



energy

Department:
Energy
REPUBLIC OF SOUTH AFRICA

Energy Efficiency Modelling and Policy Impact Workshop

SANEDI Office, Sandton, Gauteng

29 November 2018

Overview of Energy Efficiency Initiatives

Presentation Outline

- **NEES Vision**
- **Energy Efficiency Targets and Development Process**
- **Energy efficiency programmes and projects**
- **Improving energy performance of public facilities**

Clean Energy Branch Structure

Branch: Clean Energy

CD:
Env. Compliance, DNA &
Climate Change Energy

CD: Renewable Energy

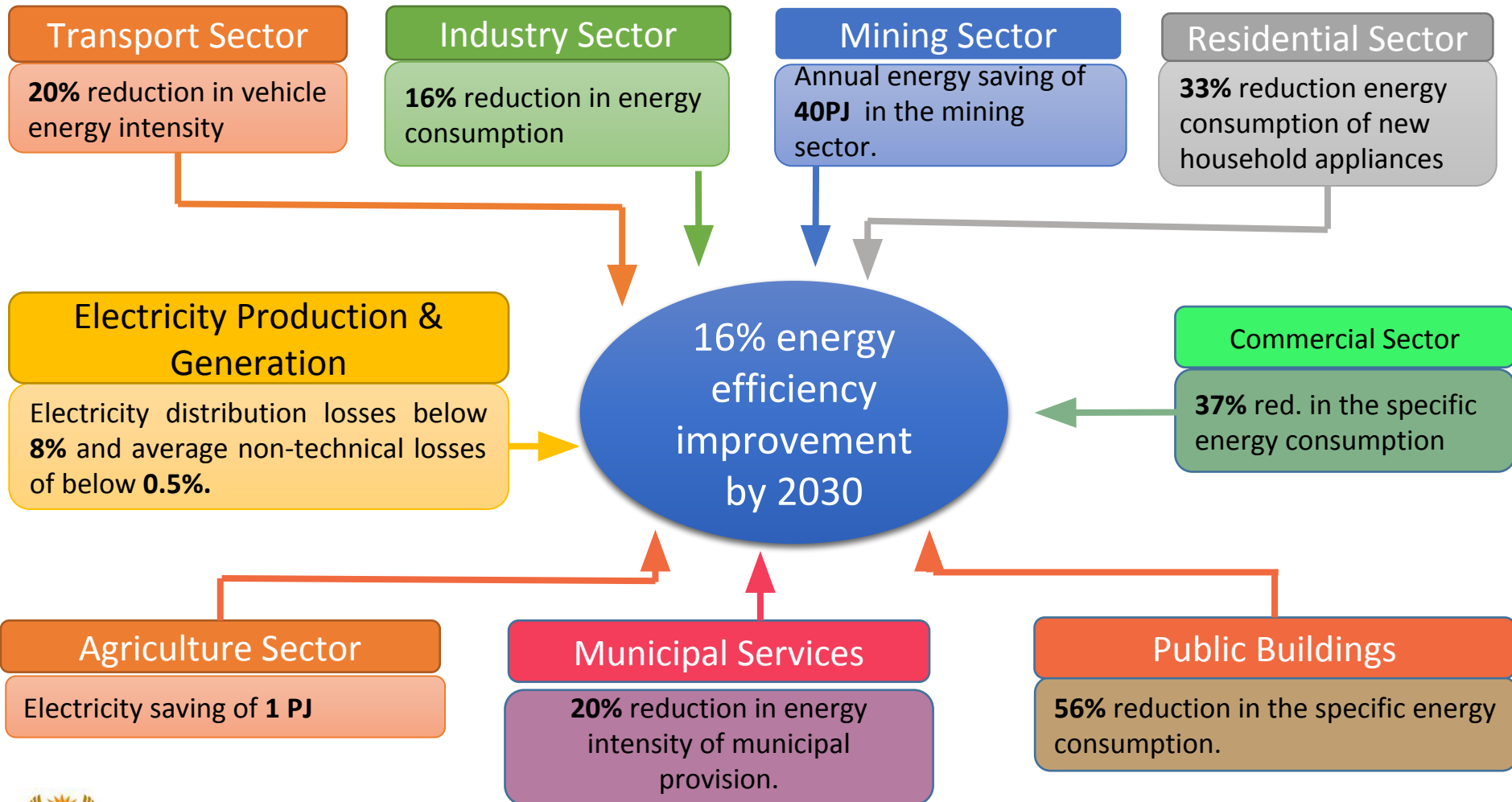
CD: Energy Efficiency

To **advance energy efficiency** that are focused on developing and improving the **energy efficiency market**, which ensures the planning, developing, integration and coordination of **measures** with relevant associated institutions **across all sectors**.

