectives 3.4.1 and 3.4.2), drawing on international experience with fuel-economy standard design documented by the IEA and the Global Fuel Economy Initiative.[xviii]
- **Data and reporting regulations:** activation of the DEE's existing powers under the National Energy Act (2008) to require the submission of energy data by entities involved in the exploration, production, import/export, generation, and distribution of energy commodities, as well as large commercial or industrial end users with an annual consumption exceeding 160 terajoules and data on the sales of household appliances by manufacturers and importers, giving legal force to the data-collection framework described under Monitoring and Evaluation below (Objectives 5.3 and 5.4).[xix]
- **Enforcement capacity**: the NRCS's market-surveillance capability will be strengthened, a viable approach for addressing the lack of local test laboratories using internationally proven methods will be developed in parallel with the tightening of MEPS, and municipalities will be supported to improve building-code compliance, so that regulatory ambition is matched by regulatory effect.[xx]

Financing Strategy

Sustainable funding mechanisms

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Energy efficiency in South Africa is underfunded. There is no dedicated national funding mechanism for programme management and implementation, commercial lenders prioritise renewable energy over efficiency, and the fiscal instruments that do exist reach only part of the market. The financing strategy therefore rests on a single organising instrument, the NEEAP to be developed and adopted under Objective 1.4, which will quantify the total investment required to deliver, at a minimum, the 132 PJ target, sector by sector, and identify the mix of sources that minimises the burden on the fiscus while maximising private and international leverage.[xxi]

The Funding Plan will consolidate and rationalise the following mechanisms:

- **Fiscal allocations:** a dedicated budget line for EE oversight, NEES and NEEAP development, data collection, planning and monitoring within the DEE (Objective 1.3), providing the continuity of core public funding on which all other mechanisms depend.
- **Tax incentives:** reform of the Section 12L allowance to introduce a simplified deemed savings claiming route for smaller projects, reducing measurement and verification costs, together with the design of a broader incentive suite for commercial and agricultural users (Objective 2.4).[xxii]
- **Carbon-revenue designation:** an options analysis on earmarking a share of Carbon Tax Act (2019) revenue as a sustainable funding source for EE programme management and demand-side management, leveraging the country's well-established carbon-pricing framework.[xxiii]
- **Utility cost recovery:** the transition of the utility lead EEDSM programmes from grant funding towards obligation-based delivery with NERSA-approved cost-recovery mechanisms in the MYPD, standardised measurement and verification under SANS 50010, and phased extension from Eskom and the metropolitan municipalities to other municipalities with distribution responsibilities (Objective 2.6).
- **Energy Performance Contracting:** the transition of the DORA funded municipal EEDSM programme from grant funding towards an energy performance contracting model leveraging private sector finance and an independent measurement and verification of energy savings.

Together these mechanisms are designed to provide predictable, multi-year funding for the public functions of the Strategy, governance, standards development, enforcement, data and awareness, while positioning public money to unlock the much larger volumes of private capital addressed below.

Resource mobilisation

Public resources alone cannot finance the investment programme implied by the sectoral targets in Part Four; the central task of resource mobilisation is therefore to crowd in commercial, institutional and international capital. Building on Objectives 2.8 to 2.11, the DEE working together with National Treasury and development-finance institutions will develop a package of risk-mitigation and market-development instruments, including public-private partnerships, performance contracting, partial risk guarantees, standardised project-appraisal guidelines for lenders, and, subject to the findings of the financing-instruments study under Objective 2.8, on-bill financing and vendor-credit mechanisms with appropriate consumer-protection safeguards. The development of the energy-services market is a parallel priority, and a Super ESCO will be established to support this sector, potentially under the auspices of operational development finance institutions, aimed at technical and financial de-risking investments in energy performance contracting and offering technical assistance and scrutiny to the procurement of ESCO services.

In the public sector, a dedicated revolving fund for national public buildings and infrastructure to promote the implementation of measures using the shared saving model will be established (Objective 3.3.3). Repayments from verified savings will recycle capital back into the fund, ensuring long-term financial sustainability and enabling progressive extension to provincial and municipal facilities.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

International climate finance constitutes the third mobilisation channel: the EE Portfolio of the Just Energy Transition Investment Plan 2023–2027 provides an established vehicle through which concessional finance can be directed to government buildings, commercial buildings, large industry, small and medium enterprises, households, and standards programmes, and the pipeline of NEES actions will be structured so that they are eligible for support from this and other multilateral climate-finance windows, including facilities administered by the DBSA and the IDC.[xxiv]

Research, Capacity Building and Awareness

Research and Development

Several of the interventions in Part Five are deliberately preparatory, reflecting the finding that the evidence base in several sectors is currently insufficient to support quantified targets. The applied research agenda of this Strategy is coordinated by SANEDI, in cooperation with the DEE, the NCPC-SA, universities and industry bodies, and comprises four priority streams:

- the scoping assessment of supply-side efficiency opportunities across the generation fleet and transmission and distribution networks, including cogeneration and waste-heat recovery potential (Objective 3.5.2)
- the agricultural energy-consumption evidence base (Objective 3.6.1)
- thermal end-use surveys and analysis to identify fuel-switching and industrial decarbonisation opportunities (Objective 5.5)
- technology cost-curve and cost-optimality studies that will inform successive revisions of MEPS, building standards and the NEEAP itself (Objective 2.1)

The research programme will be connected to international knowledge networks so that South African policy development benefits from, and contributes to, global experience, including the IEA Technology Collaboration Programmes on energy-efficient end-use equipment, appliance-policy support through United for Efficiency and CLASP, and the annual evidence base of the IEA's Energy Efficiency market report series, which tracks global efficiency progress, investment and policy developments.[xxv]

By delivering on this NEES, its mandatory reporting, strengthened MEPS, and robust MRV, SA can become the continental reference point for energy efficiency policy, demonstrating that efficiency is deliverable at scale in an emerging, resource-intensive economy. This credibility can be converted into leadership by championing the AfEES and AU Agenda 2063 energy productivity goals, sharing its regulatory instruments, standards, and National Energy Data Repository as replicable public goods within SADC and beyond, and leveraging its standing in the G20, BRICS, and SDG 7 processes to shape international norms from a developing-world perspective. Leadership is earned through demonstrated delivery: by meeting its targets and transparently reporting progress, South Africa can move from participant to standard-setter in global energy efficiency dialogues and become a leading participant in key forums such as the SADC Centre for Renewable Energy and Energy Efficiency, the International Energy Forum and the International Partnership for Energy Efficiency Cooperation.

