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# TERMS OF REFERENCE FOR THE APPOINTMENT OF A SERVICE PROVIDER TO CONDUCT THE BENCHMARK STUDY ON INTERNATIONAL NUCLEAR RESEARCH, DEVELOPMENT AND INNOVATION FOR A PERIOD OF 12 WEEKS

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## 1 BACKGROUND

- 1.1 The Nuclear Energy Policy of 2008 (NEP 2008) provides government's vision of implementing nuclear power as part of the energy mix. The Policy further outlines a long-term vision of self-sufficiency in all aspects of the nuclear fuel cycle as well as global competitiveness in the use of innovative technology. The success of this Policy is premised on amongst others government's support of national nuclear research, development and innovation portfolio, government's provision of funding to support technology development and recognition of the contribution of nuclear energy to economic growth, infrastructure development, job creation and skills development.
- 1.2 The South African Nuclear Energy Corporation (Necsa) established under the Nuclear Energy Act 46 of 1999 is mandated to amongst others undertake and promote research and development in the field of nuclear energy and radiation sciences and technology. The Nuclear Energy Policy of 2008 (NEP 2008) further reconfirmed Necsa's mandate, and designated the organisation as the anchor for nuclear energy research, development and innovation in South Africa.
- 1.3 Nuclear research, development and innovation is critical to achieving the objectives of the Nuclear Energy Policy of 2008 (NEP 2008) which includes amongst others self-sufficiency throughout the nuclear value chain. According to NEP 2008, 'Government shall support research, development and innovation in the use of nuclear technology. Government shall also support participation in global nuclear energy technology innovation programmes. NEP 2008 is in place however, there is currently no national strategy and roadmap to guide implementation of this policy.

- 1.4 Whilst South Africa undertakes research, development and innovation in both power and non-power applications of nuclear; NEP 2008 is only confined to the power applications of nuclear. There is therefore a need to develop a national Policy and Strategy for research, development and innovation in non-power applications of nuclear energy.
- 1.5 The current arrangement including an absence of strategy to implement NEP 2008 and absence of policy, strategy and roadmap to guide research, development and innovation in non-power application of nuclear is less conducive to nurture research & development (R&D) outputs and optimise impacts. This result in insufficient governance mechanisms on several role-players in the nuclear R&D space and further result in fragmentation of activities – lack of synergy and collaborative approach, risk of duplication of efforts and failure to utilise fiscal funding optimally.

## **2 OBJECTIVES**

- 2.1 The study is intended to inform the development of a national policy and strategy on nuclear research, development and innovation.

## **3 SCOPE OF WORK**

- 3.1. The service provider is expected to deliver the work through four (4) phases with recommendations for each phase as follows:
- Phase 1 - policies and legislative framework,
  - Phase 2 - strategies, roadmap and plans or pathways,
  - Phase 3 - funding and financing models/ arrangement, and
  - Phase 4 - governance structures and institutional arrangement for the nuclear research, development and innovation. The final product would be a collation of each of these into a coherent report with recommendations for South Africa.
- 3.2. The service provider is expected to review adequately the following:
- 3.2.1. International current policies and legislative framework related to nuclear research, development and innovation,
- 3.2.2. Nuclear research, development and innovation strategies, roadmaps and plans as pursued by identified countries,

- 3.2.3. Various funding and financing models/arrangement for nuclear research, development and innovation in other countries. This should include lessons learned, successes and failures with regards to funding the nuclear research, development and innovation, and
- 3.2.4. The governance structures and institutional arrangements for nuclear research, development and innovation as pursued by the identified countries.
- 3.3. The benchmark study should at least cover countries and the member countries of the following organisations: Organisation for Economic Cooperation and Development (OECD) and the Nuclear Energy Agency (NEA), the BRICS countries, the nuclear vendor countries (Russian Federation, United States of America, South Korea, Japan and France), United Kingdom, African countries seeking to embark on nuclear power and other countries also embarking on nuclear power such as Vietnam, Indonesia, United Arab Emirates and a sample of countries on the same scale of nuclear (in terms of size of program) as South Africa.

