



Department of Energy

SOUTH AFRICAN RENEWABLE ENERGY SECTOR

Ms. Mokgadi Modise, Chief Director: Clean Energy

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Mandate, Mission, Vision

Mandate:

- *“Ensure secure and sustainable provision of energy for socio-economic development”*

2014 Vision:

- *“A transformed and sustainable energy sector with universal access to modern energy carriers for all by 2014”*

2025 Vision:

- *“Improving our energy mix by having 30% of clean energy by 2025”*

Mission:

- *“To regulate and transform the sector for the provision of secure, sustainable and affordable energy”*



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Diversifying the energy mix remains one of Government's primary energy policy objectives

Background on the National Energy Efficiency Strategy

- In Copenhagen, South Africa committed to reduce its emission by 34% by 2020 and 42% by 2025 under BAU subject to resource availability.
- The White Paper on Energy Policy (1998) gives a mandate to the Department of Energy (DoE) to pursue an Energy Efficiency programme which is one of the lowest cost options for reducing energy consumption.
- The NEES, was approved by Cabinet and released in 2005 to explore the potential for improved energy utilisation through reducing the nation's energy intensity (thus reducing greenhouse gas emissions), and decoupling economic growth from energy demand.
- The original NEES stated that ***“Government will ensure that the necessary resources are made available to establish systems and legislation to facilitate the specification, collection, storage, maintenance and supply of energy-related data, according to the requirements of integrated energy planning and international standards.”***
- Implementation of the Integrated Resource Plan , 2011 (promulgate in May 2011) – outlines scaling up of various energy sources by 2030 and the development of an Integrated Energy

Plan (currently under development)



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Background on the National Energy Efficiency Strategy (NEES) goals

- The NEES outlined how an overall energy demand reduction target of 12% by 2015 would be achieved with contribution from the subsectors, that is, industry and mining (15%), commercial and public buildings (15%), residential (10%) and transport (9%).
- Implementation plans were drawn up for each of the sectors with forecasted targets of energy use reductions based upon assumptions about energy demand over the next 10 years, including the associated drivers, such as the economic development and population growth.
- As part of implementing the NEES, interventions were to be implemented by concentrating on no-cost and low payback options with a high impact. These were to be followed by medium to long-term higher investment interventions.
- Since the release of the NEES, several legislative frameworks had to be developed or put in place to support the implementation of the Strategy.



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National Energy Efficiency Strategy Objectives

The Vision of the NEES is “Reducing the energy intensity of the economy through energy efficiency”

Achievement of this vision will assist in fulfilling the following national objectives:

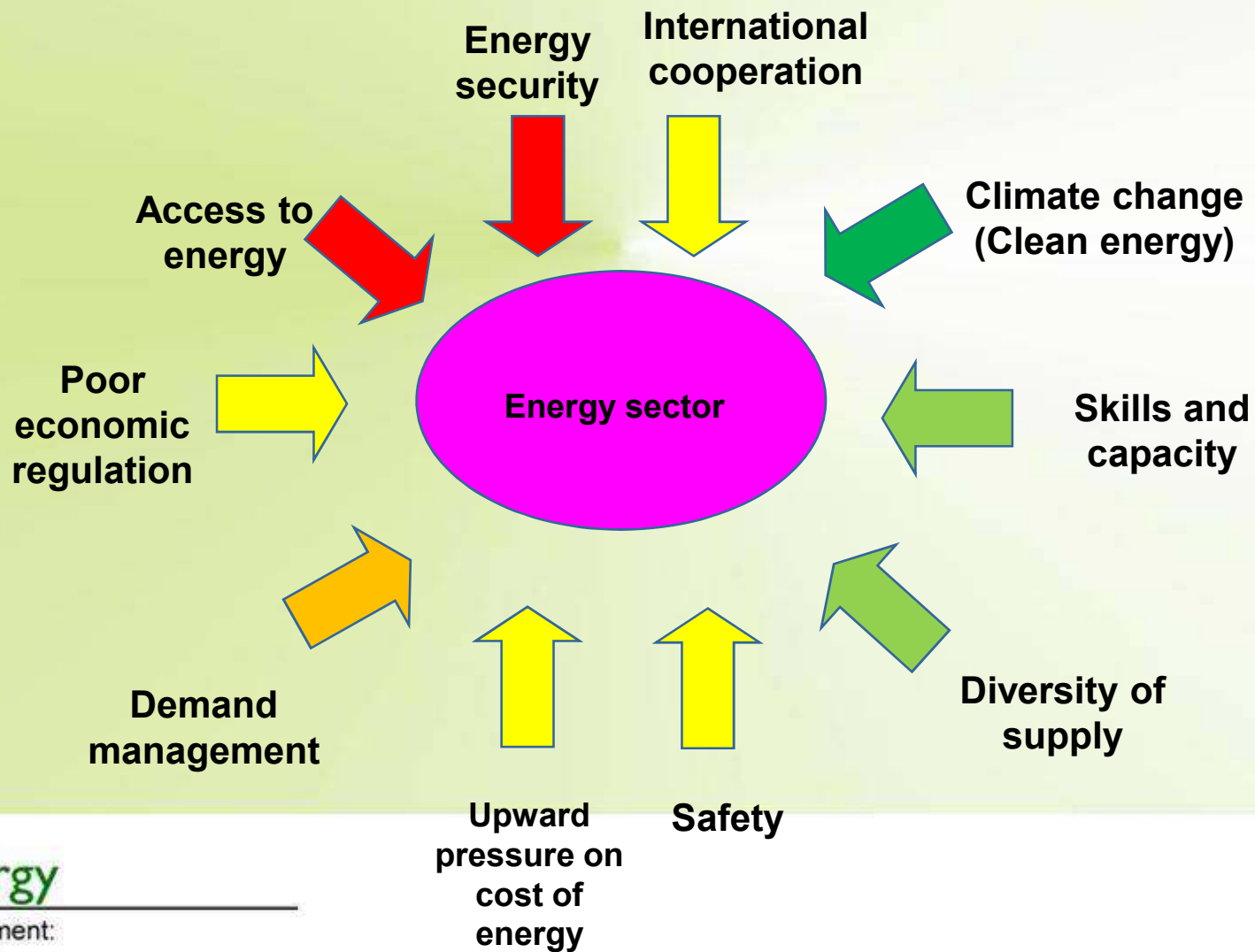
- **Enhancing energy security by making better use of existing and new generation capacity.**
- **Improving South Africa’s global competitiveness through reduced energy input cost.**
- **Decoupling growth in energy consumption (and GHG emissions) from growth in GDP.**
- **Improving global competitiveness will, in turn, contribute to job creation.**



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Drivers And Pressures in the Energy Sector in South Africa



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Importance of Partnership and alignment on Institutional arrangements to Implement of Energy Efficiency Measures

- Government acknowledged the importance of partnership among all key stakeholders in closing the identified gaps within the legislative frameworks/policy landscape and the implementation level to achieve the set national targets
- For example: **Energy Efficiency Accord – Voluntary** (2005 – 2009)
 - **Green Economy Accord** (also the **Local Procurement Accord** and **National Skills Development Accord**) was signed between Government and its social partners, that is, the **National Economic Development Labour Council (NEDLAC)**
 - **Energy Efficiency Leadership Network (EELN)**
 - **CEO's Climate Change Forum** and **Directors Generals Mitigation Forum**
- Cabinet approved the **National Climate Change Response White Policy, 2011** – all sector departments are expected to lead their respective sectors.
- **Energy Efficiency Savings Regulations** in line with the country Income Tax Act



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Key stakeholders within the Energy Efficiency space

- Government:
 - Department of Energy: Energy Efficiency Policy Planning, Development and Regulation
 - **South African National Energy Development Institution (SANEDI)**
 - **National Energy Regulator of South Africa (NERSA)**
 - Department of Trade and Industry and its State Owned Entities: Industrial Policy Development – Industrial Policy Action Plan
 - **South African Bureau of Standards (SABS)**
 - **South Africa National Accreditation Service (SANAS)**
 - **National Regulations for Compulsory Standards**
 - **National Cleaner Production Centre**
 - Department of Science and Technology and its State Owned Entities (SOEs):
 - **Council for Scientific Information and Research (CSIR),**
 - **Technology Innovation Agency (TIA),**
 - **Innovation Hub, Academic Institutions, etc.**
 - Economic Development Department: New Growth Path (i.e. 5 million jobs in 10 years)
 - Department of Public Enterprises



energy • **Eskom (National Utility) – Integrated Demand Side Management : EEDSM and awareness**

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Key stakeholders within the EE space

