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South African National Energy
Development Institute (SNC) Ltd.



SCALING UP SUPER ESCOs and ESCOs in Africa

A South African Perspective

Third Energy Efficiency Virtual Workshop



mineral resources
& energy

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

ENERGY INNOVATION FOR LIFE

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SANEDI
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mandate

The *National Energy Act, 2008* (Act No. 34 of 2008), Section 7 (2) provides for **SANEDI** to direct, monitor and conduct *energy research and development*, as well as undertake measures to promote *energy efficiency* throughout the economy.

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FLY THE FLAG
for South Africa

Background



- 🌱 The energy sector in the Republic of South Africa (RSA) is facing sizeable challenges centering around the financial sustainability and poor operational performance of the national utility, Eskom and many local authorities.
- 🌱 The power sector is of strategic importance to economic growth and is also a major contributor to achieve RSA's Climate Change (CC) and Nationally Determined Contributions (NDC) targets as the sector aims to gradually change its energy mix and reduce its coal trajectory, (*90 % of primary energy consumption in South Africa comes from coal*).
- 🌱 There are numerous additional socio-economic impacts on employment and poverty, e.g. Covid, etc.
- 🌱 Scaling-up energy efficiency (EE) interventions in South Africa is considered one of the most promising solutions to ensure energy security in the country and achieve rapid, ambitious and cost-effective emission reductions.
- 🌱 The South African Government, through the Department of Mineral Resources and Energy (DMRE) published the country's first National Energy Efficiency Strategy (NEES) in 2005 and again in 2015.

National Energy Efficiency Strategy, (2030)

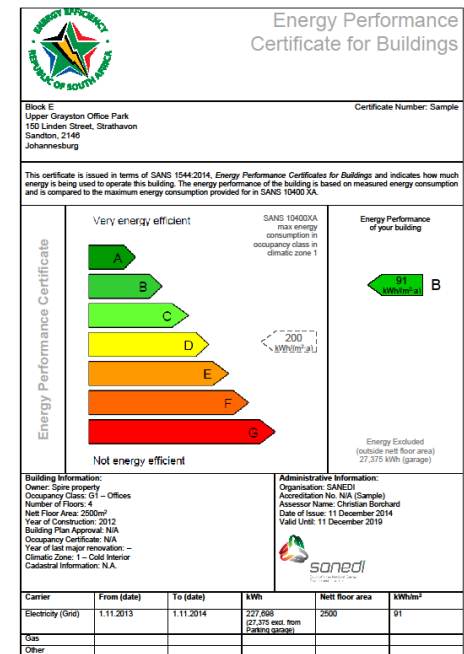


Sector	2030 Target, (based on 2015)	Examples of Actions
Economy-wide	29%	
Industry & Mining	16%	Energy management, Carbon Tax, 12L (incentive)
Residential	33%	Building Standards, Appliance Labelling
Public Buildings	50%	Building Standards, DPW Policy, Energy Performance Certificates
Commercial	37%	Building Standards, DPW Accord, Energy Performance Certificates
Agriculture	30%	Modernisation
Transport	39%	Vehicle Efficiency Standards, Carbon Tax
Municipal Services	20%	Energy Service Companies, MEEDSM, etc.
Power Sector-distribution non technical issues	8% 0.5%	Mandatory efficiency improvements, Cogeneration, Waste Heat Recovery

Current (Core) Activities



- 🌱 ESCo Association of South Africa, (EASA) – 1 025 members
- 🌱 Black Energy Professionals Association of SA, (BEPA)
- 🌱 ESCo Market Development Working Group established, (*Government, industry and SANEDI*)
- 🌱 Bi-annual ‘roadshows’ with all ESCo’s
- 🌱 Training and Capacity Development initiatives
- 🌱 National ESCo Register maintained – 3 tiers/ levels
- 🌱 ESCo Journal, with Case Studies



Some Opportunities



 Buildings, both Public and Private, (EPCs)

 Wastewater Treatment (WWTPs) Projects

 Cool Surfaces – residential/ commercial

 Standards and Labelling, (Motors)

 Renewable Energy, (SSEG)

 EEDSM, (Streetlights, etc)