#### **4 PAYMENTS**

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

#### **5 REPORTING REQUIREMENTS AND PROGRESS MEETINGS**

- 5.1 It is envisaged that the DoE will require an initial meeting with the successful service provider to agree on the project process and options to be investigated. Bi-weekly meetings will then follow to discuss the progress of the project until completion.
- 5.2 Progress meeting feedback shall be held as and when necessary, but at least bi-weekly for a period of 12 weeks. The venue for these meetings will be at **Matimba Building, 192 Visagie Street, Pretoria**-the DoE Head Office (Pretoria). Representatives from the service providers' organisation shall be obliged to attend at their own costs. Where applicable, conference calls shall be held to facilitate such meetings.

- 5.3 Reports shall be submitted to the DoE prior to the meetings and will be in the form of Microsoft PowerPoint™ slides and Microsoft Word™ reports. Calculation models are to be done in Microsoft Excel™.

## **6 DOCUMENTATION**

- 6.1 For all the identified milestones of the project, 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 DoE and be presented with its logo, and it will be at liberty to use the report and results as deemed necessary.

## **7 INFORMATION TO BE SUPPLIED BY THE DEPARTMENT OF ENERGY**

- 7.1 Any information requested by the service provider in order to perform the services will be subject to discretion of the DoE 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 grounds that no further information from the DoE, or related entities would be necessary to perform the service. Note 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 duration of the project is 12 weeks after signing of the contract with the successful service provider.

## **9 TAX CLEARANCE CERTIFICATE**

- 9.1 The potential service provider must ensure compliance with their tax obligations.
- 9.2 The potential service provider is 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](http://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 DoE. Any changes, replacements and additions should be submitted for prior approval of DoE.
- 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 DoE deems necessary.

## **11 TERMS AND CONDITIONS**

- 11.1 The service provider shall disclose all information in its proposal regarding any interests that may result in an actual or perceived conflict of interest. Failure by the service provider to disclose, grants the DoE the right and discretion to exclude the service provider. 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 DoE 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 DoE 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 A compulsory information session will be held on **14 October 2019** at the Department of Energy, Corner Visagie and Paul Kruger Streets, Pretoria at 10H00.

## **13 EVALUATION METHODOLOGY**

### **13.1 COST**

13.1.1 The service provider will be requested to provide a quote regarding the work to be undertaken for this project.

13.1.2 The total cost must be VAT inclusive and should be quoted in South African currency (i.e. rands).

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 – R1300 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 SA.

## 13.2 BROAD BASED BLACK ECONOMIC EMPOWERMENT

13.2.1 Provisions of the Preferential Procurement Policy Framework Act (PPPFA) 2017 and its regulation 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 quotes, 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 A trust, consortium or joint venture must submit a consolidated B-BBEE status level verification certificate for every separate bid.

13.2.5 Accounting Officers must ensure that the B-BBEE Status level Verification Certificates submitted are issued by the following agencies:

13.2.6 **Bidders other than** Exempted Micro Enterprises (**EMEs**), MUST submit the following documents:

- (a) Verification agencies accredited by SANAS
- (b) Registered auditors approved by IRBA

13.2.7 **Bidders who qualify as EMEs**, MUST submit the following documents:

- (a) Sworn affidavit signed by the EME representative; and attested by a commissioner of oaths.

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

<b>B-BBEE Status Level of Contributor</b>	<b>Number of points (80/20 system)</b>
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

### 13.3 **COMPANY EXPERIENCE**

13.3.1 Service providers should have at least recent ten (10) years of experience in the nuclear sector, preferably with demonstrated expertise in research, development, and innovation in the applications of nuclear energy and technology and experience in development of financial models;

13.3.2 Have a grasp of the dynamics and challenges of the nuclear sector; and

13.3.3 Written proof must be provided from three (3) contactable references indicating that similar projects were successfully executed.