Capacity Building

Sustained delivery will create many new jobs in the energy efficiency sector that will need a growing pool of skilled artisans, qualified professionals and adequate capacity within government departments and government entities such as NRCS and SABS, addressing the gaps identified in Part Three. Under Objective 4.1, a national EE skills development plan will be prepared, quantifying current and projected skills gaps across the value chain, from energy auditors, measurement-and-verification professionals and ISO 50001 lead implementers to artisans, building-control officers, staff of government entities, and ESCO project developers, and setting out targeted responses including training programmes, bursaries, mentorship, recognition of prior learning, and the integration of energy-efficiency modules into relevant trades and tertiary engineering qualifications. The process should include preparation of

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

certified assessors and professional accreditation schemes. The plan will build on the work of the Energy and Water Sector Education and Training Authority (EWSETA) and the established certification infrastructure of the Institute of Energy Professionals Africa, the certification process for EPC professionals, and the international ISO 50001 energy-management standard, and on the delivery capacity of the NCPC-SA, SANEDI, the GBCSA and existing programmes such as the MEMS programme.[xxvi]

Within government, energy-management responsibilities will be designated within existing structures at national, provincial and municipal level (Objective 4.2), supported by a standardised competency framework and centralised training resources. This will ensure that as energy-savings requirements for public buildings are introduced, each responsible institution will have a designated and trained energy manager accountable for compliance.

Awareness Raising

Consumers cannot respond to price signals or incentives they do not understand. Under Objective 4.3, electricity bills should present consumption in a simple, standardised format, showing kilowatt-hours, cost and historical usage, so that consumers can track changes over time, accompanied by practical efficiency guidance. As the competitive market framework under the Electricity Regulation Amendment Act (2024) matures, the standard will be extended to enable comparative feedback and, ultimately, near-real-time information and remote energy-management tools.

A sustained national awareness campaign will be developed and implemented under Objective 4.4, segmented by audience: decision-makers in government and industry, small and medium enterprises, and households across all income groups. The campaign will maintain a regular flow of information and outreach on the NEES and its programmes, drawing on the demonstrated effectiveness of the Power Alert broadcasts during the electricity crisis, and will be coordinated with the labelling modernisation under Objective 2.1 so that public communication and point-of-sale information reinforce one another. Consistent with the IEA's multiple-benefits framework, campaign messaging will emphasise not only energy-cost savings but also the health, comfort, productivity and employment benefits of efficiency, which international evidence shows are often the more persuasive motivators of action.[xxvii]

Monitoring and Evaluation Framework

Key Performance Indicators

The credibility of this Strategy rests on the ability to demonstrate, with verifiable data, whether the targets in Part Four are being achieved and whether individual programmes are cost-effective. The monitoring and evaluation framework established under Objectives 5.1 and 5.2 is built on a three-tier indicator hierarchy, summarised in the next table, that connects national impact to programme outputs. The indicator set follows the methodological guidance of the IEA's twin manuals on energy-efficiency indicators, which set out the sectoral indicator pyramids, data requirements and collection practices used internationally.[xxviii] Savings verification follows SANS 50010, the national measurement-and-verification standard, ensuring consistency between programme reporting, Section 12L administration, and national accounting.

Table 11. Tiered Key Performance Indicator Framework for the NEES

Tier	Indicator focus	Illustrative indicators
Impact	National and sectoral outcomes against Part Four targets	PJ avoided per sector against the 132 PJ national target; final energy intensity of GDP; residential, commercial, industrial and transport energy use versus baseline projections

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Outcome	Market and regulatory transformation	Share of appliance sales meeting updated MEPS; EPCs issued and registered; large consumers with energy management plans; ESCO market volume; ToU tariff coverage; public-transport modal share
Output	Programme delivery and process	Regulations gazetted; audits and retrofits completed; funds disbursed and leverage achieved; energy managers designated and trained;

Reporting Mechanisms

The DEE, through the dedicated monitoring and evaluation capability established under Objective 5.2, will publish an annual public progress report against the NEES targets and KPIs, and a biennial synthesis report assessing the cost-effectiveness of programmes and recommending course corrections for consideration by the Coordinating Committee and, through it, by Cabinet. Annual NEEAP progress reporting by implementing institutions is mandatory under the M&E methodology adopted pursuant to Objective 5.1, with reporting responsibilities assigned in the NEEAP itself. The reporting system is designed for multiple use: the same verified data will feed the five-yearly NEEAP reviews (Objective 1.5), the incorporation of energy efficiency as a resource in successive Integrated Resource Plan cycles (Objective 1.8), sectoral-target and carbon-budget reporting under the Climate Change Act (2024), and South Africa's international reporting obligations described in Part Eight, including Biennial Transparency Reports under the Paris Agreement's Enhanced Transparency Framework and monitoring of progress towards SDG target 7.3.

Data Collection

Timely and accurate data is the single most consequential enabler of this Strategy, and its absence is the most serious gap identified in Part Three. Under Objective 5.3, a centralised and publicly accessible National Energy Data Repository will be established, housing the national energy balance, sectoral consumption and intensity indicators, programme performance data, and MEPS and EPC datasets, supported by data-sharing agreements with Eskom, municipal distributors, Statistics South Africa, South African Revenue Services (in respect of Section 12L) and SANEDI (in respect of the National Building Energy Performance Register), and by mandatory reporting by large consumers under the DEE's existing powers in the National Energy Act (2008).[xxix]

Two recurring data instruments complete the framework. First, a sectoral energy balance will be published annually (Objective 5.4), providing the evidence base for target-setting, IRP modelling and NEEAP assessment, with improved timeliness and accuracy relative to current practice. Second, a national energy consumption survey will be conducted at intervals of approximately four to five years across the residential, commercial, industrial, agricultural and transport sectors (Objective 5.5), collecting detailed information on end-use consumption, technology ownership and fuel-use patterns, and supplemented by targeted surveys of thermal energy use. Survey design will follow the sectoral surveying, metering and modelling practices compiled in the IEA statistics manual, which documents proven country approaches to end-use data collection. These instruments directly address the data-quality caveats recorded in the conclusion to Part Four, including the distortion of observed grid consumption by load shedding and the growth of behind-the-meter generation, and will progressively narrow the uncertainty bands around the sectoral projections that underpin the 2035 targets.[xxx]

Risk Management

Identification and mitigation strategies

Implementation of this Strategy will proceed in a demanding environment: constrained public finances, an electricity sector undergoing fundamental restructuring, and data systems that are only now being rebuilt. A structured risk register, summarised in the Table below, will be maintained by the DEE and reviewed annually by the Coordinating Committee, with mitigation actions assigned to the institutions responsible under the governance arrangements described in this Part. The register will be updated

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

as part of each annual progress report, and material changes in the risk profile will inform the five-yearly NEEAP reviews.

