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South African National Energy
Development Institute (SOC) Ltd.



ESCo Market Development and ESCo Register

by

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Date 20.09.2023

SAEEC 18th Annual Conference
The Lakes Hotel, Benoni



**mineral resources
& energy**

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

SANEDI AND IT'S MANDATE



The National Energy Act, 2008 (Act No. 34 of 2008), Section 7 (2) gave effect to SANEDI's existence and provides for its primary mandate and specific responsibilities.

The South African National Energy Development Institute (SANEDI) is an agency of the Department of Mineral Resources and Energy



- Undertake measures to promote energy efficiency throughout the economy
- To promote energy research and technology innovation
- To direct, monitor and conduct energy research and development

A Schedule 3A Entity

Content

- ESCo Market Development in SA – History
- SANEDI Activities for ESCo Market Development
- Energy Efficiency Funding Opportunities for ESCos
- SANEDI ESCo Register
- Results of ESCo Register – Evaluation 2022
- Conclusion

ESCo Market Development History in SA

- 2012 DMRE and GIZ started to support SANEDI with ESCo Market Development activities (Workshops at SANEDI and Study Tours to Europe)
- 2014 ESCo Market Development (EMD) - 1st Roadmap by SANEDI
- 2017 SANEDI ESCo Register 1st Round
- 2019 SANEDI ESCo Register 2nd Round
- 2022 SANEDI ESCo Register 3rd Round
- 2022 Support to ESCo Market Development Study implemented through SANEDI, elaborated by ECONOLER and CARBON Trust, financed by the WB
- 2023 Introduction of a new Financing Mechanism for a “Super ESCo” approach in SA

SANEDI Activities for ESCo Market Development

Capacity Building

Training ESCos on PV installations, **1st Round completed**, 2nd Round will follow in October 2023
Certified Energy Auditor Training, in preparation
Financial Management,
Water and Wastewater Treatment Technologies, etc

World Bank Proposal for Financing Mechanism

Energy Performance Contract
Super ESCo Model for South Africa

IDC Green Incentive

Green Tourism Incentive Programme

Energy Efficiency Funding Opportunities for ESCOs

National Treasury / DTIC Regulations

- 🇿🇦 Section 12B Investment in RE Technologies
- 🇿🇦 Section 12L Investment in Energy Efficiency

National Treasury

- 🇿🇦 Division of Revenue Act – Municipal EEDSM Grant Program

Industrial Development Corporation

- 🇿🇦 Green Energy Efficiency Fund

ESKOM

- 🇿🇦 Distribution Demand Management Programme (DDMP)

The South African ESCo Register

Acknowledgement

 The ESCo Register was elaborated by the support of DMRE, SANEDI, GIZ and SAEEEC.

The South African ESCo Register as a means to develop the ESCo industry






- 🌍 The South African government through DMRE and SANEDI strives to:
 - *improve the quality* of the municipal EEDSM projects
 - *facilitate* the market development and growth of ESCos
- 🌍 The ESCo Register is an important *tool* to develop energy efficiency in South Africa and is utilized by both the *public and private* sector to:
 - identify, plan, develop, finance, implement energy efficiency and demand side management projects in buildings, public lighting, water infrastructure including co-generation, energy performance certificates and PV Installations
- 🌍 The register makes provision for the inclusion of ESCos *across the value chain of energy services* offered:
 - Auditing, Technology Installers, Consulting Engineers as well as full ESCos that provide the energy services and financing

ESCo Register – The Structure

The ESCo Register is *regularly reviewed and updated* ensuring its relevance thereof, but also providing ESCos with the *opportunity to achieve a higher classification level* as they mature.

The register *makes provision for the inclusion of ESCos across the value chain of energy services* offered.

