



**public works
& infrastructure**

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

TERMS OF REFERENCE

**APPOINTMENT OF SERVICE PROVIDER WITH REGISTERED EPC
PROFESSIONALS FOR ENERGY PERFORMANCE ASSESSMENTS AND
ISSUANCE OF ENERGY PERFORMANCE CERTIFICATIONS (EPC) IN 25
SELECTED BUILDINGS – CLUSTER D: JHB**

November 2024

INDEX

PAGE

1. BACKGROUND	4
2. PROJECT DESCRIPTION & CONCEPTUALISATION	5
3. PROJECT DEFINITION.....	5
4. OBJECTIVES.....	6
5. SCOPE OF WORK.....	7
6. DURATION OF THE PROJECT.....	9
7. PAYMENT.....	10
8. REPORTING.....	10
9. PROJECT OUTPUT/ DELIVERABLES.....	10
10. BRIEFING SESSION.....	11
11. COSTING.....	11
12. QUALITY PLAN.....	12
13. RISK PLAN.....	12
14. SKILLS DEVELOPMENT PLAN.....	12
15. PROJECT EXECUTION PLAN.....	12
16. MANDATORY REQUIREMENTS.....	13
17. ADMINISTRATIVE REQUIREMENTS.....	13
18. EVALUATION CRITERIA	13
19. FORMAT AND SUBMISSION OF PROPOSAL.....	15
20. PRICING SCHEDULE.....	15
21. RETURNABLES.....	15
22.1. TECHNICAL ENQUIRIES.....	16
22.2. SCM RELATED ENQUIRES.....	16

ABBREVIATIONS

DPWI	-	Department of Public Works and Infrastructure
EPC	-	Energy Performance Certificate
DMRE	-	Department of Mineral Resources & Energy
SLD	-	Single Line Diagrams
SANS	-	South African National Standard
EE	-	Energy Efficiency
ECSA	-	Engineering Council of South Africa
SANAS	-	South African National Accreditation System
SANEDI	-	South African National Energy Development Institute
IRP	-	Integrated Resource Plan

1. BACKGROUND

- 1.1 As a lead Department in the built environment, in 2016 the Department of Public Works & Infrastructure (DPWI) approved a Green Building Policy aimed at contributing to South Africa's climate change mitigation actions, and resource efficiency.
- 1.2 In December 2020 the Minister of Mineral Resources and Energy under section 19(1) (b) of the National Energy Act, 34 of 2008 promulgated the regulations for the Mandatory Display and Submission of Energy Performance Certificates for Buildings. The Regulations were further amended on 25 November 2023 to extend the compliance date to 7 December 2025, and to put in place requirements for the registration of EPC Individual Professionals as from July 2024.
- 1.3 The EPC Regulations are to support the implementation of the post-2015 National Energy Efficiency Strategy (NEES), and National Climate Change Policy White Paper since an estimated 15% of South Africa's current greenhouse gas emissions (GHG's) are generated from buildings.
- 1.4 The targets proposed for public buildings in the post-2015 NEES are 58% reductions in specific energy consumption (annual energy consumption per m²) of lettable / habitable floor area for buildings constructed after 2015; and 35% for buildings already in existence in 2015 by 2030 relative to the energy consumption baseline of year 2015.
- 1.5 The regulations introduce mandatory requirements for buildings, with a net floor area equal to or more than 1,000 m² for (State-owned), and 2,000 m² (privately owned) to display and submit an energy performance certificate (EPC) and related energy data to SANEDI within three (3) calendar months of the date of issue of the certificate.
- 1.6 Notwithstanding the prevailing budgetary constraints confronting government, the DPWI continues to support the implementation of EPCs.

2. PROJECT DESCRIPTION & CONCEPTUALISATION

The project is informed by:

- i. the Department of Mineral Resources & Energy (DMRE) White Paper on Energy Policy (1998);
- ii. Energy Performance Certificates Regulation, 2023;
- iii. SANS 1544: 2014 Energy Performance Certificates for Buildings;
- iv. the DMRE National Energy Efficiency Strategy of 2006;
- v. the DMRE National Energy Act 34 of 2008;
- vi. the DMRE IRP 2019;
- vii. ISO 50 001: Energy Management;
- viii. SANS 204: Energy Efficiency Standards; and
- ix. SANS 10 400 XA: Energy Efficiency Building Standards.

