
TERMS OF REFERENCE FOR APPOINTMENT OF A SERVICE PROVIDER FOR ADVISORY SERVICES ON SOCIO-ECONOMIC AND COST BENEFIT ANALYSIS FOR PROCUREMENT OF UP TO 10GW OF NUCLEAR FOR THE DEPARTMENT OF ELECTRICITY AND ENERGY, FOR A PERIOD OF FIVE (5) MONTHS.

1 BACKGROUND

- 1.1 South Africa stands at a critical juncture in its energy trajectory. The nation faces the pressing triple challenge of energy security, affordability, and sustainability. Persistent power supply constraints (exemplified by ongoing load shedding) underscore the urgent need for reliable and consistent baseload electricity to power economic growth and improve the lives of its citizens.
- 1.2 Concurrently, global pressures and domestic commitments to combat climate change necessitate a significant shift away from a carbon-intensive energy mix, predominantly reliant on coal. Achieving energy independence, fostering industrial development, and ensuring a stable and predictable electricity supply are paramount to realising the ambitions of the National Development Plan (NDP) and securing a prosperous future for South Africa.
- 1.3 In this context, nuclear power presents a compelling case as a viable and essential component of South Africa's future energy landscape. As a clean energy source, it offers significant advantages in terms of greenhouse gas emission reduction, directly contributing to climate change mitigation targets.
- 1.4 Crucially, nuclear power plants provide high-capacity, dispatchable baseload electricity, capable of operating continuously for extended periods, thereby offering unparalleled energy security and stability compared to intermittent renewable sources. Modern Small Modular Reactors (SMRs) can also operate with greater flexibility to meet supply variability in grids with high intermittent renewable penetration.
- 1.5 While the upfront capital investment is substantial, the long-term operational stability, low fuel costs, and negligible carbon footprint make it an attractive

option for sustainable energy generation, diversifying the energy mix and reducing reliance on volatile fossil fuel markets.

- 1.6 The Nuclear Energy Policy of 2008 states that for South Africa, “the long-term goal is to be self-sufficient in all aspects of the nuclear fuel cycle where, for each aspect, a feasibility study has been conducted”.
- 1.7 In accordance with **the 2025-2030 Strategic Plan for the Department**, “the department will work closely with South African Nuclear Energy Corporation (NECSA) and other state-owned entities to finalise the Strategic Plan and Business Case to support investments for re-establishment of South Africa’s full nuclear fuel cycle (NFC), encompassing mining, conversion, enrichment, fabrication, reactor operations and waste management and disposal.
- 1.8 The economic viability of re-establishing the nuclear fuel cycle rests on using nuclear for power and industrial uses (non-power). The long-term vision is to achieve self-sufficiency in nuclear fuel cycle capabilities, subject to feasibility assessments.
- 1.9 To sustain a robust nuclear fuel cycle, South Africa must invest in the full nuclear fuel cycle (NFC), encompassing mining, conversion, enrichment, fabrication, reactor operations and waste management and disposal.
- 1.10 The economic viability of re-establishing the nuclear fuel cycle rests on using nuclear for power and industrial uses (non-power). Studies show that a 10 GWe nuclear power programme would provide the scale needed to justify local NFC facilities, granting South Africa energy sovereignty whilst generating significant socio-economic benefits.
- 1.11 The potential development of an up to 10 GW nuclear energy programme represents a significant long-term investment with far-reaching socio-economic implications for the country.
- 1.12 Given the immense scale and implications of such an undertaking – spanning vast financial commitments, technological complexities, environmental considerations, and profound societal impacts – the importance of a

comprehensive and rigorous cost -benefit and socio-economic impact study cannot be overstated.

