
TERMS OF REFERENCE FOR THE APPOINTMENT OF A SERVICE PROVIDER TO CONDUCT A GATEWAY REVIEW ON THE PREFEASIBILITY REPORT ON THE NEW MULTIPURPOSE REACTOR PROJECT, FOR A PERIOD OF SIX (6) WEEKS

1 BACKGROUND

- 1.1 The South African Fundamental Atomic Research Installation (SAFARI-1) research reactor, is one of the most commercially utilised in the world, ranking amongst the top three in terms of medical radioisotope production. In addition, it provides a variety of nuclear research techniques and capabilities that ensure that the country can benefit from innovative research techniques in order to ensure that a wide variety of industries can be innovative and competitive.
- 1.2 Having been commissioned more than 55 years ago, it will soon reach its end of life, estimated around 2030. It is already amongst the oldest operating research reactor of its kind in the world.
- 1.3 Furthermore, over the past decades, there have been a number of new applications for the utilisation of research reactors that would be a tremendous 'spin-off' benefit to South Africa. Many of these have either not been developed at SAFARI-1, or been implemented to a limited degree. Other opportunities in the design and development of research reactors, and also the manufacture of fuel, are also possible given the vast experience gained by Necsa in the improved utilisation of the SAFARI-1 research reactor over the years.
- 1.4 In order to mitigate against the loss of nuclear research reactor capability and to further grow and develop it, the Minister of Mineral Resources and Energy has established a task team, led by the Department of Mineral Resources and Energy, to recommend the way forward for the South African new Multi-Purpose Reactor (MPR) infrastructure.
- 1.5 Necsa, in cooperation with and guidance from of the Ministerial task team have developed and approved a Project Initiation Report, which identifies the Multi-Purpose Reactor as the optimum replacement for SAFARI-1. This was considered through a detailed options analysis considering aspects related to the national priorities, technological readiness, national capability and potential applications.
- 1.6 The MPR project is also being done under the direction of the National Treasury Framework for Infrastructure Delivery and Procurement Management (FIDPM),

which became effective since October 2019 as the successor to the Standard for Infrastructure Procurement and Delivery Management (SIPDM).

- 1.7 The FIDPM calls for a number of deliverables and stage gates through the development of an infrastructure project, which includes (in sequence): the Project Initiation Report, Prefeasibility Report, Feasibility Report, Design Development Report, Design Documentation, Works, Handover, and finally the Close-out Report.
- 1.8 The Department of Mineral Resources and Energy, has decided that an independent Gateway Review be conducted for the Prefeasibility Report prior to its approval. One of the key reasons for this is to gain advice of an independent team on improvements that can be made at an early stage. This is to make sure that the project prefeasibility is technically and structurally sound at an early stage and thereby ensure its success. It is also expected that this will save on time and costs going forward.

2 OBJECTIVES

- 2.1 The objectives of the independent Gateway Review of the Prefeasibility Report for the MPR project is done in accordance with the FIDPM to **primarily ascertain the quality of documentation**, and thereafter:
 - 2.1.1 determine the extent to which the project is likely to deliver,
 - 2.1.2 evaluate the expected benefits within the declared cost, time and performance envelope,
 - 2.1.3 determine the affordability of the project,
 - 2.1.4 assess the Value for Money of the project: optimum combination of whole life costs and quality to meet users requirements, and
 - 2.1.5 provide a critical analysis of the projects shortcomings and recommendations and guidance to improve the project's feasibility.

3 SCOPE OF WORK

- 3.1 The service provider is expected to deliver the work through two (2) phases with recommendations for each phase. The first phase of four (4) weeks is expected to review the Prefeasibility Report and provide findings and suggestions for its improvement. Thereafter the Prefeasibility Report will be revised by Necsa (in cooperation with the Task Team) to address the findings over a period of

approximately three months. This version will then be submitted to the service provider for a final review. Given that the necessary background has been established, a time of two weeks (2) will be allocated for the final review, giving the total time of engagement of six (6) weeks.

3.2 The Gateway Review will be done in terms of the National Treasury Framework for Infrastructure Delivery and Procurement Management.

