RFQ Number	**SRS-RND-RFQ-25003**
Request for Quotation Date	**15-01-2026**
RFQ Closing Date	**30-01-2026**
RFQ Closing Time	**17H00**
Compulsory Site Briefing	**No**
Contact Person	**Thulile Sokhela** **email: Thulile.Sokhela@ntp.co.za**
Quotation Validity	**90 Days from the closing date**
Submission Details	**RFQ responses must be sent to: Thulile Sokhela** **email: Thulile.Sokhela@ntp.co.za**
RFQ Description	**Request for Quotation (RFQ) for the supply of a Numerical Computing Environment with associated additional toolboxes specified herein.**

Dear Service Provider

Kindly provide a quotation for goods and or services as outlined in section 2 of this document.

1. Introduction

The South African Nuclear Energy Corporation Limited (Necsa) is a state-owned public company (SOC), registered in terms of the Companies Act, (Act No. 61 of 1973), registration number 2000/003735/06.

The Necsa Group engages in commercial business mainly through its wholly-owned commercial subsidiaries: NTP Radioisotopes SOC Ltd (NTP), which is responsible for a range of radiation-based products and services for healthcare, life sciences and industry, and Pelchem SOC Ltd (Pelchem), which supplies fluorine and fluorine-based products. Both subsidiaries, together with their subsidiaries, supply local and global markets, earning valuable foreign exchange for South Africa and are among the best in their field in their respective world markets.

Necsa's safety, health, environment and quality policies provides for top management commitment to compliance with regulatory requirements of ISO 14001, OHSAS 18001 and RD 0034 (Quality and Safety Management Requirements for Nuclear Installations), ISO 9001 and ISO 17025.

Necsa promotes the science, technology and engineering expertise of South Africa and improves the public understanding of these through regular communications at various forums and outreach programmes to the community. We are a proudly South African company continuously striving, and succeeding in many respects, to be at the edge of science,

technology and engineering related to the safe use of nuclear knowledge to improve our world.

For more information on Necsa, please visit: **www.necsa.co.za**

2. Scope of Work

The Smart Radio Sensors Group requires a numerical computing environment together with additional modeling and analysis toolboxes as specified in Table 1 below.

Table 1: Specifications

Item #	Item Description	License Type	License Term	Qty
1	Numeric computing software platform	Individual	Perpetual	1
2	System design and simulation software platform	Individual	Perpetual	1
3	Toolbox for statistics and machine learning	Individual	Perpetual	1
4	Toolbox for deep learning	Individual	Perpetual	1

3. Pricing

- **All price quoted to include all applicable taxes.**
- **Price must be fixed and firm**
- **Price should include additional cost elements such as freight, insurance until acceptance, duty where applicable, disbursements etc.**
- **Quotation must be completed in full, incomplete quote could result in a quote being disqualified.**
- **Payment will be according to Necsa's General Conditions of Purchase.**

4. Evaluation

4.1. Phase 1 – Functionality Evaluation/ Technical Evaluation

Where functional or technical evaluation criterion is applicable, assessment will be performed in terms of the criterion listed below and the criterion may include Technical, Performance, Quality and Risk. If the Bidder's response to the Technical templates does not indicate that the Bidder can support an acceptable technical solution, the Bidder's response will be rejected and not evaluated further.

Together the Technical, Performance & Quality and Risk criteria make up the functionality criterion and a Bidder's Proposal will be evaluated for functionality out of a possible 100 points. Only RFQ responses achieving an evaluation score of greater than the set threshold points out of the possible 100 points and which score a number of points for functionality that is

greater than or equal to the set threshold points of the number of points achieved by the highest scoring Bid for functionality will be selected to progress to the second stage.

Item	Requirement	Weight	Points	Criteria	Score
1	Numeric computing software platform	40	40	**Core Functionality** • Must support advanced numerical computations, including matrix operations, linear algebra, optimization, and signal processing. • Should include a high-level programming language designed for scientific and engineering applications. **Modeling & Simulation** • Ability to create and run simulations for dynamic systems. • Support for both continuous-time and discrete-time models **Extensibility** • Must allow integration with additional toolboxes or modules for specialized tasks (e.g., machine learning, deep learning, statistics).	

				• Should support third-party libraries and custom code development. **Visualization** • Capability to generate high-quality plots, graphs, and visualizations for data analysis and simulation results **Performance** • Efficient handling of large datasets and complex computations. • Multi-threading or parallel computing support for performance optimization. **Deployment** • Ability to generate deployable code (e.g., C/C++) for embedded systems or external platforms. • Support for hardware-in-the-loop (HIL) or real-time simulation environments **Usability** • Intuitive user interface and	

				comprehensive documentation. • Availability of community or vendor support. **Licensing** • Must meet the specified license type (e.g., Individual, Perpetual) and quantity requirements. **Compliance** • Compatible with the organization's IT security and software compliance policies.	
2	System design and simulation software platform	40	40	**Model-Based Design** • Must provide a graphical environment for creating system models using block diagrams. • Support hierarchical modeling for complex systems. **Simulation Capabilities** • Ability to simulate continuous-time, discrete-time, and hybrid systems.	