- 1.13 This study is vital to ensure that policy decisions and project planning are grounded in robust evidence, balancing the imperative for energy security with fiscal prudence and sustainable development.
- 1.14 To ensure informed decision-making and optimal allocation of national resources, the Department included in its 2025-26 Annual Performance Plan a Socio-Economic Impact and Cost-Benefit Analysis (SEICBA) of such a programme.
- 1.15 This analysis will provide a robust evidence base for policymakers, stakeholders, and the public, detailing the potential economic, social, and environmental impacts of a large-scale nuclear build, aligning with the principles of the National Development Plan (NDP), Nuclear Energy Policy, and the nation's energy security objectives.
- 1.16 Three directly related previous studies conducted by the Department and its entities can serve as a solid basis to inform the current work, this includes:
 - 1.16.1 *“Economic Impact Assessment of Koeberg Power Station”* (2017 by Eskom),
 - 1.16.2 *“Economic Impact of Localisation for the Nuclear Expansion Program”* (2015 by Department of Energy), and
 - 1.16.3 *“Procurement Framework for 2500MW Nuclear New Build”* (2022 by Department of Mineral Resources and Energy).
- 1.17 Cost studies on nuclear power plants conducted by the Department as well nuclear fuel waste management facilities can also be provided for assisting with inputs into these studies.
- 1.18 These provide a solid basis for conducting **this** study that includes additional cost benefits analysis, socio-economic impact analysis and updates to recent developments in the nuclear industry, such as the advent of Small Modular Reactors, international geopolitics, and nuclear finance developments.

1.19 The recommendations of this study will also need to inform the Nuclear Industrialisation Plan (NIP) will seek to outline a roadmap towards development of a nuclear economy across the entire nuclear fuel cycle value chain.

2 CONTRACT PERIOD

2.1 The duration of the project is five (5) months after signing the service level agreement with the successful service provider. Service providers are not to exceed these timelines.

3 OBJECTIVES

3.1 On conclusion of this study, it is anticipated that the Department of Electricity Energy will be in a position to identify and establish:

3.1.1 The financial and economic viability of various permutations of the project by seeing if benefits outweigh costs as well as socio-economic impact to arrive at a tool to be used for informing the Nuclear Industrialisation Plan and a policy decision for committing to further nuclear capacity beyond the 5.2GWe as stipulated in the IRP2025.

3.1.2 To quantify the direct and indirect monetary costs and benefits of up to a 10 GW nuclear programme, including: Capital expenditure and operational costs, the monetized value of any market failures addressed, the monetized value of externalities, such as the social cost of carbon emissions avoided compared to the potential costs of environmental impacts.

3.1.3 To assess the broader socioeconomic impacts of up to a 10 GW nuclear programme, including:

3.1.3.1 Job Creation: the gross number of direct, indirect, and induced jobs created, disaggregated by sector and skills level;

3.1.3.2 Economic Impact: the programme's contribution to Gross Domestic Product (GDP).

- 3.1.3.3 Industrial Development: the potential for local content development, technology transfer, and the impact on broader industrialization.
- 3.1.3.4 Social and Community Impacts: The effects on employment distribution, local infrastructure, and community well-being
- 3.1.4 To assess the social impacts of the programme, including community development, skills transfer and capacity building, potential health and safety implications, land use, and the potential for a just energy transition, particularly for communities historically reliant on coal.
- 3.1.5 To evaluate the environmental implications, including greenhouse gas emission reductions, and water resource requirements, in line with national climate change commitments (Nationally Determined Contributions – NDC).
- 3.1.6 To analyse the financial implications for the national fiscus, including funding mechanisms, potential public-private partnership models, and impacts on electricity tariffs and consumer affordability.
- 3.1.7 To conduct a sensitivity analysis of the SEICBA results under various scenarios, considering global technological advancements, financing conditions, and energy demand projections.
- 3.1.8 To provide clear recommendations on the viability and optimal pathways for the potential implementation of up to 10 GW nuclear energy programme within South Africa’s broader energy landscape – i.e. the Nuclear Industrialisation Plan.

4 SCOPE OF WORK

The service provider is expected to adequately address, as a minimum deliverable, all the items referenced in the Scope of Work below:

- 4.1 The service provider is expected to deliver the work through eight (8) key deliverables, with some overlap in terms of phasing. The final product would be a collation of each of these into a coherent and internally consistent report with

recommendations. The deliverables are: International Benchmarking, Literature Review, Financial Modelling, Cost Benefit Analysis Modelling, Socio-Economic Impact Analysis Modelling, Scenario Calculations, Sensitivity Calculations, and Integration and Recommendations. Further details of each are given in the ensuing paragraphs.

4.2 **International Benchmarking:** A report which outlines socio-economic impact and cost benefit analysis done for nuclear build programmes in the past 15 years. Details of each country investigated should include the following:

4.2.1 A comparison of the extent to which the cost benefit analysis and socio-economic impact study was done as compared to this scope of work, as well as the availability of the input and output data and modelling tools.