Table 12. Principal Implementation Risks and Mitigation Strategies

Risk category	Key risks	Mitigation
Political and institutional	Delayed Cabinet adoption; weak interdepartmental coordination; contested or overlapping mandates	Early adoption (Objective 1.1); EE Coordinating Committee with Cabinet reporting line (Objective 1.6); responsibility assignment matrix formalised in the NEEAP (Objective 1.2)
Fiscal and financing	No dedicated budget line; incentive uptake below plan; constrained fiscus limits programme funding	National EE Funding Plan (Objective 2.7); carbon-revenue apportionment option; risk-sharing instruments to leverage private capital (Objectives 2.8–2.11)
Market and delivery	Immature ESCO market; outdated MEPS and building-code compliance; supply-chain and installer constraints	ESCO institutionalisation (Objective 2.11); NRCS enforcement and test-laboratory capacity; phased introduction of obligations; skills plan (Objective 4.1)
Data and measurement	Poor baselines undermine targets, IRP integration and incentive credibility	Data Repository, annual energy balance and survey programme (Objectives 5.3–5.5); interim deemed-savings methods for small projects (Objective 2.4)
Electricity-sector restructuring	Market reform under Electricity Regulation Amendment Act (Act No. 38 of 2024) alters utility incentives and tariff signals during the transition	Design of EE obligations compatible with the Wholesale Market Code; support for the time-of-use tariff transition (Objectives 2.5 and 2.6)
Social and just transition	Regressive cost impacts on low-income households; unequal access to incentives and information	Low-income thermal retrofit programme (Objective 3.2.3); clean cooking roadmap (Objective 3.2.4); labelling and billing formats accessible across income groups (Objectives 2.1 and 4.3)

Risk management under this Strategy is not confined to the register: the design principles applied throughout Part Five, phasing obligations behind demonstrated capacity, pairing every mandate with enforcement and funding provisions, and requiring verified data before targets are hardened, are themselves the primary safeguard against implementation failure. Where risks nonetheless materialise, the annual reporting cycle and the five-yearly NEEAP review provide the formal mechanisms through which the Strategy will adapt while preserving the 2035 targets.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Part Seven: Priority Actions for First Three Years

The first three years of this Strategy determine its trajectory. International experience demonstrates that national efficiency strategies succeed or fail on the strength of their foundation period: where institutional arrangements, funding and measurement systems are put in place early, ambition can be scaled; where they are deferred, targets erode.[xxxi] This Part sets out the priority actions for the financial years 2026/27 to 2028/29, sequenced across three phases: foundation, scale-up and acceleration. Actions were selected against four criteria:

- they close a red-rated gap identified in Part Three or unlock other actions;
- they have short regulatory lead times;
- they contribute materially and cost-effectively to the 132 PJ target (or 37 TWh); and
- they generate visible early benefits that build political and public support.

The two red-rated regulatory gaps that can be closed by regulation, mandates for large consumers and for utilities, and the red-rated energy-statistics gap are deliberately front-loaded, because every other element of the Strategy depends on them. Each action below carries its owning objective from Part Five; owners, milestone dates and KPIs will be confirmed in the NEEAP.

Year 1 (2026/27): Foundational Ramp Up

Establish institutional frameworks and governance structures

The foundational ramp up year concentrates on the enabling decisions that only Cabinet and the DEE can take: formal adoption of this Strategy (Objective 1.1); establishment of an IEECC (Objective 1.6) along with a National EE Large Consumers Coordinating Committee (Objective 1.7), identification of sector lead agencies, with the responsibility-assignment matrix agreed across departments (Objective 1.2); establishment of a sustainable funding mechanism line for EE oversight, planning and monitoring (Objective 1.3); and the launch of NEEAP development on a costed schedule (Objective 1.4). In parallel, the monitoring and evaluation methodology under Objective 5.1 is adopted before programmes scale, so that every intervention launched under this Strategy carries a measurable baseline from day one. In addition, regulations on the mandatory reporting of energy data (Objective 5.3) and the compulsory completion of energy management plans by large users will be promulgated (in support of Objective 3.1.2).

Launch priority “quick win” programmes

Alongside the institutional work, a set of quick-win programmes with short lead times and established delivery channels is launched: benchmarking of MEPS against current international levels, beginning with the residential specifications introduced in 2011 and expanded in 2014, together with the launch of the redesigned the energy label (Objective 2.1); promulgate the draft regulations to strengthen existing MEPS (Objective 2.1); design of the expanded EPC programme and public registry (Objective 2.3); low-income thermal retrofit pilots in two to three municipalities delivered through the EEDSM channel (Objective 3.2.3); the establishment of industrial process-heating, motors and compression optimisation networks with the NCPC-SA (Objective 3.1.1); and development of eco-driving training modules for freight and public-transport operators (Objective 3.4.5) and the continued roll out of smart meters (Objective 3.5.1). These programmes deliver early verified savings while the regulatory pipeline matures.

Mobilise initial financing and secure partnerships

The foundation year also secures the financing platform: drafting of the National EE Funding Plan (Objective 2.7); agreement of the JET Implementation Plan EE-portfolio pipeline with development partners;[xxxii] commissioning of the commercial and industrial financing-instruments study (Objective 2.8); and initiation of Section 12L reform design with National Treasury and SARS (Objective 2.4).

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Early partnership agreements with SANEDI, the NCPC-SA, NBI, GBCSA and organised business formalise the delivery coalition on which Years 2 and 3 depend.

Year 2 (2027/28): Scale-Up

Expand successful interventions across sectors

The scale-up year converts foundations into binding instruments and broader coverage: adoption of the costed NEEAP (Objective 1.4); adoption of the clean cooking roadmap with funding and delivery models (Objective 3.2.4); design of the commercial building retrofit programme for buildings above designated threshold (Objective 3.3.1); and extension of the low-income retrofit programme beyond the pilot municipalities as EEDSM delivery capacity is demonstrated.

Strengthen enforcement mechanisms and compliance

Regulatory ambition is matched with enforcement investment: an NRCS market-surveillance capacity plan and an accredited test-laboratory roadmap for MEPS verification (Objective 2.1); a municipal support programme for SANS 10400-XA building-code compliance, prioritising the metropolitan municipalities (Objective 2.2); the EPC public registry brought live with disclosure requirements (Objective 2.3); and completion of the EEDSM-to-obligations design, including NERSA cost-recovery rules and SANS 50010-based verification (Objective 2.6).

Deepen stakeholder engagement and public awareness

Year 2 launches the sustained national awareness campaign (Objective 4.4), pilots the standardised consumer billing format with Eskom and two metropolitan municipalities (Objective 4.3), institutes an annual national energy-efficiency stakeholder conference as the public accountability moment of the Strategy, and publishes the national EE skills development plan (Objective 4.1) so that training pipelines expand ahead of the compliance obligations taking effect in Year 3 and beyond.

Year 3 (2028/29): Acceleration

Mainstream energy efficiency into all planning (national, municipal, sectoral)

By 2028, energy efficiency is embedded in the machinery of government: efficiency is incorporated as a supply-side-equivalent resource in the next Integrated Resource Plan and Integrated Energy Plan cycle, using verified savings data from the M&E system (Objective 1.8); EE requirements are integrated into public procurement standards and municipal procurement policies; and designated energy managers are in place across national departments and participating municipalities (Objective 4.2) and a National Super ESCO has been launched (Objective 2.9).

