

	Request for Information (RFI)	Document Identifier	240-72663051	Rev	1
		Effective Date	01 August 2016		
		Review Date	October 2027		
		EOI/RFI Number	E1173TSERE		
PART A REQUEST FOR INFORMATION (RFI)					
Description of the works/goods/services	Request For Information, for Eskom Real Estate (ERE) Smart Villages – Integrated Access Control Systems				
Deadline for submission	11 June 2025	At (South African Standard Time)	10H00 (South African Standard Time)		
Tender Office address	All tenders should be submitted via Eskom E-tendering using the link below. https://eTendering.eskom.co.za Please note, it is the responsibility of the to ensure that the tender submission is submitted before the closing date and time.				

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

Request for information (RFI) to submit information for the works/goods/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 Eskom Real Estate sites namely: Megawatt Park (MWP), Eskom Research & Innovation Centre (ERIC) and Eskom Academy of Learning (EAL) Smart Village – Integrated Access Control Systems. Eskom may request indicative prices if so, as stated in this RFI.

Eskom has delegated the responsibility for this RFI No. **E1173TSERE** to the signatory of this document, whose details can be found below.

Gavin Mabidilala
Email: mabidimg@eskom.co.za

We look forward to receipt of your response.

Yours faithfully

D Mathetja

Damela Mathetja

Manager: Procurement

Date: 13 May 2025

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Background

The Eskom Academy of Learning will be transformed into a Smart Campus, then Megawatt Park and Eskom Research & Innovation Centre will be transformed into a Smart Village serving as a demonstration and development centre for the integration of cutting-edge digital technology to increase the reliability, security, efficiency and introduction of new products to customers. The transformation of these sites will resemble a modernized Distribution power system that focuses on the development of new architectural concepts, digital transformation, tools, and technologies that measure, analyses, predict, protect, and control the grid of the future, as well as the facilitation of more rapid development skills and training that support the future digital workforce.

To prepare the workforce and the entire country for these changes, Eskom Distribution and EAL will collaborate to create renewable training centers through supplier and educational institution partnerships. This will be a novel approach to spreading smart grid expertise across the entire country.

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The EAL renewable centres will act as a hub for idea sharing, collaboration, teaching, and training. It will also give staff, students, and industry partners access to a range of energy solutions and suppliers while displaying technology, knowledge, and services. Employees and other stakeholders (suppliers or vendors) are involved in the development of innovation in practical environments with a particular focus on employee, student, and industry partner empowerment and real-world experimentation. This SMART Campus will leverage their respective expertise and experiences in the technical and establishment of modernized grid for training purposes, as well as to develop skills relevant to their common objectives in building digital skills for the country considering the changing distribution energy landscape.

And turning Megawatt Park and ERIC to a smart village can create a more adaptable, skilled, and engaged workforce ready to meet future challenges. This will bring several significant changes through enhanced connectivity, by Implementing smart technologies will improve internet and communication infrastructure, enabling better connectivity for remote work and collaboration. Sustainable Practices, emphasizing sustainability through smart energy management, waste reduction, and resource optimization that will foster a culture of environmental responsibility among the workforces.

Data-Driven Decision Making by utilizing data analytics for workforce management that can lead to more informed decision-making, enhancing efficiency and productivity. Smart village technologies will support flexible work arrangements, helping to accommodate diverse workforce needs and preferences and creating smart workspaces that encourage collaboration, and innovation will enable employees to work more effectively and creatively.

This RFI will focus on the Eskom Real Estate Smart villages initiative namely: Integrated Access Control Systems.

