

**REQUEST FOR PROPOSAL**

FOR THE PROVISION OF MES APPLICATION REDEVELOPMENT AND IMPLEMENTATION OF ENHANCEMENTS FOR A PERIOD OF TEN (10) MONTHS.

NAME	TITLE	SIGNATURE	DATE
[REDACTED]	[REDACTED]		17 April 2024
[REDACTED]	[REDACTED]		16 April 2024
[REDACTED]	[REDACTED]		16 April 2024
[REDACTED]	[REDACTED]		18 April 2024
[REDACTED]	[REDACTED]		17 April 2024
[REDACTED]	[REDACTED]		17 April 2024

[REDACTED]

[REDACTED]

[REDACTED]

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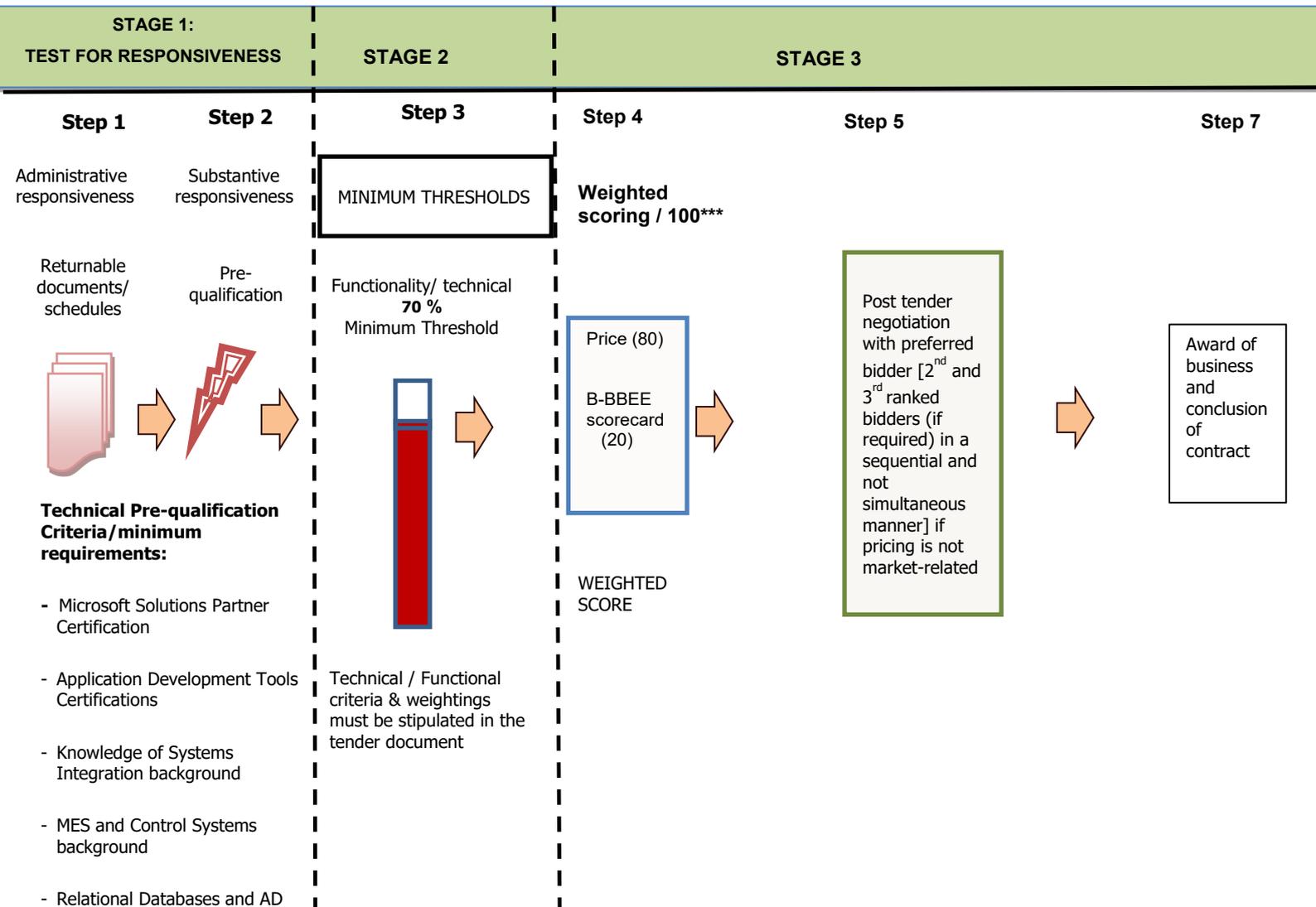
**SECTION A: FORM OF TENDER**

**2. Project Description:**

For the provision of MES Application redevelopment and implementation of Enhancements for a period of ten (10) months.

