

Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

PART A REQUEST FOR INFORMATION (RFI)					
Description of services Request for Information is required to determine Asset Investment Planning and Management systems options available in the market as well as associated estimated timelines and indicative costs for acquiring and implementing the solution.					
Deadline for submission	07 June 2024	At (South African Standard Time)	10:00am		
Tender Office address	Eskom Holdings SOC Limited Megawatt Park Tender Office, Northside Maxwell Drive Sunninghill, Gauteng				

Eskom Holdings SOC Ltd ("Eskom") invites you to submit an:

Request for information (RFI) to submit information for the services as stated in the table.
This RFI is a stand-alone information-gathering and market-testing exercise, intended only to
inform and assist Eskom's further deliberation and development of a strategy for the requested
information required to determine Asset Investment Planning and Management solutions
available in the market as well as associated estimated timelines and indicative costs for
acquiring and implementing the solution. Eskom may request indicative prices if so, stated in
this RFI.

The supplier must submit the **RFI** as a complete original document, plus one (1) **hard copy** of the original document at tender submission deadline. Eskom require that one (1) additional complete soft copy of the original document is required in electronic format (USB).

Eskom has delegated the responsibility for this RFI to the signatory of this document, whose details can be found below.

We look forward to receipt of your response.

Yours faithfully

Name	Designation	Signature	Date
Matshipi Mosima	Officer Procurement	A hosiMPD	02 May 2024
Telephone number	053 830 5623	Fax and/or e-mail address	MosimaMa@eskom.co.za

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

PART B RESPONSE SHEET IN TERMS OF A REQUEST FOR INFORMATION To be completed by the supplier					
То	Eskom Holdings SOC Ltd	Date			
Attention					
Tel no		Fax no and /or e-mail address			
From		Address			
Address					
Sender					
Description of the services					

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

Please find below our response to Eskom's questions:

PART C SCOPE OF WORK FOR REQUEST FOR INFORMATION

1. INTRODUCTION

Eskom Holdings SOC Limited ("Eskom") – Request for Information is required to determine Asset Investment Planning and Management systems options available in the market as well as associated estimated timelines and indicative costs for acquiring and implementing the solution.

2. BACKGROUND INFORMATION

Eskom Transmission (as with other utilities and businesses) operates in a VUCA (volatility, uncertainty, ambiguity and complex) environment. As such, Eskom Transmission has adopted asset management principles to best manage the balance between network performance, risk and cost. One of the levers required to achieve and sustain this stated balance, is through effective and efficient delivery of capital investments.

Considering that funding for such capital investments will be frequently constrained, Eskom Transmission requires a consistent enterprise-wide, cross-divisional methodology and system to conduct value-based investment decision-making. The system which is essentially an asset investment planning and management tool/system, should enable the organisation to allocate capital investments to capital projects which demonstrate value in achieving Eskom Transmission's strategic objectives.

3. SCOPE OF WORK

3.1 BUSINESS REQUIREMENTS

The objective of the work is to implement a comprehensive and fully functional asset investment planning and management system solution, leveraging the latest methodologies and technology platforms.

The solution will leverage capital investment data and information analytics to provide the below functional requirements:

Functional Requirements

Asset Investment Planning and Management requirements

The system should allow stakeholders (all portfolio areas) to input their asset investment needs into the application in an environment for ease of visibility and strategic planning.

The system should enable users to be able to build in a series of business rules for investment planning purposes

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

The system should be able to plan for medium to long term capital spending and is flexible enough to refine these plans resulting from various dynamic conditions.

A capital planning application must have features to model variables that can impact investment strategies. These factors among many can include commodity prices, labour costs, interest rates, supply chain disruptions, technology, depreciation strategies and competitive advances.

The modelling features of the system should allow 'what if' scenarios to be created for improved forecasting, insights and investment risk management.

Different portfolios such as network expansion, network refurbishment, Telecoms and other portfolio teams must be able to conduct their own 'what if' scenarios that can ultimately culminate in a consolidated investment plan

The tool/system must be able to incorporate organisational strategic objectives. These should be integrated into the system parameters/metrics and linked projects (or investment initiatives). The system should be able to quantify the value of each project or initiative against the organisational strategic objectives.

The system must be able to produce 3, 5, 10 and up to 15 years capital investment plans. In other words, the system must provide short, medium and long range planning capability.

The system must be able to conduct risk assessment of the capital plan. It must provide the impact of the various risk types, such as interest rate risk, liquidity, operational, compliance and strategic. The system must provide an evaluation of capital adequacy based on the know and emergent risks.

System must be able incorporate capital planning parameters and variables based on regulatory and organisational policies and ensure the capital plans are developed in accordance with them.

The system must allow for versioning of the capital plan and keep track of variances and changes to the capital plans over time.