4.2.2 A description of the strategy adopted by those countries(s) (if any) because of these studies and successes or failure thereto.

4.2.3 Lessons learned, successes and failures and the reasons thereto with regards to expansion of their nuclear programme.

4.2.4 At least the following country programmes should be studied: United Kingdom, United States of America, Turkey, Russian Federation, South Korea, Japan, China, Vietnam, France, Brazil, India, Finland, Poland, Lithuania, Czech Republic, Canada, Switzerland and Spain.

4.2.5 In terms of international models and guidelines, consideration should be given to models being used by international development agencies and organisations such as the World Bank, United Nations, International Atomic Energy Agency, Nuclear Energy Agency, and the Organisation for Economic Co-operation and Development.

4.3 **Literature Review:** An assessment of international models and guidelines for cost benefit analysis or socio-economic impact for nuclear projects or similar large-scale infra-structure projects. In addition, a thorough review of the previous work done and the applicability of such for this study, including modifications necessary to yield the required outputs.

- 4.3.1 In terms of international models and guidelines, consideration should be given to models being used by international development agencies and organisations such as the World Bank, United Nations, International Atomic Energy Agency, Nuclear Energy Agency, and the Organisation for Economic Co-operation and Development.
- 4.3.2 Three directly related previous studies conducted by the Department and its entities can serve as a solid basis to inform the current work and will be provided, this includes:
 - 4.3.2.1 “Economic Impact Assessment of Koeberg Power Station” (2017 by Eskom),
 - 4.3.2.2 “Economic Impact of Localisation for the Nuclear Expansion Program” (2015 by former Department of Energy), and
 - 4.3.2.3 “*Procurement Framework for 2500MW Nuclear New Build*” (2022 by former Department of Mineral Resources and Energy).
- 4.4 **Financial Modelling:** Development and testing of a financial model for the nuclear power plant project and the front end of the nuclear fuel supply plants project (conversion, enrichment, and fuel fabrication). This deliverable must also include data gathering for all input parameters used in the financial model to be completed. The financial models must:
 - 4.4.1 Cover the complete lifecycle of the plants, from planning, construction, operation and decommissioning.
 - 4.4.2 Provide for varying levels of debt, equity, private and public sector participation.
 - 4.4.3 Separate the overnight capital cost from the interest during construction.
 - 4.4.4 Allow variation of input parameters such as lender interest rate, investor returns.
 - 4.4.5 Provide outputs on an annual basis for the cash flow, direct cost for manufacture, construction, labour, material, components, finance and interest charges.

- 4.4.6 In the case of the nuclear power plant project the financial model must delineate the fuel, decommissioning, and waste management cost and determine the nominal and real tariff requirement for the electricity produced.
 - 4.4.7 It must provide the financial NPV each of the projects as well as other key financial metrics.
 - 4.4.8 It must also allow a simplistic method for simulation of all the scenarios and sensitivities outlined (later section).
- 4.5 **Cost Benefit Analysis Modelling:** Development and testing of a Cost Benefit Analysis model based on the nuclear power plant project and the front end of the nuclear fuel supply plants projects (conversion, enrichment, and fuel fabrication). This deliverable must also include data gathering for all input parameters used in the Cost Benefit Analysis model to be completed. The Cost Benefit Analysis Model **must** meet the requirements of such outlined in the latest National Treasury Infrastructure Planning and Appraisal Guideline:
- 4.5.1 Cover the complete lifecycle, assessing the economic resource cost of planning, construction, operation, and decommissioning, excluding transfer payments (e.g., taxes, subsidies, interest payments) which do not represent resource consumption.
 - 4.5.2 Provide for the conversion of financial costs to economic costs using appropriate Shadow Prices (Conversion Factors) for unskilled labour, skilled labour, foreign exchange, and fuel, as per National Treasury guidelines.
 - 4.5.3 Allow variation of macroeconomic input parameters such as the Social Discount Rate (SDR) (distinct from the financial WACC) and the Shadow Exchange Rate.
 - 4.5.4 Provide outputs on an annual basis for the Economic Resource Flows, distinguishing between tradable (imported) and non-tradable (local) components.