**3. Tender Process**

*The following methodology will be used to evaluate this tender:*



## 2.1. STEP ONE: Test for Administrative Responsiveness

The test for administrative responsiveness will include the following:

Administrative responsiveness check	RFP Reference
<ul style="list-style-type: none"> <li>Whether the Bid has been lodged on time</li> </ul>	<i>Section 2 paragraph 3</i>
<ul style="list-style-type: none"> <li>Whether all Returnable Documents and/or schedules [where applicable] were completed and returned by the closing date and time</li> </ul>	<i>Section 5</i>
<ul style="list-style-type: none"> <li>Verify the validity of all returnable documents</li> </ul>	<i>Section 5</i>
<ul style="list-style-type: none"> <li>Verify if the Bid document has been duly signed by the authorised respondent</li> </ul>	<i>All sections</i>

***The test for administrative responsiveness [Step One] must be passed for a Respondent's Proposal to progress to Step Two for further pre-qualification.***

## 2.2. STEP TWO: Test for Substantive Responsiveness to RFP

The test for substantive responsiveness to this RFP will include the following:

Check for substantive responsiveness	RFP Reference
<ul style="list-style-type: none"> <li>Whether any general and legislation qualification criteria set by Foskor, have been met</li> </ul>	<i>All sections including.</i>
<ul style="list-style-type: none"> <li>Whether the Bid contains a priced offer as prescribed in the pricing and delivery schedule</li> </ul>	<i>Section 4</i>
<ul style="list-style-type: none"> <li>Whether the technical prequalification criteria set by Foskor, have been met. The following mandatory Certification should be submitted:               <ul style="list-style-type: none"> <li>- Microsoft Solutions Partner Certification</li> <li>- Application Development Tools Certifications</li> <li>- Knowledge of Systems Integration background</li> <li>- MES and Control Systems background</li> <li>- Relational Databases and AD</li> </ul> </li> </ul> <p><b>*Failure to submit, will result in disqualification.</b></p>	

*The test for substantive responsiveness [Step Two] must be passed for a Respondent's proposal to progress to Step Three for further evaluation.*

**2.3. STEP THREE: TECHNICAL EVALUATION – 100% WITH A THRESHOLD OF 70%**  
**The technical evaluation will be conducted in two phases as articulated below:**

**STEP 3: PHASE 1 - PRESENTATION: SAMPLE SOLUTION OF PREVIOUS MES SYSTEM DEVELOPMENT AND IMPLEMENTATION - 40%**

Step 3 – Phase 1: Technical Presentation		
Evaluation Criteria	% Weight	Score
<b>PRESENTATION: SAMPLE SOLUTION OF PREVIOUS MES SYSTEM DEVELOPMENT AND IMPLEMENTATION</b>	<b>40%</b>	<b>5</b>
<p>During this stage of the evaluation the respondents will be invited to present their sample solution of previous MES system development and implementation projects based on Foskor Scope of Work. The purpose of the presentation is to evaluate quality. The evaluators will observe, ask questions for clarification, and take notes and thereafter score separately. The evaluators will observe that the Sample Solution presentation of the bidder includes the following:</p> <ol style="list-style-type: none"> <li>1. Streamline data management control.</li> <li>2. Developing User Interface Application</li> <li>3. Building reports and dashboards</li> <li>4. Establishing system integration</li> <li>5. Process Automation</li> <li>6. Drawing of reports</li> <li>7. Ability to capture, aggregate and display data flow</li> </ol>		
<b>The following prompts for judgments will be used by the evaluators to evaluate the Bidder's technical approach and methodology.</b>		
The bidding company has demonstrated all 7 of the above-mentioned requirements in their sample solution as required in the Foskor SOW	40%	5
The bidding company has demonstrated 5-6 of the above-mentioned requirements in their sample solution as required in the Foskor SOW	32%	4
The bidding company has demonstrated 3-4 of the above-mentioned requirements in their sample solution as required in the Foskor SOW	24%	3
The bidding company has demonstrated 2 of the above-mentioned requirements in their sample solution as required in the Foskor SOW	16%	2
The bidding company has demonstrated 1 of the above-mentioned requirements in their sample solution as required in the Foskor SOW	8%	1
The bidding company has not demonstrated any of the above-mentioned requirements in their sample solution as required in the Foskor SOW	0%	0
<b>Total Score</b>	<b>40%</b>	<b>Score</b>