ESCo Register Structure

-  General Information
-  Company Information
-  Technologies
-  Sectors
-  Services

ESCo Register – The Structure and Criteria of Register – General Information

No	ESCo Criteria – General Information
1	Company Name
2	Contact Person
3	Contact Details Phone Number
4	Email address of Contact Person
5	Municipality of Company Registration
6	Province of Registration
7	CSD Registration (Central Database)
8	Provinces with Activities
9	Countrywide Activities
10	Company Equity (Women, Youth owned)

ESCo Register – The Structure and Criteria – Company Information

No	ESCo Criteria – Company Information	Points	Weight
1.0	Years in the ESCo/Energy Management Business	5-3	15%
2.1	Number of Clients (proof of current and past projects)	5-3	15%
2.2	Number of reference letters on completed energy projects using at least 4 different EE/RE technologies	5-3	15%
2.3	Number of reference letters on completed energy service projects	5-3	15%
3.0	Number of full time technical professionals (e.g. Engineer)	5-3	15%
4.0	Number of employees with degrees (Bachelor plus)	5-3	10%
5.0	Years of experience of team	5-3	15%

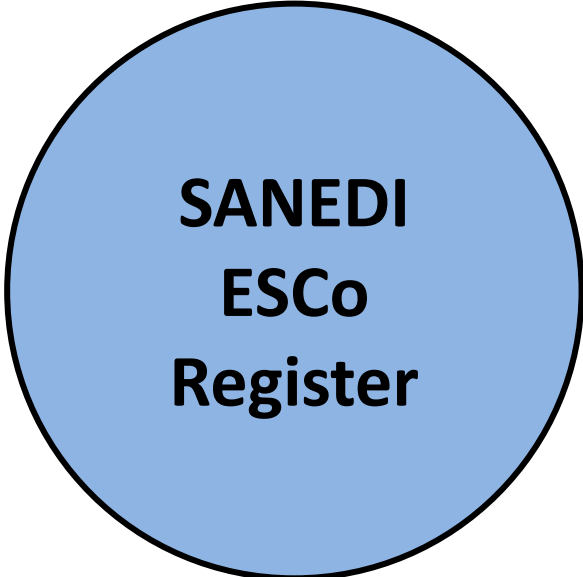
ESCo Register – The Structure and Criteria – Company Information

1	2.1	2.2	2.3
Years in the ESCo/energy management business	Number of Clients (proof of current and past projects)	Number of reference letters on completed energy projects using at least 4 different EE/RE technologies	Number of reference letters on completed energy service projects
Minimum of 5 years = 5 points	5 and above clients = 5 points	5 and above reference letters (attached) = 5 points	5 and above reference letters (attached) = 5 points
4 years = 4 points	4 clients = 4 points	3 reference letters = 4 points	2 reference letter = 4 points
2 years = 3 points	3 clients = 3 points	1 reference letter = 3 points	1 reference letter = 3 points

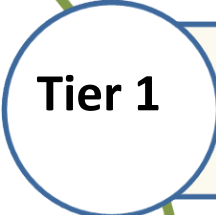
ESCo Register – The Structure and Criteria – Company Information

3	4	5
Number of full time technical professionals (e.g. Engineer)	Number of employees with degrees	Years of experience of team
A minimum of 5 full time technical professionals = 5 points	Bachelor degree for 3 employees = 5 points	10 years and above experience of fulltime technical employees = 5 points
A minimum of 4 full time technical professionals = 4 points	Bachelor degree for 2 employees = 4 points	7 - 9 years combined experience of fulltime technical employees = 4 points
A minimum of 2 full time technical professionals = 3 points	Minimum of Bachelor Degree for 1 employee = 3 points	Minimum of 5 - 6 years combined experience of full time technical employees = 3 points

SANEDI ENERGY SERVICE COMPANIES (ESCo) REGISTER



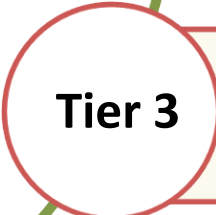
ESCo Classifications according to the Register



Tier 1 ESCOs have to score more than 80 % of the ESCo Register criteria. 2022: 51 ESCOs



Tier 2 ESCOs have to score more than 60 % of the ESCo Register criteria. 2022: 61 ESCOs



Tier 3 ESCOs have to score more than 50 % of the ESCo Register criteria. 2022: 19 ESCOs