3.3 The service provider shall base its findings primarily on:

3.3.1 The information contained in the Prefeasibility Report and annexures;

3.3.2 Supplementary documentation, if any, provided by key staff obtained during an interview process; and

3.3.3 Interview with key staff members and stakeholders.

3.4 The service provider shall issue a report at the conclusion of the Gateway Review, which indicates the service provider's assessment of the information at the Prefeasibility stage and provide findings **AND** recommendations on areas where further work may be undertaken to improve such information.

3.5 The findings shall be classified by the service provider as:

3.5.1 **Critical:** Findings that pose an adverse effect to the project or package. Critical findings are wholly unacceptable.

3.5.2 **Major:** Findings that pose a potentially adverse effect to the project or package. Major findings are serious findings and are in direct violation of key legislation, e.g. The Constitution of the Republic of South Africa, 1996; the PFMA or the PPPFA.

3.5.3 **Minor:** Findings not posing any adverse effect to the project or package. Minor findings indicate the need for improvement of practices and processes.

4 PAYMENTS

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

5 REPORTING REQUIREMENTS AND PROGRESS MEETINGS

- 5.1 It is envisaged that the Department will require an initial meeting with the successful service provider to agree on the project process and options to be investigated. Weekly meetings will then follow to discuss the progress of the review until completion.
- 5.2 The venue for these meetings will be at **Matimba Building, 192 Visagie Street, Pretoria**-the Department Head Office (Pretoria). Representatives from the service providers' organisation shall be obliged to attend at their own costs. Where applicable, these meetings may take place as virtual meetings.
- 5.3 Reports and presentations shall be submitted to the Department two days prior to the meetings and will be in the form of Microsoft PowerPoint™ slides and Microsoft Word™ reports. Where applicable, calculations are to be fully justified and done in Microsoft Excel™.

6 DOCUMENTATION

- 6.1 For the two phases of the Gateway Review, the successful service provider shall submit two (2) copies of the reports after completion of each phase. The reports shall be organised in a systematic way, with adequate indexing. The reports shall contain all documents (including reference material) produced including copies of minutes of meetings.
- 6.2 The copyright in the end product will vest in the Department and be presented with its logo, and the Department will be at liberty to use the report and results as deemed necessary.

7 INFORMATION TO BE SUPPLIED BY THE DEPARTMENT OF MINERAL RESOURCES AND ENERGY

- 7.1 Any information requested by the service provider in order to perform the services will be subject to discretion of the Department to provide such information.
- 7.2 The Department will inform and provide the service provider with any material or information that it deems relevant during the service period.
- 7.3 Bidders should base their proposal on the basis that no further information from the Department, or related entities would be necessary to perform the service.

Note that information of the previous study and related financial information referred to in the Scope of Work would be made available where necessary.

8 COMPLETION DATE

8.1 The total duration of the review is six (6) weeks, broken down into the first phase of four (4) weeks where a Gateway Review will be completed. Thereafter the Prefeasibility will be amended by Necsa (in cooperation with the Task Team) to address the comments raised by the Service Provider. After this is completed, a second Gateway Review on the revised Prefeasibility Report will take place over an additional two (2) weeks. The Department reserves the right to cancel the second phase by giving notice within one month after the first phase Gateway Review has been completed.

9 TAX CLEARANCE CERTIFICATE

- 9.1 The potential service provider/s must ensure compliance with their tax obligations.
- 9.2 The potential service provider/s is/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.
- 9.3 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.
- 9.4 The potential service provider may also submit a printed TCS together with the proposal.
- 9.5 In proposals where consortia / joint ventures / sub-contractors are involved, each party must submit a separate proof of TCS / pin / CSD number.
- 9.6 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

10 CONFIDENTIALITY OF INFORMATION

10.1 The names, qualifications, and experience of all the members of the service provider team must be disclosed for the prior approval of the Department. Any

changes, replacements and additions should be submitted prior to appointment of the service provider and commencement of the contract for approval of the Department.

