TERMS OF REFERENCE FOR THE APPOINTMENT OF A SERVICE PROVIDER TO DESIGN AND DEVELOP THE CENTRAL ENERGY DATABASE SYSTEM OF THE DEPARTMENT OF ELECTRICTY AND ENERGY.

1. BACKGROUND

The Department of Electricity and Energy through the Energy Planning Chief Directorate is mandated to collect, manage, analyze, and disseminate energy data and information in support of national energy planning and policy development. This includes contributing to the formulation and review of energy policies, the Integrated Energy Plan (IEP), and ensuring compliance with national, regional, and international energy reporting obligations.

The Department currently utilizes an energy data management system that was implemented several years ago to support these functions. Although the system has enabled the collection and storage of certain energy datasets, it has become outdated and is no longer fully aligned with current operational, analytical, and reporting requirements. The existing system exhibits several limitations, including functional gaps, limited scalability, inadequate integration with other relevant systems, and constraints in data quality management, analysis, and dissemination.

In response to increasing demand for accurate, timely, and comprehensive energy data, as well as evolving policy and reporting requirements, DEE has identified the need to establish a modern, centralized Energy Database. The proposed Central Energy Database will serve as a single, authoritative repository for energy data, improve data governance and security, enhance analytical and reporting capabilities, and support evidence-based decision-making. The implementation of this system will strengthen the Department’s ability to fulfil its mandate and support effective planning and sustainable development within the energy sector.

2. CONTRACT PERIOD

2.1 The expected duration of the project is:

(i) Twelve (12) months for design and development and

(ii) Twenty-four (24) months of support and maintenance post design and development with Service Level Agreement.

3. OBJECTIVE

3.1 The objective of this project is:

3.1.1 To modernize and integrate energy information across all relevant domains.

3.1.2 To streamline the data collection business process

4. SCOPE OF WORK

4.1 Development of the Central Energy Database system with the following functionalities :

4.1.1 Application and Integration Environment: .NET/.NET Core.

4.1.2 Microsoft IIS for web applications.

4.1.3 Microsoft Power Platform (Power Apps, Power Automate)

4.1.4 Integration capabilities with Microsoft 365 services (e.g., SharePoint, Outlook).

4.1.5 Operating System: Microsoft Server (2022 and above).

4.1.6 Database: Microsoft SQL Server (2021 or above), Database Azure SQL Database for cloud-based data workloads.

4.1.7 Reporting: Compatibility with Power BI for reporting and dashboards.

4.2 Technical Compatibility Requirements:

4.2.1 The service provider must ensure that:

4.2.2 All solutions, tools, and systems are fully compatible with Microsoft environments. Solutions support Single Sign-On (SSO) using Azure AD, Active Directory.

4.2.3 All administrative access must be manageable via Active Directory, Azure AD, or Group Policy

4.2.4 Data must be stored and processed in environments that are compliant with Azure security and compliance standards

4.3 The Service Provider is expected to design, develop, test and implement a user-friendly Central Energy Database Management System while providing Project Management services throughout the duration of the project.

The Central Energy Database Management system with the following capabilities/functionalities:

4.3.1 System Automation and Workflow Management to ensure that tasks and approvals are efficiently managed through automated processes:

4.3.1.1. Automated Task Monitoring, the system to automatically highlight remaining or pending tasks for each data provider.

4.3.1.2. Automated Email Notifications, the system should send automatic email alerts and reminders as part of the approval and workflow process.

4.3.2 Data Integration and Analytical Tools, to allow the system to integrate, process, and analyze data for energy planning and reporting:

4.3.2.1. The current Energy Balance (EB) builder must be built into the system to enable the generation of historical trends for all commodities and activities, using data from the IEA database.

4.3.2.2. Calculation of Energy Indicators, the system should support the calculation of Energy Indicators and Energy Efficiency Indicators derived from Energy Balances (EBs), using relevant conversion factors.

4.3.2.3. Inclusion of Microeconomic Indicators, capabilities of storing, linking, and analyzing key microeconomic indicators relevant to energy planning and policy must be built in the system.

4.3.3 Knowledge and Document Management, to allow storing and managing reference materials, metadata, and reports:

4.3.3.1. Digital Repository for Technical Documentation functionality must be developed to allow centralized, searchable digital repository for definitions, classifications, standards, metadata, methodologies, standard operating procedures (SOPs), conversion factors, and densities.