As part of the EPC process, the DPWI wishes to determine its energy consumption baseline and collect building & energy use data within its property portfolio, for resource efficiency interventions in line with efficient Utilities Management, GHG emissions reduction, and green jobs creation trajectory.

It is envisaged that through the EPC audit and Certification program, the DPWI may be able to comply with the regulation as per SANS 1544: Energy Performance Certificates for buildings.

The full program involves:

- i. The comprehensive energy performance certification of the buildings
- ii. As per SANS 1544 EPC requirements
- iii. As per SANS 50 002 – Level 1 Energy Audits
- iv. The determination of the energy baseline for the past 12 months continuously,
- v. Building Occupation data for the last 12 months

3. PROJECT DEFINITION

- i. The project will require the Energy Performance Certification (EPC) Audit of the identified buildings and sites.
- ii. The audit is intended to determine the building, occupancy, and energy data for analyses to issue a building energy performance certificate.

- iii. This will entail the selection of experienced and Escos and SANAS-accredited companies, with the required skills, resources, and experience in the issuing of energy performance certificates.

4. OBJECTIVES

- 4.1. Introduce mandatory requirements for the display of EPCs in State-owned non-residential buildings;
- 4.2. Introduce DPWI officials to EPCs
- 4.3. The objective of the Energy Performance Certification Programme will be to issue certification using the following audit data collected:
- 4.4. Description of the building such as:
 - i. Location of the facility, building class
 - ii. Building info, Building plans, electrical network Single Line Diagrams (SLD), gross floor area, net floor area, number of floors, type of building, area per occupant, etc where available.
 - iii. Building occupation, tenants, and exclusion areas
- 4.5. Collection of Energy (Electrical / Gas / Liquid / Solid) usage data for occupied building areas:
 - i) Electrical:
 - a) Total energy usage per year
 - b) Detailing the source of the energy consumption data
 - c) Metering or Billing data. Data loggers to be installed where data is not available
 - d) Embedded electrical generation on sites
 - ii) Liquid Fuels:
 - a. Total fuel usage per year i.e. Petrol, Diesel, etc.
 - b. Detailing fuel consumption data
 - iii) Gas
 - a. Total gas usage per year, i.e. Natural Gas, LPG, etc.
 - b. Detailing gas consumption data
 - iv) Solid
 - a) Total solid fuels usage per year, i.e. coal etc.
 - b) Detailing the source of the gas consumption data

- 4.6. To give buildings a rating based on the amount of energy consumed per square metre thus, enabling DPWI to introduce energy efficiency measures and achieve cost reductions and sustainability objectives.
- 4.7. To implement energy efficiency pilot project interventions, funded by third-party support or funder secured through prospective service provider's proposals to third-party support or funder on behalf of DPWI. Third-party support or funder must be an local or international organisation recognised by the South African Government through either cooperation agreements entered into with line function government departments, or must be State-owned entities.

5. SCOPE OF WORK

The appointed Service Provider will perform and be responsible for interventions in the following buildings, located in specified region(s) within the DPWI portfolio:

No.	Building Name	Street name	City/Town	Province/Region	Postal Code	Occupancy Class/es
1	Johannesburg Regional Office, Mineralia Building	De Korte & De Beer Streets	Johannesburg	Gauteng	2000	G1
2	DPWI Workshops And Horticulture		Johannesburg	Gauteng	2000	G1
3	Gauteng 10111 Command Centre	Roan Crescent	Midrand	Gauteng	1685	G1
4	Randburg Magistrates' Court	Sheperd Avenue	Randburg	Gauteng	2125	G1
5	Custom House	Fraser Street	Johannesburg	Gauteng	2001	G1
6	Saps Mechanical School	Hospital Road	Benoni	Gauteng	1501	G1
7	Benoni Police Station	Harpur Avenue	Benoni	Gauteng	1501	G1

