

Tender

PROPOSAL FOR MIGRATION OF ELIDZ SCADA SYSTEM UPGRADE

at the

East London Industrial Development Zone

CONTRACT NO: ES/22/SCADA/MIGRATION/01

VOLUME A (1 of 2): PROPOSAL FOR MIGRATION OF ELIDZ SCADA SYSTEM UPGRADE

East London IDZ
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NOTE: DO NOT SPLIT/UN-BIND THIS DOCUMENT

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PART 1 - THE TENDER

CONTRACT NO: ES/22/SCADA/MIGRATION/01

PROPOSAL FOR MIGRATION OF ELIDZ SCADA SYSTEM UPGRADE

1.1 TENDERING PROCEDURES

1.1.1 Introduction

1.1.2 Tender Notice and Invitation to Tender

1.1.3 Tender Data

1.1.1 INTRODUCTION

The East London Industrial Development Zone (Pty) Ltd (ELIDZ) is the duly appointed operator of the East London Industrial Development Zone, a multi-million-rand infrastructure and bulk services development initiated by the Department of Trade, Industry and Competition (DTIC) that is part of the government's micro-economic reform strategy. In 2016, the ELIDZ has been designated as a Special Economic Zone and was the first to receive an operator's permit from DTIC

The East London Industrial Development Zone is located on Buffalo City's West Bank adjacent to the existing East London port and airport with the Phase 1 infrastructure being completed. This was inclusive of Building and Energy Management Control Systems (BECMS System).

East London Industrial Development Zone now requests for detailed quotes from suitably qualified and experienced service providers for the purpose of integration of a SCADA system upgrade. The objective of this project is to address the shortfalls of the current system and gaining additional benefits and features.

The ELIDZ's Building and Energy Management Control Systems (BECMS System) is currently on Schneider's Citect SCADA system and has been operational for the past 15 years. The Citect system in place does not provide sufficient support to the ELIDZ and the service level agreement has expired in 2016.

There is a business need to migrate to a new system that will be beneficial to the ICT team, Operations Team and Facilities and Maintenance unit. Moreover, there is a requirement for an updated system that addresses the financial and technical shortfalls of the current system.

The ELIDZ has conducted a feasibility study across various SCADA systems and benchmarked them according to the current Citect SCADA system to establish the preferred system that can integrate most products onto their system due to their open and interoperable protocols and flexible architecture. The ADRIOT SCADA system was recognised by the ELIDZ as the recommended system to suit the infrastructure upgrade requirements.

1.1.2 TENDER NOTICE AND INVITATION TO TENDER

The ELIDZ is the duly appointed operator of the East London Industrial Development Zone, a multi-million-rand infrastructure and bulk services development initiated by the Department of Trade and Industry (DTIC) that is part of the government's micro-economic reform strategy. The zone is already operational and currently houses a number of manufacturers that supply products for the local and international markets.

The East London Industrial Development Zone hereby invites suitably qualified and experienced service providers (otherwise referred to as the contractor) for integrating the supply, install and commissioning of an ADRIOT SCADA system for the entire ELIDZ.

The successful service provider will be required to facilitate the procurement of the ADRIOT system upgrade on behalf of the ELIDZ and provide an Ad-hoc integration of the system for optimum benefits and features.

Tender Reference No.	Tender Description / Name	Closing Date / Time
ES/21/SCADA/MIGRATION/01	PROPOSAL FOR MIGRATION OF ELIDZ SCADA SYSTEM UPGRADE	18 March 2022 at 12h00

The Services include the following summarized scope of work:

1.1. Assess Technological Options

The service provider shall be expected to consider and make proposal on the integration for SCADA upgrade with elements that shall include but not limited to the following:

- 1.1.1. Consider global best practice case studies of similar upgrades.
- 1.1.2. Consider options for replacing hardware and software in terms of implementation costs and technical feasibility.
- 1.1.3. Assess the energy consumption and general operation conditions and make decisions to optimize the energy and water usage at these points.
- 1.1.4. Provide meaningful system reporting that's aligned to the ELIDZ ICT and facility & maintenance requirements.
- 1.1.5. Ensure that the installed BECMS is properly hardened against malicious attacks in accordance to IEC62443.

1.2. System migration

- 1.2.1 Assess the existing SCADA system to affirm the scope of works for the upgrade to the latest Adriot system using an on premise solution.
- 1.2.2 Perform a risk analysis of the migration of the SCADA system.
- 1.2.3 Devise detailed operational and implementation plan to ensure the BCEMS system transposition provide minimal disruption to the ELIDZ daily operations.
- 1.2.4 Procure the Adriot system with licenses registered on the ELIDZ company name.
- 1.2.5 Inform the ELIDZ representative of any outage requirements in advance where the outage is deemed necessary.
- 1.2.6 Evaluate the list of devices that are currently not on the SCADA to ensure its connected onto the new SCADA system.

1.2.7 The service provider is to ensure that the relevant building automation and control systems standards are adhered relevant to ISO, SANS and/or IEC standards.

1.2.8 The project shall result in reduction in the ELIDZ's energy usage and operational costs.

1.3. Training and organizational handover

1.3.1 Develop system documentation that includes standards, technical manuals, technical procedure, repair documents and technical policies for the newly installed system.