4.3.3.2. Digital Repository for Reports and Publications for securing and accessible repository for storing, managing, and retrieving published reports and other official energy documents.

4.3.4 User Interaction and Data Collection, for users to input and access information:

4.3.4.1. Online Questionnaire Submission, to enable online submission and tracking of energy data collection forms or questionnaires through secure, web-based interfaces.

4.3.4.2. Structure of commodity flow must be built on the system, to allow users to compile commodity flow per energy carrier (gas, coal, electricity, renewable, oil products (petroleum products).

4.3.5 Stores and manages all data in a centralized database.

4.3.6 Provides an extensible, robust and secure environment providing services online to SOEs, other government departments.

4.3.7 Provides an email to send messages to internal and external stakeholders.

4.3.8 Provides full history and audit functionality.

4.3.9 Be browser-based application.

4.3.10 Provides advanced reporting functionality.

4.3.11 Provides a high level of security using Users, Roles and integrates with Microsoft's Active Directory.

4.3.12 Component based and configurable to ensure ease of maintenance and sustainability.

4.3.13 Ensure solution is accessible from all types of devices (Smart-phones, laptop/desktop….) and must be application and platform agnostic.

4.3.14 Single logon capability where applications are posted as per access rights.

4.3.15 Rich workflow supporting the proposed solution for the entire value chain must include notification, tracking and audit trail functionality.

4.3.16 Provide a detailed Data migration plan for all historical data inclusive of data ETL processes and implement the plan.

4.3.17 Implement Data warehouse, Business intelligence and reporting (data analytics and statistics) which is compatible with Microsoft technologies and proposed Enterprise Software Solutions.

4.3.18 Hybrid capability (cloud and on-premises).

4.3.19 The automated system must have fail-over process should the automated standard process not functioning due to matter beyond parties' control.

4.3.20 System must allow uploading.

4.3.21 Detailed system activity audit logs for end-to-end processing and user-friendly reporting dashboards.

4.3.22 Application processing must have segregation of duties.

4.3.23 Solution must have source code management /version control software or tool.

4.3.24 Solution must have the best industry security features in (in compliance with International Standard Organization (ISO)).

4.3.25 The service provider will be required to publish the application from internet and must ensure that it is secured.

4.3.26 Comply to DEE and ICT government (e.g., policies, procedures…) and ensure alignment especially for changes introduced by the solution.

4.4 Data Migration information:

The data type to be migrated is as follows: -

a. Data on hard copies needs to be scanned to the system in PDF format and migrated.
b. Excel data files to be migrated to the databases.

4.5 Integration:

The bidder must provide effective integration to the following tools or products:

a. Veeam for backup,
b. Windows Server 2022 and Windows 11 for clients, Exchange 2019, and Active directory,

c. Microsoft Office 365

4.6 Hosting Requirements:

a. The solution will be hosted by DEE.

5. DELIVERABLES OR PROJECT OUTPUT AND OUTCOMES

5.1 The expected deliverables are as follows:

5.1.2 Good quality and tested live system, as per the set requirements; that will be the Intellectual Property of the DEE.

5.2 Project governance Documentation signed-off:

5.2.1 A Project Charter signed off within a week of project kick-off.
5.2.2 Online Central Energy Database system, that will be the Intellectual Property of the DEE (as Scope of work on paragraph 2 above).
5.2.3 Functional requirement specification
5.2.4 Technical requirement specification
5.2.5 Data migration plan and implementation thereof.
5.2.6 Functional three Tier Environment (DEV, TEST, PROD).
5.2.7 Solution maintenance plan.
5.2.8 System Architecture.
5.2.9 Test cases.
5.2.10 User guides (web based).
5.2.11 A maintenance guide and manuals
5.2.12 Documented detailed rollout Road Map to achieve the full rollout of the proposed solution
5.2.13 Detailed organizational change management, training plan and skill transfer Plan.
5.2.14 Solution Source code DEE to own.
5.2.15 Detailed specification for the infrastructure requirements for the system for next 3 years (allow scalability).

5.3 Training of Energy Economics and Statistics TEAM and other stakeholders, DEE Information Technology (IT)

5.4 A source code document.

6. EVALUATION CRITERIA

This bid will be evaluated in four stages, i.e., functionality, mandatory requirements, administrative compliance and point scoring system.