- 4.5.5 In the case of the nuclear power plant, the model must explicitly quantify and monetize Externalities, including: avoided Greenhouse Gas (GHG) emissions (Carbon Tax/Social Cost of Carbon), avoided health costs (from displaced fossil fuel pollutants), the economic value of Security of Supply (Value of Lost Load avoided), grid stability benefits and ancillary services.
 - 4.5.6 It must provide the Economic Net Present Value (ENPV) and the Economic Benefit-Cost Ratio (BCR) for each project.
 - 4.5.7 It must allow for sensitivity analysis on key economic variables, particularly the Social Discount Rate and the Valuation of Carbon/Externalities.
- 4.6 **Socio-economic Impact Analysis Modelling:** Development and testing of a Socio-economic impact model based on the nuclear power plant project and the front end of the nuclear fuel supply plants projects (conversion, enrichment, and fuel fabrication). This deliverable must also include data gathering for all input parameters used in the Socio-economic impact model to be completed. The Socio-economic Model must meet the requirements of such outlined in the latest National Treasury Infrastructure Planning and Appraisal Guideline and at least one other recognised socio-economic impact guideline. The model must:
- 4.6.1 Cover the complete lifecycle, specifically isolating the Construction Phase (temporary impact) versus the Operations Phase (sustained impact) regarding employment and GDP contribution.
 - 4.6.2 Provide for varying scenarios of Localization and Industrialization, distinguishing between "local spend" (spending money in SA) and true "local content" (manufacturing capacity in SA).
 - 4.6.3 Allow variation of input parameters such as Import Leakage (how much money leaves the economy for technology procurement) and labour productivity rates.

- 4.6.4 Provide outputs on an annual basis for macroeconomic Indicators, specifically:
 - 4.6.4.1 Impact on Gross Domestic Product (GDP).
 - 4.6.4.2 Impact on Balance of Payments (BoP).
 - 4.6.4.3 Impact on household Income distribution.
 - 4.6.5 Delineate employment numbers categorized by:
 - 4.6.5.1 Type: Direct, Indirect (supply chain), and Induced (consumption) jobs.
 - 4.6.5.2 Skill level: unskilled, semi-skilled, and highly skilled/professional.
 - 4.6.6 Provide the employment multipliers (jobs per MW/MWh or Jobs per R1m invested) and the fiscal impact (total tax revenue generated for the fiscus).
 - 4.6.7 It must allow a simplistic method for simulation of scenarios based on different scenarios (e.g., high local content vs. turnkey import) and sensitivities to inform the localization strategy.
- 4.7 **Scenario Calculations:** The models developed above will be used to simulate several scenarios, based on the capacity of the new power programme, scale of the front-end nuclear fuel cycle facilities, duration of waste management, percentage of local content, and ratio of Conventional PWRs to SMRs. These are described below:
- 4.7.1 Three envisaged new nuclear power plant rollout capacities of 5.2 GWe by 2039, 7.5GWe by 2042 and 10 GWe by 2045. The timeline of the latter two can be varied as part of sensitivity analysis. A baseline “do nothing” approach must also be calculated, i.e. Koeberg Nuclear Power Station with no additional capacity built.
 - 4.7.2 Two options for nuclear fuel cycle front end plants established locally (i.e. local fuel manufacture), namely conversion, enrichment and fuel fabrication all done locally as an integrated plant, or only an enrichment

plant. The capacities of these plants should match those of the power plant programme, implying at least two calculations per each of the three envisaged capacity.

4.7.3 Two options for waste management/disposal, i.e. spent fuel management in a centralised interim storage facility (CISF) for 100 years or storage in the CISF for 50 years followed by deep geological facility.

4.7.4 Three options for local content for the nuclear power plant construction and maintenance, 30%, 50% and 70%. These can be applied to the three capacity plants respectively. Data required to determine the costs and outputs from various local content are available from the previous study done by the Department, namely the “Economic Impact of Localisation for the Nuclear Expansion Program” (2015 by the former Department of Energy). Actual values may need adjustment based on changes in financial variables over the years.

4.7.5 Two options for SMR and Conventional PWR mix, namely 50% or 100% Conventional PWR. The SMRs have the advantage of being located at current coal fired plants and hence will have an impact mainly on the economic calculations.

4.8 Sensitivity Calculations: Some sensitivities will need to be conducted using the key parameters such as the social discount rate, exchange rates, debt-equity ratios, and interest rates.

4.9 Integration and Recommendations: Finally, based on all the scenarios, it is expected that a trend will be observed that would allow the deduction of a most optimum set of scenarios. An integrated report with all the outputs and results need to be compiled and accompanied with a presentation covering the entire scope of the work.