1.3.1 Develop an ELIDZ standards guideline that will suit the ELIDZ operational needs for the BCEMS System.

1.3.2 Provide skills transfer during the system installation to the ELIDZ personnel's and subsequently when the system is completely installed. This includes the skills transfer for quick repair and operations.

1.3.3 Handover newly installed SCADA system with relevant O & M's for ELIDZ take over and integrate the ELIDZ directly via an independent service level agreement with the Adriot software service provider for backup support for the lifecycle of the system.

1.4. Team and Organizational Capacity

1.4.1. Indicate the experience of the company, partners or co-developers on Adriot system implementation. The information should have the clear description of similar project undertaken, year, and contact person details, name of the project, period and the project amount.

NB: For evaluation purposes, the service providers shall list ONLY those projects which involved the installation Adriot system implementation.

1.4.2. Provide a clear indication of the contactable references in similar projects which are not longer than 5 years.

1.4.3. Indicate also the experience of all the key people and/or partners in the project.

1.4.4. Provide a detailed description of all members of the proposed team.

(Reference must be made to the qualifications, knowledge, skills, expertise and experience of the members)

1.4.5. The service provider should demonstrate the ability to manage large scale programmes and projects and possess skills and competencies in project evaluation and selection. Specific experience with offset projects and proof of credibility showing a proven history of large scale procurement and sales of offsets is essential.

1.5. Resource Management

1.5.1. The activities each member to be involved in may be indicated in the project programme.

1.5.2. The estimated time the member will be involved in the relevant activities must also be indicated on the project programme.

1.6. Project Budget

1.6.1. The service provider shall clearly outline the total cost of the project in an itemized format. A high-level bill of quantities illustrating this costing breakdown minimum requirements is shown under section 1.2.2 of volume B. The bidder is encouraged to include more detail in the priced proposal submitted.

The Service provider is to clearly show the procurement costs for all hardware and software with licenses coupled with his proposed markup fee on the hard and software installed. In addition, the service provider is to provide a lump sum integration fee for the duration of the project until it is handed over.

BRIEFING MEETING

Note: No compulsory briefing will be held

BID CONDITIONS:

- ❑ Tenderers are required to submit a Valid SARS Tax Clearance Certificate with their tender, or the relevant SARS pin code which will allow the ELIDZ to confirm the tenderers tax status on-line
- ❑ Tenderer must be registered on Central Supplier Database (CSD) from National Treasury and MAAA number must be provided
- ❑ Tenderers should submit a Valid original or certified B-BBEE certification. Companies with annual turnover less than R10 million to submit an accountant or SARS letter confirming turnover.
- ❑ Tenderers to provide certified copy of Company Registration Certificate
- ❑ Tenderers to provide Letter of Good Standing from Compensation Commissioner
- ❑ Tenderers must submit technical and financial proposals in two separate envelopes clearly marked “Envelope A -Technical Proposal” and “Envelope B – Financial Proposal”. Then the financial proposal will only be opened should the technical proposal be found to be acceptable.
- ❑ Non- signed “Form of Offer” the financial proposal in “Envelope B” submission will result in the disqualification of the tender.
- ❑ Inclusion of Price Offer and/ or any other price related details in “Envelope A -Technical Proposal” will result in the disqualification of the tender.
- ❑ The successful Tenderer will be required to have sufficient and competent staff available to commence full time operations in accordance with the contract with effect from the Commencement Date, failing which the contract will be awarded to the next most preferred Tender.
- ❑ Registration with the CIDB in the category **4EB/4EP** or higher is compulsory for companies wishing to submit tenders
- ❑ Letter of support from OEM as authorized system integrator or agent for Adriot systems. Failure to provide the letter from the OEM will result in disqualification.
- ❑ Supporting letter stating the integration process will adhere to the best global practice in accordance with System Governance (ISO 9001, 14001 and OHSAS 18001) compliance.

EVALUATION

The evaluation will be guided by the ELIDZ procurement policy. Points will be awarded on the basis of Price and BBBEE.

Score breakdown:

- ❑ 80 Points for Price
- ❑ 20 Points for BBBEE

All tenders not providing compulsory responsive documentation and with functionality scoring less than 70 %, will not be considered for the next stage of tender evaluation

TENDER DOCUMENT & SUBMISSION

The RFT document will be available at ELIDZ, CIDB website.

The tender must be submitted in in two separate envelopes clearly marked “Envelope A -Technical Proposal” and “Envelope B – Financial Proposal” with the name/address of submitting company

and the tender reference number. They must be deposited in the tender box situated at reception of the ELIDZ Admin 1 Building, Lower Chester Rd, Sunnyridge, East London.

ELIDZ will not be responsible for tenders placed in an incorrect tender box. The ELIDZ and its representatives will not be held responsible for the receipt of tenders via courier services.

No late tenders will be accepted. The complete set of tender documentation must be returned with the submission and only original intact tenders will be considered.

Telegraphic, telephonic, telex, facsimile and e-mail tenders will not be accepted.

