	<b>Request for Information (RFI) Template</b>	<b>Document Identifier</b>	240-72663051	<b>Rev</b>	1
		<b>Effective Date</b>	01 August 2016		
		<b>Review Date</b>	October 2027		
		<b>RFI Number</b>	MWP2990CX		


PART A REQUEST FOR INFORMATION (RFI)			
<b>Description of the works/goods/services</b>	<b>MWP2990CX - The Request is to obtain information about the Wireless Field Area Network technologies for use in the Eskom business areas such as transmission and distribution.</b>		
<b>Deadline for submission</b>	25 February 2025	<b>At (South African Standard Time)</b>	10h00
<b>Tender Office address</b>	Eskom Holdings SOC Ltd Tender Office Megawatt Park (Retail Centre) 1 Maxwell Drive Sunninghill 2157		
<b>Enquiries</b>	Letsibogo Mahlatji E-mail address: <a href="mailto:MahlatLN@eskom.co.za">MahlatLN@eskom.co.za</a> Tel: 017 749 5694		

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 request to obtain information about the Wireless Field Area Network technologies for use in the Eskom business areas such as transmission and distribution. Eskom may request indicative prices if so stated in this RFI.

We look forward to receipt of your response.

Yours faithfully



Procurement Manager


Shamani Padayachee

Corporate Procurement Manager

Date: 15 January 2025

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## 1. DEFINITIONS

In this Document, except as otherwise defined herein, the following terms shall have the following meanings:

<b>B-BBEE</b>	- means Broad-Based Black Economic Empowerment.
<b>Document</b>	- this document which outlines the requirements of the Request to obtain information about the Wireless Field Area Network technologies for use in the Eskom business areas such as transmission and distribution.
<b>ERIC</b>	- Eskom Research and Innovation Centre that is located at Lower Germiston Road, Rosherville, Gauteng.
<b>Procurement Process</b>	- Means the procurement process being conducted in terms of this RFI in respect of the Project or requested information.
<b>RT&amp;D</b>	- Research, Testing and Development, a business unit in Eskom.
<b>Respondent</b>	- any entity or consortium that submits a Response to this Document.
<b>State Owned Company or SOC</b>	- a legal entity that is or has previously been created by the Government in order to partake in commercial activities on the Government's behalf, where in the context of the Project, such entity may include any entity with a mandate to engage in the energy or financing sector.
<b>FAN</b>	- Field Area Network.
<b>WFAN</b>	- Wireless FAN.
<b>Gx, Dx and Tx</b>	- Generation, Transmission and Distribution.


## 2. INTRODUCTION AND BACKGROUND

The transition by utilities from legacy systems into an intelligent grid commonly referred to as smart grid requires a selection of appropriate, reliable, and high-performance network structures and communication technologies that provide bi-directional end-to-end data communications. Such requirement enables the smart grid to be able to realise smart grid applications such as automated meter reading, real-time pricing, distribution automation, demand response, electric vehicle charging applications. These applications also require a resilient communications network as the foundation block that is embedded in the smart grid, the Field Area Network (FAN) offers the capability to support such applications of the smart grid.

The field area network is a unified network that supports multiple utility applications, it covers entire utility service areas such as suburban, rural, and dense urban areas. It therefore can be

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viewed as the amalgam and extension of WAN, MAN, and LAN. The FAN technology can support utility-specific applications and smart grid applications. Other application areas supported by FAN technology include advanced distribution automation, integrated distributed energy resources, and field operations support.

This therefore renders the FAN technology as an enabling technology for grid modernisation whereby utilities deploy increasingly more managed devices onto Tx and Dx systems. The deployed smart grid devices and technologies are being deployed by utilities to improve operational efficiency, reliability, security, and resilience. The FAN offers a more reliable, secure, and interoperable communication network for these smart devices enabling the utilities to extend their reach deep into the field devices and last mile of the grid. The FAN is also scalable to support the utility emerging needs.

### 3. PURPOSE AND STRUCTURE OF THE RFI

- 3.1 The objective of this RFI is to obtain market information from interested Suppliers/Service providers for information of Broadband Wireless Field Area Network technologies and associated implementation, services, and capabilities to Eskom Research and Innovation Centre (ERIC).
- 3.2 The future Grid Modernization projects specifications will be developed based on the technologies that are available in the market.
- 3.3 Information from Suppliers/Service provider will be used to develop the scope of work for the implementation of the FAN projects and the breakdown of related costs.
- 3.4 Service providers/Suppliers are encouraged to provide complete information as much as possible.
- 3.5 Responses submitted should be as comprehensive as possible and include information requested and any supporting documentation in respect thereof. If proprietary information is included in the response, the clauses on the use of such information must be indicated.

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

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<b>Sender</b>	
<b>Description of the works/goods/services</b>	<b>MWP2990CX - The Request is to obtain information about the Wireless Field Area Network technologies for use in the Eskom business areas such as transmission and distribution.</b>

Please find below our response to Eskom's questions:

#### 4. Respondent Information

No.	Question	Please indicate your response in this column
1.	Name of the Respondent	
2.	The name and contact details of the person appointed by the Respondent as its representative in the event that Eskom needs to contact the company for clarification or further details.	
3.	Company profile and description of key service offerings and capacities.	
4.	Is the respondent/company an existing registered Eskom vendor? (Please provide vendor registration details)	
5.	Provide details on respondent/Company empowerment, localisation credentials (Black Youth & Women Owned Enterprise, BBBEE Enterprise etc)	
6.	Is the company locally based or have a local office in South Africa? If no, indicate if the company is familiar with the requirements of South African State-Owned Companies tendering processes.	

#### 5. Section A – Wireless Field Area Network:

No.	Question	Please indicate your response in this column
<b>A1</b>	<p>The Respondent is required to provide the information below with respect to WFAN technologies:</p> <ul style="list-style-type: none"> <li>List, describe and contrast different technologies for implementing the FAN in the utility environment.</li> <li>What are the specifications for each given technology with regards to the below parameters for utility environment:</li> </ul>	

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	<ul style="list-style-type: none"> <li>○ Bandwidth</li> <li>○ Latency</li> <li>○ Encryption</li> <li>○ Data rate/speed</li> <li>○ Availability</li> <li>○ Frequency of operation</li> <li>○ Channel spacing</li> <li>○ Standards applicable for each technology</li> <li>○ Recovery time</li> <li>○ License category – (licensed or unlicensed)</li> <li>○ Coverage range</li> <li>○ Quality of service</li> <li>○ Reliability</li> </ul> <ul style="list-style-type: none"> <li>● What network topologies are suitable for implementing the FAN using the given technologies?</li> <li>● What is the transmit power consumption of the FAN technology?</li> <li>● What are the maintenance requirements for the FAN system?</li> <li>● What are the cybersecurity techniques for securing the FAN technologies?</li> <li>● What are the supported interfaces and protocols for the given technologies?</li> <li>● Is remote management and configuration (over-the-air) of the given technologies possible?</li> <li>● Rank the given technologies in terms of suitability with respect to implementation for the Eskom/utility environment.</li> <li>● What is the typical timeframe of deploying a proof of concept (POC) of the FAN system?</li> <li>● What is the estimated cost for implementing a FAN technology?</li> <li>● Give areas of application of each technology in the utility context</li> </ul>	
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	<ul style="list-style-type: none"> <li>Which utilities have successfully implemented FAN technology (provide case study examples). What technologies have they used and what is the status of operation?</li> </ul>	
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