Achieve early wins and demonstrate measurable impact

The acceleration year is the Strategy's first public proof point: publication of the first annual NEES progress report against the KPI framework in Part Six; publication of verified savings from the Year 1 quick-win programmes; commissioning of version one of the National Energy Data Repository (Objective 5.3); fielding of the first national energy consumption survey (Objective 5.5); and delivery of the supply-side efficiency scoping assessment (Objective 3.5.2).

Prepare for long-term transformation

Finally, Year 3 prepares the transition from foundation to transformation: a decision on the phased rollout of utility energy-saving obligations informed by the Year 2 design work (Objective 2.6); drafting of the feebate legislation for the vehicle CO_2 levy restructuring (Objective 3.4.2); delivery of the agricultural energy evidence base to inform quantified agricultural targets in the second NEEAP (Objective 3.6.1); and a re-assessment of the Traffic Light Analysis to measure regulatory gap closure since Part Three, providing the evidence base for the first formal NEES review under Objective 1.5.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Table below summarises the sequencing.

Table 13. Indicative Sequencing of Priority Actions, 2026–2029

Priority action	Timing	Objective	Part Three Indicator	Lead
Adopt NEES; designate lead agencies; establish EE budget line, Intergovernmental Energy Efficiency Coordinating Committee (IEECC) and National EE Large Consumers Coordinating Committee	2026/27	1.1–1.4, 1.6, 1.7	A	DEE and Cabinet
Regulations on compulsory energy reporting and compulsory energy management plans for large consumers, continued roll out of smart meters	2026/27	5.3, 3.1.2, 3.5.1	M, E	DEE supported by DFFE
Adopt M&E methodology and KPI framework	2026/27	5.1	M	DEE
MEPS benchmarking, revised regulations and label redesign launch	2026/27	2.1	I, J	DEE supported by dtic, SABS and NRCS
Low-income thermal retrofit pilots via EEDSM	2026/27	3.2.3	H	DEE supported by municipalities
Industrial process-heating, motors and compression optimisation networks established	2026/27	3.1.1	N	DEE supported by dtic and NCPC-SA
National EE Funding Plan drafted; commercial/industrial financing-instruments study; Section 12L reform design	2026/27	2.4, 2.7, 2.8	H, E	DEE supported by National Treasury
Eco-driving training modules developed for freight and public-transport operators	2026/27	3.4.5	O	DoT supported by DEE
NEEAP adopted (costed, five-year review cycle)	2027/28	1.4	A	DEE
Clean cooking roadmap adopted with funding and delivery models	2027/28	3.2.4	H	DEE
Commercial building retrofit programme designed (buildings above designated threshold)	2027/28	3.3.1	K	DEE supported by DPWI and built environment sector
EEDSM-to-obligations design and NERSA cost-recovery rules	2027/28	2.6	G	DEE supported by NERSA
EPC public registry live; SANS 10400-XA code-compliance support	2027/28	2.2, 2.3	K	DEE supported by SABS, SANEDI and municipalities
National awareness campaign; standardised billing-format pilots	2027/28	4.3, 4.4	C, P	DEE supported by Eskom, metros and SANEDI

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Priority action	Timing	Objective	Part Three Indicator	Lead
National EE skills development plan published	2027/28	4.1	O	DEE supported by DHET, EWSETA, and SANEDI
EE incorporated as a supply-side resource in the IRP/IEP cycle; designated energy managers in place	2028/29	1.8, 4.2	A	DEE
National Energy Data Repository v1 commissioned; national consumption survey fielded	2028/29	5.3, 5.5	M	DEE supported by DFFE, Stats SA, SANEDI,
Feebate legislation drafted for vehicle CO_2 levy restructuring	2028/29	3.4.2	L	DoT support by DEE and National Treasury
Agricultural energy evidence base delivered	2028/29	3.6.1	—	DoA supported by DEE
Launch of a National Super ESCO	2028/29	2.9	H	DEE supported by SANEDI, DPWI, DFI
First annual NEES progress report; Part Three (RISE) indicator re-scoring	2028/29	5.2, 1.5	All	DEE

Part Eight: Alignment with International Commitments

This Strategy is South Africa's principal delivery vehicle for the energy-efficiency dimension of its international commitments. Alignment is achieved through closing the gaps identified in Part Three, through the Goals of Part Five, the implementation machinery of Part Six and the priority actions of Part Seven . The monitoring and evaluation system in Part Six serves both domestic accountability and international reporting.

Paris Agreement and NDC Targets

South Africa's Nationally Determined Contribution under the Paris Agreement commits the country to an emissions trajectory within a defined range, with the second NDC, submitted in 2025, extending targets to 2035.[xxxiii] Energy efficiency is among the least-cost mitigation options available to meet this trajectory: the 132 PJ (or 37 TWh) of avoided energy demand targeted by 2035 translates directly into avoided greenhouse-gas emissions, which will be quantified and attributed in the NEEAP using the verification framework in Part Six. Domestically, the Climate Change Act (2024) gives statutory force to this alignment through sectoral emission targets and carbon budgets, into which NEES outcomes will be reported;[xxxiv] internationally, verified NEES savings will feed South Africa's Biennial Transparency Reports under the Paris Agreement's Enhanced Transparency Framework.[xxxv]

The Strategy also positions South Africa to contribute to the collective goal agreed at COP28 of doubling the global average annual rate of energy-efficiency improvement to approximately four per cent by 2030.[xxxvi] While the national target in Part Four is expressed in absolute avoided energy rather

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

than an intensity-improvement rate, the annual energy-balance and intensity indicators established under Objectives 5.1 and 5.4 will enable South Africa's rate of improvement to be measured on the internationally comparable basis used to track the COP28 goal.

Sustainable Development Goals

The NEES contributes directly to SDG target 7.3, which calls for a doubling of the global rate of improvement in energy efficiency, monitored through primary energy intensity.[xxxviixxxviii] Beyond SDG 7, the Strategy's interventions generate the multiple benefits documented in IEA analysis:[xxxix] the low-income thermal retrofit programme and clean cooking roadmap (Objectives 3.2.3 and 3.2.4) advance SDG 1 (poverty), SDG 3 (health, through improved indoor air quality) and SDG 10 (reduced inequalities); industrial efficiency and the growth of the ESCO market (Goal 3.1, Objective 2.9) support SDG 8 (decent work and economic growth) and SDG 9 (industry and innovation); the public-transport and modal-shift measures (Objective 3.4.3) support SDG 11 (sustainable cities); and the Strategy as a whole is a direct contribution to SDG 13 (climate action). These co-benefits will be reflected in the reporting framework so that South Africa's Voluntary National Reviews can draw on NEES monitoring data.