4.10 Calculation models must be based on Microsoft Excel and should include user training, documented calculation theory, and a manual for its use. This tool must be included in the service providers deliverables and should be detailed enough to allow the Department to utilise the model afterwards.

- 4.11 The model must be based on the cumulative 80 year construction and generation lifetimes of the nuclear power programme, and assume a 60 year plant operation life.
- 4.12 The calculation models should be quality checked through the service provider's internal processes or the use of an independent external assessment.
- 4.13 The service provider should provide access to all the formulae, sheets, and source code for the model which would allow the Department of Electricity Energy to independently verify, validate or further develop or enhance the model at a later stage.
- 4.14 No variables may be hard coded in formulae, all inputs must be made and agreed to in an assumption sheet, where the reference source, units of variable and uncertainty range clearly indicated.

5 DELIVERABLES

- 5.1 The successful service provider is expected to deliver nine (9) reports, three (3) user manuals and presentations (with spreadsheets where applicable), of which eight (8) are outlined in the Scope of Work:
 - 5.1.1 Inception Report (MS Word within 3 days of contract signing) will confirm the deliverables, schedule, and project plan of the service provider and resource allocations as per the proposal submitted during the bidding stage.
 - 5.1.2 International Benchmarking Report in MS Word format within 20 days of contract signing, as well as a presentation to be reviewed and responded to by the Department within 5 days and comments resolved within 10 days thereof.
 - 5.1.3 Literature Review Report in MS Word format within 30 days of contract signing, as well as a presentation to be reviewed and responded to by the Department within 5 days and comments resolved within 10 days thereof.

- 5.1.4 Financial Models Report and financial model user manual in MS Word format and presentation accompanied by the MS Excel worksheet(s) of the models and sample calculations for the 5.2 GWe nuclear power plants and the complete front end of the nuclear fuel cycle. This should be completed within 60 days of contract signing. The user manual must provide a list of all the input parameters, their units, range and source, as well as the output parameters units.
- 5.1.5 Cost Benefit Analysis Model Report and user manual in MS Word format and presentation accompanied by the MS Excel worksheet(s) of the models and sample calculations for the 5.2 GWe nuclear power plants and the complete front end of the nuclear fuel cycle. This should be completed within 70 days of contract signing, and also allow for the Department to review and provide comments within 5 days, followed by 10 days for resolution of comments. The user manual must provide a list of all the input parameters, their units, range and source, as well as the output parameters units.
- 5.1.6 Socio-Economic Analysis Impact Model Report and user manual in MS Word format and presentation accompanied by the MS Excel worksheet(s) of the models and sample calculations for the 5.2 GWe nuclear power plants and the complete front end of the nuclear fuel cycle. This should be completed within 80 days of contract signing, and also allow additional days for the Department to review and provide comments within 5 days, followed by 10 days for resolution of comments. The user manual must provide a list of all the input parameters, their units, range and source, as well as the output parameters units.
- 5.1.7 Scenarios Report in MS Word format and presentation accompanied by the MS Excel worksheet(s) of the calculations. This should be completed within 100 days of the contract signing and also allow additional days for the Department to review and provide comments within 5 days, followed by 10 days for resolution of comments.
- 5.1.8 Sensitivity Analysis Report in MS Word format and presentation accompanied by the MS Excel worksheet(s) of the calculations. This

should be completed within 110 days of the contract signing and also allow additional days for the Department to review and provide comments within 5 days, followed by 10 days for resolution of comments.

5.1.9 Integrated Report in MS Word format with two presentations, one detailed presentation of more than 30 slides and another short and concise executive level presentation of 12 slides. This is required within 120 days of contract signing and 2 rounds of review and comment to be completed by 150 days. There will be extended review period due to consultation with advisory panels and stakeholders.

5.2 The service provider is also required to provide at least half a day training workshops on the use of each of the models to the Department. These must be conducted after each of the models have been developed and documented through a user manual.

5.3 The timelines given above are maximum allowed and if the service provider can deliver sooner than the allocated time, kindly indicate such in the proposal.

6 EVALUATION CRITERIA

6.1 This bid will be evaluated in four stages: functionality, mandatory requirements, administrative compliance, and a point scoring system.

6.2 Gate 01 - Functionality

6.3 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 who score 70% or more will be considered further.