TENDER ENQUIRIES

Queries relating to this tender may be addressed to:

Contact person: T. Sebau

Contact No: 043 702 8200

Email: thato@elidz.co.za

1.1.3 TENDER DATA

Project title:	PROPOSAL FOR MIGRATION OF ELIDZ SCADA SYSTEM UPGRADE		
Contract No:	ES/22/SCADA/MIGRATION/01		
Advertising date:	15 February 2022	Closing date:	18 March 2022
Closing time:	12h00	Validity period :	120 Days
Clause number			
	<p>The conditions of tender are the Standard Conditions of Tender as contained in Appendix F of SANS 294 : 2004 (Edition 1).</p> <p>The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender.</p> <p>Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.</p>		
F.1.1	The employer is the East London Industrial Development Zone (Pty) Ltd (ELIDZ)		
F.1.2	<p>The tender documents issued by the employer comprise:</p> <ol style="list-style-type: none"> 1. THE TENDER <ol style="list-style-type: none"> 1.1 TENDERING PROCEDURES <ol style="list-style-type: none"> 1.1.1 Introduction 1.1.2 Tender Notice and Invitation to Tender 1.1.3 Tender Data 2. THE CONTRACT <ol style="list-style-type: none"> 2.1 CONTRACT DATA 2.2 SCOPE OF WORK 2.3 SITE INFORMATION <p>APPENDICES</p> <ol style="list-style-type: none"> A Generic Occupational Health and Safety Regulations B Existing SCADA System GUI C ELIDZ guidelines for completion of supplier development bid document 		
F.1.2 (cont.)	VOLUME B: FINANCIAL PROPOSAL		

	<p>1. THE CONTRACT</p> <p>1.1 AGREEMENT AND CONTRACT DATA</p> <p>1.1.1 Form of Offer and Acceptance</p> <p>1.2 PRICING DATA</p> <p>1.2.1 Pricing Instructions</p> <p>1.2.2 Bills of Quantities</p>										
F.1.4	<p>The employer's agent is:</p> <table> <tr> <td>Name:</td><td>Thato Sebau</td></tr> <tr> <td>Address:</td><td>ELIDZ Admin 1 Building, lower Chester Rd, Sunnyridge, East London.</td></tr> <tr> <td>Tel:</td><td>043 702 8200</td></tr> <tr> <td>Fax:</td><td></td></tr> <tr> <td>E-mail:</td><td>thato@elidz.co.za</td></tr> </table>	Name:	Thato Sebau	Address:	ELIDZ Admin 1 Building, lower Chester Rd, Sunnyridge, East London.	Tel:	043 702 8200	Fax:		E-mail:	thato@elidz.co.za
Name:	Thato Sebau										
Address:	ELIDZ Admin 1 Building, lower Chester Rd, Sunnyridge, East London.										
Tel:	043 702 8200										
Fax:											
E-mail:	thato@elidz.co.za										
	<p>Add the following sentence: The period of six months may only be reduced should all tenders received be rejected as non-responsive.</p>										
F.2.1	<p>The following tenderers who are registered with the CIDB, or are capable of being so registered prior to submissions, are eligible to submit tenders:</p> <p>a) Contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 4EB/4EP or higher class of construction work.</p> <p>Joint Ventures (JV) are eligible to submit tenders providing that:</p> <ul style="list-style-type: none"> • Every member of the JV is registered with the CIDB • A lead partner has a contractor grading designation in the 4EB/4EP or higher class of construction work; and • The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 4EB/4EP or higher class of construction work; and • A Joint Venture agreement is submitted together with the tender indicating shareholding percentage <p>All parties to a Joint Venture should meet bid condition requirements to be acceptable.</p>										
F.2.7	<p>The arrangements for a non-compulsory on site clarification meeting may be held in an event that it's not held virtually on Microsoft Teams:</p> <p>Location : Offices of the ELIDZ Admin 1 Building Lower Chester Road Sunnyridge East London</p> <p>Date : Starting time :</p>										
F2.13.2	<p>The tender document, fully completed by hand in black ink, is to be deposited in the tender box in ELIDZ Admin 1 Building.</p>										