post-2015 NEES – Vision (2015 - 2030)

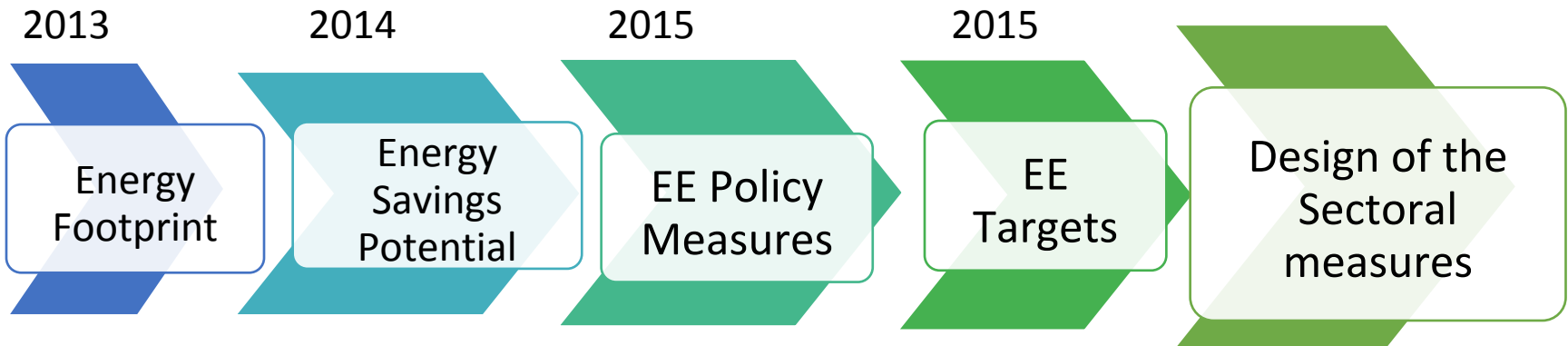
To **promote energy efficiency** as the **‘first fuel’** in driving balanced, socially inclusive and environmentally sustainable economic growth, boosting job creation and leading technological innovation **across the region.**

Energy Efficiency Targets, 2015 - 2030



Energy Efficiency Measures and Target Development Process

- **Sectoral Focus: 2016 -2020**
 - ✓ Industry Sector
 - ✓ Agriculture Sector
 - ✓ Municipal Services
 - ✓ Public & Commercial Building Sector
 - ✓ Residential Sector: S&L



- 2015 Energy Efficiency Target Monitoring Systems (EETMS)
- **21.4 %** EE Improvement using energy consumption baseline of year of 2000

Energy Efficiency Annual Performance

Target

Annual Energy Savings Realised and Verified from EEDSM programmes/projects

Programmes/Projects

Industrial EE Phase II Project

municipal EE & Demand Side Management (EEDSM) programme

Energy Efficiency in Public Infrastructure Programme

Net-zero energy of WWTWs

Improving Energy Performance of Buildings

Energy Efficient Appliances (S&L)

Regulations: Energy Performance Certificates (EPC) & Data Management

Energy Efficiency in Agriculture

Energy Efficiency Monitoring System (EEMS)

Design of Energy Efficiency Measures for Public and Municipal Services (1/2)

- **Public Facilities:** Wastewater Treatment Works (WWTWs), Buildings, Street Lighting
- **Strengthen capacity** of government officials and Energy Services Companies to improve energy performance of buildings.
- Establishment of energy footprint (**consumption baseline**) for public facilities.
- Develop and implement **energy demand model** for WWTWs, buildings and street lighting.
- Establishment of **energy savings potential** and **technology catalogue** for public facilities.

Design of Energy Efficiency Measures for Public and Municipal Services (2/2)

- Integrate small-scale embedded generation/off-grid renewable energy and energy efficiency in public facilities.
- Installing **energy management system** and smart meters in public facilities, and adoption of Minimum Energy Performance Standards
- Data management, analysis and **monitoring and evaluation system** including a Building Energy Performance Register

Opportunities and Challenges

- Access to international partnership for energy efficiency improvements.
- High increased in energy prices; and a drive towards environmental sustainability.
- 5-year energy efficiency measures and target review process (2016 – **2020**; 2021 – **2025** & 2026 - **2030**).
- Inadequate quality of data and modelling expertise on energy efficiency analysis.
- Constraints of the South African government fiscus for allocating budget for energy efficiency.

THANK YOU FOR YOUR ATTENTION

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