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

11 TERMS AND CONDITIONS

- 11.1 The Department reserves the right to exclude any member whom the Department deems has a possible conflict of interest. In this case, the service provider will be requested to replace the excluded member with another suitable candidate. The replacement candidate must submit the above mentioned resume and declaration and be approved by the Department in writing.
- 11.2 The service provider shall disclose all information in its proposal regarding any interests that may result in an actual or perceived conflict of interest.
- 11.3 Please note that Department reserves the right to disqualify any service provider in circumstances where a conflict of interest exists or is perceived to exist or where a service provider has failed to disclose any conflict of interest or any other material information that may have affected the award of the service.

12 COMPULSORY INFORMATION SESSION

- 12.1 Due to the COVID 19 Pandemic, there will be no Information Session. Interested parties should direct their queries at least 7 days prior to the closing date. No queries thereafter will be considered.

13 EVALUATION METHODOLOGY

13.1 COST

- 13.1.1 The service provider will be requested to provide a quoted proposal regarding the work to be undertaken for this Gateway Review.
- 13.1.2 The total cost must be VAT inclusive and should be quoted in South African Rands (i.e. ZAR).
- 13.1.3 The service provider should provide hourly rates as prescribed by Department of Public Service and Administration (DPSA), Auditor- General (AG) or the body regulating the profession of the consultant.
- 13.1.4 The service Provider should provide (Subsistence & Travel (S&T)) rates that are in aligned to the National Treasury instruction note as follows:
 - i) Hotel Accommodation – R1550 per night per person, including breakfast, dinner and parking
 - ii) Air travel must be restricted to economy class
 - iii) Claims for kilometres may not exceed the rates approved by the Automobile Association of South Africa.

13.2 BROAD BASED BLACK ECONOMIC EMPOWERMENT (B-BBEE)

- 13.2.1 Provision of the Preferential Procurement Regulations of 2017 will apply in terms of awarding points
- 13.2.2 Bidders are required to submit original and valid B-BBEE Status Level Verification Certificates or certified copies thereof together with their bids, to substantiate their B-BBEE rating claims.
- 13.2.3 Bidders who do not submit their B-BBEE status level verification certificates or are non-compliant contributors to B-BBEE will not qualify for preference points for B-BBEE.
- 13.2.4 In case of Exempted Micro Enterprises, the following document must be submitted
 - (a) Verification agencies accredited by SANAS.
- 13.2.5 Bidders who qualify as EMS's
 - i. Sworn affidavit signed by EME representative and attested by a Commissioner of oaths.

13.3 The table below depicts the B-BBEE status level of contribution:

B-BBEE Status Level of Contributor	Number of points (80/20 system)
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2

14 COMPANY EXPERIENCE

- 14.1 Service Providers should have at least ten (10) years of experience in the nuclear sector, especially in the field of recent development of Research Reactor/Multi-Purpose Reactors. Contactable references for the latter must be provided.
- 14.2 The Service Provider must have conducted at least one Gateway Review in terms of the current or previous National Treasury guidelines and standards. A list of all Gateway Reviews and contactable references must be provided.

15 QUALIFICATIONS AND EXPERIENCE OF TEAM LEADER AND TEAM MEMBERS

- 15.1 The Gateway Review team shall be led by a person who is registered as a professional with a statutory council under the built environment professions for at least two years.
- 15.2 The Deputy Team Leader must possess at least a Postgraduate Degree in Nuclear Engineering or Nuclear Science.
- 15.3 At least one team member should possess a postgraduate Degree in Finance
- 15.4 Other team member(s) must possess at least a Degree in Natural Science or Engineering.

- 15.5 The Team Leader and Team Member(s) must submit certified copies of qualification certificates and CVs. Failure to submit these will result in forfeiture of these functionality points.
- 15.6 The team leader must have at least 5 years experience in planning of infrastructure projects.
- 15.7 The Service Provider's Gateway Review team shall comprise not less than three persons who are **not involved** in the project associated with the work covered, and are familiar with various aspects of the subject matter, with at least 5 year's experience research reactor projects.
- 15.8 Team members must have at least 5 years average experience in project finance especially expertise in the key technical areas, cost estimating, scheduling and implementation of nuclear infrastructure projects.

16 INDEPENDENCE

- 16.1 The service provider and all its employees must assure its independence from the current and previous Necsa Research Reactor projects in the last four years.