**STEP 3: PHASE 2 – TECHNICAL PAPER EXERCISE: 60%**

<b>Technical Paper Exercise Criteria – 60%</b>			
<b>1. Industry/Similar experience of at least 5 years' experience in MES Application Development and implementation</b>	<b>25%</b>		<b>Proof</b>
Service provider has ≥ 5 years industry experience	5	15%	The bidding company must provide a Company Profile that indicates 5 years of industry experience and the following: <ol style="list-style-type: none"> <li>1. Knowledge of Systems Integration background</li> <li>2. Vast knowledge of MES and Control Systems background</li> <li>3. Knowledge of Relational Databases and AD</li> <li>4. Previous Implementation of similar work:</li> <li>5. Resource Experiences on MES, LAB, and WB Applications</li> <li>6. Implemented Solution Samples using Visual Studio Platform</li> <li>7. Ability to read and translate Delphi/C++ Code</li> </ol>
Service provider has 4 years industry experience	4	12%	
Service provider has 3 years industry experience	3	9%	
Service provider has 2 years industry experience	2	6%	
Service provider has ≤1 years industry experience	1	3%	
No evidence provided	0	0	
<b>2. Detailed Technical Project Plan</b>	<b>20%</b>		<b>Proof</b>
The bidding company has submitted a detailed & practical project plan that includes all 8 of the requirements that should be included in the plan	5	15%	The bidding company must provide a detailed Project Plan that includes the following: <ol style="list-style-type: none"> <li>1. Project Plan and Methodology</li> <li>2. Functional Specification</li> <li>3. Technical and Information Architecture Specifications.</li> <li>4. Security and Compliance</li> <li>5. Test Plan</li> <li>6. Solution Implementation Plan.</li> <li>7. Training Plan</li> <li>8. Documentation</li> </ol>
The bidding company has submitted a detailed & practical project plan that includes 6-7 of the requirements that should be included in the plan	4	12%	
The bidding company has submitted a detailed & practical project plan that includes 4-5 of the requirements that should be included in the plan	3	9%	
The bidding company has submitted a detailed & practical project plan that includes 2-3 of the requirements that should be included in the plan	2	6%	
The bidding company has submitted a detailed & practical project plan that includes ONLY 1 of the requirements that should be included in the plan	1	3%	
No response submitted	0	0%	

4. Team Experience and Qualifications	15%		Proof
The CV's and proof of IT qualification/s submitted reveals that the team has at least 5 x years of expertise and the required qualifications supporting the project.	5	15%	Respondents must provide CV's and proof of IT qualifications of team that will be assigned to the project.
The CV's and proof of IT qualification/s submitted reveals that the team has at least 4 x years of expertise and the required qualifications supporting the project.	4	12%	
The CV's and proof of IT qualification/s submitted reveals that the team has at least 3 x years of expertise and the required qualifications supporting the project.	3	9%	
The CV's and proof of IT qualification/s submitted reveals that the team has at least 2 x years of expertise and the required qualifications supporting the project	2	6%	
The CV's and proof of IT qualification/s submitted reveals that the team has at least 1 x year of expertise and the required qualifications supporting project.	1	3%	
Did not provide the information	0	0%	

**\*The overall threshold for the Technical Evaluation will be 70%, bidders who achieve or exceed the 70 % threshold will proceed to the next step of the tender evaluation.**

*Respondents are to note that Foskor will round off final technical scores to the nearest 2 (two) decimal places for the purposes of determining whether the technical threshold has been met.*

***The minimum threshold for technical [Step Three] must be met or exceeded for a Respondent's Proposal to progress to Step Four for final evaluation.***

## 2.4. STEP FOUR: EVALUATION AND FINAL WEIGHTED SCORING

### a) Price Criteria [Weighted score 80 points]:

Foskor will utilise the following formula in its evaluation of Price:

$$PS = 80 \left( 1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where:

- $Ps$  = Score for the Bid under consideration
- $Pt$  = Price of Bid under consideration
- $Pmin$  = Price of lowest acceptable Bid

**b) Broad-Based Black Economic Empowerment criteria** [Weighted score 20/10 points]

- B-BBEE - current scorecard / B-BBEE Preference Points Claims Form
- Preference points will be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table indicated in Section 4.1 of the B-BBEE Preference Points Claim Form in the RFP.