F2.13.3	Only the original tender submission is required.
F2.13.5	The original tender offer is to be placed in two sealed envelopes, marked Volume A and Volume B, and marked with the Tender Number and Description as well as the Tenderers Name and Address on both envelopes
F2.13.6	A two-envelope procedure will be followed..
F2.14	The ELIDZ will disqualify any submission which is not suitably endorsed or which is not comprehensively completed.
F2.15.1	Submissions that are not received on or before the closing time will, in terms of the ELIDZ procurement policy, not be considered.
F.2.16	The tender offer validity period is 120 days.
F2.19	Access to premises will not be required.
F2.23	<p>The tenderer is required to submit with his tender:</p> <ul style="list-style-type: none"> ❑ Tenderers are required to submit a Valid SARS Tax Clearance Certificate with their tender . ❑ Tenderers should submit a valid original or certified B-BBEE certification. Companies with annual turnover less than R10 million to submit an accountant or SARS letter confirming turnover. ❑ Tenderers to provide certified copy of Company Registration Certificate ❑ Tenderers to provide Letter of Good Standing from Compensation Commissioner ❑ Tenderer is required to provide a CSD registration certificate on older than 10 days before closing of tender ❑ Tenderers must submit technical and financial proposals in two separate envelopes clearly marked “Envelope A -Technical Proposal “and “Envelope B – Financial Proposal”. Then the financial proposal will only be opened should the technical proposal be found to be acceptable. ❑ Non- signed “Form of Offer” the financial proposal in “Envelope B” submission will result in the disqualification of the tender. ❑ Inclusion of Price Offer and/ or any other price related details in “Envelope A - Technical Proposal “will result in the disqualification of the tender. ❑ Proof of Registration with the CIDB in the category 4EB/4EP or higher. ❑ Supporting letter stating the integration process will adhere to the best global practice in accordance with System Governance (ISO 9001, 14001 and OHSAS 18001) compliance ❑ Letter of support from Original Equipment Manufacturer (OEM) as authorized system integrator or agent for ADRIOT systems. Failure to provide the letter from the OEM will result in disqualification. ❑ All returnable documents and schedules as outlined in this tender including the functionality evaluation criteria No.1 to No.5 supporting documentation.
F3.4	Tender submissions will be opened at the offices of the ELIDZ immediately after the closing time.
F3.11	<p>The procedure of the evaluation of tenders is the two envelope system</p> <p>Tender evaluation will be carried out using the 80/20 preference point system, where:</p> <ul style="list-style-type: none"> ▪ A maximum of 80 points are allocated for financial offer. ▪ A maximum of 20 points are allocated for preference.

The above mentioned evaluation will be subject to offers being responsive and passing the functionality criteria prescribed in the attached schedule.

Quality/Functionality Evaluation (Include score points for pricing proposal split)

The score achieved for functionality will be assessed using the following criteria, each of which will be scored individually up to the maximum number of points indicated per criteria (failure to submit the relevant information will result in zero scores for that section):

DETAILED BREAKDOWN OF FUNCTIONALITY POINTS			
Details		SCORE	MAXIMUM SCORE
Criteria 1. Business Location			10
1.1 If the tenderer has a registered and currently operational office within the boundaries of Buffalo City Metropolitan Municipality (Provide lease agreement and/or BCM utility bill)		10	10
1.2 If the tenderer has a registered and currently operational office within the boundaries of the Eastern Cape		5	
1.3 If the tenderer has a registered and currently operational office outside the boundaries of the Eastern Cape		0	
Criteria 2. Applicant's Expertise and Resources			40
2.1 Project Manager			
Experience	Proof that the Project Manager has 10 years' relevant work experience	10	10
	Proof that the Project Manager has between 8 and 10 years' relevant work experience	8	
	Proof that the Project Manager has between 6 and 8 years' relevant work experience	6	
Qualification	Project Management Qualification or PMP Certification and holding qualification in Diploma or equivalent in Electronics/ Mechanical Engineering/Software Engineering/Electrical Engineering.	10	10
2.2 Technician			

Experience	Proof that the Technician has an excess of 5 years' relevant work experience	10	10
	Proof that the Technician has between 3 and 5 years work experience 2	8	
	The Technician has less than 3 years' relevant work experience	6	
Qualification	Degree or equivalent in Electronics/ Mechanical Engineering/Software Engineering/Electrical Engineering or above. (B-TECH, B-ENG BSC, N-Dipl. or equivalent)	10	10
Criteria 3. Relevant Company Experience			25
3.1. Relevant Experience			
Attach a proof of similar projects with implementation of ADRIOT SCADA system		25	25
5 points can be scored for each confirmed similar project in progress or carried out in the past 5 years (Form P06 to be completed for each project with an accompanied reference letter)			
Criteria 4. Methodology Statement (Maximum 10 Pages)			20
4.1. Methodology Statement indicating how the project will be conducted.			
4.1.1 – Methods used to migrate the entire BCEMS systems.		5	5
4.1.2 – Methods used to prevent disruption to operations.		5	5
4.1.3 – Indicate a list of automated push and pull reporting use from the BCEMS system deemed necessary for ELIDZ. Also explaining the purpose of each report in a short description.		5	5
4.1.4 – Compile a risk analysis of system mitigation and provide mitigation action.		5	5
Criteria 5. Project Programme			5
		5	5

<p>Project plan with the implementation plan, key activities linked to resources and timelines inclusive of operations to prevent disruption to services and clearly address the inter-dependencies on the project activities. (Gantt chart required)</p> <p>Project plan with implementation plan, Key activities linked to resources and timelines. (Gantt chart required)</p>		
	Total Points Scored	Maximum Points
TOTAL EVALUATION SCORE FOR FUNCTIONALITY		100
PERCENTAGE POINTS SCORED	%	100%

Tender offers scoring less than 70% functionality will not be considered further.

Financial Offer Evaluation

The score achieved for financial offer will be determined using formula 2 (option 1) as follows:

$$\text{Points awarded} = 80 \left[1 - \frac{P - P_m}{P_m} \right]$$

Where P = the comparative offer of the tender offer under consideration
P_m = the comparative offer of the lowest responsive tender

Preference Evaluation Criteria

A maximum of twenty (20) points will be awarded to a tenderer for achieving BBBEE objectives. BBBEE points shall be computed using a relevant scorecard as guided by the company's annual turnover. This is in accordance with the new Codes of Good Practice. BBBEE evaluation shall be done based only on the information submitted in the ELIDZ Procurement Handbook. No points will be awarded for achieving BBBEE objectives if the total percentage scored for BBBEE is less than 30 %.