The Objective of the Request for Information (RFI) is to:

- To gain a holistic understanding of a smart city's security solutions development, operation, and providing insights into its technological advancements.
- To improve the overall security of the villages by controlling and monitoring access to various facilities and areas, reducing the risk of unauthorized entry and enhancing safety for Executives, employees and visitors

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- To facilitate efficient and seamless access for Executive, management, employees, visitors and any authorized personnel, minimizing delays and improving the user experience.
- To gather data on access patterns and usage, which can be analysed to improve security measures, resource allocation, and infrastructure planning.
- To allow for customizable access levels and permissions based on roles and needs, ensuring that individuals have the appropriate access while maintaining security.
- The RFI includes requirements for an Integrated Security System comprising of, but not limited to, a double perimeter fence, non-lethal fence, Access Control System, CCTV System, Licence Plate Recognition cameras, Intrusion Pre-detection System, Alarm System, public address (PA) including Fire Detection System and interfaces to the PSIM System, and IT infrastructure.
- To obtain industry best practices when developing a smart village security system.
- To create a cohesive security strategy by integrating access control systems with other smart technologies, such as surveillance cameras, alarms, and building management systems, providing a comprehensive security solution.
- To obtain industry information on the latest technology within the security stream.

Eskom Representative

Gavin Mabidilala
Email: mabidimg@eskom.co.za

RFI Compulsory Clarification meeting:

Date: 28 May 2025

Time: 09h00AM (South African Standard Time)

Venue: Eskom Academy of Learning (EAL)

Dale Road

Midrand

GPS Coordinates:

S 25°59.32' E 28° 10.10.985929, 28.163538

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PART B RESPONSE SHEET IN TERMS OF A REQUEST FOR INFORMATION To be completed by the supplier			
To	Eskom Holdings SOC Ltd	Date	
Attention			
Tel no		Fax no and /or e-mail address	
From		Address	
Address			
Sender			
Description of the works/goods/services	RFI for Eskom Real Estate Smart Villages: Integrated Access Control Systems (Eskom Academy of Learning, Megawatt Park and Eskom Research & Testing Centre.		

The Senders are requested to provide the below returnable:

- **Indicative Pricing**

NB: Senders should ensure that the details of the company name, company representative and contact details are submitted as Eskom would like to come to site or request the Senders to come to Eskom premises to present their proposals.

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No.	Please submit the following information
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.	If your proposal aligns with Eskom's requirements, you may be requested to present the proposed solution.

This will allow security manager to understand, manage, predict and optimise the performance of security function in real time. A full understanding and break of what a smart city is, and its functions is required. Some of the key smart city functional areas where detailed information is required include the following:

No.	Question	Please indicate your response in this column
1.	General Overview - What is the vision or primary objective of the smart city initiative? - How does the smart city framework align with sustainable development goals?	
2.	Technology and Infrastructure - What types of security technologies are being implemented (e.g., IoT Integration, AI, big data)? - How is connectivity infrastructure managed (e.g., 5G, fiber-optic networks)? - What latest security system can also be used to grant and limit access permissions in and out of secure and non-secure areas, for individuals and large groups? - What smart security systems are used for traffic management and transportation? - What types of automated systems for controlling lighting, heating, and security in buildings are used?	

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	What latest security system could support a tiered architecture, which will allow monitoring of the site both locally and remotely. This architecture could comprise of field devices (biometric, card readers etc.) at the site level and system management servers at the remote security nerve centre (in MWP).	
3.	Energy and Environment - What renewable energy <i>solutions</i> are integrated into the security technologies? - How does the smart city manage energy efficiency and consumption in terms of security solutions? - What measures are in place for sustainable waste management and recycling?	
4.	Mobility and Transportation How is traffic congestion monitored and reduced using smart security technologies?	
5.	Public Services and Governance - What smart governance systems are used for public information administration and employee/visitor engagement? - How does the city provide access to real-time data for residents, employees and visitors (open data initiatives)? - What platforms exist for employee/visitor participation and feedback?	
6.	Safety and Security - What technologies are in place for public safety (e.g., smart surveillance, emergency response systems)? - How is cybersecurity handled to protect smart infrastructure and citizen data? - What fire detection and protection systems form part of a smart city (BMS links)? - Is your system (PSIM) compatible with other hardware solutions? - Can your system be managed from a nerve centre and does it support remote access? - How often do you provide software updates, and will you consider including them in the package? - How will software licencing rights be managed after the lapse of the contract? - Do you offer maintenance plan and support for the systems?	