				• Support for event-driven and real-time simulation. **Integration** • Must allow integration with numerical computing environments and additional toolboxes for specialized domains (e.g., signal processing, control systems). • Should support co-simulation with external tools and hardware-in-the-loop (HIL) testing.	
3	Toolbox for statistics and machine learning	10	10	**Statistical Analysis** • Must provide functions for descriptive statistics, hypothesis testing, regression analysis, and probability distributions. • Support for parametric and non-parametric methods. **Machine Learning Capabilities** • Ability to train, validate, and deploy models for classification, regression, clustering,	

				and dimensionality reduction. • Support for supervised and unsupervised learning techniques. **Model Evaluation** • Tools for cross-validation, performance metrics (accuracy, precision, recall, ROC curves), and hyperparameter tuning. **Data Handling** • Ability to preprocess data (normalization, scaling, missing value handling). • Support for large datasets and integration with external data sources. **Visualization** • Functions for plotting statistical distributions, model performance, and data exploration. **Integration** • Seamless compatibility with the numeric computing environment and other toolboxes (e.g., deep learning, signal processing).	

				• Support for exporting models for deployment or integration with external systems. **Usability** • Clear documentation, examples, and tutorials. • Intuitive workflows for both beginners and advanced users.	
4	Toolbox for deep learning	10	10	**Core Deep Learning Capabilities** • Must support building, training, and validating deep neural networks, including feedforward, convolutional (CNN), recurrent (RNN), and transformer-based architectures. • Ability to handle supervised, unsupervised, and transfer learning workflows. **Model Development** • Tools for designing custom network architectures and layers. • Pre-built models and layers for common applications (e.g., image classification, object detection, NLP).	

				Training Features • Support for GPU acceleration and parallel computing for large-scale training. • Functions for hyperparameter tuning, batch processing, and early stopping. **Data Handling** • Ability to preprocess and augment datasets for deep learning tasks. • Support for large datasets and integration with external data sources. **Visualization** • Tools for visualizing network architecture, training progress, and performance metrics (loss curves, accuracy plots). **Integration** • Seamless compatibility with the numeric computing environment and other toolboxes (e.g., machine learning, signal processing). • Support for exporting models for deployment on embedded systems	

				or external frameworks (e.g., TensorFlow, ONNX).	
Total		**100**	**100**		
Total Allocated Score 100					
Minimum qualifying threshold 75					

4.2. Phase 2- Evaluation In Terms Of Preferential Procurement Policy Framework Act, 2022

This bid will be evaluated and adjudicated according to the 80/20 point system, in terms of which a maximum of 80 points will be awarded for price and 20 points will be allocated based on the specific goals (B-BBE status level).

	POINTS
PRICE	**80**
SPECIFIC GOALS (B-BBEE status level)	**20**
Total points for Price and SPECIFIC GOALS	**100**

Preferential Goal
B-BBEE Status level contributor

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
Non-compliant contributor	0

5. Required Documentation

- Tax Clearance Certificate (Tax pin issued by SARS)
- Declaration of interest (SBD 4)
- BEE Certificate / Applicable Affidavit if classified as EME
- Letter of Good Standing (COID) only if Applicable due to the nature of work required
- Any other document or certification that might have been requested on this RFQ

6. Important

6.1. Quotation must be submitted on or before the RFQ closing date and time stated above.

6.2. Orders above R 30 000 will be evaluated according to the PPPFA 80/20-point system and a functionality scorecard where applicable and the ones above R 1 Million will be subjected to the tender process.

6.3. This RFQ is subjected to the Necsa's General Conditions of Purchase, Preferential Procurement Policy Framework Act 2000 and the Preferential Procurement Regulations, 2022, the General Conditions of Contract (GCC) and, if applicable, any other legislation or special conditions of contract

6.4. Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for specific goals are not claimed.

6.5. The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to specific goals, in any manner required by the purchaser.

6.6. For a Bidder to obtain clarity on any matter arising from or referred to in this document, please refer queries, in writing, to the contact details provided above. Under no circumstances may any other employee within Necsa be approached for any information. Any such action might result in a disqualification of a response submitted in competition to this RFQ.

6.7. No goods and/or services should be delivered to Necsa without an official Necsa Purchase order.

6.8. Necsa reserves the right to; cancel or reject any quote and not to award the RFQ to the lowest Bidder or award parts of the RFQ to different Bidders, or not to award the RFQ at all.

6.9. The supplier shall under no circumstances offer, promise or make any gift, payment, loan, reward, inducement, benefit or other advantage, which may be construed as being made to solicit any favour, to any Necsa employee or its representatives. Such an act shall constitute a material breach of the Agreement and the Necsa shall be entitled to terminate the Agreement forthwith, without prejudice to any of its rights

6.10. By responding to this request, it shall be construed that: the bidder, hereby acknowledge to be fully conversant with the details and conditions set out in the Necsa's General Conditions of Purchase, Preferential Procurement Policy Framework Act 2000 and the Preferential Procurement Regulations, 2022, the General Conditions of Contract (GCC), Technical Information and Specifications attached, and hereby agree to supply, render services or perform works in accordance therewith