All tenders with functionality less than 70% of the total functional requirements will not be considered for the next stage of tender evaluation. ELIDZ reserves the right to negotiate if preferred bidder's proposal exceeds ELIDZ project estimate.

The tender will be awarded to the bid with the highest number of points. A tender may be awarded to a bidder that did not score the highest number of points if reasonable and justifiable grounds exist.

Any contract offered by the ELIDZ will be based on the correctness of information submitted by the service providers. Any misrepresentation of facts by a service provider may lead to disqualification. Should such misrepresentation be uncovered after the commencement of the contracted work, the ELIDZ reserves the right to terminate the contract and recover all payments made to that service provider and any costs that may have been incurred in the process.

ELIDZ reserves the right to have the tenderer's Black Economic Empowerment Credentials verified by an independent agency. (Procurement Handbook – Appendix C: 1 must be fully completed and supplementary information may be completed by service providers with a turnover of less than R10m

and be accompanied by letter from an accounting firm or SARS confirming the company's or sworn affidavit turnover is less than R10m).

In the event that the successful Bidder has been awarded the contract with value above R 2 000 000.00 for the same goods/services on a consecutive basis, the successful Bidder will be required to submit a Supplier development plan for SMMEs to be agreed with the ELIDZ.

F3.13.1	<p>Tender offers will only be considered if:</p> <ul style="list-style-type: none"> e) the tenderer has in his or her possession an original valid Tax Clearance Certificate issued by the South African Revenue Services f) the tenderer in possession of a valid or certified BBBEE certificate g) the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector. h) the tenderer has not: <ul style="list-style-type: none"> i) abused the Employer's Supply Chain Management System; or ii) failed to perform on any previous contract and has been given a written notice to this effect. i) Proof of registration with the Compensation Commissioner is submitted with this tender. j) Proof of Company Registration is submitted with this tender. k) Proof of of Registration with the CIDB in the category 4EB/4EP or higher is submitted with this tender l) Supporting letter stating the integration process will adhere to the best global practice in accordance with System Governance (ISO 9001, 14001 and OHSAS 18001) compliance m) Letter of support from OEM has authorized system integrator or agent for Adriot systems, failure to provide the letter from the OEM will result in disqualification. n) All returnable documents and schedules as outlined in this tender have been completed and submitted with this document. o) The tenderer has registered on CSD
F.3.18	<p>The number of paper copies of the signed contract to be provided by the employer is 1 (one).</p>

PART 2

THE CONTRACT

CONTRACT NO: ES/22/SCADA/MIGRATION/01

PROPOSAL FOR MIGRATION OF ELIDZ SCADA SYSTEM UPGRADE

2.1 CONTRACT DATA

2.1.1 Contract Data

2.1.1 CONTRACT DATA FOR

Project title:	PROPOSAL FOR MIGRATION OF ELIDZ SCADA SYSTEM UPGRADE
Contract No:	ES/22/SCADA/MIGRATION/01

	PART 1: DATA PROVIDED BY THE EMPLOYER
	CONDITIONS OF CONTRACT
	The General Conditions of Contract for Construction Works (2015) [hereinafter referred to as GCC 2015], published by the South African Institution of Civil Engineering, is applicable to this Contract.
	CONTRACT SPECIFIC DATA
	The following contract specific data; amendments; additions; or omissions are applicable to this Contract.

CLAUSES	Compulsory Data
1.1.14	The name of the “Employer” is East London Industrial Development Zone (Pty) Ltd (ELIDZ).
1.1.15	The name of the Engineer is: East London Industrial Development Zone (Pty) Ltd (ELIDZ) – represented by Thato Sehau.
1.1.1.16	<p>The address of the Engineer is</p> <p>Physical Address:</p> <p>Lower Chester Road, Sunnyridge</p> <p>Buffalo City (East London)</p> <p>5201</p> <p>Postal Address:</p> <p>P.O. Box 5458</p> <p>Greenfields</p> <p>5208</p> <p>Telephone: 043 – 702 8200</p>