6.1 Gate 01 - Functionality

Bidders will be scored in terms of the functional requirements indicated in the table below. The corresponding points and weightings will be used to calculate the overall score a bidder has achieved. The minimum threshold for this bid is **70%**. Bidders who score less than **70%** will be disqualified. Only bidders that score **70%** or more will be considered further.

No.	Evaluation criteria	Points	Weight
1.	**Company experience** Bidders must have designed and successfully implemented software projects of similar nature, (data collection and management, database design, business process design, energy flows) in the past 7 years. *(Bidders must provide a detailed explanation of the verifiable similar projects they have successfully executed and provide traceable reference letters – The letters must*	Seven (7) or more projects = 5 points. Six (6) projects = 4 points Five (5) projects = 3 points. Four (4) projects = 2 points. Three (3) or below projects = 1 point. No project = 0 points.	**20**

No.	Evaluation criteria	Points	Weight
	indicate the description of the project, duration of the project, project amount, performance feedback).		
2.	**PROJECT MANAGER AND TEAM MEMBERS** **PROJECT MANAGER QUALIFICATIONS:** (i) The Project Manager must have a SAQA recognized qualification in Project Management (ii) The Project Manager must have a SAQA recognized qualification in Information Technology with Software Development as a final year module or major *(Attach copies of valid qualification certificates and **transcripts**)* **TEAM MEMBERS (TECHNICAL TEAM)** (iii) The team members must have SAQA recognized qualifications in Information Technology or Information Systems or related fields.	NQF 9 or higher = 5 points NQF 8 = 4 points NQF 7 = 3 points NQF 6 = 2 points NQF 5 = 1 point NQF 9 or higher = 5 points NQF 8 = 4 points NQF 7 = 3 points NQF 6 = 2 points NQF 5 = 1 point	**10** 5 5

No.	Evaluation criteria	Points	Weight
	(Attach copies of valid qualification certificates and transcripts)		
	PROJECT MANAGER AND TEAM MEMBERS **PROJECT MANAGER'S EXPERIENCE:** The project manager should have relevant experience specifically in the project management of software development projects. *(Attach copy of comprehensive CV detailing the relevant experience and contactable references)* **TECHNICAL TEAM'S EXPERIENCE:** The technical team members should have relevant experience specific to: (I) Software development (II) Business Analysis (III) Database Administration.	Seven (7) years or more = 5 points Six (6) years = 4 points Five (5) years = 3 points less than four (4) years = 0 points 5 years or more in data collection field = 5 points. Four (4) years in data collection field = 4 points. Three (3) years in data collection or no data collection field = 3 points. Two (2) years = 2 points. One (1) year = 1 point.	**20** 10 10

No.	Evaluation criteria	Points	Weight
	NB: The team composition spread must be at least, as per table A under paragraph 6.2 *(Attach copy of comprehensive CV detailing the relevant experience and contactable references)*		
5	**Project Plan and Methodology** Bidders should provide a detailed project plan on how the assignment will be carried out and completed over a period of maximum thirty-six (36) months. *"**Detailed"** in this instance refers to a project plan that covers the following 9 aspects;* (i) Defined tasks (ii) Timelines (iii) Delivery artifacts (iv) Resource allocation (v) Rollout plan (vi) Data migration plan (vii) Identified dependencies (viii) Skills transfer plan (ix) Delivery date	9 or more aspects covered = 5 points 8 aspects = 4 points. 7 aspects = 3 points 6 aspects = 2 points 5 aspects = 1 point	**10**

No.	Evaluation criteria	Points	Weight
	(The proposal should detail the dependencies from the Department to ensure the successful implementation of project)		
6	**METHODOLOGY** Bidders must include a detailed methodology as part of the technical proposal, clearly demonstrating that they understood the requirements and have adequate resources (be able to service all regions) to execute the project within the stipulated turnaround times. ***"Detailed methodology**" in this instance refers to methodology that covers the following four (4) aspects.* (i) Implementation approach. (ii) Development Software (iii) Proposed technology standing in the industry. (iv) Data migration plan	Four (4) aspects or more = 5 points Three (3) aspects = 3 points Two (2) aspects = 1 point	**10**
	Technical proposal:		**10**