**2.5. STEP FIVE: POST TENDER NEGOTIATIONS (IF APPLICABLE)**

- Respondents are to note that Foskor may not award a contract if the price offered is not market-related. In this regard, Foskor reserves the right to engage in PTN with the view to achieving a market-related price or to cancel the tender. Negotiations will be done in a sequential manner i.e.:
  - first negotiate with the highest ranked bidder or cancel the bid, should such negotiations fail,
  - negotiate with the 2nd and 3rd ranked bidders (if required) in a sequential manner.
- In the event of any Respondent being notified of such short-listed/preferred bidder status, his/her bid, as well as any subsequent negotiated best and final offers (BAFO), will automatically be deemed to remain valid during the negotiation period and until the ultimate award of business.
- Should Foskor conduct post tender negotiations, Respondents will be requested to provide their best and final offers to Foskor based on such negotiations. Where a market related price has been achieved through negotiation, the contract will be awarded to the successful Respondent(s).

**2.6. STEP SIX: AWARD OF BUSINESS AND CONCLUSION OF CONTRACT**

- Immediately after approval to award the contract has been received, the successful bidder(s) will be informed of the acceptance of his/their Bid by way of a Letter of Award. Thereafter the final contract will be concluded with the successful Respondent(s).
- A final contract will be concluded and entered with the successful Bidder at the acceptance of a letter of award by the Respondent.

**2.7. Pricing Schedule**

The Pricing Schedule below will be issued to the market with the RFP – Refer to Scope.

The Pricing schedules should be completed and submitted with the tender as a mandatory requirement, failure to complete and submit the attached Pricing schedule **WILL** result in disqualification.

**Pricing notes in the RFP will guide the bidders on what is required from a commercial point of view, which will include amongst others the following notes:**

- All price alterations must be signed for by the bidder confirming that such changes were made by the bidder.
- **NOTE: The onus lies with the tenderer to make sure that all formulas and calculations are correct. Calculation errors discovered during the evaluation process will be logged as a non-conformance and the tender / quotation will therefore be disregarded.**

## **SECTION B: TERMS AND GENERAL CONDITIONS**

### **1. Confidentiality**

The Supplier shall not disclose any such information or specification, whether explicit or implied, to any third party without the expressed or written consent from the Client, Foskor (Pty) Ltd.

Any Supplier that declines to tender must indicate this in writing prior to the close of Tender.

### **2. Conditions and Undertaking**

The terms set out here are for the purpose of recording the basis of the principles and topics upon which the parties will be required to reach agreement in concluding on the proposed agreement. It shall not be binding until they are incorporated into a comprehensive formal and final contract agreement signed by both parties.

Tenderers are required to submit full technical and support documentation of their proposed course of action where necessary. The tenderer accepts Foskor's minimum standard in terms of quality and specification. The costs incurred in preparing the tender are for the account of the Tenderer. Foskor (Pty) Ltd will not accept liability for the costs arising out of the delay in the Tender process.

The Tenderer must guarantee the validity of the response to this tender enquiry. Any arithmetical errors in pricing are the Tenderers responsibility. A contract will be signed by the preferred tenderer, after which they will be governed by the terms and conditions of the contract. If the Tenderer defaults, the Client, Foskor (Pty) Ltd, will have recourse in terms of the conditions as stipulated in the contract. Should you decline to tender, your courtesy in notifying us immediately and returning these documents will be appreciated.

### **3. Variations and Omissions:**

#### **3.1 By Foskor**

Should any variations in the scope of the work arise during the period of the contract, the Foskor ICT Management will give reasonable notice in writing to the Supplier to enable him to assess the cost of such variations accordingly.

The cost of such variations will be communicated to the Foskor ICT Manager in writing who will either accept or reject the offer as the case may be. In either case, the Foskor ICT Management will advise the Tenderer/Supplier in writing as to this decision.

### 3.2 **By the Supplier**

Should the Supplier during the process of work become aware of any variations to the scope of work and/or specifications, which are at variance with the final quantities, and specifications agreed in the order, then he will advise the Foskor ICT Management in writing of these variations. Should any variations agreed to by Foskor involve either an increase/decrease in the contract price, the Supplier will as soon as is reasonably possible advise the Foskor ICT Management in writing to that effect.

### 3.3 **Extras**

No claim for extras will be allowed unless the work claimed is clearly outside the spirit and meaning of the specification and not unless the Supplier can produce a **written instruction** for the same, signed by the Foskor ICT Management and covered by an official purchase order number.