1.2.2	<p>The address of the Employer is</p> <p>Physical Address:</p> <p>Lower Chester Road, Sunnyridge</p> <p>Buffalo City (East London)</p> <p>5201</p> <p>Postal Address:</p> <p>P.O. Box 5458</p> <p>Greenfields</p> <p>5208</p> <p>Telephone: 043 – 702 8200</p>
1.3.5	<p>Replace in its entirety with the following:</p> <p>The Employer will become the owner of the information, documents, advice, recommendations and reports collected, furnished and/or compiled by the Contractor during the course of, and for the purposes of executing this Contract, all of which will be handed over to the Employer on request, but in any event on the termination and/or cancellation of this Contract for whatever reason. The Contractor relinquishes its retention or any other rights to which it may be entitled.</p>
1.3.6	<p>Add the following as 1.3.6:</p> <p>The copyright of all information, documents, advice, recommendations and reports compiled by the Contractor during the course of and for the purposes of finalising the Works will vest in the Employer, must be regarded as confidential and may not be reproduced or distributed or made available to any person outside the Employer's service, or to any institution in any way, and may not be published either during the currency of this contract or after termination thereof without the prior written consent of the Employer. The Employer shall have the right to use such material for any other purpose without the approval of, information or payment to the Contractor.</p>
1.3.7	<p>Add the following as 1.3.7</p> <p>The copyright of all electronic aids, software programmes etc. prepared or developed in terms of the Contract shall vest in the Employer, who shall have the right to use such material for any other purpose without the approval of, information or payment to the Contractor.</p>
1.3.8	<p>Add the following as 1.3.8:</p> <p>In case of the Contractor providing documents, electronic aids, software programmes or like material to the Employer, the development of which has not been at the expense of the Employer, copyright shall not vest in the Employer. The Contractor shall be required to indicate to which documents, electronic aids, software programmes or like material this provision applies.</p>

4.6.1	<p>Replace with the following:</p> <p>The Contractor hereby indemnifies the Employer against any action, claim, damages or legal cost that may be instituted against the Employer on the grounds of an alleged infringement of any copyright or any other intellectual property right in connection with the Works outlined in this Contract.</p>
5.3.1	<p>Replace with the following:</p> <p>The Contractor shall, save as may be otherwise provided in the Contract or be legally or physically impossible, commence executing the Works immediately from the date the Contractor is given access to and possession of the Site in terms of Clause 11.</p>
5.4.1	<p>Replace the word “On the Commencement date” with the words “Within 14 days of the Contractor submitting to the Engineer an acceptable health and safety plan required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993)”</p>
5.5.1	<p>The contract period with the preferred service provider as a system integrator will be for eight months.</p>
5.6.1	<p>The Contractor shall deliver his Programme of work within 14 days from the Commencement Date.</p>
5.7.2	<p>Add the following to the end of the second paragraph:</p> <p>“which costs may be deducted from any payments due to the Contractor in terms of the Contract or any other Contract, now or in the future, existing between the Employer and the Contractor and for this purpose all these shall be considered on indivisible whole”</p>
5.8.1	<p>The special non-working days are statutory public holidays.</p>
5.8.1	<p>The year-end break commences on 13 December and ends on 03 January</p>
Appendix 1	<p>The time to deliver the Deed of Guarantee is 21 days. The liability of the Guarantee shall be for 10 % of the Tender Sum.</p>
5.9.1	<p>Amend as follows:</p> <p>“On the date that the Contractor is given access to and possession of the site, the Contractor is to ensure they have copies of the drawings and any instructions required for the commencement of the Works. The cost of such drawings and/or instructions, as may be required by the Contractor, will be for the account of Contractor.</p>
5.13	<p>Not applicable</p>

6.5.1	The percentage allowance to cover overhead charges on labour and supervision is 30%, and on material (Software and hardware) cost the percentage allowance is 10%.
6.8.2	Contract Price will not be adjusted annually for escalation.
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is 0%.
6.10.3	The percentage retention on the amount due to the Contractor is 10 % on every invoice, up to a limit of 5% of the contract value.
6.11	This clause shall be deleted in its entirety.
7.6.4	Replace the words “within a reasonable time” with the words “within the period stipulated by the Engineer in such order...”
7.8.1	The Warranty Period is 24 months.
7.9.1	Add the following at the end of this clause: Such losses or damages may be recovered from the Contractor by deducting the same from any amounts still due under this Contract or under any other contract presently or hereafter existing between the Employer and the Contractor and for this purpose all these contracts shall be considered one indivisible whole.
8.6.1.1	The Contractor shall only be required to insure the Works in so far as this comprises new construction. He shall however be required to insure whatever plant, vehicles, tools, equipment and materials are utilised in the execution of his project activities.
8.6.1.1.2	The Employer will not supply any materials.
8.6.1.1.3	The insurance is also required to cover professional fees.
8.6.1.3	Public Liability Insurance shall have a limit of Indemnity of not less than R10 million for any one event. The Public Liability Insurance cover must be extended to include: <ul style="list-style-type: none"> ▪ Spread of fire ▪ Damage to underground services ▪ Surrounding property
9.3.3	Add the following at the end

	After cancellation of the Contract by the contractor, the contractor, when requested by the Employer to do so, shall not be entitled to refuse to withdraw from the Works on the grounds of any lien or a right of retention or on the grounds of any right whatsoever.
10.1.3.6	Delete
10.4.2	Dispute resolution shall be by means of mediation.
10.7	Disputes are to be referred for final settlement to litigation.
11.0	Add the following new Clause 11.0: Amendments to be in writing “No amendments of this Contract or of any provisions or terms hereof and no waiver or relaxation or suspension of any of the provisions or terms of this Contract shall be of any force or effect unless reduced to writing and signed by both the parties hereto.”