No.	Evaluation criteria	Points	Weight
1.	<p>Company Experience</p> <p>(i) Bidders must have undertaken financial modelling studies in South Africa at advising on financing.</p> <p>(ii) Bidders should have experience of having socio-economic impact analysis in an advisory capacity.</p> <p>(iii) Bidders should have experience of having cost benefit analysis in an advisory capacity.</p> <p><i>(NB: These should be experience shown from a reference letter a project that is successful i.e. study has been concluded and report delivered)</i></p> <p>(attach contract/s or service level agreements, orders, completion letters/certificates and testimonials from contactable references)</p>	<p>2 or more studies = 5 points 1 study = 4 points</p> <p>2 or more studies = 5 point 1 study = 4 points</p> <p>2 or more studies = 5 points 1 study = 4 points</p> <p>=</p>	<p>20</p> <p>7</p> <p>7</p> <p>6</p>
2.	<p>Experience of Team Leader and Team Members</p> <p>Experience:</p> <p>Team Leader</p> <p>(i) The team leader must have experience in the field of financial modelling for large infrastructure projects.</p> <p>(ii) The team leader must have conducted a number of financial modelling studies for large infrastructure projects that</p>	<p>10 or more years= 5 points 7 to 9 years = 4 points 4 to 6 years = 3 points 3 years = 2 points 2 or less years = 1 point No indication = 0 points</p> <p>3 or more studies = 5 points 2 studies = 4 points 1 study =3 points</p>	<p>40</p> <p>3</p> <p>3</p>

No.	Evaluation criteria	Points	Weight
	<p>complied with National Treasury infrastructure guidelines.</p> <p>(iii) The team leader must have experience in the field of cost-benefit analysis for large infrastructure projects.</p> <p>(iv) The team leader must have conducted several cost-benefit analysis studies for large infrastructure projects that complied with National Treasury Infrastructure guidelines.</p> <p>(v) The team leader must have experience in the field of socio-economic impact modelling for large infrastructure projects</p> <p>(vi) The team leader must have conducted several socio-economic impact modelling studies for large infrastructure projects that complied with National Treasury Infrastructure guidelines</p> <p>(Attach detailed CV highlighting relevant experiences with contactable references)</p>	<p>No indication = 0 points</p> <p>10 or more years = 5 points 7 to 9 years = 4 points 4 to 6 years = 3 points 3 years = 2 points 2 or less years = 1 point No indication = 0 points</p> <p>3 or more studies = 5 points 2 studies = 4 points 1 study = 3 points No indication = 0 points</p> <p>10 or more years = 5 points 7 to 9 years = 4 points 4 to 6 years = 3 points 3 years = 2 points 2 or less years = 1 point No indication = 0 points</p> <p>3 or more studies = 5 points 2 studies = 4 points 1 study = 3 points No indication = 0 points</p>	<p>4</p> <p>4</p> <p>3</p> <p>3</p>

No.	Evaluation criteria	Points	Weight
	<p>Team members</p> <p>(i) Members of the team should have experience in financial modelling of large infrastructure projects.</p> <p>(ii) Members of the team must have been part of several financial modelling studies on large infrastructure projects that complied with National Treasury Infrastructure guidelines.</p> <p>(iii) Members of the team should have experience in cost benefit analysis of large infrastructure projects.</p> <p>(iv) members of the team must have been part of several cost benefit analysis studies on large infrastructure projects that complied with National Treasury Infrastructure guidelines.</p> <p>(v) members of the team should have experience in socio-economic impact modelling of large infrastructure projects.</p> <p>(vi) members of the team must have been part of several socio-economic impact</p>	<p>(Number of years = average of the team members, Number of Studies = average of team members)</p> <p>10 or more years = 5 points 7 to 9 years = 4 points 4 to 6 years = 2 points 2 or less years = 1 point No indication = 0 points</p> <p>3 or more studies = 5 points 2 studies = 4 points 1 study = 3 points No indication = 0 points</p> <p>10 or more years = 5 points 7 to 9 years = 4 points 4 to 6 years = 2 points 2 or less years = 1 point No indication = 0 points</p> <p>3 or more studies = 5 points 2 studies = 4 points 1 study = 3 points No indication = 0 points</p> <p>10 or more years = 5 points 7 to 9 years = 4 points 4 to 6 years = 2 points 2 or less years = 1 point No indication = 0 points</p> <p>3 or more studies = 5 points 2 studies = 4 points</p>	<p>3</p> <p>3</p> <p>4</p> <p>4</p> <p>3</p> <p>3</p>