ESCo Register – The Structure and Criteria of Register - Technologies

No	ESCo Criteria - Technologies
1	LED for Public Lighting (Street Lighting, High Mast Lighting, etc.)
2	Building Lighting
3	High efficient HVAC
4	High efficient water heating systems
5	High efficient steam boilers / systems
6	High efficient motors and pumps for fresh and waste water
7	Water and waste water treatment
8	Cogeneration (CHP)
9	Cogeneration with Biogas
10	Energy Management and Smart Metering
11	Small Scale Solar PV Systems
12	Others

ESCo Register – The Structure and Criteria of Register - Sectors

No	ESCo Criteria - Sectors
1	Residential
2	Commercial
3	Light Industry
4	Heavy Industry / Mining
5	Public Infrastructure
6	Others

ESCo Register – The Structure and Criteria of Register - Services

No	ESCo Criteria - Services
1	Energy Auditing
2	M&V of EE Savings
3	Engineering Design
4	Project Implementation
5	Energy Management
6	Issuing of Energy Performance Certificates
7	Energy Performance Contracts
8	Financial Modelling
9	Financing of Energy Projects
10	Full ESCo Offering (provision of energy services and financing)
11	Others (eg. Source of Technology; local; etc)

ESCo Register – Results till 2022

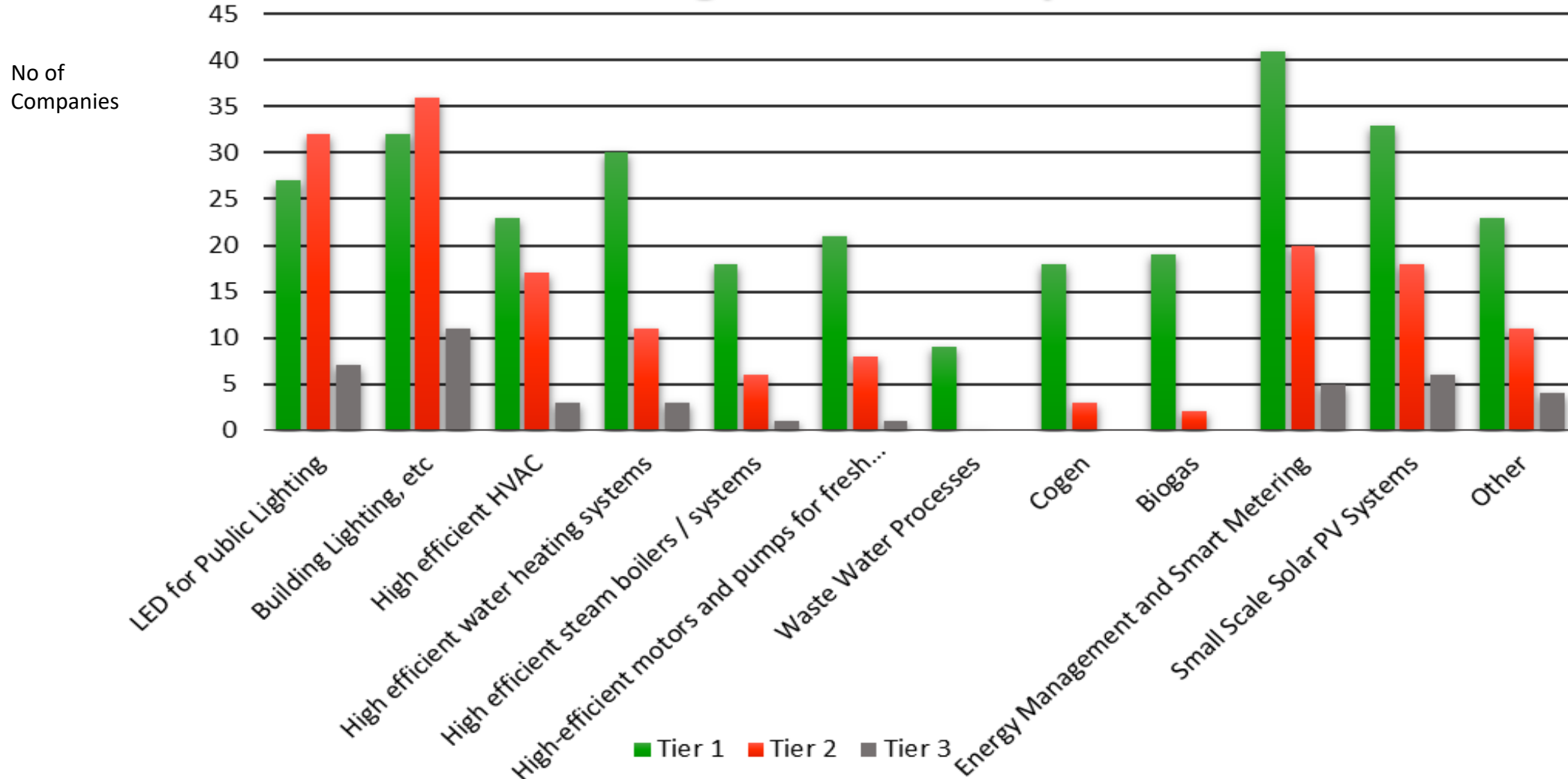
The ESCo Register is *regularly reviewed and updated* ensuring its relevance thereof, but also providing ESCos with the *opportunity to achieve a higher classification level* as they mature. The register *makes provision for the inclusion of ESCos across the value chain of energy services* offered, e.g. Auditing, Measurement and Verification, Technology Installers, Consulting Engineers as well as full ESCos that provide energy services and financing.