## 4. **Suppliers Experience**

The Supplier shall submit, with the Tender, a schedule/references showing previous experience in this type of work.

## 5. **Terms and Conditions of Tender**

The terms and conditions of this tender shall be governed by the specific terms and conditions as specified in the scope of work and contract documents which form part of the general contract.

## 6. **Cost of Tender Preparation**

All costs associated with the preparation of the Tender shall be borne by the Tenderer.

## 7. **Transfers**

The Supplier shall not cede, assign or sublet this order or any portion thereof, without the written consent of Foskor.

## 8. **Company Profile**

Tenderers are to submit an extensive portfolio indicating their experience and expertise with reference to similar installations, more especially in the same environment and similar systems.

## 9. **Information Security**

The Supplier will have access to sensitive and confidential information during the duration of the Project. The Supplier will be required to demonstrate throughout the Contract the

security of data handling and the limitation of access of any Confidential Information to members of the supplier's staff who have a need for such access. A non-disclosure agreement (NDA) should be signed where applicable.

## **SECTION C: SCOPE OF WORK**

### **1. Special instructions to tenderers**

Tenderers shall provide full and accurate answers to the questions posed in this document. Tenderers must substantiate their response to all questions, including full details on how their proposals/solutions will address specific functional/technical requirements. All documents as requested/indicated must be supplied as part of the tender response.

### **2. Background Information**

MES is a Manufacturing Execution System that supports production operations. It is mainly used for tracking production data and workflows, aggregating data for research or business intelligence purposes, as well as to ensure production operations are compliant with various standards and regulations.

Foskor implemented the current MES system in 2007 and named it FOSMES due to how its specifications were customized to meet Foskor's Product specifications at the time. The evolving nature of customer requirements, which leads to changes in product specifications, required the MES system to adapt to these changes. The current MES system has limitations in accurately specifying the product specifications for capturing and reporting purposes, amongst other requirements.

### **3. Scope of Work**

The scope is to acquire the services of a Senior Developer and a Developer Analyst/Architect to redo the MES tool with the latest technology and implement identified enhancements only. Some of the capabilities required to be implemented require the following functionality detailed below but not limited to:

- Building workflows, enhancing existing workflows,
- Streamline data management controls,

- Developing user interface application, enhancing collaboration,
- Building reports and dashboards, improving reporting,
- Establishing system integration to LIMS, DCS/Exaquantum, Weighbridge and Logistics Applications (TrekScale, Sizanani, Navitrade)
- Process automation,
- General optimisation to improve efficiency and effectiveness.

The redevelopment of MES and implementation of enhancements must be done using Microsoft Visual Studio.Net. The services will be required for a period of 8 to 10 Months to complete all the items in scope. The consultant must be based in Richards Bay for the period of the service. Consultants required must be Senior Developer and Developer Analyst/Architect.

#### 4. Application Requirement

Develop MES Application with its user interface and Workflows specific to the organization's requirements in addition to the redevelopment of the MES infrastructure, sites, and consistent branding.