African Union Agenda and Regional Frameworks

The Strategy advances Aspiration 1 of the African Union's Agenda 2063, a prosperous Africa based on inclusive growth and sustainable development, and its infrastructure and energy goals, by reducing the energy intensity of growth and freeing generation capacity for productive use and electrification.[xl] Regionally, the NEES is aligned with the SADC Renewable Energy and Energy Efficiency Strategy and Action Plan and will be implemented in cooperation with the SADC Centre for Renewable Energy and Energy Efficiency, including on the harmonisation of appliance standards and labelling, which reduces compliance costs for regional trade and prevents the dumping of inefficient products displaced from other markets.[xli]

Strategic Innovation

Finally, the Strategy commits South Africa to sustained participation in the international energy-efficiency policy and innovation system, so that domestic programmes are continuously informed by global best practice and South African experience contributes to it. Priority channels include the IEA's annual Global Conference on Energy Efficiency and its Energy Efficiency Policy Toolkit and policies database;[xlii] the Mission Efficiency coalition;[xliii] continued engagement with the World Bank/ESMAP RISE benchmarking programme, whose indicators structure the gap analysis in Part Three; appliance-policy cooperation through United for Efficiency and CLASP; and the IEA Technology Collaboration Programmes on end-use equipment. Innovation priorities for the NEEAP period include digitalisation of energy management and consumer feedback as the smart-metering rollout matures, data-centre efficiency standards aligned with international norms (Objective 3.3.4), and the integration of demand flexibility with efficiency as the competitive electricity market develops under the ERAA (2024).

Through these channels, the Strategy ensures that South Africa's energy-efficiency transition remains benchmarked, credible and internationally supported through to 2035.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Annex One: Relevant Policies and Legislation

The table below provides a more detailed overview of the key relevant policies and legislation discussed in the main body of the document.

Instrument	Description
	Overarching Policy
National Development Plan 2030 (2012)	The National Development Plan 2030 is South Africa's overarching long-term strategy to eliminate poverty and reduce inequality by 2030. The plan envisages a future where "*The economy's energy intensity will continue to decline and energy efficient options will be widely available and increasingly adopted"*. The plan identifies several measures to improve energy efficiency in South Africa, such as introducing a vehicle carbon tax, carbon-efficient industrial processes, stricter building-efficiency standards, efficient transport systems, encouraging greater use of hybrid and electric vehicles and public transport and the adoption of energy-efficient technologies.
	Energy Policy and Legislation
White Paper on the Energy Policy of the Republic of South Africa (1998)	Establishes the overarching national energy policy framework and positions energy efficiency as a national priority for economic competitiveness, environmental protection, and reducing energy poverty. The policy states that "*Energy efficiency and energy conservation considerations must therefore form part of an overall energy policy*" and "*Energy efficiency should also be considered within the conceptual framework known as 'Integrated Resource Planning'*…". The policy identifies several areas for improving energy efficiency in South Africa, including promoting and driving energy efficiency in industry and commerce, households, appliances, and transport, as well as building energy-efficiency capacity in government. Energy efficiency measures detailed in the policy include: • promoting energy efficiency in all sectors of the economy; • facilitating greater energy efficiency in industry, commerce and mining, including creating an energy efficiency consciousness and will to encourage energy efficiency in commerce and industry; • establishing energy efficiency norms and standards for commercial buildings and industrial equipment; • introducing a domestic appliance-labelling programme; • implementing an energy efficiency programme to reduce consumption in all government buildings; • creating appropriate institutional capacity to implement energy efficiency programmes; • investigating an environmental levy on energy sales to fund the development of renewable energy, energy efficiency and sustainable energy activities; • building thermally efficient low-cost housing, using these as an opportunity to promote energy efficiency and conservation; • stimulate energy demand management in middle and high-income households; • include energy efficiency as a criterion for government vehicle purchases; • researching the energy efficiency implications of alternative transport modes and subsidy policies; and • considering transport energy efficiency implications.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Instrument	Description
National Energy Efficiency Strategy (2005)	The predecessor to this strategy. Its vision statement is: *To encourage sustainable energy sector development and energy use through efficient practices thereby minimising the undesirable impacts of energy usage upon health and the environment, and contributing towards secure and affordable energy for all.* The strategy has eight goals split into three groups: *Social Sustainability* *Goal 1: Improve the health of the nation* *Goal 2: Job creation* *Goal 3: Alleviate energy poverty* *Environmental Sustainability* *Goal 4: Reduce environmental pollution* *Goal 5: Reduce CO_2 emissions* *Economic Sustainability* *Goal 6: Improve industrial competitiveness* *Goal 7: Enhance Energy Security* *Goal 8: Reduce the necessity for additional power generation capacity* It set economy-wide and sectoral energy intensity reduction targets up to 2015, including a voluntary national final energy demand reduction of 12 % by 2015. Sectoral targets included a final energy demand reduction of 15 % for the industry and mining sector, 15 % for the commercial and public building sector, 15 % for the power generation sector, a 10 % for the residential sector, and a 9 % for the transport sector. Supporting mechanisms in the strategy include Efficiency Standards, Appliance Labelling, Certification and Accreditation, Education, Information and Awareness, Research and Technology, Regulation, Energy Audits, and Energy Management Systems.
Electricity Regulation Act, 2006 (Act No. 4 of 2006)	The Act establishes a national regulatory framework for the electricity supply industry under the custodianship and enforcement of the National Energy Regulator of South Africa (NERSA) and provides for electricity licences and registration. The objectives of the Act include achieving the efficient, effective, sustainable and orderly development and operation of electricity supply infrastructure in South Africa, as well as promoting the use of diverse energy sources and energy efficiency. The Act allows NERSA to make any electricity licence for the generation, transmission, distribution, reticulation, trading and import and export of electricity subject to conditions including "*compliance with energy efficiency standards and requirements, including demand-side Management*".