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7.	Education - Will you offer comprehensive training for in-house officials for sustainability purposes? - Are there programs for digital literacy and training for visitors/residents for self-check in?	
8.	Accessibility and Inclusion What programs support equal access to technology and services?	
9.	Performance Metrics and Impact - How is the system's Performance Monitoring and Analysis achieved? - How is the success of the smart city security technologies initiative measured? - What key performance indicators (KPIs) are tracked?	
10.	Data collection, processes and storage - How is data collected, possessed and stored? (data can be gathered from various sources, such as IoT Integration, historical records etc.)? - How is data processing and integration achieved when taking the raw data monitoring and merging it with the data in the control room and nerve centre in order to make it meaningful to the end user? - What platforms are used to visualise and interact with? (i.e user-friendly interface that allows stakeholders to interact with the virtual representation.)	

6. IT and Telecommunications

The established security stream will need Group IT division capacitate it from a Digitalisation and technology perspective.

- Information Technology and Telecommunications (includes all IT upgrades for ERE sites)
- E-Mobility (includes distribution fleet electrification and charging infrastructure)

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8.1. General Questions

No.	Question	Please indicate your response in this column
1.	How would your organization approach the development and implementation of a Smart Village security technology, ensuring alignment with industry's best practices?	
2.	What key success factors would you prioritize in delivering a Smart Village project?	
3.	How can sustainability and energy efficiency be embedded with the Integrated Access Control Systems ?	
4.	What innovative business models would you recommend ensuring financial sustainability and Return on Investment for the Smart Village security technologies?	
5.	What challenges have you encountered in similar project, and how would you propose mitigating them?	
6.	What key performance indicators (KPIs) would you suggest measuring the success of the Smart Village security systems initiative?	
7.	How would you ensure compliance with regulatory requirements and industry standards in South Africa?	
8.	What partnerships or collaborations would you recommend for a successful Smart Village security systems implementation?	

8.2. Smart Village (Digitization, PV Rooftops, and Demand-Side Management)

No.	Question	Please indicate your response in this column
1.	How would your organization implement digitization to optimize Smart Village Security operations.	

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2.	What proven Capability and Technology is available and effectively used in the Market to improve Security operations for the Smart Campus and Smart Village?	
3.	What strategies would you propose to effectively integrate security solutions and installations with the existing infrastructure?	
4.	What technologies and platforms would you recommend for real-time monitoring and optimization?	
5.	Which proactive non-intrusive Technology and Solutions exist to effectively manage Smart Village & Campus Security?	
6.	How would you leverage IoT Integration to improve Security operational efficiency within the Smart Village?	
7.	How can the different Platforms and Software used for IoT Integration, AI, WAN etc be integrated to have a holistic Control Centre overview of all these Operational Insights?	
8.	As there are a myriad of Use Cases and Scenarios for gathering Data and Insights, what Analytics would add real value to the Security officials, as well as the Operational Management of the Smart Campus/Village.	

8.3. Information Technology and Telecommunications (IT Upgrades for ERE Sites)

No.	Question	Please indicate your response in this column
1.	How would you recommend upgrading IT infrastructure to support the Smart Village and Security initiative effectively?	
2.	What cybersecurity measures would you propose to protect critical infrastructure and IoT Integration and ensure data privacy?	

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3.	How would you leverage 5G and edge computing to enhance connectivity and operational efficiency?	
4.	What strategies would you suggest for integrating IoT Integration devices with existing IT systems?	
5.	How would you propose utilizing cloud computing to manage Smart Village Security data?	
6.	What network architectures would you recommend supporting interconnected smart systems?	
7.	What AI Capabilities currently exist for typical Smart Campus offerings that improve and enhance User experience?	
8.	How would you implement predictive maintenance and AI-driven analytics for operational efficiency?	
9.	What proven options are available to enhance situational awareness for Visitors on Campus Sites?	

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