CONTRACT NO: ES/22/SCADA/MIGRATION/01

	PART 2: DATA PROVIDED BY THE SERVICE PROVIDER
1.8	<p>The name of the Contractor is</p> <p>.....</p> <p>(insert the legal name of the Contractor, as well as the Contractor's registration number, if applicable)</p>
1.2.2	<p>The address of the Contractor is:</p> <p>Physical Address:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Postal Address:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Email address: Telephone:</p>

2.2	SCOPE OF WORK	
2.2.1	Description of the Works	
	2.2.1.1	Employers objectives
	2.2.1.2	Overview of works
	2.2.1.3	Extent of works
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	2.2.4.5	Integration requirements
	2.2.4.6	Areas of information implementation
	2.2.4.7	Handover and training
	2.2.4.8	Proof of compliance with the Law
	2.2.4.9	Frequency of Meetings
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2.2.9	Survey and setting out	
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	2.2.10.1	Management of the Works
2.2.11	Health and Safety Requirements and Procedures	

2.2 **SCOPE OF WORK**

2.2.1 **Description of the works**

2.2.1.1 ***Employer's Objectives***

The East London Industrial Development Zone (Pty) Ltd (ELIDZ) is the duly appointed operator of the East London Industrial Development Zone, and as such has an obligation to ensure that the various facilities and services that they own and control are at all times fully operational and able to perform the function for which they were intended.

Accordingly, the ELIDZ has a need to enter into contracts with suitable service providers who are able to carry out the SCADA integration services of the Adriot system which intern includes the facilitation of the procurement, installation and commissioning of the software and hardware required to support the objective of the BECMS SCADA migration.

2.2.1.2 ***Overview of the Works***

The preferred bidder will be required to deliver the listed deliverables below:

The project consists of the migration of the SCADA system from the current Citect 2016 SCADA System to Adriot's latest SCADA system. The software integrator will execute the migration with the supervision of the ELIDZ's ICT team. This includes new software, new licenses, engineering of new faceplates, programming, etc. The existing instrumentation, CCTV, Fire systems, BMS units, etc. will be retained and integrated into the Adriot system.

The current faceplates will be transferable to the upgraded graphical interface; however, many will have to be created or updated. The ELIDZ ICT team will be integrated into this process so that skills transfer can be attained. Key engineering personnel will be identified to attend extensive Control System training on all SCADA and PLC equipment.

The system will optimize the following:

1. Local System Support
2. Open and interoperable protocols and/or flexible architecture
3. Monitoring / Reporting and Control Features

2.2.1.3 ***Extent of the Works***

This Specification sets out and states the principal requirements covering the SCADA system upgrade in all areas - Zones 1A, 1B,1C and 1D across all buildings and existing BMS interconnect able infrastructure.

This includes new software, hardware, new licenses, engineering of new faceplates, programming, etc. The deliverable will be a fully operational Adriot SCADA System controlling, monitoring and reporting the ELIDZ's Fire Detection, Security, Fencing, Sewerage, Water, Mariculture, Booster Pumps, Streetlights, Access Control, HVAC, MV Systems, LV Systems and Electrical Instrumentation Systems.

Should the need arise for the rendered service may be extended to include one or more portions of new works undertaken on behalf of the ELIDZ. This additional work shall be undertaken at billed rates wherever possible.

The quantities shall not be interpreted as indicating the overall scope of work to be undertaken under the contract, and the ELIDZ representative otherwise known in this contract as the Engineer shall instruct the Service Provider as to the actual extent of work to be carried out under each billed item. The service is to ensure the works is completed within the stipulated time period and will not be compensated for any project overrun expenditure.

2.2.1.4 Location of the Works

The East London Industrial Development Zone is located within Buffalo City on the western side of the Buffalo River, between the East London port and airport.

The Estate Buildings, Kiosks and Sub Stations are located within the zones tabulated below

SUB-ZONE	DESCRIPTION OF LOCATION
Zone 1A	Situated south-west of Sunnyridge, between the Harbour Arterial Road and Prince George Circuit, and accessed from the traffic circle at the lower end of the new Chester Road.
Zone 1B	Situated west of Sunnyridge, on the northern side of the Harbour Arterial Road and to the east of the Breezyvale Distributor Road, with access off the Breezyvale Distributor Road slightly north of the traffic circle at the western end of the Harbour Arterial Road.
Zone 1C	Situated south-west of Sunnyridge, on the northern side of the Harbour Arterial Road, with access off the Harbour Arterial, opposite the IDZ Transportation Building.
Zone 1D	Situated between Sunnyridge and the airport, on the south of Settlers Way, and accessed from Millard road.

2.2.1.5 Temporary Works

The provision of any temporary works of whatever nature, required for execution of the scheduled items, shall be the responsibility of the Contractor, and the cost thereof shall be included in the rates for the respective items of work.

2.2.2 INFORMATION ISSUED AT AWARD STAGE TO SUCCESSFUL TENDERER

Accessible data of the existing Citect 2016 SCADA system will be issued to the successful tenderer on award.

2.2.3 PROCUREMENT

2.2.3.1 Preferential Procurement Procedures

The ELIDZ Procurement Handbook is included in envelope "A" of the tender submission and must be completed in full.

2.2.3.2 Subcontracting

As stipulated in the General Conditions of Contract, the Contractor shall not subcontract any part of the contract without the prior written consent of the Engineer. Accordingly, the Contractor shall submit his list of proposed subcontractors to the Engineer for approval, prior to commencement of any activities on site.