17 PROJECT PLAN

- 17.1 The service provider is expected to provide a project plan to demonstrate how it will achieve the Scope of Work in Section 3 in its proposal, with specific focus on:
 - 17.1.1 The key milestones will be used as a measure of performance in the project.
 - 17.1.2 The use of its resources to allocate tasks.
 - 17.1.3 The timing of deliverables (intermediate and final).
 - 17.1.4 Costs involved in the project.

17. EVALUATION PROCESS

Bids will be evaluated on 80/20 preference point system as outlined in the PPR of 2017. The proposals will be evaluated in two phases:

Phase 1: Service providers will be evaluated based on functionality. The minimum threshold for functionality is 70 out of 100 points. Service providers who fail to meet the minimum threshold will be disqualified and will not be evaluated further for price and preference points for B-BBEE.

Evaluation criteria	Score	Weight
<p>Company Experience</p> <p>i) Service Providers should have at least ten (10) years of experience in the nuclear sector, especially in the field of recent development of Research Reactor/Multi-Purpose Reactors. Contactable references latter must be provided.</p> <p>ii) The Service Provider must have conducted at least one Gateway Review in terms of the current or previous National Treasury guidelines and standards. A list of all Gateway Reviews and contactable references must be provided.</p>	<p>15 years or more= 5 points Between 11 and 15 years=4 points 10 years=3 points Between 6 and 9 years=2 points 5 years or less=1 point Scoring will be based on contactable references only.</p> <p>3 or more Gateway Reviews with at least one in scientific infrastructure = 5 points 3 or more Gateway Reviews = 4 points 2 Gateway Reviews= 3 points 1 Gateway Reviews =2 points 0 Gateway Reviews = disqualified. Scoring will be based on contactable references only.</p>	<p>30</p> <p>15</p> <p>15</p>
<p>Qualifications and Experience of Team Leader and Team Members</p> <p>Qualifications:</p> <p>i) The Gateway Review team shall be led by a person who is registered as a professional with a statutory council under the built environment professions for at least two years.</p>	<p>Team leader and another member is registered professional for more than 10 years = 5 points Team leader is the only registered professional for more than 10 years = 4 points Team leader is the only registered professional for more than 5-10 years = 3 points Team leader is the only registered professional for more than 2-5 years = 2 points Team leader is the only registered professional for less than 2 years = 1 points Team leader not a registered professional = disqualified.</p>	<p>50</p> <p>10</p>

Evaluation criteria	Score	Weight
ii) The Deputy Team Leader must possess at least a Postgraduate Degree in Nuclear Engineering or Nuclear Science.	(Deputy team leader qualifications) PhD = 5 points Master's degree = 4 points Honours degree = 3 points Degree = 2 points Diploma or Certificate = 1 point	5
iii) At least one team member should possess a postgraduate Degree in Finance	(financial qualifications) One team member is a Chartered Accountant= 5 points. Honours degree = 4 points Degree = 3 points Diploma = 2 points Short course on project finance = 1 point	5
iv) Other team member(s) must possess at least a Degree in Natural Science or Engineering.	(team member qualifications) Master's degree or higher = 5 points Honours degree = 4 points Degree = 3 points Degree = 2 points Diploma or Certificate = 1 point These points will be averaged across all team members.	5
v) The Team Leader and Team Member(s) must submit certified copies of qualification certificates and CVs. Failure to submit these will result in forfeiture of these functionality points.	Certified copies provided = 5 points Uncertified or partially certified copies = 1 point	5
Experience vi) The team leader must have at least 5 year's experience in planning of infrastructure projects	Team leader has 7 years experience plus research reactor project planning = 5 points Team leader has 5-7 years experience in infrastructure project planning = 4 points Team leader has 2-5 years experience in infrastructure project planning = 3 points Team leader has 1-2 years experience in infrastructure project planning = 2 points Team leader has less than 1 years experience in infrastructure project planning = 1 points	5