8	Boksburg Correctional Services	Barry Marris Road	Boksburg	Gauteng	1459	G1
9	Tsakane Saps	Modjadji Street	Brakpan	Gauteng	1541	G1
10	Court House A	Kunenestr	Soweto	Gauteng	1818	G1
11	Roodepoort Police Station	Raath Street	Roodepoort	Gauteng	1724	G1
12	Saps Krugersdorp	Commissioner Street	Krugersdorp	Gauteng	1740	G1
13	Kenray Military Base	Cumberland Road	Johannesburg	Gauteng	2000	G1
14	Vereeniging Magistrate Court	Leslie And Joubert Street	Vereeniging	Gauteng	1939	G1
15	Kempton Park Police Station	Monument Road	Kempton Park	Gauteng	1619	G1
16	National Health Labortory Service	C/O De Korte Streeet And Hospital	Johannesburg	Gauteng	2001	G1
17	Norwood Police Station	Paterson Rd	Johannesburg	Gauteng	2192	G1
18	National Archives Of South Africa	Hamilton Avenue	Pretoria	Gauteng	#0084	G1
19	Krugersdorp Police Services	Commissioner Street	Krugersdorp	Gauteng	1739	G1
20	Krugersdorp Correctional Services	Luipaard Street	Krugersdorp	Gauteng	1739	A3
21	Vosloorus Police Station	Ms Borter Drive V	Katlehong	Gauteng	1486	G1
22	Protea South Community Hall	Stanton Street	Soweto	Gauteng	1818	A1
23	Saps Brixton Murder & Robbery	C/O Mecury And High Street	Johannesburg	Gauteng	2092	G1
24	Sophiatown Police Station	Eric Street	Johannesburg	Gauteng	2092	G1

25	Springs Police Station	Welgedacht Road	Springs	Gauteng	1559	G1
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NB.

- i. The DPWI reserves the right to identify other buildings/facilities where EPCs shall be issued and/or substitute a building from the above list.
- ii. All energy data shall be submitted by an Accredited EPC Professional, who is registered with the South African National Energy Development Institute (SANEDI).

The appointed Services Provider, with a registered EPC Accredited Professional, shall perform and be responsible for the following functions:

- 5.1. Develop an inception Report, with a complete implementation plan, with agreed milestones, along with detailed a methodology, submittable to the DPWI.
- 5.2. Carry energy performance assessments for issuing of EPCs for twenty nine (29) selected buildings already registered in the National Building Energy Performance Register (NBEPR) system.
- 5.3. Conduct at least one (1) capacity building workshop with DPWI on energy performance and management in the identified buildings. Develop recommended energy efficiency interventions, with support or funding proposal for submission to identified third-party organisations in the sector by the service provider on behalf of DPWI. As per 2.5 above third-party funders must be organisations recognised by the South African Government through either cooperation agreements entered into with line function government departments, or be State-owned entities.
- 5.4. Upon successful of energy efficiency support or funding application, the service provider shall implement the identified interventions.
- 5.5. Develop and present a closeout report,

6. DURATION OF THE PROJECT

- 6.1. The energy performance assessment for EPC issuance shall be for a period of 6 months for all specified buildings, as per table above.
- 6.2. Implementation of interventions upon successful application of potential third-party funding support or rebates shall be for a further period of 8 months. This service is not paid for by DPWI.

7. PAYMENT

- 7.1. Payment will be based on the achievement of a pre-determined milestone and in line with the approved project proposal. The Department will not make an upfront payment to a successful service provider. Payment will only be made within 30 days in accordance with the delivery of services that will be agreed upon by all involved parties.
- 7.2. The DPWI shall only cover costs related to energy performance assessments and issuance of EPCs.
- 7.3. The DPWI shall not cover the costs of developing a proposal for energy efficiency pilot project for implement of proposed interventions in identified buildings upon successful or unsuccessful application for third-party support or funding. Prospective service providers must cost these in the request for third-party support or funding.

