

	TENDER SCOPE OF WORK Group Technology	Template Identifier	240-IT042	Rev	2
		Effective Date	April 2023		
		Review Date	April 2028		

Description of Request	Provision and implementation of a comprehensive and supported Financial Risks Management and Analytics System for Eskom Treasury department, designed for management and hedging of Eskom Portfolio Risks for a period of 7 years (2 years solution for Implementation and 5 years for support and maintenance)
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1. High level background

Eskom Treasury is the primary interface with banks, credit rating agencies, investors and lenders on behalf of Eskom, and the treasury department is the only business unit in the Eskom Group mandated to transact in the Financial Markets.

The mandate of the Treasury Department is to meet the ongoing liquidity needs of the Eskom Group, and to protect it against financial market risks in the most cost-effective manner, within an appropriate control framework.

Treasury requires an automated Financial Risks Management and Analytics System to replace and consolidate 2 Risks Management Systems currently in use, into one solution, as these contracts with the Vendors are expiring soon. Financial Risks Management and Analytics system enable Treasury to optimize costs regarding their funding program and to actively manage and hedge the Eskom Book of more than R400bn.

Eskom Treasury has for 20 years used the Financial Analytics Suite as a Risk Management tool. The tool is used to create several Excel models to cater for the Risk Management Function for the ESCAP (R25bn), and Eskom Holdings Strategic portfolios(+R400bn). This contract is ending very soon.

The second system is used to calculate the Value at Risk (V@R) which is one of the Risk Measures used to measure and report Financial Market Risk to Lenders and in the Annual Financial Statement. Currently external consultants are being used for the valuations of derivatives.

The business would like to implement a digital risk intelligence platform that enables and empowers them to report frequently, detect risk earlier, and manage liquidity to acceptable levels. A data-driven risk platform that will ensure Treasury can proactively address operational disruptions and maintain covenant compliance – critical to preserving lender trust.

Ultimately, a digitally mature Treasury will operate as a strategic enabler – not just processing daily transactions but actively shaping funding strategy, orchestrating new financing methods, and embedding risk awareness across the business. The result will be cost-effective, resilient financial operations that support Eskom's mandate to deliver stable, affordable power to its stakeholders.

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2. Scope of work/Business requirements

2.1. Provide detailed description and volumes of the product/service requested:

Implementation of an Automated Financial Risks Management and Analytics Tool is required. Provision of Support and Maintenance for a period of 5 years after implementation is also required.

The system needs to be in place and fully operational by December 2027

The solution must be deployed **on premises**. The project scope should include the following, and the costs for each should be provided, including the implementation timelines:

- On-Premises Solution implementation.
- Software licencing, for number of 6 users (preferred perpetual licenses).
- Solution design, build, configure, setup, and install
- Data Migration
- Integration with relevant Applications
- Testing (User Acceptance testing, Performance, System Integration Testing)
- Project management
- Solution Architect
- Change management
- Training
- 5-year Support and Maintenance after implementation

Integration Business Service API activities to expose/consume and test Services to/from the Eskom Integration Services Bus. Eskom will be responsible for the development of the Integration Services to/from the bus to the internal systems.

2.1.1 The system must include the following, as per the Business Requirements Specification (BRS)

Functional requirements

- Focus on automation and efficiency: Repetitive tasks like data reconciliation, payments processing, and bank statement analysis should be extensively automated, freeing up treasury personnel for more strategic work.

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- Advanced analytics and forecasting: Improve cash flow forecasting and identify optimization opportunities. Digitization can be used to optimize existing processes.
- Real-time visibility and control: Provide real-time data and insights for better decision making.
- Cash flow, risks, and financial performance can be monitored and analysed continuously.
- To obtain an integrated financial risk analytics tool that will integrate with the existing
- Quantum system that will allow Treasury staff to perform the analysis of financial risk and exposure on at least a monthly basis internally.
- The system must allow for the measurement of the financial instruments. The cashflows of financial instruments that involve foreign currency must be discounted using currency basis adjusted curves.
- The system must comply to the IFRS 9, 13 and 19 International Financial Reporting
- Standard (IFRS) published by the International Accounting Standards Board (IASB)
- The applicable requirement in this case is the measurement of financial instruments