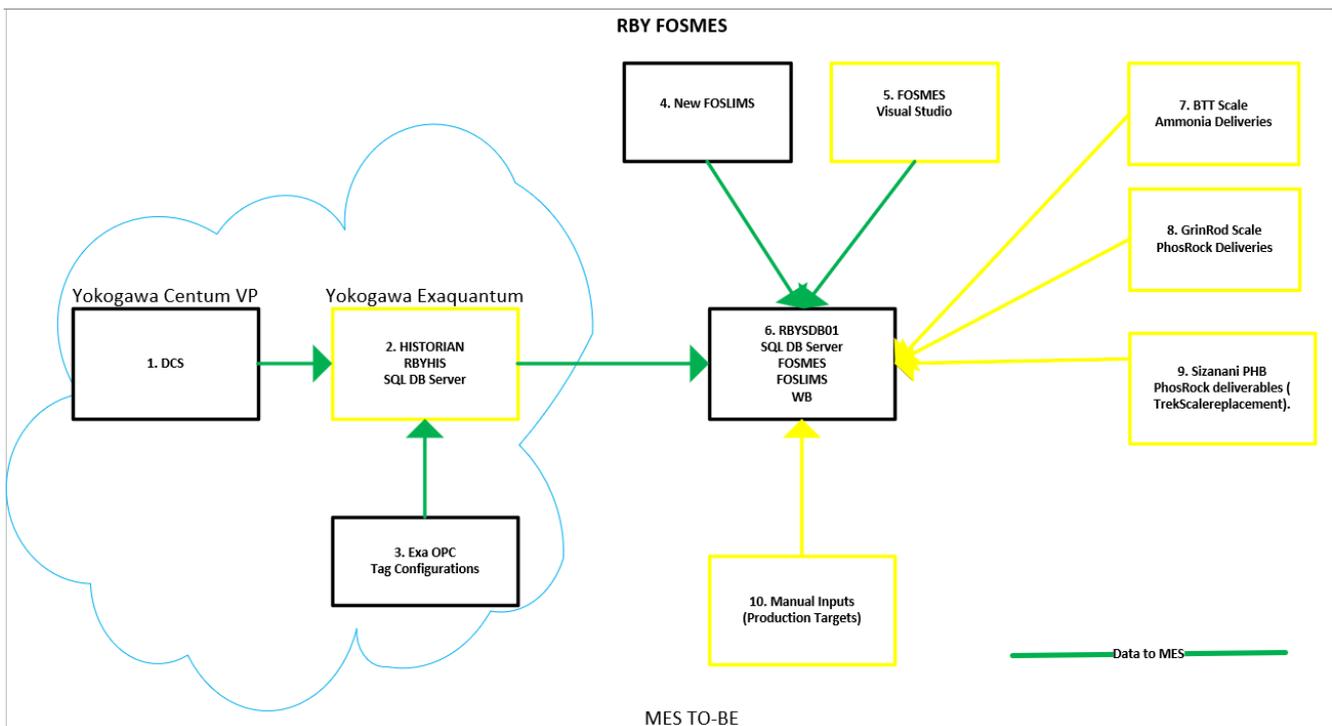
The scope is to acquire the services of a Senior Developer and Developer Analyst/Architect to redo the MES tool with the latest technology and implement identified enhancements. The service provider will be required to redevelop and automate the MES application with integration and workflows as outlined below but not limited to the following Foskor related processes:

1. Integration to DCS and Exaquantum technology
2. Ability to integrate to 3rd party scale applications such as Navitrade and BTT
3. Ability to capture, aggregate and display production data flow
4. Drawing of reports from the application
5. Integration to LIMS applications
6. Project Request and Approval Process
7. Training Nomination and Booking Process
8. Contractor Management Process (*Included Sample Process*)
9. Supplier Evaluation
10. Scope of Work Process
11. Tender Process

12. Conflict Of Interest and Declaration Process

13. Delegation

The requirement is for the developers to reproduce point 5 (FOSMES) with Visual Studio technology, see below diagram. Point 6 (RBYSDB01) is a SQL database, a central database where all data will be collected and stored. Integration points (2,4,5,7,8,9, and 10) as outlined in the diagram must be configured for data to point 6.



**4.1 Post Application Implementation and Deployment**

The Service Provider will be required to give training and hand-over to the ICT team and MES users and provide support post Go-Live. The consultant must provide 3 months post go live support. Formal handover to Foskor team will be done and this will only be done with zero defects.

**4.2 Support**

Hourly rate must be provided for operational support on as and when required basis. This is after post go live support. Service Level Agreement [SLA] should be entered into to this effect. First-line support will be provided by Foskor ICT personnel and resolved within. Consultant services will be utilised where Foskor team is unable to resolve, this will be covered as per hour rate.

**For each of the design process the following must be included to the solution deliverables during the lifecycle of each workflow project.**

- Project Plan & Methodology
- Functional Specification
- Technical and Information Architecture Specifications
- Security and Compliance
- Test Plan
- Solution Implementation Plan
- Training Plan
- Documentation

### **Dependencies**

The following dependencies will be integrated into the developed MES solution:

- DCS/Exaquantum: Incorporating a data historian for real time and historical data, alarms, and events along with aggregations, role-based views and KPIs, graphical HMI, trends, reports, and integration with MES.
- FOSLIMS: FOSLIMS is integrated with MES to publish the released laboratory analysis. This allows production to process the raw material into a finished product according to specifications provided by FOSLIMS.
- TREKSCALE: Trek scale integrates with FOSMES. receives the data after the train weigh in and out.

## **Recommendations From Service Provider**

The service provider should provide a list of recommendations based on out of scope, but related issues and discoveries and decisions made throughout the project with the aim to maximize the value and mitigate risk of the resulting system.