8. REPORTING

- 8.1. The Service Provider shall work closely and report directly to the Project Manager assigned within the DPWI region(s) and DPWI Head Office.
- 8.2. The service provider will submit fortnightly progress reports to the Project Manager, within 4 working days after the end of each two weeks for the duration of the project;
- 8.3. Final reports and data shall be delivered in two copies, i.e. in electronic format and hard copies. All draft and final reports shall be printed in full colour. The reporting language should be English. All documents and copyrights, including data and databases developed during the process, will remain the intellectual property of the DPWI;
- 8.4. All final reports shall be submitted in full by the end of the project to the Project Management with the region and Head Office Facilities Management. Reports must be edited, completed, and presented in their final versions.

9. PROJECT OUTPUT/ DELIVERABLES

- 9.1. The Energy Performance Technical Audit & Inspection Report must cover the following scope and objectives:
 - i. Energy Consumption Baseline & Performance for the buildings for the past 12 months.

- ii. Energy Performance, Location, Condition, Info, Occupancy of the Building Lighting & Power Infrastructure/Systems
 - iii. Design & Specification of building energy usage due to equipment and systems with adherence per:
 - a) SANS 1544: Energy Performance Certificates
 - b) SANS 204: Energy Efficiency Standards,
 - c) SANS 10 400 XA: Energy Efficient Building Standards
 - iv. Scoping, Methodology, and EPC project Plan
 - v. Timeframes and milestones, as a breakdown of the 6 months allocated for the project
- 9.2. Assessment report on the accuracy of the data collected such as:
- i. Electricity Utility Billing data accuracy
 - ii. Metered data accuracy and metering in accordance with SANS 474: 2006 /NRS 057: 2005
 - iii. Fuel usage data, based upon orders, invoices, delivery notes, etc.
 - iv. Building Plans
- 9.3. The comprehensive EPC Building Audits (including Energy & Compliance Audits) on all buildings for compliance (as per SANS 1544, SANS 10 400 XA). The Audits reports and body of evidence on where and how the data was sourced per building
- 9.4. Issuing of Energy Performance Certificates.
- 9.5. Close out report with recommended energy efficiency interventions.
- 9.6. For each building, a certificate must be provided as a digital version in PDF format, in the EPC template prescribed by the regulation.
- 9.7. Physical copy of issued EPCs must be printed and displayed by the service provider in the relevant building, in line with EPC Regulations and SANS 1544
- 9.8. Proposal for third-party support or funding for implementation of proposed energy efficiency interventions. A draft proposal on implementation of potential interventions is submittable upon submission of quotation.

10. BRIEFING SESSION

- 10.1. There shall be no briefing session for this tender process.

11. COSTING

- 11.1. The service provider will be requested to give a quote with a proposal regarding the work to be undertaken for this project. A summary of the overall proposed charges for the services should be provided. The cost must be VAT inclusive and should be quoted in South African Rand;

- 11.2. Detailed costing should be aligned with the project activities and project phases;
- 11.3. A breakdown of the charges to be applied to each of the tasks described above, including any reimbursable and miscellaneous expenses as per the Pricing Schedule in section 18, below. The bid amount should be all-inclusive.

12. QUALITY PLAN

- 12.1. The service provider is required to provide evidence of a functional Quality Management System in line with ISO 9001:2015
- 12.2. A service provider that is ISO certified must submit the certificate in addition to objective evidence of a functional Quality Management System;
- 12.3. A service provider without ISO accreditation needs to submit their Quality Procedures Manual in addition to objective evidence of a functional Quality Management System.

13. RISK PLAN

- 13.1. The service provider is required to provide a risk management plan to identify possible sources of risk and uncertainty, determine the impact of the risk and uncertainty, and develop mitigating responses to minimise their impact on the project.