Evaluation criteria	Score	Weight
<p>vii) The service providers Gateway Review team shall comprise not less than three persons who are not involved in the project associated with the work covered, and are familiar with various aspects of the subject matter, with at least 5 year's experience research reactor projects.</p> <p>viii) Team members must have at least 5 years average experience in project finance especially expertise in the key technical areas, cost estimating, scheduling and implementation of nuclear infrastructure projects.</p>	<p>Five or more team members of which at least two have experience with Gateway Reviews and at least ten (10) years average experience with research reactors projects = 5 points</p> <p>Four team members of which at least one has experience with Gateway Reviews and at least 7 (seven) years average experience with research reactors projects = 4 points</p> <p>Three team members of which at least one has experience with Gateway Reviews and at least 5 (five) years average experience with research reactors projects = 3 points</p> <p>Three team members of which at least one has experience with Gateway Reviews and at least 2-5 (five) years average experience with research reactors projects = 2 points</p> <p>Three team members of which at least one has experience with Gateway Reviews and 1 (five) years average experience with research reactors projects = 1 points</p> <p>NB: Team Members who were or are involved in new Necsa Research Reactor project over the past three years do not count for above points.</p> <p>At least 2 team members have this experience at an average of 5 years = 5 points</p> <p>At least 1 team member have this experience at an average of 5 years = 4 points</p> <p>At least 1 team member have this experience at an average of 2-5 years = 3 points</p> <p>At least 1 team member have this experience at an average of 2 years = 2 points</p> <p>At least 1 team members have this experience at an average less than 2 years = 1 points</p>	<p>5</p> <p>10</p>
<p>Independence</p> <p>ix) The service provider and all its employees must assure its independence from the current and previous Necsa Research Reactor projects in the last four years.</p>	<p>Service provider, team leader and all team members independent = 5 points</p> <p>Service provider, team leader and 75 % of team members independent = 4 points</p> <p>Service provider, team leader and 50 % of team members independent = 3 points</p> <p>Service provider, team leader and 25 % of team members independent = 2 points</p> <p>Service provider, team leader and less than 25% of team members independent = 1 points</p>	<p>5</p>

Evaluation criteria	Score	Weight
<p>Project Plan</p> <p>The service provider is expected to provide a project plan to demonstrate how it will achieve the Scope of Work in Section 3 in its proposal, with specific focus on:</p> <ul style="list-style-type: none"> • The key milestones will be used as a measure of performance in the project. • The use of its resources to allocate tasks. • The timing of deliverables (intermediate and final) • Costs involved in the project 	<p>Project plan with detailed activities, milestones, timeframes and resources = 5 points</p> <p>Project plan with detailed activities, timeframes, and milestones = 4 points</p> <p>Project plan with activities, timeframes, and milestones = 3 points</p> <p>Project plan with activities only = 2 points</p> <p>No project plan attached = 1 point</p>	15
Total		100

For purpose of evaluating functionality, the following values will be applicable:

1=	Poor	Will not be able to fulfil the requirements
2=	Average	Will partially fulfil the requirements
3=	Good	Will partially fulfil the requirements
4=	Very Good	The bidder will be able to fulfil better in terms of the requirements
5=	Excellent	Fully fulfil in terms of the requirements

18. Phase 2: Price and B-BBEE

Evaluation criteria	Weight
Price	80
B-BBEE Compliance	20

19. FORMAT AND SUBMISSION OF THE PROPOSAL

- 19.1 All official forms (Standard Bidding Documents (SBDs)) must be completed in all respects by service providers. Failure to comply will invalidate a quote.
- 19.2 Service providers are requested to submit two (2) copies: 1 original plus 1 copy of the proposal and quote documents.

20. CLOSING DATE

- 20.1 Proposal must be submitted on or before 13 November 2020 at the Department of Mineral Resources and Energy, 192 Visagie Street, Corner of Visagie and Paul Kruger Street, Pretoria in the Bid Box marked Department of Energy. **No late bids will be accepted.**

21. ENQUIRIES

- 21.1 All technical enquiries to be directed in writing to Mr Katse Maphoto at least 7 working days prior to the closing date.

Tel: 012 406 7498

Email: katse.maphoto@dmre.gov.za

- 21.2 All general enquiries relating to bid documents should be directed to Samuel Msiza /Nonhlanhla Zingwevu

Tel: 012 406 77 0910/ 012 444 3055

Email: Samuel.Msiza@energy.gov.za/Nonhlanhla.Zingwevu@dmre.gov.za