The system should be able to incorporate non qualitative factors such as 'ESG' elements in order to ensure that projects impacted by them are prioritised in the capital investment plans.

The system should be able to conduct value-based investment decision-making using value frameworks or other suited methodologies.

The system should be able to or incorporate monetised risk-based investment justification for network assets.

The tool or system should have a document retention period of up to 10 years.

Reporting Requirements

The system should have a self-service reporting capability to enable users to generate their own reports, effortlessly.

The system should be able to generate dashboard views of the capital investment plans for different reporting requirements.

Data Requirements

All data should be secure and organized within a clear hierarchy data structure as provided by the client.

Testing Requirements

The supplier must provide a solid Testing capability (provide reference projects & sites and methodologies used).

As part of the solution, the supplier must develop and provide a comprehensive change management plan.

Training, Skills Transfer and Support Requirements

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

Guidance, direction, and training on the use of the system functionality must be provided.

System support e.g., system unavailable, system performance, login issues, access issues to be managed by the supplier.

Training material to be provided as per different user categories, e.g., pdf guides, noddy guides, virtual on-line training sessions, and recorded tutorials/videos.

The software shall have a user-friendly interface that is intuitive.

Non-Functional Requirements

The tool should be accessible from laptops and mobile devices.

The tool should allow role-based access.

The tool shall have quick response times (< 30sec)

3.2 INTERGRATION REQUIREMENTS

The proposed solution should be able to integrate or interface with the following systems.

SYSTEM	LEVEL OF INTERGRATION
SAP PM (Plant Maintenance)	Transfer of data between systems.
SAP PPM	Transfer of data between systems.
An Asset Performance Management (APM) system	Transfer of data between systems.
Other in-house data base systems (Either Oracle or MS Access databases)	Transfer of data between systems.

3.3 DATASETS

The system should also have the flexibility and capability to integrate seamlessly with existing datasets for example, plant asset register information, financial parameters, projects information, network performance information, resource planning information, capital budgeting information and other business information.

Thus, the solution's flexibility and agility is crucial to realising Eskom Transmission's future direction.

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

4. QUESTIONNAIRE

		Yes	No	Comments (please provide exact reference in your response pack – referring to page, paragraph & image numbers, if not possible to provide full response in the comments column)
1	SYSTEM FRAMEWORK			
1.1	Functional System Requirements			
1.1.1	Please describe your product/solution in 1 A4 page or less			
1.1.2	What asset data and information is required as inputs to the system?			
1.1.3	Advise what are the minimum input financial and technical parameters that Eskom must provide for your system?			
1.1.4	How does your system/tool prioritise mandatory (legal/ licence to operate) projects?			
1.1.5	Give examples of value frameworks , or alternative techniques, that have been applied for utilities (that you have engaged with), showing the link to organisational strategy?			
1.1.6	Eskom Transmission has many project investment programs, such as expansion (reliability, generating customer, load customer, etc.), refurbishment, telecommunications, real estate, IT/OT, production equipment, continuous improvement, etc. How does your model prioritise competing dissimilar projects from different programs?			

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

1.1.7	Please describe in detail your model of the limit of an organisation's capacity to deliver, i.e., boundary parameters of capacity to deliver. What input parameters do you require?				
1.1.8	Explain how you would assist Eskom to achieve prioritisation of the investment portfolio, taking into account constraints set?				
1.1.9	Explain how you would assist Eskom to achieve optimisation of the investment portfolio, taking into account a set of constraints, and utilising techniques such as multiple criteria decision-making, beyond just listing the projects in order of priority?				
1.1.10	Do you have a model to show diminishing returns/over-investment in a portfolio, where an organisation must consider ceasing deployment of capital funds?				
1.1.11	Are you able to allow for discretionary measures in order to protect what could be "minority" investments, i.e., avoid a purist approach that disadvantages small but critical investment programs?				
1.1.12	For the organisation to derive maximum benefit, what are the recommended IT system integration points amongst the standard tools - ERP, APM, PPM, etc? List them clearly.				
1.1.13	Does the system/tool integrate with governance approval/gate release systems , at least in process flow only?				
1.1.14	Is the system able to track project value metrics , such as NPV, B/C, etc. each time that a project is revised?				
1.1.15	Does your system compute risk-based investment justification or the long-term risk benefit of asset intervention over time?			 	
1.1.16	Is the system able to conduct various scenarios and save them, to respond quickly to situations such as resource changes (more/less capital budgets, construction contractors, equipment suppliers, outages, budget cuts, etc.)?				