14. SKILLS DEVELOPMENT PLAN

- 14.1. Not applicable

15. PROJECT EXECUTION PLAN

The service provider is required to provide a detailed proposed Project Execution Plan indicating:

- 15.1. Intermediate and final outputs and identified timeframes/milestones;
- 15.2. A clear methodology and approach must be indicated in the proposal. The methodology must outline how the planned work will be carried out and should be according to each phase or deliverable of compiling the technical report.
- 15.3. Management of the project.
- 15.4. The service provider under consideration will be required to present their Project Execution Plan, and detailed work plans, including the timetable for key deliverables to the DPWI project representatives;

16. MANDATORY REQUIREMENTS

- 16.1. The company must have an EPC Accredited Professional, registered with SANEDI.
16.2. CSD Registration.

17. ADMINISTRATIVE REQUIREMENTS

- 17.1. List of required qualifications:

17.1.1. Organogram, with a List of Key Staff Members

- i. Eccredited EPC Professional
- ii. Qualified Technical Electrician,
- iii. SHEQ Management,

17.1.2. Certified Auditor or Energy Manager

- i. Qualified Certified Energy Auditor

18. EVALUATION CRITERIA

No	Criteria	Weights
1.	<p>COMPANY EXPERIENCE:</p> <ul style="list-style-type: none"> i. Company experience with Energy Efficiency, and Energy Audits in buildings, supported by third-party reference letters ii. Past projects of the company in Energy Audits and/or EPC issuance projects, in the building sector. <p style="text-align: right;">SCORE</p> <p>40 or more buildings on Energy Audits or EPCs 5 30-39 buildings on Energy Audits or EPCs 4 20-29 buildings on Energy Audits or EPCs 3 10-19 buildings on Energy Audits or EPCs 2 1-9 buildings on Energy Audits or EPCs 1 0 buildings on Energy Audits or EPCs 0</p>	25
2.	<p>EXPERIENCE OF TEAM LEADER</p> <p>CV's of the Team Leader must be attached as proof and should reflect the number of projects executed and years' experience by the project leader in related projects</p> <p style="text-align: right;">SCORE</p> <p>5 years or more experience on Energy Audits or EPC 5 4 years experience 4 3 years experience 3 2 years experience 2 1 year experience 1 Less than one year of experience 0</p>	20