No.	Evaluation criteria	Points	Weight
	(i)Technical Proposal Detailed practical Implementation approach to be used to execute and deliver the artifacts of the project in relation to scope. ***"Detailed technical proposal"*** in this instance refers to proposal that covers the following four (4) aspects 1) Proposed architecture incorporated channels 2) technologies, 3) integration, and reporting points in technically logical detail & representation of future stage. 4) The proposed solution covers all aspects of the TOR scope & outputs	Four (4) or more aspects = 5 points Three (3) aspects = 3 points Two (2) aspects = 2 points One (1) aspect = 1 point	

Formula; $\frac{A \times 100}{B} = C\%$

Where: A = Total score for the bid under consideration

B = Maximum possible score

C = Percentage score for the bid under consideration

6.2 Gate 02 – Mandatory requirements

(i) Bidders' technical team MUST cover the skills' spread as per the table below (at least). Failure to comply with the composition skills' spread will lead to disqualification.

Table A

PORTFOLIO	SPECIALITY / FIELD / SKILL / QUALIFICATION	Additional Requirements
Team members	Senior Software development	Proficiency in .NET/Core, Power Platform.
Team members	Senior Business Analysis	Certification in Business Analysis
Team members	Senior Database Administration	Dabases Administration Certificate

6.3 Gate 03 - Proof of Concept Presentation

Presentation of the proposed solution (prototype) will be required as part of the last phase of the evaluation, and it will be scored.

(i) Bidder to choose and clearly indicate the business process that will form base of the prototype but needs to demonstrate all elements of the solution as per the scope of work in these terms of reference. i.e. functional solution prototype has to be aligned to scope of work in these terms of reference.

N.B. The prototype must therefore demonstrate alignment with the full functional and technical requirements of the project.

The invitation to the presentation of the prototype and allocation of the points will be communicated only to the bidders who have reached the mandatory and functional requirements as specified on Gate 01 and 02.

6.4 Gate 04 - Administrative compliance

(ii) Compliance to the specification / Terms of Reference.

(iii) Fully completed SBDs (Duly signed and dated) listed hereunder.

- SBD 1
- SBD 4
- SBD 6.1

(iv) The following will be regarded as non-compliance.

- Amendments / other amendments without signature/initials.
- Use of correctional fluid
- Completion of the bid document in coloured ink other than black ink

6.5 Gate 05 – Point Scoring System

Bids will be evaluated on the 80/20 preference point system as outlined in the Preferential Procurement Regulation of 2022.

- Price points = 80
- Preferential points = 20

6.4.1. The bidder that scores the highest points in this phase will be awarded the tender.

6.4.2 Should more than one bidder score the same number of points; the award will be made to the bidder who scores more points on specific goals.

6.4.3. Should there be more than one bidder who scores the same number of points overall and the same points on specific goals, the award will be made to the bidder who scored the highest points on functionality.

6.4.4. Should there be more than one bidder who scores the same number of points in all aspects, the bid will be determined by the drawing of the lot.

6.4.5. The preferential points will be allocated in terms of the Departmental objectives on specific goals. Points allocation on specific goals are tabulated hereunder.

6.4.6. Bidders who do not submit proof (means of verification) of specific goals claimed may not qualify for preference points for specific goals.

Specific Goal	Number of points (80/20 Preference System)	Means of Verification
Enterprise owned by Black people	4	Identity documents and CIPC document
Enterprise owned by Women	4	Identity documents and CIPC document
Enterprise owned by Youth	4	Identity documents and CIPC document
Enterprise owned by disabled persons	4	Medical certification
Enterprise owned by SMMEs (QSE or EME)	4	B-BBEE certificate issued by a SANAS accredited Agency or DTIC, or Sworn affidavit

NB: *"Ownership = 51% of the company share. Designated group/person that is part of the entity directorship but has less than 51% share = points will be calculated on a pro-rata basis in relation to the share/s held by the designated group/persons.*

E.g. Number of women directors = 01
Shares owned by women = 20%
Specific goal for women = 4 points
Points claimable for women ownership = $\frac{20 \times 4}{100}$ = **0.8 points**

7 REPORTING REQUIREMENTS

7.1 The successful applicant will work closely with the Director: IT and Director Energy Statistics including any other key stakeholders within the Department.

7.2 The service provider is required to provide a written weekly report to the Director: IT and Director Statistics on deliverables.