### 13.4 **Qualifications of Team Leader and Team Members**

13.4.1 Team leader must have at least 10 years of experience in the nuclear sector and possess at least a Postgraduate Degree in Nuclear Engineering or Natural Science. Curriculum Vitae's of the team leader and must be attached to the technical proposal as proof.

13.4.2 Team member(s) must have at least 10 years of experience in the nuclear sector possess at least a Degree in Nuclear Engineering or Natural Science.

Curriculum Vitae's of the team leader and must be attached to the technical proposal as proof

13.4.3 Certified copies of certificates (within 3 months) of the team leader and team members must be attached to the technical proposal. **Failure to attach copies, bidders will forfeit functionality point.**

13.4.4 The role, location and commitment of each member in the team during the assignment must be clearly specified.

### 13.5 **Experience of Team Leader and Team Members**

13.5.1 Team leader must have at least 10 years of experience in the nuclear sector and possess at least a Postgraduate Degree in Nuclear Engineering or Natural Sciences.

13.5.2 Team member(s) must have at least 10 years of experience in the nuclear sector possess at least a Degree in Nuclear Engineering or Natural Science.

### 13.6 **Independence**

13.6.1 The service provider and all its employees must assure its independence from all government departments and related state owned entities involved with nuclear waste management.

### 13.7 **Project Plan**

13.7.1 The service provider must provide:

- a. A project proposal that demonstrates comprehension and competence to deliver on what is required in line with the scope of work under paragraph 3.
- b. A preliminary project plan outlining key activities, time frames.
- c. A schedule of resources to be committed to the project.
- d. The key milestones which will be used as a measure of performance in the project.

**14 EVALUATION PROCESS**

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

14.2 **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 minimum threshold will be disqualified and will not be evaluated further for price and preference points for B-BBEE.

<i><b>Evaluation criteria</b></i>	<i><b>Score</b></i>	<i><b>Weight</b></i>
<b>1. Company Experience</b>		<b>15</b>
1.1 Service providers should have at least recent ten (10) years of experience in the nuclear sector, preferably with demonstrated expertise in research and development in the applications of nuclear energy and technology, and experience in developing financial models and have a grasp of the dynamics and challenges of the nuclear sector; and	14 years or more =5points Between 11 and 13 years =4points <b>10 years = 3points</b> Between 4 and 9 years =2points Between 1 and 3 year =1point	10
1.2 Written proof must be provided from three (3) contactable references letters indicating that similar projects were successfully executed	5 letters or more = 5 points 4 letters = 4 points <b>3 letters = 3 points</b> 2 letters = 2 points 1 letter = 1 point	5

<b>Evaluation criteria</b>	<b>Score</b>	<b>Weight</b>
<p><b>2. Qualifications and Experience of Team Leader and Team Members</b></p> <p><b>Qualifications:</b></p>		<b>33</b>
<p>2.1 Team leader must possess at least a Postgraduate Degree in Natural Science or Engineering.</p>	<p><b>(team leader qualifications)</b></p> <p>PhD = 5 points  Master's degree = 4 points  <b>Honours degree = 3 points</b>  Degree = 2 points  Diploma or Certificate = 1point</p>	10
<p>2.2 Team member(s) must possess at least a Degree in Natural Science or Engineering</p>	<p><b>(team member qualifications)</b></p> <p>Master's degree or higher = 5 points  Honours degree = 4 points  <b>Degree = 3 points</b>  Diploma = 2 points  Certificate = 1 point</p>	5
<p>2.3 The Team Leader and Team Member(s) must submit their Curriculum Vitae and certified copies of certificates.</p>	<p>Certified copies of certificates ( within 3 months) = 5 points  Certified copies of certificates (more than 3 months) =1</p>	3
<p><b>Experience:</b></p>		
<p>2.4 The team leader must have at least 10 years experience in the nuclear and business development or financial sector.</p>	<p><b>(team leader)</b></p> <p>14 years or more =5points  Between 11 and 13 years =4points  <b>10 years = 3points</b>  Between 4 and 9 years =2points  Between 1 and 3 year =1point</p>	10
<p>2.5 Team members should have at least 10 years experience in nuclear research and development sector including policy and strategy development.</p>	<p><b>(team members)</b></p> <p>14 years or more =5points  Between 11 and 13 years =4points  <b>10 years = 3points</b>  Between 4 and 9 years =2points  Between 1 and 3 year =1point</p>	5