- Department of Public Works: Public Buildings EE Programme
- Municipalities: EEDSM- Retrofitting Street and traffic lighting, Building Retrofitting
- National Treasury – Income Tax Act
 - **South African Receiver of Revenue (SARS)**
- National Economic Development Labour Council (NEDLAC) – Negotiating structure
 - **Business / Industry**
 - **Organised Labour**
 - **Civil Society**
 - **Public - Efforts by citizens**
- International Development Agencies:
 - **United Nations Development Organisation (UNIDO) – Industrial Energy Efficiency Improvement Project – Training of Energy Efficiency Managers**
 - **Swiss Development Agency: Energy Efficiency Target Monitoring Programme**
 - **United Nations Development Programme: Standards and Appliance Labeling Programme**
 - **GIZ -South Africa Germany Energy Programme**
 - **International Energy Agency (IEA)**



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NEES Implementation progress to date (1)

- **Building Sector**: The promulgation of the National Building Regulations for energy use in buildings by the National Regulations for Compulsory Standards (NCRS) and Standard for Energy Efficiency in Buildings.
- **National Standards**: For example - Compliance with the building standard SANS 10400 and SANS 204 will reduce the use of energy from electricity, gas, oil and other fuels used in buildings for heating, cooling, ventilation, hot water, etc. as well as requiring all new buildings to use solar water heaters or heat pumps. Standards for electric motors, household appliances, heat pumps, etc.
- **Vehicle Manufacturing**: The CO2 vehicle emissions tax – is collected and paid over to the South African Revenue Services by the vehicle manufactures and /or importers. The tax is built into the price the manufacturer or importer charges their clients. This was in line with an earlier proposal by the then DME(in 2004) to encourage the use of more fuel efficient vehicles through the taxation of tax 'gas guzzlers'.



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NEES Implementation progress to date (2)

- **The South African Bureau of Standards (SABS)** through the Department of Trade and Industry has published standards on Energy Management (SANS 50010) and the application of the National Building Regulations, Part XA: Energy usage in buildings (SANS 10400 XA).
- **SANS 50010** will be of use to local industries in four ways, namely to:
 - (i) enable industries to accurately quantify the true benefits as a result of energy savings measures;
 - (ii) provide consistent feedback regarding the typical performance of the various energy savings opportunities available to industry;
 - (iii) let companies improve their monitoring against targets; and
 - (iv) allow companies to claim any tax benefits available to them from energy-saving programmes.



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NEES Implementation progress to date (2)

- **Standard for Energy Management (SANS 50001)** – This standard will assist in the continual improvement framework to incorporate energy management into everyday organizational practices. In the context of Energy Management, companies will do the following:
 - Plan: conduct the energy review and establish the baseline, energy performance indicators (EnPIs), objectives, targets and action plans necessary to deliver results that will improve energy performance in accordance with the organization's energy policy;
 - Do: implement the energy management action plans;
 - Check: monitor and measure processes and the key characteristics of operations that determine energy performance



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Energy Efficiency Standards (2) and Incentives

- **Standard for Measurement and Verification of Energy Savings (SANS 50010)** – The standard is intended to provide a standard approach (methodology) for the measurement and verification of energy savings and energy efficiency and also provides an assurance that actual savings should always be more than or equal to the reported savings.
- **Legislation/Regulations:** Implementation of the Income Tax Act provides for allowances on industrial energy efficient manufacturing capabilities and energy efficiency savings, Section 12I and 12L.
 - Regulations on Section 12 L is providing for an allowance on Energy Efficiency Savings are in the pipeline for promulgation (i.e. allowance for measured and verified savings).
 - Regulations for 12i is aimed at the large manufacturing investments (upgrades, expansions or new facilities that exceed R30 million and R200 million respectively).
 - Discussion on the Carbon Tax Policy Document: CDM and EE projects
- The DoE promulgated “the Regulations for Mandatory Provision of Energy Data” in March 2012 which will assist in the collection of energy efficiency data required for the EETMS and the setting of long-term targets.



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Lessons learned

- The following remain important and central to the success of achieving the set targets:
 - Political will on national legislation to create alignment and enabling environment;
 - Success on implementation by all stakeholders depends heavily on the implementation tools and systems – creating of enabling environment;
 - Need for Policy alignment: a link in policy planning, development and implementation;
 - Strong Partnership between government and implementing stakeholders – implementation tackled as a team instead of seeing EE role as government responsibility;
 - Incentives serve as a catalyst to implementation and makes enforcement easier to manage
 - Change of behaviour strongly linked to awareness creation



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