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Instrument	Description
National Energy Act, 2008 (Act No. 34 of 2008)	The Act aims to ensure a diverse, sustainable, and affordable energy supply for the South African economy in support of economic growth and poverty alleviation. It includes measures for the collation of energy data and the establishment of the SANEDI. According to the Act, the functions of SANEDI relate to improving energy efficiency in South Africa as well as energy research and development in all fields of energy, other than nuclear energy. The functions of SANEDI specifically related to energy efficiency are: *(i) undertake energy efficiency measures as directed by the Minister;* *(ii) increase energy efficiency throughout the economy;* *(iii) increase the gross domestic product per unit of energy consumed; and* *(iv) optimise the utilisation of finite energy resources.* The Act defines "energy efficiency" as the "*economical and efficient production and utilisation of an energy carrier or resource*". The objectives of the Act relevant to energy efficiency include: • *facilitate effective management of energy demand and its conservation;* • *promote energy research;* • *promote appropriate standards and specifications for the equipment, systems, and processes used for producing, supplying and consuming energy;* • *ensure collection of data and information relating to energy supply, transportation and demand;* The Act also makes provision for the Minister to make regulations regarding: • *minimum levels of energy efficiency in each sector of the economy;* • *steps and procedures necessary for the application of energy efficiency technologies and procedures;* • *labelling for energy efficiency purposes of household appliances, devices and motor vehicles;* • *prohibition of the manufacture or importation or sale of electrical and electronic products and fuel burning appliances for reasons of poor energy efficiency;* • *energy efficiency standards for specific technologies, processes, appliances, devices, motor vehicles and buildings;* • *energy conservation measures to be used during energy shortage, which may include but not limited to the amount of energy to be saved, the duration for such measures and penalties associated with non-compliance to such measures;*
Draft Post-2015 Energy Efficiency Strategy (2016)	The immediate predecessor to this strategy. While the Post-2015 Strategy was not formally adopted, it nevertheless shaped the direction of energy efficiency efforts in South Africa and informed the design of programmes and incentives that have continued to operate in the intervening years. The vision of the strategy is: *Our vision is to promote energy efficiency as the 'first fuel' in driving balanced, socially inclusive and environmentally sustainable economic growth, boosting job creation and leading technological innovation across the region.* The strategy sets economy-wide and sectoral energy-intensity reduction targets for 2030. To promote energy efficiency as the 'first fuel' (a hidden energy resource that should be made use of before considering other energy sources), the strategy includes an economy-wide impact target of a 16 % decrease in final energy consumption by 2030, as well as a series of sectoral energy efficiency performance targets including a reduction in final energy demand by 2030 of 13 % for the industry and mining sector, 33 % for the public and commercial sector, 23 % for the residential sector, 30 % for the agricultural sector, and 11 % for the transport sector. The enabling framework in the Strategy includes ongoing strategic planning, overcoming market barriers, knowledge sharing, data collection and performance monitoring, and monitoring compliance and enforcement.

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Instrument	Description
Integrated Resource Plan (IRP)	Provides a national electricity planning framework setting out the long-term electricity supply roadmap. The first IRP was published for 2010, followed by versions in 2019, 2023 and 2025. The IRP 2025 does not list energy efficiency as a potential source of energy, and it states that energy efficiency and demand-side management impacts could not be incorporated into the Plan due to limited data availability.
Electricity Regulation Amendment Act, 2024 (Act No. 38 of 2024)	Amends South Africa's Electricity Regulation Act, 2006 (No. 4 of 2006), to create a competitive electricity market framework, enable third-party access to the transmission network, and establish the National Transmission Company of South Africa to take over the transmission functions of Eskom. The Amendment Act updated the first objective of the Electricity Regulation Act, 2006, to "*achieve the efficient, effective, sustainable and orderly development and operation of electricity supply infrastructure in the Republic of South Africa*".
Climate Change	
National Climate Change Response White Paper (2011)	Outlines a strategic framework to transition the country toward a climate-resilient and lower-carbon society. One of the strategic priorities in this policy document is "Technology research, development and innovation" which includes prioritising "lower-carbon and energy-efficient technologies". The policy lists energy efficiency, demand management and moving to a less emissions-intensive energy mix as the main opportunities for mitigation in South Africa, with "the most promising mitigation options [being] primarily energy efficiency and demand side management". In addition, the strategy states that in the medium-term, one of the mitigation options with the biggest mitigation potential is "significant upscaling of energy efficiency applications, especially industrial energy efficiency and energy efficiency in public, commercial and residential buildings and in transport". One of the Near-term Priority Flagship Programmes in the policy is the Energy Efficiency and Energy Demand Management Flagship Programme, which focuses on driving energy efficiency in the industrial, residential, and public (government buildings) sectors through the use of regulatory measures, including energy efficiency targets complemented by appropriate standards.
Carbon Tax Act, 2019 (Act No. 15 of 2019)	Imposes a tax on Scope One greenhouse gas emissions, creating a financial incentive for energy efficiency improvements. The Act states that "imposing a tax on greenhouse gas emissions and concomitant measures such as providing tax incentives for rewarding the efficient use of energy will provide appropriate price signals to help nudge the economy towards a more sustainable growth path".
Low Emission Development Strategy 2050 (2020)	Outlines South Africa's first Low Emission Development Strategy in line with the adoption of the Paris Agreement, with the following Vision *"South Africa follows a low-carbon growth trajectory while making a fair contribution to the global effort to limit the average temperature increase, while ensuring a just transition and building the country's resilience to climate change."* The Strategy focuses on the role of key policy documents in achieving low-emission development. In particular, it highlights the NEES in reducing energy demand. Other energy demand measurers specifically identified are increased uptake of Solar Water Heaters, the importance of national building regulations and standards and the promotion of cleaner mobility.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Instrument	Description
Climate Change Act, 2024 (Act No. 22 of 2024)	Enables a long-term transition to a low-carbon economy and allows for the development of a national greenhouse gas emissions trajectory and sectoral emission targets. Two of the Act's principles align with energy efficiency: "*a recognition that a robust and sustainable economy and a healthy society depends on the services that well-functioning ecosystems provide, and that enhancing the sustainability of the economic, social and ecological services is an integral component of an effective and efficient climate change response" and "the costs of responding to the adverse impacts of climate change and of mitigation which must be paid for by those responsible for causing the adverse impacts"*. In addition, one of the Objects of the Act with relevance to energy efficiency is "*to ensure a just transition towards a low carbon economy and society considering national circumstances*". The Act frames energy efficiency as a cost-effective, evidence-based, and integrated solution because it: • reduces direct and indirect greenhouse gas emissions, • supports the just transition by lowering energy costs, creating jobs in retrofitting and clean tech, and improving competitiveness, and • enhances resilience by reducing reliance on fossil fuels and exposure to volatile energy prices. Several sections of the Act related to climate change mitigation including: • National Greenhouse Gas Emissions Trajectory (Section 24): This Section establishes a long-term pathway for reducing emissions, ensuring South Africa contributes fairly to global climate goals. • Sectoral Emissions Targets (Section 25): Each sector (e.g., energy, transport, industry) must set emission reduction goals. • Carbon Budgets (Section 27): Entities are allocated a maximum allowable greenhouse gas emissions quota.
South Africa's Second Nationally Determined Contribution (2025)	Outlines South Africa's updated climate change mitigation and adaptation commitments under the Paris Agreement (2015). In this report, the South African government set a mitigation target for the country's greenhouse gas emissions of a range of 320 to 380 million tons of carbon dioxide equivalent (Mt CO_2-eq) per annum for the period 2031 to 2035. This is a more ambitious targets that the previous national mitigation target range of 350 to 420 Mt CO_2-eq per annum for the period 2026 to 2030 (set in 2021), as well as the target in South Africa's first Nationally Determined Contribution of a range of 398 to 614 Mt CO_2-eq between 2025 and 2030 (set in 2016).
Draft Sectoral Emission Targets (2024)	Outlines the proposed greenhouse gas reduction goals for key economic sectors as categorised by the relevant national government line departments, aiming to limit total emissions to achieve the commitments in South Africa's Nationally Determined Contribution. The draft policy summarises the sector targets detailed in the Post-2015 Draft National Energy Efficiency Strategy (NEES) and uses this to inform the sectoral emission targets.
Just Energy Transition	
DEE Just Energy Transition Framework (2022)	Outlines a shared vision for South Africa's shift from coal to a low-emission, climate-resilient economy while ensuring quality of life for all South Africans. It supports the goals of decent work for all, social inclusion, and the eradication of poverty. In this framework, the "Action Plan to Give Immediate Effect to a Just Transition" includes a long-range outcome, "Other sectors reduce emissions while improving efficiencies and creating new economic opportunities" in response to the issue, "Other value chains with high emissions (cement, agriculture, gas, etc.)".