No.	Evaluation criteria	Points	Weight
	<p>modelling studies that complied with National Treasury Infrastructure guidelines.</p> <p>(Attach detailed CV of each member of team highlighting relevant experience, with contactable references)</p>	<p>1 study =3 points No indication = 0 points</p>	
3.	<p>Qualifications of Team Leader and Team Members</p> <p>Qualifications:</p> <p>Team Leader qualifications</p> <p>(i) Team leader must possess a SAQA-recognised tertiary qualification in statistics, mathematics, applied mathematics, economics, finance or financial engineering-related disciplines (Attach copies of relevant qualification/s)</p> <p>Team member qualifications</p> <p>(ii) Team member(s) must possess formal relevant tertiary qualifications in statistics, mathematics, applied mathematics, economics, finance or financial engineering, recognised by SAQA (Attach copies of relevant qualification/s)</p>	<p>NQF level 10 = 5 points NQF level 9 = 4 points NQF level 8 = 3 points NQF level 7 = 2 points NQF level 6 and below = 0 points</p> <p>NQF level 10 = 5 points NQF level 9 = 4 points NQF level 8 = 3 points NQF level 7 = 2 points NQF level 6 and below = 0 points</p> <p>(Qualification level score = average of the team members)</p>	<p>20</p> <p>10</p> <p>10</p>

No.	Evaluation criteria	Points	Weight
4.	<p>Proposal and Project Plan</p> <p>(i) Detailed project plan with</p> <ol style="list-style-type: none"> a. Schedule b. Key milestones and training workshops c. Project cost per deliverable d. Logistics plan e. Scope f. Contingencies <p>(Attach project plan)</p> <p>(ii) The proposal contains the following four (4) aspects as part of its details:</p> <ol style="list-style-type: none"> a. All the inputs and outputs of each model (including units), b. the source of information where the data will be obtained for each input that is outside of the requirement for the Department to provide such. c. The flow of data between models, i.e. which inputs are going to be used from previous models in the chain. d. The methodology that will be used for each model, based on National Treasury and international guidelines. <p>(Attach methodology proposal)</p>	<p>Detailed Project plan with all 6 items = 5 points.</p> <p>Project Plan with first 5 items = 4 points.</p> <p>Project Plan with first 4 items = 3 points.</p> <p>Project plan with less than 4 items= 0 points</p> <p>All the four (4) aspects = 5 points</p> <p>Three (3) aspects = 4 points</p> <p>Two (2) aspects = 3 points</p> <p>One (1) aspect = 1 point</p> <p>None of the required aspects provided in the proposal = 0 points</p>	<p>20</p> <p>5</p> <p>15</p>

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

Where: A = Total score for the bid under consideration
B = Maximum possible score
C = Percentage score for the bid under consideration

6.4 Gate 02 – Mandatory requirements

The following requirements is mandatory:

None

6.5 Gate 03 - Administrative compliance

- (i) Compliance with the specification / Terms of Reference.
- (ii) Fully completed SBDs (Duly signed and dated) listed hereunder
 - SBD 1
 - SBD 4
 - SBD 6.1
- (iii) The following will be regarded as non-compliance.
 - Price amendments / other amendments without signature/initials.
 - Use of correctional fluid
 - Completion of the bid document in coloured ink other than black ink

6.6 Gate 04 – 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

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

6.6.2 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.

6.6.3 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.

7 REPORTING REQUIREMENT AND PROGRESS MEETINGS

- 7.1 It is envisaged that the Department of Electricity and Energy will require an initial meeting with the successful service provider to agree on the project process and options to be investigated.
- 7.2 Progress meetings shall be held as and when necessary, but at least twice a month. The venue for these meetings will be a selected venue in Johannesburg or Pretoria. Representatives from the advisors' organisation shall be obliged to attend. Where applicable, and subject to the discretion of the Department of Electricity and Energy, video or conference calls shall be held to facilitate such meetings, with the proviso that all team members be present in person at a meeting at least once a month.

8 WORK PLAN AND METHODOLOGY

- 8.1 The service provider must provide:
- 8.1.1 A project proposal that demonstrates comprehension and competence to deliver on what is required in line with the scope of work under section 4.
- 8.1.2 A preliminary project plan outlining key activities, milestones, timeframes, and resources to be committed to the project.