Functionality grouping	BRS (Business Requirement Specification) Number	Functionality	Business Rule No and Description	Precondition (if applicable)	Weight
Manage financial instrument a counts	BRS1	Financial instrument accounts must be registered in Quantum, this may include: • Loans • Investments (ESCAP investment book) • Bond • EFC Borrowings • Money market • Derivatives • Commodities	All treasury master data and transactions should be stored in Quantum		5

Functionality grouping	BRS (Business Requirement Specification) Number	Functionality	Business Rule No and Description	Precondition (if applicable)	Weight
Risk management tool	BRS2	Install risk management tools and processes that will: - Identify risks - Assess risks - Prioritize and quantify risks - Formulate risk responses - Implement risk responses - Monitor risk responses	Eskom risk management policy		5
Forecasting data	BRS3	Provide real-time data and insights for better decision-making with on-line access to forecasting data required for risk assessment from: - Reuters - Bloomberg	Forecasting data should be updated daily from service providers		5
Prediction models	BRS4	Access to the most up to date projection models (inflation) Monte Carlo Simulations – derivatives	To be verified by external consultants		5
Analytics	BRS5	To manage liquidity risk, minimise overall cost of debt, manage foreign debt currency risk, commodity risk and, within the risk framework	Risk framework		5
Develop and maintain hedging strategy	BRS6	Analyse financial risk exposure and develop hedging strategy for approval.			5
	BRS7	Approve hedging strategy	Treasury Risk Committee		5
Issue trading instructions	BRS9	Issue trading instructions to implement hedging strategy			5
Update backend system	BRS10	Update financial system to reflect hedging strategy. Quantum			5

Functionality grouping	BRS (Business Requirement Specification) Number	Functionality	Business Rule No and Description	Precondition (if applicable)	Weight
Collect data	BRS11	Obtain daily updates of input data	Current price Forward price Foreign interest rate. Quantum interface No manual inputs		
Perform projected interest rate calculations	BRS12	Calculate short term domestic interest rate Projections (1 year)	$F = S * e^{(rd - rf) * T}$ F: Forward price S: Spot price T: Term rd : Domestic interest rate rf : Foreign interest rate	No quoted basis swaps less than 1 year	
			The pre-condition to using CIP as an approximation for backing out currency basis adjusted ZAR interest rates is the lack of quoted basis swap spreads for periods of less than a year		
			Otherwise, when there are quoted basis swap spreads, as in some developed markets, the currency basis adjusted rates can be obtained by setting-up and valuing a resetting float-float synthetic currency swap		
			On the CIP equation, the variable being solved for is the domestic interest rate rd		
		2Y to 30Y construction – Synthetic swap	For the periods above 12months we value a synthetic float-float USD/ZAR or EUR/USD currency swap; with the ZAR/EUR cashflows adjusted with the quoted basis swap spread for the corresponding tenor		
			The USD legs of the basis swaps are discounted using the USD SOFR curve on a quarterly payment frequency.		
			The corresponding cashflows are calculated using the adjusted notional accordingly. For the foreign currency (“USD”) leg, SOFR OIS curve is used as both the forward and discount curve		
			For the domestic currency (“EUR”, “ZAR”) leg, ESTR OIS or 3M JIBAR is used as the forward curve respectively		
Valuation of derivatives, e.g. CCS (cross-currency swap)	BRS13	Choose desired parameters eg date and currency pairs	Send curve to Quantum		

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Functionality grouping	BRS (Business Requirement Specification) Number	Functionality	Business Rule No and Description	Precondition (if applicable)	Weight
Perform Monte Carlo simulations.	BRS14	Monte-Carlo simulations for calculating Expected Exposures	Calculate Expected Exposure (EE)		
Perform XVA calculations	BRS15	Use EE With Market value to calculate CVA or ENE (DVA)	$CVA = EQ \left[\int_0^T e^{-r_t t} \cdot I_{\{r>t\}} \cdot L(t) \cdot dN(t) \right]$ EQ – Expectation under risk neutral basis t – Time present T – Maturity of the derivative transaction r _t – Risk free interest rate I _{r>t} – Indicator function L(t) – Loss given default dN(t) – Instantaneous default rate		
Construct financial statements	BRS16	Monthly for reporting purpose 6 and 12 monthly for financial statements			

Reporting requirements

-  Value at risk report (ALCO report)
-  Hedging strategy report
-  Future foreign exchange projections

BRS Number	Functionality	Type of user interface
UI1	Make treasury and risk management information available in a tabular spreadsheet format that will allow for effective analysis and reporting.	Excel tables

- **Access requirements**
Create, update, and delete data by authorised Treasury users.
- **Archiving requirements**
All trading history data for life of the company (Eskom)
- **Disaster Recovery requirements**
Same as Eskom Treasury Disaster Recovery plans

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- **Intellectual Property requirements**
All intellectual property (requirements) belongs to Eskom.