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Instrument	Description
Just Energy Transition Investment Plan (2022)	Outlines the investment requirements to achieve South Africa's decarbonisation commitments and highlights the role of energy efficiency in reducing decarbonisation costs and creating employment. The plan notes that the then national Department of Mineral Resources and Energy has, since 2008, promoted energy efficiency and implemented a range of strategies for demand-side management measures in cooperation with Eskom, public sector institutions, and the private sector. The plan lists energy efficiency along with Eskom's current debt burden and the urgent need to address energy poverty through enhanced access to affordable electricity for poor households as key economic and social considerations. The plan lists energy demand management as one of the priority technical, financial, and economic challenges facing the Just Energy Transition. In response to this challenge, the plan lists the following opportunities: "Built environment interventions, including energy efficiency opportunities that are already identified" (through the municipal Energy Efficiency and Demand Side Management grant programme) and "case studies and knowledge sharing of good practice".
Just Energy Transition Implementation Plan (2023)	Provides a roadmap that converts the financial requirements and funding targets set out in the Just Energy Transition Investment Plan into specific projects. Energy Efficiency was added as an additional portfolio to the Implementation Plan. Furthermore, the plan states that the Energy Efficiency Portfolio would receive Just Energy Transition financing support in 2024. The Energy Efficiency Portfolio is set to focus on interventions relating to government buildings, commercial buildings, large industry, small and medium enterprises, households, standards for appliances and buildings. The 'Enabling Policy and Regulatory Reforms for a Just Transition' section of the plan states that since the announcement of the JET IP in 2022, several key milestones have been reached in advancing policy and regulatory reform, including that Eskom has introduced incentives for energy-saving and energy-efficiency measures through the Distribution Demand Management Programme, which follows a performance contracting approach.

Annex Two: Part Three Gap to Implementation Matrix

The matrix below consolidates the value chain running through this Strategy, tracing each RISE indicator assessed in Part Three (with its traffic-light status) toe the Part Five objectives that respond to it, the Part Six implementation mechanisms that deliver those objectives, the Part Seven priority actions that sequence them, and the Part Eight international commitments they serve.

RISE Gap to Implementation Traceability Matrix

ID	Part Three indicator	Status	Objectives (Pt 5)	Mechanism (Pt 6)	Priority actions (Pt 7)	Commitments (Pt 8)
A	National EE Planning	Amber	1.1, 1.4, 1.5, 1.7	Governance; regulatory pipeline	Yr 1 adoption; Yr 2 NEEAP; Yr 3 IRP	Paris/NDC; SDG 7
B	EE Entities	Green	1.2 (maintain)	Lead-agency architecture	Yr 1 designations	Innovation networks
C	Consumer Information	Amber	2.5, 4.3	Awareness raising; billing standard	Yr 2 billing pilots	SDG co-benefits
D	Rate Structure Incentives	Amber	2.5	Financing strategy; ToU transition	Yr 2 enforcement phase	—
E	Mandates: Large Consumers	Red	1.2, 1.6, 3.1.2	Regulatory pipeline (ISO 50001)	Yr 2 mandate gazetted	Paris/NDC
F	Public Sector Incentives	Amber	2.2, 2.3, 3.3.3	Revolving fund; energy managers	Yr 1 pilots; Yr 3 mainstreaming	SDG 7, 11
G	Mandates: Utilities	Red	1.2, 1.6, 2.6	EEDSM-to-obligations; NERSA rules	Yr 2 design; Yr 3 rollout decision	Paris/NDC
H	Financing Mechanisms	Amber	2.4, 2.7–2.10	Funding Plan; mobilisation	Yr 1 Funding Plan; JET IP pipeline	SDG 7, 8; climate finance

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

I	MEPS	Amber	2.1	Standards stream; NRCS enforcement	Yr 1 benchmarking; Yr 2 enforcement	SADC harmonisation
J	Energy Labelling	Amber	2.1, 3.4.1	Standards stream; fuel economy	Yr 1 label redesign; Yr 2 standards	SADC; CBAM resilience
K	Building Energy Codes	Amber	2.2, 2.3	Code cycle; EPC expansion	Yr 2 registry and compliance support	SDG 11
L	Carbon Pricing	Green	2.7 (funding link)	Carbon-revenue apportionment	Yr 1 options analysis	Paris/NDC
M	Energy Statistics	Red	1.7, 5.1–5.5	M&E framework; Data Repository	Yr 1 methodology; Yr 3 survey/repository	ETF/BTR; SDG 7.3
N	EE Development Tools	Amber	2.9, 3.1.2, 4.1	R&D; ESCO institutionalisation	Yr 1 networks; Yr 2 skills plan	Innovation networks
O	Education and Capacity Dev.	Amber	4.1, 4.2	Capacity building; energy managers	Yr 2 skills plan; Yr 3 designations	Innovation networks
P	Public Awareness	Amber	4.4	National awareness campaign	Yr 2 campaign launch	SDG co-benefits