<b>Evaluation criteria</b>	<b>Score</b>	<b>Weight</b>
<p><b>3. Independence</b></p> <p>3.1 The service provider and all its employees must assure its independence from all government departments and related state owned entities involved with nuclear research and development.</p>	<p>Service provider, team leader and all team members' independence = 5 points</p> <p>Service provider, team leader and 75 % of team members' independence =4 points</p> <p>Service provider, team leader and 50% of team members' independence = 3 points</p> <p>Service provider, team leader and 25% of team members' independence = 2 points</p> <p>Service provider, team leader and less than 25% of team members' independence=1 points</p>	<p><b>2</b></p>
<p><b>4. Project Plan</b></p> <p>The project plan should contain the following:</p> <p>4.1 Project implementation plan with outlining how activities (from the Scope of Work in Section 3) will be implemented and a clear indication of milestones, timeframes/schedule and resource requirements and allocations.</p> <p>4.2 The Bidder should demonstrate comprehension and competence on how they key</p>	<p>Project plan with detailed activities, milestones, timeframes and resources =5 points</p> <p>Project plan with detailed activities, milestones and timeframes =4 points</p> <p><b>Project plan with activities, milestones and timeframes =3 points</b></p> <p>Project plan with activities only =2 points</p> <p>No project plan attached =1point</p> <p>4.Key outputs demonstrated in detail = 5 points</p> <p><b>4 key outputs demonstrated = 3 points</b></p> <p>4 key outputs not indicated = 1 point</p>	<p><b>50</b></p> <p><b>30</b></p> <p><b>20</b></p>

<b><i>Evaluation criteria</i></b>	<b><i>Score</i></b>	<b><i>Weight</i></b>
outputs (under section 3.2.1-3.2.4) will be achieved.		
<b>Total</b>		<b>100</b>

<b>1=</b>	<b>Very poor</b>	Will not be able to fulfil the requirements
<b>2=</b>	<b>Poor</b>	Will not be able to fulfil the requirements
<b>3=</b>	<b>Average</b>	Will partially fulfil the requirements
<b>4=</b>	<b>Good</b>	Will be able to better fulfil the requirements adequately
<b>5=</b>	<b>Excellent</b>	Will fully fulfil the requirement exceptionally

#### 14.3 Phase 2: Price and B-BBEE

<b><i>Evaluation criteria</i></b>	<b><i>Weight</i></b>
Price	<b>80</b>
B-BBEE Compliance	<b>20</b>

### 15 FORMAT AND SUBMISSION OF THE PROPOSAL

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

### 16 CLOSING DATE

- 16.1 Proposal must be submitted on or before **28 October 2019 at 11h00** at the Department of Energy, 192 Visagie Street, Corner of Visagie and Paul Kruger Street, Pretoria in the Bid Box marked Department of Energy. **No late quotes will be accepted.**

## 17 ENQUIRIES

17.1 All technical enquiries to be directed in writing to Mr Katse Maphoto or Ms Bessie Makgopa

Tel: 012 406 7498 / 7490

Email: [Katse.Maphoto@energy.gov.za](mailto:Katse.Maphoto@energy.gov.za)/ [Bessie.makgopa@energy.gov.za](mailto:Bessie.makgopa@energy.gov.za)

17.2 All quote enquiries to be directed to Ms Rachel Moerane or Keitumetse Pitse

Tel: 012 406 7742/ 7748

Email: [Rachel.Moerane@energy.gov.za](mailto:Rachel.Moerane@energy.gov.za) or [Keitumetse.Pitse@energy.gov.za](mailto:Keitumetse.Pitse@energy.gov.za)