2.1.2 System Integration requirements

- Collaborate with internal integration stakeholders such as the Integration CoE.
- Identify and outline all the required integration points between the application and external systems, services, or APIs.
- Design data exchange formats, protocols, and communication patterns for seamless integration.
- Specify middleware or integration platforms if needed, considering performance and reliability.
- Ensure proper error handling, data consistency, and fault tolerance across integration points.
- Integration Business Service API activities to expose/consume and test
- Services to/from the Eskom Integration Services Bus. Eskom will be responsible for the development of the Integration Services to/from the bus to the internal systems.

2.1.3 Security Requirement

- The Tenderer shall have a valid Information Security Standard (ISO) 27001 certificate.
- The system shall be able to integrate with existing Eskom's identity providers (IdP's) such as Microsoft (MS) Active Directory (AD), Entra Identity (ID) and shall support Security Assertion Markup Language (SAML) 2.0, Open
- Authorization (OAuth) 2.0 and OAuth 2.1 to enable Multi-Factor
- Authentication (MFA) and Single Sign-On (SSO).
- The System shall employ a Role-based access control (RBAC) mechanism.
- The System shall be able to onboard privileged accounts onto Privileged
- Access Management (PAM) tools, such as CyberArk but not limited to onboard privileged accounts to securely manage, rotate passwords, monitor, record sessions, control, enforce access to privileged accounts, auditing and reporting capabilities.
- Data at rest to be encrypted using at minimum Advanced Encryption Standard (AES)-256 and in transit (or in motion) using at minimum Transport Layer Security (TLS) 1.3 or later version.
- Data shall be secured at minimum using a Secure Hash Algorithm (SHA)-256 for data integrity, securing transactions, and messages.
- Audit trails, logs, user administration and user activity logs shall be enabled, encrypted, and securely kept with limited access to administrators.
- Sensitive information such as Personal Information (PI) data in nonproduction

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environments shall be masked.

- Patch Management Process shall be defined. The software updates and patches shall be tested in a non-production (DEV/QA) environment before being deployed into the production (PROD) environment
- The database shall be placed within Eskom corporate LAN/BIN network and behind the perimeter firewall.
- Web Application Firewall (WAF) for all internet facing applications and/or web based applications shall be employed.
- The Service shall support the prevailing Enterprise Services Bus (ESB),
- Application Programmable Interfaces (API's) and Integration Platform as a Service (iPaaS) platforms for security, logging, and monitoring for all on-prem systems.
- The system shall be able to integrate with Eskom's Security Information and Event Management (SIEM) standard technologies such as Syslog, Windows events logging, Simple Network Management Protocol (SNMP), and Application Programming Interface (API), etc

2.1.4 Architectural Requirements

- The solution needs to be modular to enable phased implementation and
- scalable to handle future increases in trade volumes, data complexity, and
- analytical capabilities.
- Architecture needs to incorporate security controls across all layers (i.e. data, application, integration, and infrastructure) in accordance with Eskom's ISO 27001 standards.
- It must support seamless integration with Eskom's current systems (such as Quantum TMS, Bloomberg, Reuters, Power BI, etc.) through APIs and ESB.
- All sensitive data must be stored locally within Eskom's secure LAN/BIN network to adhere to regulatory requirements and internal governance policies.
- Completely on-premises, with a distinct separation between secret and non secret data zones.
- Sensitive data such as VaR, trades, and hedging positions should be handled within a secure enclave that features a one-way barrier to the analytics zone.
- Support for synchronous and asynchronous communication

Deliverable	Description
Architecture Design - (Physical Architecture Design (PAD), Pre-Transfer	Architecture Design: The primary objective is to define and design the architectural components critical for the successful implementation of the solution. The Tenderer is required to deliver solution architect services for this project, making sure that they secure approval from the Enterprise Architecture committee before moving forward with the build (Physical Architecture Design or PAD) and again prior to the go-live stage (Pre-Transfer). The

tenderers must ensure that ample time is allocated for refining requirements and conducting functional design workshops, as well as for crafting detailed physical designs that encompass all necessary configurations.

