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|  | Request for Information (RFI) Template | Document Identifier | 240-72663051 | Rev | 1 |
| | | Effective Date | October 2022 | | |
| | | Review Date | October 2027 | | |
| | | RFI Number | MWP2411CX | | |

| PART A REQUEST FOR AN EXPRESSION OF INTEREST (EOI)/ REQUEST FOR INFORMATION (RFI) | | | |
|--|---|----------------------------------|-------|
| Description of the works/goods/services | Request is to obtain information about the solar PV technologies such as PV modules, inverters, PV cleaning, meteorological station technologies for use in renewable projects. | | |
| Deadline for submission | 08 March 2024 | At (South African Standard Time) | 10H00 |
| Tender Office address | Retail Centre Megawatt Park 1 Maxwell Drive Sunninghill 2000 VERY IMPORTANT TO NOTE IS THAT TENDERS DELIVERED LATE TO THIS ADDRESS WILL NOT BE ACCEPTED | | |


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

- **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 to obtain information about the solar PV technologies such as PV modules, inverters, PV cleaning, meteorological station technologies for use in renewable projects.

Eskom has delegated the responsibility for this **RFI NO-MWP2411CX** 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 |
|------------------|---------------------|---|------------|
| Damela Mathetja | Procurement Manager |  | 05.02.2024 |
| Telephone number | 011 800 5611 | Fax and/or e-mail address | |

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1. INTRODUCTION AND BACKGROUND

Eskom as a major power provider in South Africa is embracing the need to transition to clean energy generation and its integration to the grid. Currently, higher percentage of power generated by Eskom is from coal, which is being discouraged by the global community due to impact to the climate. Therefore, Eskom through its Research, Testing and Development division seeks to undertake projects that produce energy through renewable sources, in particular solar energy captured by photovoltaics (PV) system.

The projects will assist Eskom in establishing the footprint in the renewable space and achieving the set targets of 2035 and 2050 as per the Just Energy Transition objectives and national development plan (NDP) 2019 vision. The future projects will strengthen the Eskom renewable portfolio and allow cashflow generation in its divisions such as Generation (Gx), Distribution (Dx) and Transmission (Tx). The realisation of the renewable projects as can be either standalone or grid-tied relies on the respective technology understanding that is used in the renewable systems. The scale of the renewable system can be varied in size depending on where it is installed, therefore configurations for rooftop, commercial and industrial and utility scale are potential configurations for the deployment of renewable (RE) projects.


The key technologies that are used in a RE system needs to be understood and be proven in the market. These include PV modules, inverters, solar meteorological stations, monitoring systems, and cleaning technologies. Careful selection of these technologies assists in properly planning and designing the RE system that achieves the desired outcome. These key components for PV system/plant can be implemented, tested, and analysed within the Eskom RT&D facility to further support their adoption and implementation in Eskom line divisions. The Eskom RT&D facility has an existing PV plant where it can be easy to incorporate the technologies without any difficulties.

2. PURPOSE AND STRUCTURE OF THE RFI

- The objective of this RFI is to obtain market information from interested Suppliers/Service providers for the assessment of solar photovoltaics (PV) technologies and associated components, services, and capabilities to Eskom Research and Innovation Centre (ERIC).
- The future RE projects specifications will be developed based on the technologies that are available in the market.
- Information from Suppliers/Service provider will be used to develop the scope of work for the implementation of the RE projects and the breakdown of related costs.
- Service providers/Suppliers are encouraged to provide complete information as much as possible.
- 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.

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| PART B RESPONSE SHEET IN TERMS OF A REQUEST FOR AN EXPRESSION OF INTEREST/ REQUEST FOR INFORMATION To be completed by the supplier | | | |
|---|--|--------------------------------------|----------------------|
| To | Eskom Holdings SOC Ltd | Date | 08 March 2024 |
| Attention | Monica Shuping | | |
| Tel no | 017 779 8699 | Fax no and /or e-mail address | shupindm@eskom.co.za |
| From | | Address | |
| Address | | | |
| Sender | | | |
| Description of the works/goods/services | Request is to obtain information about the solar PV technologies such as PV modules, inverters, PV cleaning, meteorological station technologies for use in renewables projects. | | |


Please find below our response to Eskom's questions:

3. 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) | |

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| 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. | |
|----|---|--|


4. Section A – PV Modules:

| No. | Question | Please indicate your response in this column |
|-----|--|--|
| A1 | <p>The Respondent is required to provide the information below with respect to PV modules offered:</p> <ul style="list-style-type: none"> • Types of PV modules offered by credible suppliers. • PV Modules and cell technology efficiencies. • Cell technologies and the respective efficiencies. • Recent panel technologies. • PV Module degradation information. • PV module lifespan. • Lead time to supply the PV modules. • Cost trends of the PV module technologies. • Operational and maintenance of the PV modules procedures. • Manufacturer guaranty and warranty. • PV modules sizes and weights for different market segments applications. • Local availability of the PV module technologies. • Use of the PV module technology in utility scale, rooftop, commercial and industrial market segments. • Provide applicable technology readiness levels of level seven (7) or higher as per attached standard for proven PV module technologies. | |
| | | |