A recommendation of minimal and optimal staffing levels for the system as designed should also be included.

Note that Foskor has an existing enterprise agreement with Microsoft that covers Visual Studio Development Licensing (limited license acquired), the service provider needs to advise Foskor in their proposal of any additional licences required to deliver the project.

## **5. Foskor Logistics**

Foskor will provide working space and necessary connectivity within the FOSKOR SPO. The awarded service provider will be expected to STRICTLY work according to the service providers normal business hours rates.

Foskor's working hours from Monday – Thursday is 7:30 to 16:30 and Friday from 7:30 to 14:00.

## **SECTION D: CERTIFICATIONS & WORK EXPERIENCE**

This section requires the submission of Microsoft certifications, past implemented projects, and certifications of resources, including experience.

Annexure 2 must be completed and reference letters to be included.

### 1. Previous related projects of similar work

Respondents to this RFP must provide references to verify capabilities, experience, and work history in MES Application Development and implementation. References should consist of projects of a similar scope and complexity. The reference contact information shall include the customer's name, start/end dates of the project, customer e-mail address, street address, telephone number, a description of the services provided and timeframe of project.

### 2. Resources Experience

Respondents to this RFP must submit resumes for the staff proposed to deliver service to FOSKOR. Staff must have experience implementing MES applications in Microsoft Visual Studio environment and possess Microsoft Visual Studio / .NET Certifications. The winning respondent must guarantee that proposed staff will actually deliver the proposed services and complete, or where necessary, be substituted for staff with equivalent experience for smooth and stable continuity without affecting the project constraints.

### 3. Implemented Solution Samples

Respondents to this RFP must submit samples of MES Application User Interface designs created as part of previous or current client engagements. Sample screenshots (or equivalent) and links to associated websites (where available) are sufficient to satisfy this requirement.

## **SECTION F: SAMPLE PROJECT SPECIFICATION**

### **1 Sample Project Analysis**

Further to responding to the requirements from SECTION D based on Certification and Experiences, the tenderer will also be required to provide their implementation proposal related to a sample development project as stipulated further in this section.

### **2 Sample Project Overview**

The Revised MES System (MES To-Be) and current MES Application diagrams with required integrations are provided in Annexure 1 and Annexure 2 respectively for the tenderers to analyse and prepare a technical response in developing this sample. The minimum technical response is required as noted below, the solution make encompass any other initiatives to show case any additional functionality and capabilities the tenderer may offer.

#### **2.1 Technical Approach and Methodology**

In this sub section, respondents should explain their understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. Respondents should highlight the problems being addressed and their importance and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.

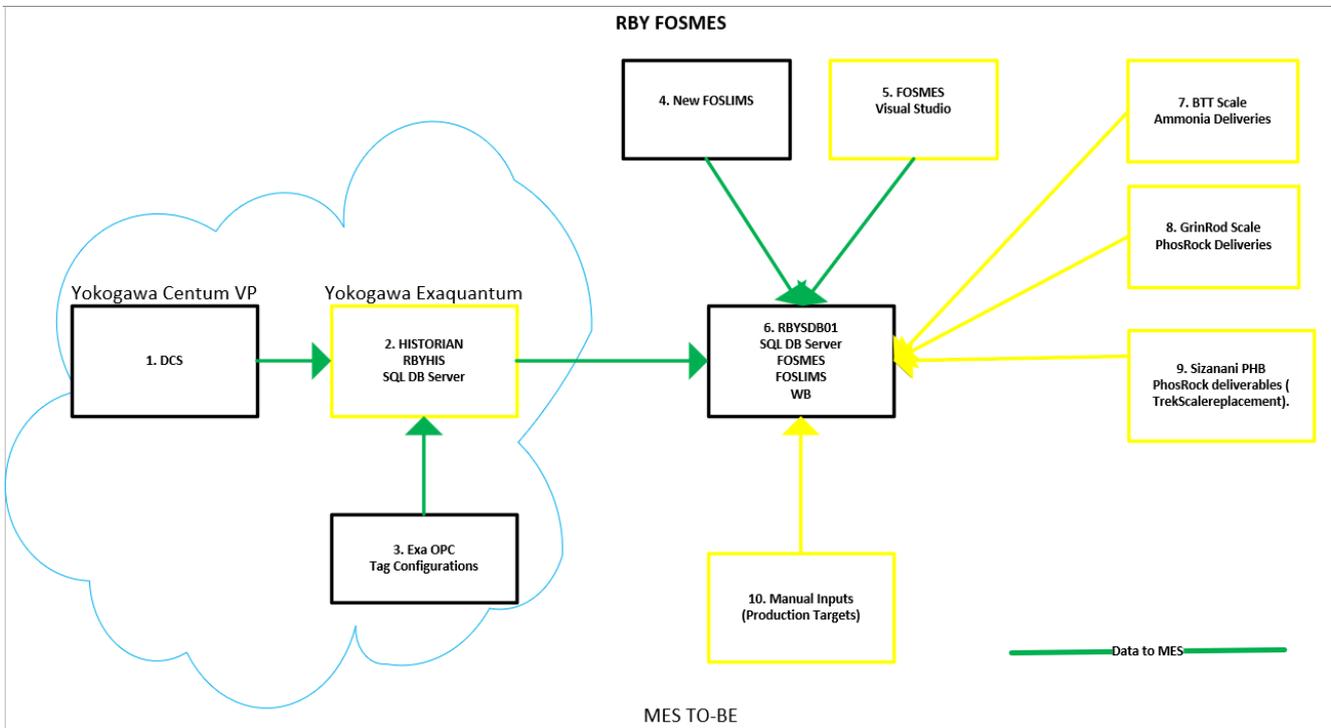
#### **2.2 Work plan & Hours Quantification**