Since the initial request for the registration of ESCos was issued in 2017, it has been *renewed for the year 2020 and 2022*. Below is an overview on how the Register has evolved over the years:

Year	Tier 1	Tier 2	Tier 3	Total	Disqualified
2017	14	24	7	45	13
2020	29	25	9	63	26
2022	51	61	19	131	97

Result of ESCo Register Evaluation 2022 - Technologies

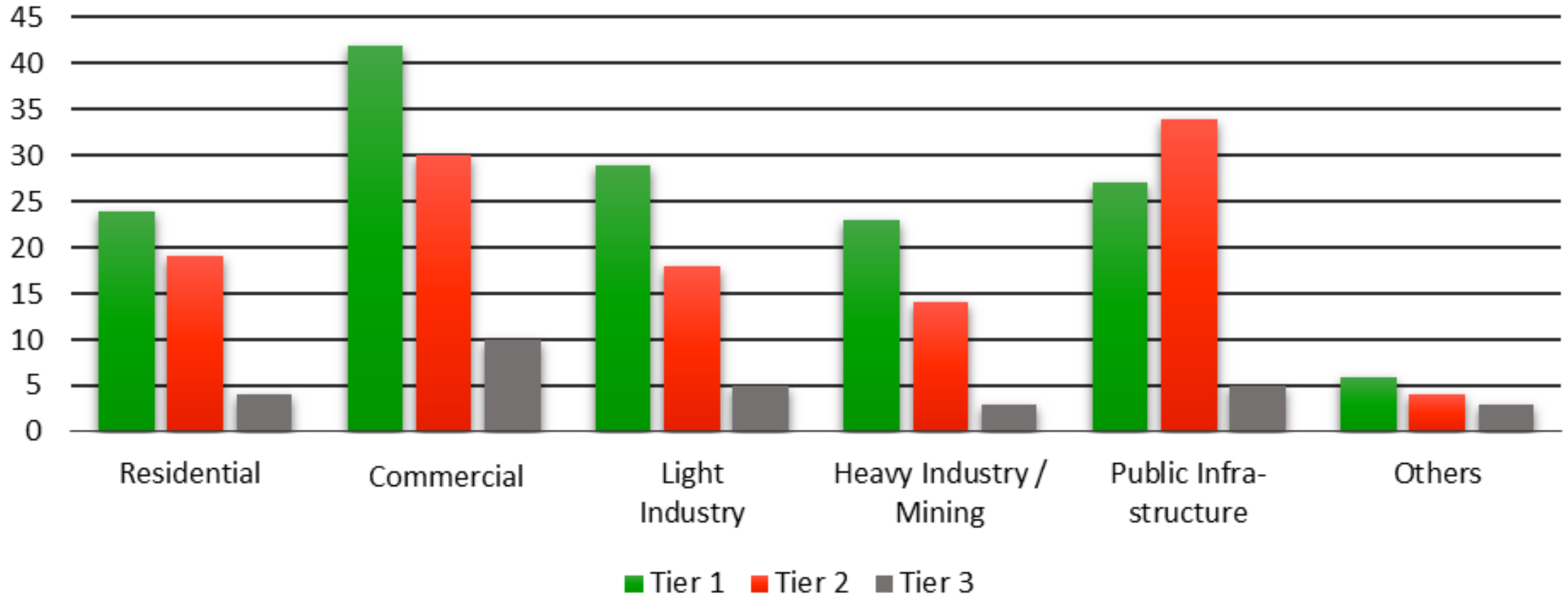
Technologies Offered by ESCos



Result of ESCo Register Evaluation 2022 - Sectors

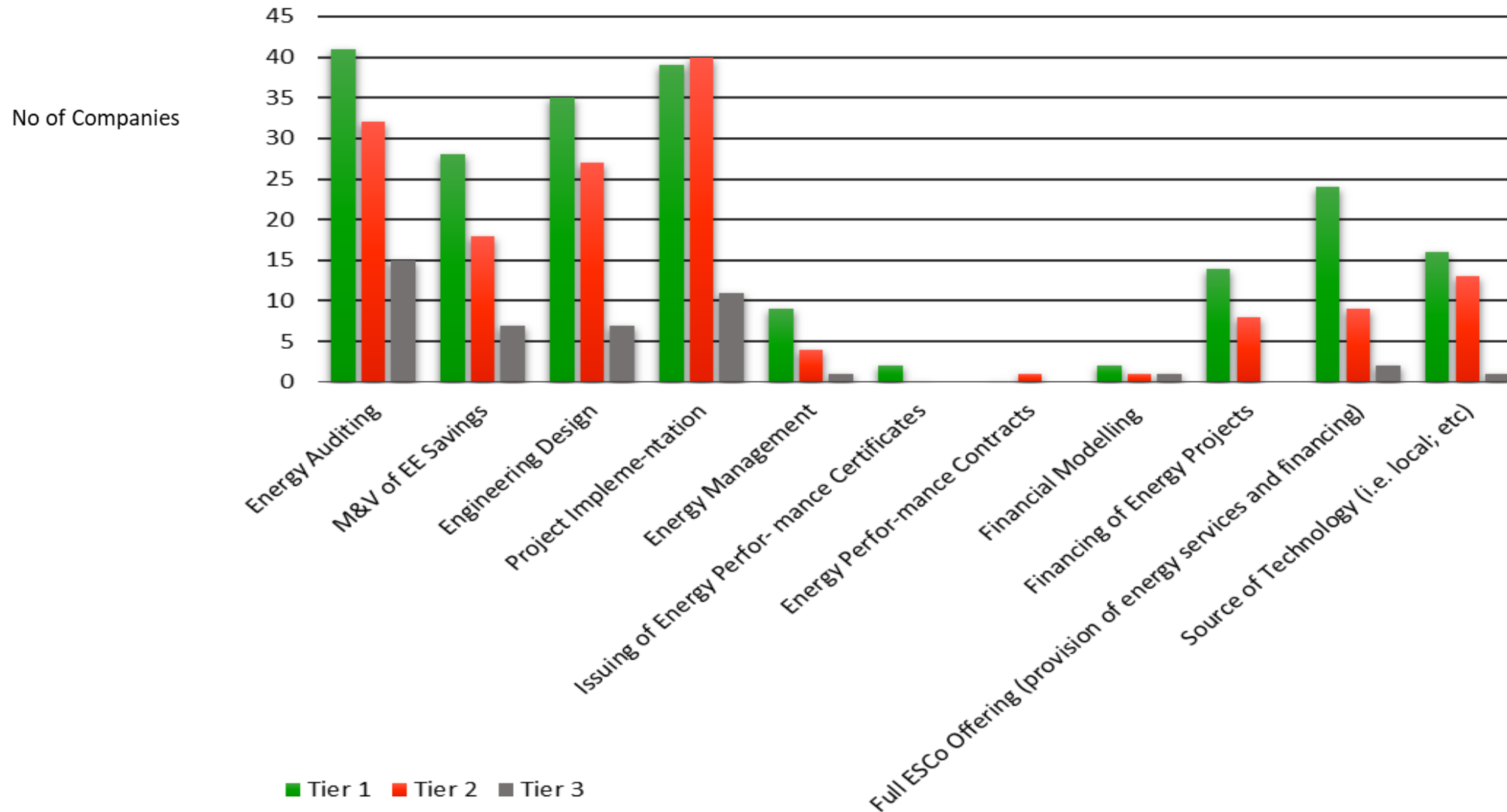
No of Companies

ESCo Sectors



Result of ESCo Register Evaluation 2022 - Services

Services Offered



Conclusion

- 🌍 The ESCo Register is a directory for the Energy Market which gives **orientation** with regard to:
 - Sectors, Technologies and Services offered.
- 🌍 The ESCo Register is an **important tool to develop and implement** energy efficiency in South Africa leading to benefits such as:
 - Lowering energy bill and saving money;
 - Environmental benefits;
 - Reduction of loadshedding.
- 🌍 **Incentives and funding** are already in place to encourage adoption of energy efficiency measures. These must be marketed aggressively!!!
- 🌍 The solutions to our power problems can be accelerated through **engagements and discussions** of this nature, and implementing a wide variety of innovative solutions.



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Thank You

SANEDI Mandate



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South African National Energy
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Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA



science & innovation

Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA