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

1.1.17	Is the system able to capture plant assets, for example, current transformers (CTs) replaced and others, aligned to various project investment plan scenarios, for tracking?				
1.1.18	Can the system provide visualisation of results per investment scenario? Explain how this is achieved?				
1.1.19	Provide examples of dashboard visualizations that demonstrate the clarity and effectiveness of your dashboard views.				
1.1.20	What outputs would the AIPM Tool give, e.g., value of the portfolio, ranking of projects, etc.?				
1.1.21	Are there other system or business requirements that your system provides that are not covered in the preceding set of questions that you want to add?				
2	Architectural Aspects				
2.1	Architecture General				
2.1.1	References: Please provide details of where you have successfully implemented your solution in the past 3-5 years and indicate if the implementation was onpremise or cloud.				
	Also please share any success stories of implementations at other utilities. Also provide any links to videos or reference material				
2.1.2	Has your solution been featured in reports by any research partners e.g., Gartner, Forrester etc. If so please provide the reports or references				
2.1.2 2.2	Forrester etc.				

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

2.3	Description should include, but do not have to be limited to the criteria below for each option: a) Please provide a detailed Solution Architecture overview diagram depicting the proposed solution including its interfaces b) Provide the benefits and risks of each deployment model/option c) Please provide a high-level estimated cost breakdown for each deployment model/option detailing costs for implementation as well as support and maintenance over 5 years d) Describe how you ensure for each deployment option, availability of the solution in the event of failure e.g., Disaster Recovery, backups and recovery, failover e) For cloud options please specify geo-location options for cloud deployment including backup and Disaster Recovery e.g., RSA, EU etc.		
2.3.1	Please provide information around your solution's future alignment. Description should include, but do not have to be limited to the criteria below: a) Provide an overview of product development and support for at least the next 3-5 years. c) The role that innovation and research plays in your product development d) Describe/motivate how you keep abreast of the latest technology and market trends?		
2.3.2	Is there a roadmap for product development and support for at least the next 3-5 years? Please provide roadmap or high-level plan.		
2.4	Architecture Capabilities		

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

2.4.1	Provide a functional breakdown of your solution, differentiating between core application/platform functionalities and supporting/add-on/additional functionalities. Indicate whether your solution is tightly coupled, loosely coupled or decoupled architecture.		
	Describe the capabilities your solution brings to the table to enhance user experience and enable operational efficiencies e.g., configure/personalise toolbars/reports/dashboards, self-service reports, other self-service capability, modelling efficiencies, automation of repetitive tasks, etc.		
2.4.2	Is the proposed solution built on a specific platform or is it custom developed. Provide information regarding your solution, including diagrams, technologies used.		
2.4.3	Please provide information, if applicable, about how your solution supports a Digital Twin.		
2.4.4	Does your solution utilize machine learning algorithms to conduct investment planning analysis. Can you describe the specific machine learning algorithms employed and their effectiveness in asset investment planning?		
2.4.5	Does your system have high uptime and availability record, with minimal downtime or performance disruptions? What measures do you have in place to monitor and maintain system performance, ensuring optimal response times and user experience? How do you handle unexpected system outages and performance issues, minimizing the impact on users and operations?		
2.5	Integration Architecture		
2.5.1	Can you provide detailed information about the supported integration methods, including APIs, data formats, and security protocols?		

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

2.6	Data Architecture		
2.6.1	Explain your key data dependencies from other data sources. Specify the type of data sources and the criticality thereof.		
2.7	Security Architecture		
2.7.1	Describe your security model related to data at rest and in transit including encryption, authentication protocols, etc. List all relevant Security Certifications		
3	Project Management Aspects		
3.1.1	Please provide a high-level estimated cost breakdown for each deployment model/option detailing costs for implementation as well as support and maintenance over 5 years.		
3.1.2	Provide a high-level project plan detailing: a) Estimated timeline for the implementation b) Resources plan c) Deliverables breakdown and work breakdown structure for all deliverables provided detailing		
4	System Training Aspects		
4.1.1	Are you able to arrange a 2-hour demonstration session based on a real utility situation?		

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

4.1.2	Should you be successful in a later enquiry, would you be able to train users x 100 with worked examples and supply the training material?	
4.1.3	Should you be successful in a later enquiry, would you be able to train Super- Users x 12 with worked examples and supply user manuals?	
4.1.4	Should you be successful in a later enquiry, would you be able to supply detailed digital User Manuals?	
4.1.5	Should you be successful in a later enquiry, would you be able to provide 10 x case files/ training examples in a sandbox?	

Controlled Disclosure



Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
RFI Number	MWP2538TX		

Please find below our response to Eskom's questions:

No.	Question	Please indicate your response in this column
1.	Your contact's name and contact details.	
2.	Company registration number.	
3.	Brief description of previous experience and Description of the solution that you can offer.	
4.	Indicative prices (optional and only for use of RFI's).	
5.	Add any general applicable information related to Asset Investment Planning and Management system.	

Yours faithfully

Name	Designation	Signature	Date
Telephone number		Fax and/or e-mail	
		address	

Controlled Disclosure