In this sub section respondents should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Client), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the Terms of Reference (TOR) and ability to translate them into a feasible working plan. A detailed project plan with all milestones and timelines inclusive of the different resources and hours to deliver the solution.



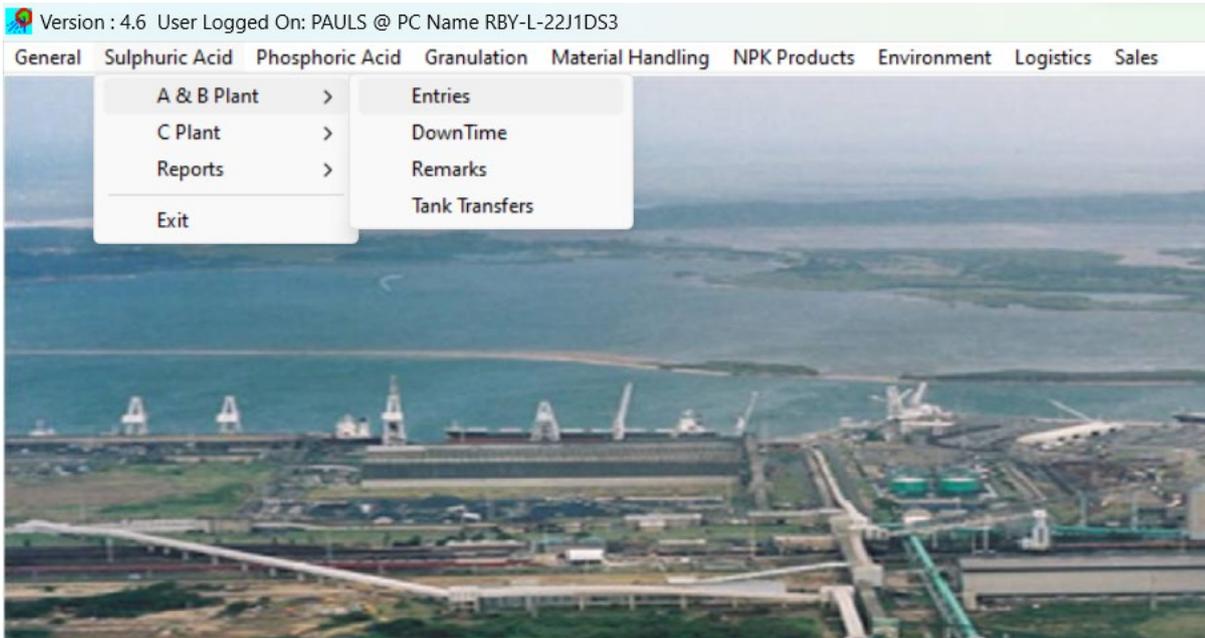
**Total Cost**

**Annexure 1: Revised MES System (To-Be) Diagram**



The figure above illustrates the MES solution and integrated control system. The aim is to redevelop the current system to depict what's in the figure.

## Annexure 2: Current MES Delphi Application and Menus



The figure above illustrates the current MES Application developed in Delphi. It shows version number of the application, user currently logged on, and the workstation name. The menus will be revised, while retaining the same functionality.