Scope:

Create and develop detailed physical architecture designs based on the user requirement specifications, best practices and Enterprise Architecture design guidelines and requirements provided as part of this RFP. The scope of the architecture work includes the following key areas:

Data Architecture:

Architecture Scope:

- Define the data architecture, including data modelling, storage, retrieval, and data flow diagrams.
- Design data schemas, considering scalability, data integrity, and performance optimization.
- Recommend appropriate database technologies and data storage solutions based on project requirements.

Resource Requirement: Experienced Data/Information Architects & System Analysts

Deliverable: Data architecture documentation and diagrams.

Solution Architecture:

Architecture Scope:

- Engage and collaborate with stakeholders to gain an understanding of both functional and non-functional requirements.
- Provide a comprehensive solution architecture that outlines the application's components, their interactions, and the overall system behaviour.
- Identify key software modules, frameworks, and technologies required for the proposed solution.
- Provide clear guidelines for the design and development of each module, ensuring alignment with project goals and objectives.

Resource Requirement: Experienced Solution Architect(s)

Deliverable: Solution architecture documentation and diagrams.

Technical Architecture:

Technical Architecture Scope:

This section outlines the technical infrastructure essential for the deployment and operation of the application.

- Environment and licensing: Development, Quality Assurance, Pre-Production, Production, Disaster Recovery
- Recommend and specify hardware specifications, configurations, network, and cloud infrastructure configurations where applicable, to ensure scalability, availability, and performance.
- Specify software development tools, frameworks, and best practices to be used by the development team.
- Collaborate with internal technical stakeholders.
- Address technical constraints, including latency, bandwidth, and system compatibility.

Resource Requirement: Experienced Technical Architect(s)

	Deliverable: Technical architecture documentation and infrastructure specifications. Communication: Regular update meetings will be held to discuss architecture deliverable progress, address concerns, and ensure alignment with project goals. Deliverable Acceptance Criteria: The architecture work will be considered successfully completed upon support/approval of the architecture documentation by both Enterprise Architecture and project stakeholders. - Design workshops with business stakeholders to clarify and define in detail business, functional and implementation requirements. - Comprehensive documentation for each architecture domain (Data, Solution, Technical, Security, Integration), including diagrams, flowcharts, and textual descriptions as outlined above. - High-level presentations to key stakeholder explaining the architecture rationale, design decisions, and benefits. - Collaborative sessions and design workshops with the development team to clarify and define in detail non-functional requirements and architectural concepts, and address implementation challenges. - Detailed physical architecture design and Pretransfer documents. - All documents and diagrams to be submitted as digital editable copies (MS Office, MS Visio or ARIS) Facilitate review and approval of the design as required by Eskom methodology and governance. A lead time of at least two weeks needs to be provided for in the timelines in order to allow for review and approval processes. - Detailed design approved by Enterprise Architecture Advisory Board (EAAB) - Development environment ready for Build/ Configuration according to the architecture approvals
Build and deploy	Provide test cases, provide unit testing evidence, once all the necessary testing is complete, testing reports are produced, all governance approvals are obtained, the solution will need to be deployed to production. The Tenderer must articulate clearly as part of the response the implementation and deploy approach. Update requirements traceability matrix. Ensure all environments are updated following successful test conclusions. Compile a go-live plan and ensure the solution obtains the necessary governance approvals as follows: Enterprise Architecture Advisory Board (EAAB) for pre-transfer, Change Review Management Committee (CRMC), Go/No-Go pack and decision by Group IT General Manager.
Data Migration	Solution must have the option for data to be exported to other solutions at the end of the contract term. Eskom to retain the ownership of all the data that business stores, transmits, and creates with the cloud service during the period of the contract.
Reporting	Reporting requirements are to be provided as stipulated on the Business Requirements Specification document

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2.1.5 Eskom IT Standards

The tenderer is to ensure adherence to Eskom architectural standards as far as possible and where applicable. The following base ICT standards apply – refer to especially the grey shaded standards below:

Integration	End interface points, whether consuming or providing, needs to be done in a secure web service fashion. Eskom standard is: Oracle Fusion and IBM DataPower Gateway underlying the present Enterprise Integration Platform/ Service Bus.
Authentication	- MS Active Directory - Azure AD
Server virtualisation	It is expected that the solution should be able to run in a virtualised environment. Clear motivation and reasons will have to be provided where it is not possible. Current Standards of on-premises environment: - VMware vSphere 7 or higher, - PowerVM (RISC) (only exceptional cases shall be supported)
Storage virtualization	Ability to be hosted behind an SVC
Database	- MS SQL 2022 or higher - IBM DB@ V11.5 or higher - Others, any DB not listed above will be treated as an exception
Server OS	- Microsoft Windows Server 2022 64bit - SuSe Linux SLES 15 - AIX 7
Client OS	Windows 10 or higher
Browser	- MS Edge - Mozilla Firefox V60 or higher - Others (will be treated as exceptions)
Load Balancer (ADM)	F5 Viprion
Backup	NetBackup
Communication Protocol	TCP/IP

2.1.6 Support Requirements

Requirement	Importance
24 x 7 Help Desk and Online Support	High
Time to Respond	
Average time to Resolve	
Handling Urgent requirements	
Research and Development	High
R & D Spend	

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Last and Planned Upgrade	
Local Presence	Low

2.1.7 Testing requirements

The solution will undergo comprehensive testing following Eskom's standards to ensure its completeness and authenticity. The testing team is responsible for gathering testing requirements, creating test cases, and executing the tests to thoroughly evaluate the solution for deployment within Eskom's IT environment.

Please note that the following:

- All testing, except unit testing, will be carried out by the Eskom testing team. The tenderer is responsible for conducting unit testing.
- Before the official test cycle begins, the development team must provide unit test results, adhering to the entry and exit criteria outlined in the master system test plan. A signed-off test closure report is required before marking any test milestone as complete.
- All testing (including unit testing) must be performed within Eskom's test management systems, namely Application Lifecycle Management (ALM), LoadRunner (for performance testing), and Unified Functional Tester (UFT).
- The implementation team(tenderer) must coordinate with the testing team to ensure sufficient time is allocated for testing, and that all testing activities are incorporated into the project schedule.

The following tests and milestones must be completed:

- **Unit Testing (Development Environment):** Results provided by the tenderer's development team.
- **System Integration Testing & Functionality Testing (QA Environment):** This includes end-to-end functional testing and integration testing, ensuring the solution works with other systems and meets all requirements. The Eskom testing team will lead and execute this testing, while the tenderer's team must provide necessary inputs.
- **User Acceptance Testing (Pre-Prod Environment):** Facilitated by the testing team but executed by Eskom's customer/business team to verify that the system meets the requirements defined in the BRS for completeness and authenticity.
- **Non-Functional/Performance Testing (Pre-Prod Environment):** Led and executed by the performance tester.
- **Disaster Recovery Testing (for the on-premises option).** Led and executed by the Disaster recovery team.

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All testing requirements must cover all identified interfaces that have been identified. The testing team must adhere to the Testing Centre of Excellence (TCoE) standard document provided as part of the RFP documentation.

2.2 Licence Management for Maintenance and Support:

RFP to include costs relating to licencing models available, including maintenance and support costs for 5 years. Total number of licenses required is 7 licences.

2.3 Training/Transfer of skills:

RFP to include costs relating to training methodology recommended including duration required for training. Transfer of skills and knowledge to be included as well. Training to be done for 7 users and 2 Support Resources.

2.4 Safety:

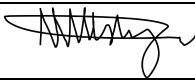
Supplier Project Resources will have to undergo Eskom Induction and comply to Eskom Safety rules that include Zero Harm. Consultation with the Occupational Health and Safety Practitioner for applicable, SHE requirements is mandatory

3. Service Level Agreement requirements

- 24x7 availability of solution.
- No data lost should be experienced.

Refer to detailed Service Level Agreement document

4. Approvals:

End user / requestor:	Name:	Janine Alexander
	Designation:	Senior Advisor Finance
	Date:	21/05/2026
	Signature:	
End user / requestor:	Name:	Unathi Nodada
	Designation:	Middle Manager Portfolio
	Date:	26 May 2026
	Signature:	

Employer's Agent:	Name:	Kgabedi Phakathi
	Designation:	Project Manager
	Date:	18/05/2026
	Signature:	
Portfolio Manager:	Name:	Princess Phewa
	Designation:	Snr Advisor IM Portfolio
	Date:	21/05/2026
	Signature:	
Senior Manager:	Name:	Alex Daneel
	Designation:	General Manager Project Delivery (Acting)
	Date:	27 May 2026
	Signature:	