7.3 The service provider will be required to conduct bi-weekly meetings with the Director: IT and Director Statistics, or his/her delegate for the duration of the contract period. In case of emergency, either party may propose a meeting, and both parties must reasonably avail themselves for such meetings.

8. ROLES AND RESPONSIBILITIES.

8.1. The Department of Electricity and Energy shall provide the following.

8.1.1 Functional perimeter.

8.1.2 Access to the offices as when a need arises.

8.2 Service Provider

8.2.1 Execute the contract in line with the scope of work and other requirements contained in these terms of reference and/or SLA.

8.2.2 The Service Provider shall at all material times act diligently, reasonably and with care, when dealing with all Departmental information and/or intellectual property belonging to the Department.

9. CONFIDENTIALITY OF INFORMATION

9.1. The service provider shall treat information furnished by the other Party or another person for purposes of execution of the project, as confidential. Subject to this clause, the Party furnished with information shall not disclose such information to another person without the prior written consent of the other Party and shall take reasonable steps to ensure that such information is not disclosed to another person.

10. PAYMENTS

10.1 The Department will not make an upfront payment to a successful service provider. Payments will only be made in accordance with the delivery of services that will be agreed upon by both parties on receipt of an original invoice.

11 TAX CLEARANCE CERTIFICATE

11.1 Bidders must ensure compliance with their tax obligations.

11.2 Bidders are required to submit their unique personal identification number (pin) issued by SARS to enable the organ of state to view the taxpayer's profile and tax status.

11.3 Application for tax compliance status (TCS) or pin may also be made via e-filing. In order to use this provision, taxpayers will need to register with SARS as e-filers through the website www.sars.gov.za.

11.4. A bidder may also submit a printed TCS together with the proposal.

11.5. In proposals where consortia / joint ventures / sub-contractors are involved; each party must submit a separate proof of TCS / pin / CSD number.

11.6. Where no TCS is available, but the potential service provider/s is registered on the central supplier database (CSD), a CSD number must be provided.

12. CONDITIONS OF THE CONTRACT

12.1 The General Conditions of Contract must be accepted as these are issued by National Treasury and are non-negotiable.

12.2 The service provider will sign a confidentiality agreement regarding the protection of DEE information that is not in the public domain.

12.3 Service provider is prohibited from unauthorized handling, reading or removal of documents in the departmental records.

12.4 No state information may be furnished/ communicated to the public or news media by the security service provider or any of their employees.

12.5 The Department reserves the right to screen/vet service provider personnel through the State Security Agency or otherwise.

12.6 The service provider must ensure that there is no interruption of services due to manpower shortage due to annual leave, sick leave, etc.

12.7 The service provider shall ensure that the contract is executed in line with the scope of work.

12.8 The service provider company may be subjected to security screening by the State Security Agency.

12.9 The DEE reserves the right to verify the authenticity of the information submitted, any falsified information may result in the disqualification or cancellation of the contract.

13 FORMATS OF SUBMISSION OF PROPOSAL

13.1 Service providers are requested to **submit one (1) original** of proposals**.**

13.2 Service providers are requested to index their proposals for easy reference.

14 PRE-BID MEETING DETAILS/BRIEFING SESSION DETAILS

14.1 A compulsory briefing session will be held on **01 December 2026 at 10h00**, at the Department of Electricity and Energy at the following address:

192 Visagie Street, Cnr Paul Kruger and Visagie Street, Pretoria 0001

14.2 Bidders must sign the briefing session attendance register and remain in attendance from the opening to the closure of the meeting. Failure to sign the briefing session attendance register will result in disqualification from participation on this bid.

15 CLOSING DATE

15.1. Proposals must be submitted on or before **11 December 2026 at 11h00,** at the Department of Electricity and Energy, at 192 Matimba House Building, Corner Visagie and Paul Kruger Street, Pretoria in a box marked “Tender Box”.

15.2. **No late bids will be accepted**.

16. ENQUIRIES

16.1 All general enquiries relating to this bid should be directed to:

16.2 Technical enquiries can be directed to:

Ms Violet Olifant

Email: Violet.Olifant@dee.gov.za

Telephone: 012-406 7708

Mr Mothusi Shuping
Email: Mothusi.Shuping@dee.gov.za
Telephone: 012-406 7710