9 ROLE AND RESPONSIBILITY

- 9.1 A Service Level Agreement will be entered into with the successful service provider which will include, inter alia, obligations of the DEE and the successful service provider.
- 9.2 The DEE reserves the right to appoint more than one service provider for the project.
- 9.3 The successful service provider must develop a detailed project schedule/ plan.
- 9.4 The successful service provider will be required to submit a payment schedule providing projections for the period of work performed.

9.5 The service provider shall disclose all information in its proposal regarding any interests that may result in an actual or perceived conflict of interest.

10 CONFIDENTIALITY OF INFORMATION

10.1 The names of all the members of the service provider team must be disclosed for the prior approval of DEE. Any changes, replacements and additions should be submitted for prior approval of DEE.

10.2 All members will have to sign a Non-Disclosure Agreement before project commencement and may be required to undergo security screening and tests as the DEE deems necessary

11 PAYMENTS

11.1 The Department will **not** make an upfront payment to a successful service provider. Payment will only be made in accordance with the delivery of service that will be agreed upon by both parties and upon receipt of a duly compliant invoice.

11.2 The payment will be made after each deliverable.

12 TAX CLEARANCE CERTIFICATE

12.1 Bidders must ensure compliance with their tax obligations.

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

12.3 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.

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

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

12.6 Where no TCS is available, but the bidders are registered on the central supplier database (CSD), a CSD number must be provided.

13 DOCUMENTATION

13.1 For all deliverables, the successful service provider shall organise all project files and data banks in a systematic way, with adequate indexing. All references must either be printed in full or extracts of relevant pages provided and indexed accordingly. Two printed copies of these files shall be submitted to Department of Electricity and Energy after completion of each deliverable. The files shall contain all documents produced in Microsoft® Office format and in particular:

13.1.1 calculation sheets;

13.1.2 email correspondence;

13.1.3 minutes of meetings and attendance registers;

13.1.4 reference information in full or extract.

13.2 The copyright in the end product will vest in Department of Electricity and Energy and be presented with its logo, and it will be at liberty to use the report and results as deemed necessary.

14 COST / PRICING

14.1 The bidders are requested to provide a quoted proposal regarding the work to be undertaken.

14.2 Bidders are required to indicate a ceiling price based on the total estimated time for completion of all phases and including all expenses inclusive of all applicable taxes for the project. The total cost must be VAT-inclusive and should be quoted in South African Rands (i.e. ZAR).

14.3 Bidders should provide hourly rates as prescribed by the Department of Public Service and Administration (DPSA), Auditor-General (AG) or the body regulating the profession of the consultant.

14.3.1 Bidders should provide (Subsistence & Travel (S&T)) rates that are aligned with the National Treasury instruction note as follows:

14.3.2 Hotel Accommodation – R1550 per night per person, including breakfast, dinner and parking.

14.3.3 Air travel must be restricted to economy class.

14.3.4 Claims for kilometres may not exceed the rates approved by the Automobile Association of South Africa.

15 CONDITIONS OF THE CONTRACT

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

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

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

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

15.5 The successful service provider may be subjected to security screening by the State Security Agency.

15.6 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.

16 FORMAT OF SUBMISSION OF PROPOSAL

16.1 Bidders are requested to submit two (2) copies of technical proposals plus the original.

16.2 Bidders are requested to index their proposals for easy reference.

17 COMPULSORY BRIEFING SESSION DETAILS

17.1 A compulsory briefing session will be held on **31 March 2026,10h00** at Department of Electricity and Energy, Matimba House, 192 Visagie Street, Pretoria, 0001.

17.2 Bidders must ensure that they sign a register during a compulsory briefing session to confirm attendance. Failure to sign the register to confirm attendance will invalidate your bid.

18 CLOSING DATE

18.1 Proposals must be submitted on or before **30 April 2026,11h00** at Department of Electricity and Energy, at Matimba Building, 192 Visagie Street, Corner Visagie and Paul Kruger Streets, Pretoria in the bid box marked marked Department of Electricity and Energy. An electronic copy on USB stick should also be provided and attached to the submission. **No late bids will be accepted.**

19 ENQUIRIES

19.1 All enquiries relating to bid documents should be directed to:

Mr Samuel Msiza

Tel No: (012) 406 7910

E-mail: Samuel.msiza@dee.gov.za