No	Criteria	Weights														
3.	<p>TECHNICAL EXPERIENCE:</p> <p>CVs of Team Members must be attached to the proposal as proof showing team experience with Energy Audits or EPC projects</p> <table><tr><td></td><td>SCORE</td></tr><tr><td>5 years or more experience on Energy Audits or EPC</td><td>5</td></tr><tr><td>4 years experience</td><td>4</td></tr><tr><td>3 years experience</td><td>3</td></tr><tr><td>2 years experience</td><td>2</td></tr><tr><td>1 year experience</td><td>1</td></tr><tr><td>Less than one year of experience</td><td>0</td></tr></table>		SCORE	5 years or more experience on Energy Audits or EPC	5	4 years experience	4	3 years experience	3	2 years experience	2	1 year experience	1	Less than one year of experience	0	20
	SCORE															
5 years or more experience on Energy Audits or EPC	5															
4 years experience	4															
3 years experience	3															
2 years experience	2															
1 year experience	1															
Less than one year of experience	0															
4.	<p>METHODOLOGY:</p> <p>A detailed methodology that addresses the following amongst others:</p> <ul style="list-style-type: none">1) Project Execution plan (with clear milestones and timelines)2) Quality Plan3) Risk Plan4) Skill transfer plan5) Understanding of:<ul style="list-style-type: none">i. Approach to Energy Audits and Energy Efficiency<ul style="list-style-type: none">a) Sources of Energy Dataii. Understanding and approach to building audit<ul style="list-style-type: none">a) Site data collection requirementsiii. Understanding and approach to Health & Safety<ul style="list-style-type: none">a) Risk Management in accordance with the OHS Act <table><tr><td></td><td>SCORE</td></tr><tr><td>Methodology covering all above aspects</td><td>5</td></tr><tr><td>Methodology covering 4 aspects</td><td>4</td></tr><tr><td>Methodology covering 3 aspects</td><td>3</td></tr><tr><td>Methodology covering 2 aspects</td><td>2</td></tr><tr><td>Methodology covering 1 aspect</td><td>1</td></tr><tr><td>Methodology with no aspect</td><td>0</td></tr></table>		SCORE	Methodology covering all above aspects	5	Methodology covering 4 aspects	4	Methodology covering 3 aspects	3	Methodology covering 2 aspects	2	Methodology covering 1 aspect	1	Methodology with no aspect	0	20
	SCORE															
Methodology covering all above aspects	5															
Methodology covering 4 aspects	4															
Methodology covering 3 aspects	3															
Methodology covering 2 aspects	2															
Methodology covering 1 aspect	1															
Methodology with no aspect	0															
5.	<p>Draft proposal for potential third-party support or funding for implementation of potential energy efficiency interventions, covering:</p> <ul style="list-style-type: none">1). Identification of potential support/fund(s);2). Outline of requirements for support/funding;3). Interventions covered in the support/funding with high-level metering plan;4). Projected timeline of pilot implementation by the Service Provider. <table><tr><td></td><td>SCORE</td></tr><tr><td>Proposal with an outline (5.2) plus 3 above aspects</td><td>5</td></tr><tr><td>Proposal with an outline and 2 aspects</td><td>4</td></tr><tr><td>Proposal with an outline and 1 aspects</td><td>3</td></tr><tr><td>Proposal with outline and 1 or 0 aspect</td><td>0</td></tr></table>		SCORE	Proposal with an outline (5.2) plus 3 above aspects	5	Proposal with an outline and 2 aspects	4	Proposal with an outline and 1 aspects	3	Proposal with outline and 1 or 0 aspect	0	15				
	SCORE															
Proposal with an outline (5.2) plus 3 above aspects	5															
Proposal with an outline and 2 aspects	4															
Proposal with an outline and 1 aspects	3															
Proposal with outline and 1 or 0 aspect	0															
Total		100														
Minimum Functionality Score		60														

19. FORMAT AND SUBMISSION OF PROPOSAL

19.1. All standard official bidding document forms (PA) must be completed in all respects by bidders. Failure to comply will invalidate a bid. Bidders are requested to submit one (1) original proposal including bid documents.

20. PRICING SCHEDULE

Table 1: Pricing Evaluation and Negotiation

Item	Deliverable	Qty	Rate	Amount (Excl VAT)
1.	Energy Performance Technical Audit & Inspection Report	25		
2.	Data analysis Report	25		
3.	Final EPC Report	25		
4.	Issuance of EPCs	25		
	Sub-Total			
	VAT at 15%			
	TOTAL			

Pricing quoted is all inclusive. Pricing shall be per building per EPC

21. RETURNABLES

The following document needs to be filled in and all documents asked for need to be supplied within the specified sections. Please ensure that all the information is provided when asked for, as any information withheld will place prospective service providers at a disadvantage.

21.1. Company Profile

A company profile needs to be provided showing all resources, skills, and expertise in the company to implement the project.

21.2. Methodology of Energy Audits

Write-Up showing full understanding of the technical tasks and objectives of the EPC Audit and Energy Audits with the necessary technical requirements

21.3. Expertise & Experience

A project organogram together with the qualifications needs to be provided.

22. ENQUIRIES

22.1. TECHNICAL ENQUIRIES

Project Manager: Mfundo Xulu Ka Dlamini
Green Building Directorate
Email: mfundo.xulu@dpw.gov.za
Tel: 012 406 1093

22.2. SCM RELATED ENQUIRES

SCM Practitioner:
SCM
Email:
Tel:

Annexure A: Pricing Schedule

Item	Deliverable	Qty	Rate	Amount (Excl VAT)
1.	Energy Performance Technical Audit & Inspection Report	25		
2.	Data analysis Report	25		
3.	Final EPC Report	25		
4.	Issuance of EPCs	25		
	Sub-Total			
	VAT at 15%			
	TOTAL			