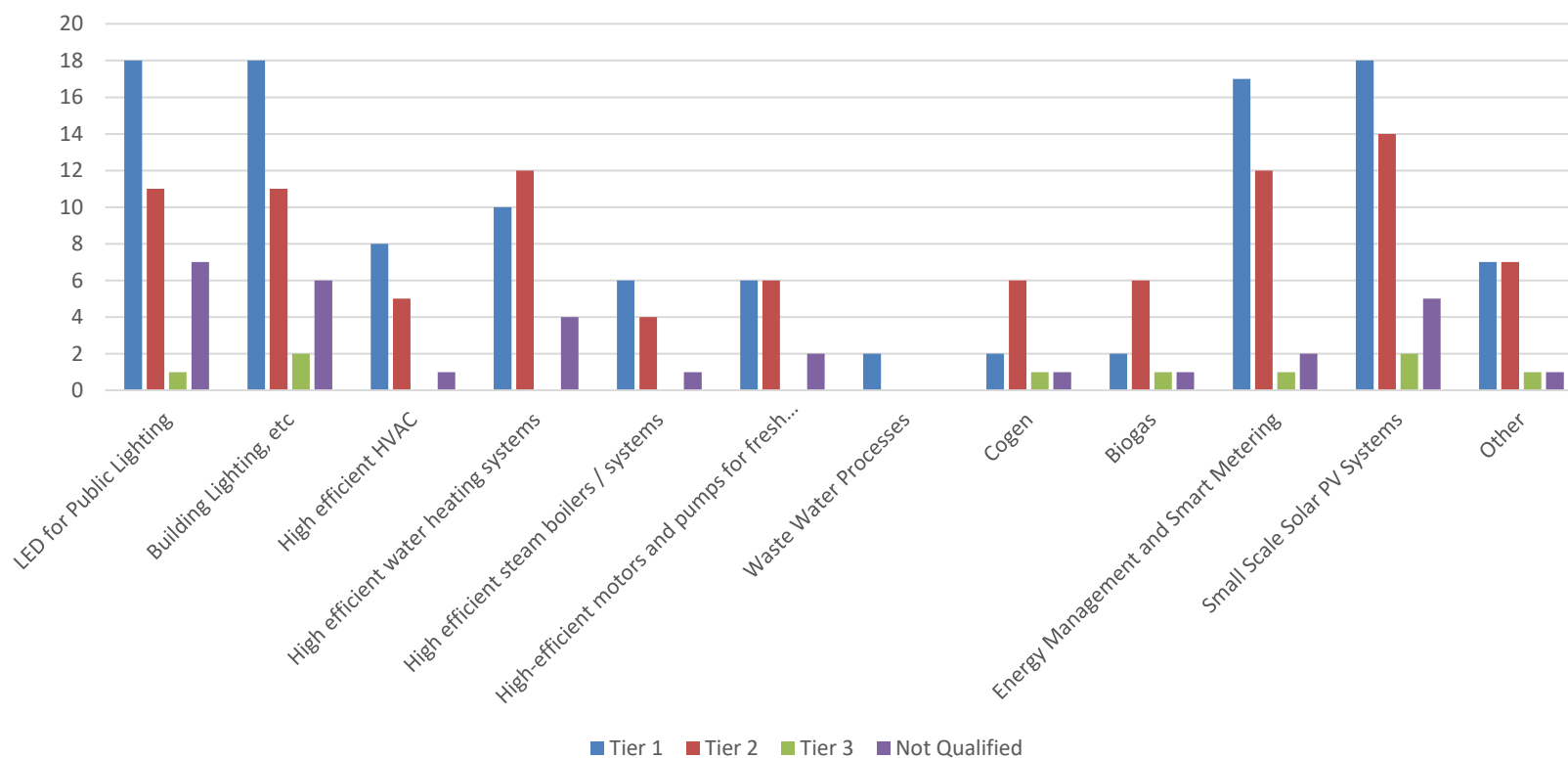
 Energy Performance Contracting



Results of ESCo Register Evaluation, (2020)

No of Companies

Technologies



Exciting Future Plans



- 🌱 The World Bank (*), in dialogue with DMRE and SANEDI, is currently seeking to hire a consulting firm with the objective of identifying feasible paths for the further development of the ESCo industry in South Africa, that effectively contributes to untap the large-scale Demand-Side Energy Efficiency market.
- 🌱 The project will assess the ESCo market potential and barriers across the various EE market ecosystems, covering different end-use segments (public, commercial, industry, and buildings sectors), identify feasible solutions and tools, based on global best practices and experiences with different types of ESCO solutions (public and private), and develop the building blocks that will contribute in the dialogue to scaling up the ESCO-implemented EE investments in South Africa.
- 🌱 The potential business models, feasible institutional mechanisms and skills-gaps associated with the public and private sector ESCO-implemented delivery approaches will also be analyzed and developed.

(The project will be funded through a grant provided by the Public-Private Infrastructure Advisory Facility (PPIAF) at the World Bank. The PPIAF helps developing-country governments strengthen policies, regulations and institutions that enable sustainable infrastructure, with private-sector participation.*



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**THANK
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