SANEDI's Legislative Mandate

Energy Research and Development

- Direct, monitor, conduct and implement energy research and technology development in all fields of energy, other than nuclear energy, and
- Promote energy research and technology innovation.
- Provide for:
 - Training and development in the field of energy research and technology development,
 - Establishment and expansion of industries in the field of energy, and
 - The commercialisation of energy technologies resulting from ERD programmes.
- Register patents and intellectual property in its name resulting from its activities,
- Issue licences to other persons for the use of its patents and intellectual property,
- Publish information concerning its objects and functions,
- Establish facilities for the collection and dissemination of information in connection with Research & Development Initiatives(RDI)
- Undertake any other energy technology development related activity as directed by the Minister, with the concurrence of the Minister of Science and Technology,
- Promote relevant energy research through cooperation with any entity, institution or person equipped with the appropriate skills and expertise within and outside the Republic,
- Make grants to educational and scientific institutions in aid of research by their staff or for the establishment of facilities for such research,
- Promote the training of research workers by granting bursaries or grants-in-aid for research,
- Undertake the investigations or research that the Minister, after consultation with the Minister of Science and Technology, may assign to it, and
- Advise the Minister and the Minister of Science and Technology on research in the field of energy technology.

Energy Efficiency

- Undertake EE measures as directed by the Minister, and
- Increase EE throughout the economy.
- Increase the Gross Domestic Product (GDP) per unit of energy consumed, and
- Optimise the utilisation of finite energy resources.

Business Synergies between SMME's and ESCOs

Program	Funding/Incentive/Grant	ENTEPRISE SIZE	ESCo
Green Energy Efficiency Funding IDC	Funding for Green Industries	SME	✓
Section 12B NT Tax Incentive for RE Investment	Incentive for capital investment	SMME	✓
Section 12I DTIC Investment in EE	Incentive for Investment	SMME	✓
Section 12L EE Tax Incentive NT	Incentive for EE Savings	SMME	✓
Municipal EEDSM NT	100% Grant for EE in Municipalities	SMME	✓
Distribution Demand Management Programmes (DDMPs): <ol style="list-style-type: none"> 1. Residential Load Management, 2. Energy Efficiency and 3. Load Management Programme 	To be introduced and specified by ESKOM	?	?

Why ESCos on the National ESCo Register hosted by SANEDI?

Overall, the National ESCo register is ***reliable*** because the companies in it have been ***assessed by experts*** and it ***saves time when sourcing for specific competencies of energy services***. Below are the facts about ESCos in the national register:

- 🌱 Their company documents are assessed by ESCo register evaluators.
- 🌱 Their competencies have been assessed – The ESCo register booklet (extract) indicates profiles of the companies based on their competencies and areas of specialty.
- 🌱 Their project experiences are proven.
- 🌱 SANEDI is a resource to implement capacity building interventions in order to strengthen their skills & competencies.