5. Section B – Inverters:

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| No. | Question | Please indicate your response in this column |
|-----------|--|--|
| B1 | <p>The Respondent is required to provide the below with respect to inverters offered:</p> <ul style="list-style-type: none"> • Types of inverter technologies • Inverter technology efficiencies • Relevant inverter technologies as used in utility scale, rooftop, commercial and industrial market segments. • Cost trends of inverter technologies • Lead time to supply the inverter technologies. • Local availability of the inverter technology. • Manufacturer operational and maintenance procedures of the inverter technologies. • Emerging inverter technologies such as grid-forming, grid-following. • New market suppliers of inverter technologies • Manufacturer guaranty and warranty of the inverter technologies. | |

6. Section C – Solar Meteorological stations:

| No. | Question | Please indicate your response in this column |
|-----------|--|--|
| C1 | <p>The Respondent is required to provide the below information with respect to solar meteorological (met) stations:</p> <ul style="list-style-type: none"> ○ What types of meteorological (met) stations are suitable for South African conditions for the following applications: <ul style="list-style-type: none"> ▪ Large scale PV plant monitoring. ▪ Site specific solar resource measurement. | |

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|--|--|--|
| | <ul style="list-style-type: none"> ○ Which components are locally manufactured? ○ Which are readily available in South Africa? ○ For those that needs to be ordered abroad, what is the supply lead time? ○ Installation: <ul style="list-style-type: none"> ▪ Are there capabilities in SA to install and commission met stations? ▪ What are the installation procedures and requirements? ▪ Installation costs? ○ Maintenance and operational procedures of met stations. <ul style="list-style-type: none"> ▪ Are the components calibrated in South Africa? ▪ Can components be calibrated onsite? ○ Are there any new improved technologies for met stations and components? <ul style="list-style-type: none"> ▪ What are the improvements? ▪ What are the costs? | |
|--|--|--|

7. Section D – Monitoring systems:

| No. | Question | Please indicate your response in this column |
|-----|---|--|
| D1 | <p>The Respondent is required to provide the below information with respect to monitoring technologies:</p> <ul style="list-style-type: none"> • Types of monitoring technologies for PV systems. • Availability and reliability of the monitoring system. • Ease of integration to field equipment from different manufactures. • Ease of configurability. | |

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| | <ul style="list-style-type: none"> • Manufacturer guaranty and warranty. • Operational and maintenance procedures. • Types of networks that can be implemented. • Lifespan of the monitoring system. • Local availability of spares. | |
|--|---|--|

8. Section E – PV Cleaning technologies and services:


| No. | Question | Please indicate your response in this column |
|-----|--|--|
| E1 | <p>The Respondent is required to provide the below information with respect to cleaning technologies:</p> <ul style="list-style-type: none"> • Available types of cleaning technologies, installation requirements if applicable. • Operational and maintenance requirements of the cleaning technologies. • Local availability of the cleaning technology. • Manufacturer guarantee and warranty of the cleaning technology equipment/service. • Lead time to supply the cleaning technology equipment. • Lifespan of the cleaning technology equipment. • Compatibility with the PV module types manufacturer warranty and guarantee. • Cost of the cleaning technology. | |

9. Section F – Decommissioning and disposal of technology waste:

| No. | Question | Please indicate your response in this column |
|-----|--|--|
| F1 | <p>The Respondent is required to provide the below information with respect to decommissioning and disposal of technology waste:</p> | |

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|--|--|--|
| | <ul style="list-style-type: none"> Decommissioning services of a PV system or plant. Compliance requirements when decommissioning a PV system/plant. Disposal facilities of PV modules including their locations in South Africa. Disposal procedures of inverter technologies as used in a PV system/plant. Cost of decommissioning a PV system/plant. Cost of PV system/plant technology waste disposal. Environmental impact when decommissioning and disposing of PV system/technology waste. | |
|--|--|--|

All RFI responses must be clearly marked: “MWP2411CX Request for Information (RFI) on the solar PV technologies.

FORMAT OF SUBMISSION

The respondent shall be submitted as 1 (one) printed original RFI, plus 1 (one) printed copy.

Method and place of delivery

All responses must be sealed and delivered before the closing date and time to the tender box located at:

Eskom Megawatt Park
Tender Office, Retail Centre
1 Maxwell Drive
Sunninghill
2000

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