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

Endnotes

[i] Kelly, Jamie, et al. 2025. Unmasking the Toll of Fine Particle Pollution in South Africa. Helsinki: Centre for Research on Energy and Clean Air (CREA). June 3. https://energyandcleanair.org/publication/unmasking-the-toll-of-fine-particle-pollution-in-south-africa/
[ii] World Bank, 2026
[iii] Source: http://www.statssa.gov.za/
[iv] Eskom. (2025). Historical average prices and increase v20250930 no-links External. Eskom. https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.eskom.co.za%2Fdistribution%2Fwp-content%2Fuploads%2F2025%2F10%2FHistorical-average-prices-and-increase_v20250930_no-links_External.xlsx&wdOrigin=BROWSELINK
[v] Authors own adaptation of visualisation of South African Energy Data supplied by Centre for Renewable and Sustainable Energy Studies (CRSES) | Stellenbosch University (2026)
[vi] Authors own adaptation of visualisation of South African Energy Data supplied by Centre for Renewable and Sustainable Energy Studies (CRSES) | Stellenbosch University (2026)
[vii] Authors own adaptation of visualisation of South African Energy Data supplied by Centre for Renewable and Sustainable Energy Studies (CRSES) | Stellenbosch University (2026)
[viii] PRASA Annual Reports 2017, 2019, 2020, 2024 & 2025.
[ix] DEE. (2025). Integrated Resource Plan 2025. Department of Electricity and Energy. https://www.dmre.gov.za/mining-minerals-energy-policy-development/integrated-resource-plan/irp-2025
[x] Statistics South Africa. (2025, December 11). Poverty trends in South Africa: An examination of absolute poverty between 2006 and 2023 [Media release] [Media Release]. https://www.statssa.gov.za/?p=19078
[xi] Statistics South Africa. (2026). Quarterly Labour Force Survey Quarter 4: 2025 Report (Statistical Release P0211 (2025)). Statistics South Africa. https://www.statssa.gov.za/publications/P0211/P02114thQuarter2025.pdf
[xii] Republic of South Africa. (2025). South Africa Second Nationally Determined Contribution Under The Paris Agreement – October 2025. https://unfccc.int/sites/default/files/2025-10/South%20Africa%27s%20second%20Nationally%20Determined%20Contribution_2025.pdf
[xiii] The framework follows the good-governance architecture recommended in the IEA's Energy Efficiency Governance Handbook. IEA, Paris (2010). Available at: www.iea.org/reports/energy-efficiency-governance-handbook.
[xiv] IEA (2026), Energy Efficiency Policy Toolkit, IEA, Paris. The Toolkit consolidates international best practice for combining regulatory, information and incentive measures, with sectoral policy packages and country case studies. Available at: www.iea.org/reports/energy-efficiency-policy-toolkit.
[xv] The 'first fuel' framing and the evidence base for treating efficiency as an energy resource are set out in IEA (2022), The Value of Urgent Action on Energy Efficiency, IEA, Paris. Available at: www.iea.org/reports/the-value-of-urgent-action-on-energy-efficiency.
[xvi] SANS 10400-XA (Energy usage in buildings) and SANS 50010 (Measurement and verification of energy savings) are published by the South African Bureau of Standards. Available at: store.sabs.co.za.
[xvii] National Energy Regulator of South Africa. Available at: www.nersa.org.za.
[xviii] IEA (2019), Fuel Economy in Major Car Markets: Technology and Policy Drivers 2005–2017, IEA, Paris (prepared for the Global Fuel Economy Initiative). Available at: www.iea.org/reports/fuel-economy-in-major-car-markets.
[xix] National Energy Act, No. 34 of 2008. Section 3 empowers the Minister to require the provision of energy data. Available at: www.gov.za/documents/national-energy-act.
[xx] National Regulator for Compulsory Specifications. Available at: www.nrcs.org.za.
[xxi] IEA (2010), Energy Efficiency Governance: Handbook, Chapter 7 (energy efficiency funds and funding sustainability). Available at: www.iea.org/reports/energy-efficiency-governance-handbook.

Official Use Only

Reproduced by Data Dynamics under Government Printers' Copyright Authority 9294 dated 24 September 1991

[xxii] Section 12L of the Income Tax Act (energy-efficiency savings allowance), administered by SARS with SANEDI verification. Available at: www.sars.gov.za – Energy Efficiency Savings.
[xxiii] Carbon Tax Act, No. 15 of 2019, administered by SARS. Available at: www.sars.gov.za – Carbon Tax.
[xxiv] The Presidency, Just Energy Transition Investment Plan and Implementation Plan. Available at: www.stateofthenation.gov.za – Just Energy Transition.
[xxv] IEA (2025), Energy Efficiency 2025, IEA, Paris (annual market report series). Available at: www.iea.org/reports/energy-efficiency-2025.
[xxvi] ISO 50001, Energy management systems – Requirements with guidance for use, International Organization for Standardization. Available at: www.iso.org – ISO 50001.
[xxvii] IEA (2014), Capturing the Multiple Benefits of Energy Efficiency, IEA, Paris. Available at: www.iea.org/reports/capturing-the-multiple-benefits-of-energy-efficiency.
[xxviii] IEA (2014), Energy Efficiency Indicators: Essentials for Policy Making, IEA, Paris; Available at: www.iea.org/reports/energy-efficiency-indicators-essentials-for-policy-making.
[xxix] Statistics South Africa. Available at: www.statssa.gov.za.
[xxx] IEA (2014), Energy Efficiency Indicators: Fundamentals on Statistics, Chapters 2–6 (sectoral data collection methodologies). Available at: www.iea.org/reports/energy-efficiency-indicators-fundamentals-on-statistics.
[xxxi] IEA (2022), The Value of Urgent Action on Energy Efficiency, IEA, Paris, documents the economic and energy-security case for front-loading efficiency action within this decade. Available at: www.iea.org/reports/the-value-of-urgent-action-on-energy-efficiency.
[xxxii] The Presidency, Just Energy Transition Implementation Plan (2023–2027), Energy Efficiency Portfolio. Available at: www.stateofthenation.gov.za – Just Energy Transition.
[xxxiii] South Africa's NDCs are recorded in the UNFCCC NDC Registry. Available at: unfccc.int/NDCREG.
[xxxiv] Climate Change Act, No. 22 of 2024, Sections 24–27 (national trajectory, sectoral emission targets and carbon budgets). Available at: www.gov.za (Gazette No. 50966).
[xxxv] UNFCCC, Enhanced Transparency Framework (Biennial Transparency Report guidance). Available at: unfccc.int/enhanced-transparency-framework.
[xxxvi] COP28 UAE Consensus and the Global Renewables and Energy Efficiency Pledge (2023); progress is tracked in the IEA's annual Energy Efficiency market report. Available at: www.iea.org – Energy Efficiency 2025.
[xxxvii] United Nations, Sustainable Development Goal 7 (target 7.3); Available at: sdgs.un.org/goals/goal7.
[xxxviii] Progress is reported in Tracking SDG 7: The Energy Progress Report (IEA, IRENA, UNSD, World Bank, WHO). Available at: trackingsdg7.esmap.org.
[xxxix] IEA, Multiple Benefits of Energy Efficiency (analysis programme). Available at: www.iea.org – Multiple Benefits of Energy Efficiency.
[xl] African Union, Agenda 2063: The Africa We Want. Available at: au.int/en/agenda2063.
[xli] SADC Centre for Renewable Energy and Energy Efficiency (SACREEE); SADC Renewable Energy and Energy Efficiency Strategy and Action Plan (REEESAP 2016–2030). Available at: www.sacreee.org.
[xlii] IEA Policies Database (searchable repository of energy-efficiency policy measures by country). Available at: www.iea.org/policies.
[xliii] Mission Efficiency (global coalition for energy-efficiency action). Available at: missionefficiency.org.

Official Use Only