2.2.4 EQUIPMENT SPECIFICATION

2.2.4.1 Works Specifications and Regulation

- (a) The general machine regulations and Occupational Health and Safety Act No. 85 of 1993. (As amended) shall be strictly adhered to during the implementation stage and end state system operation.
- (b) All standards and specifications are subject to revision, and Tenderers are encouraged to investigate the possibility of applying the most recent editions of the standards comprising of IEC, ISO and SANS standards for SCADA building management and control systems.

The Building Management System SCADA is for the collection of real-time vital data from each system and its various sub system and displays all this information to the front end of Building Management System SCADA. The main function other than controlling is to monitor how the Infrastructure is performing and to be aware the status of equipment. This will enable a prompt and timeous response to any infrastructure damage or equipment breakdowns.

The Particular Specifications applicable to this contract are:

- The ELIDZ Occupational Health and Safety Specification as shown in Appendix A.
- (c) Any departure from the requirements of this Specification shall be stated in the Appendices. No other departures will be permitted.
- (d) Information regarding departures from the Specification or improvements on the Specification included in covering letters or documents will not be considered part of the tender, unless the clauses affected are specifically referred to in the Departures from Specification Appendices, together with a cross reference to the clauses in the covering letter or documents.

2.2.4.2 Design and Standardisation

The equipment shall be designed to facilitate inspection and repairs. All apparatus supplied shall be designed to ensure satisfactory, continuous operation and all materials used shall be suitable for working under the very humid, coastal atmospheric conditions prevailing in Buffalo City, and under such sudden variations or load as may be met with under working conditions.

Corresponding parts shall be interchangeable. When required by the Engineer, the Contractor shall demonstrate this quality.

2.2.4.3 Service Description for The Upgrade

- There are currently +-20000 connection points on the Building Management System SCADA. The service provider is required to migrate these connection points onto the new Adriot SCADA system and also integrate the newer equipment installed within the ELIDZ that is currently not linked to the BECMS system.

- Redundancy configured for the main and secondary BMS SCADA Servers
- The BMS SCADA GUI (graphical user interface) should be re-designed
- Redesign and as-build Architectural network diagrams

2.2.4.4 Procurement from Adriot

The following minimum requirements of equipment and services shall be procured from Adriot for the BECMS upgrade:

(a) Licensing

- 1x annual Adriot GROUP WIDE License Agreement for ELIDZ
- The supply main and secondary SCADA SERVERS.
- Upgrade both main and secondary Server Software.
- Server Setup and Configuration
- The supply of any new SCADA CLIENT licensing
- BMS SCADA and subset software to be upgraded to be able to run on the latest Microsoft platform (Clients & Servers).
- The amendment or upgrading of scan point sizing of existing licenses
- The addition of new SCADA CLIENTS to existing license
- The supply of any new ADRIOT SCADA INTELLIGENCE LICENSING as required
- The supply of any new ADRIOT INFORMATION PORTAL SERVER licensing as required
- The supply of any new ADRIOT INFORMATION PORTAL SERVER licensing as required
- The addition of new SCADA CLIENTS to existing licenses
- The supply of any new ALARM MANAGEMENT AND ANALYSIS TOOL as required
- The supply of the latest version of ADRIOT's software.
- The software's are to be compatible with the latest upcoming windows operating system.
- Commissioning & Testing of the entire system.

(b) An OEM On-site support for 3-year package

- 3 days' on-site support by an Adriot engineer every quarter including travel
- 15 days in office engineering assistance
- The support to be used at the discretion of ELIDZ

(c) Standard training

- 20% discount on the standard ADRIOT TRAINING to form part of package.

(d) Support

- The availability and supply of support services during Core Hours by telephone, fax, modem, or email. Remote support where possible

(e) Support Call Outs

- A special discount of 20% against Adriot Technologies standard support call out rates. This excludes travelling and accommodation which will be charged for at our standard rates.

(f) Period

- This GROUP WIDE license Agreement for ELIDZ will apply for a period of 12 calendar months following placement of order

- This agreement will roll over for a period of 24 months for support and maintenance license of the system following the initial 12-month period of the license.

2.2.4.5 Integration requirements

The service provider is to procure the above-mentioned Adriot package directly from Adriot on behalf of the ELIDZ and facilitate the migration of the SCADA system until the project is handed over for operation by ELIDZ. The service provider is to ensure that the following minimum requirements are achieved during the migration process.

(a) Commissioning Assurance

- All signals will have to be verified back to the SCADA system.
- In all areas communication problems exists, all signals will be re-tested back to the Building Management System (upon fault resolution). This will be done to ensure the data integrity of the Building Management System SCADA.
- All signals to be tested between local infrastructure and protocol converter.
- All signals to be tested between protocol converters and Server Data Collection points
- All signals to be tested from the local infrastructure to the Building Management System SCADA
- All alarm parameters and thresholds to be tested to ensure alarm condition and data capturing
- Verify that all signals are displayed on the Building Management System
- Verify alarm parameters and thresholds and test conditions
- In the upgraded system, telemetry data from the sensor units must inform the main control centre on conditions of the estate buildings. Upon automated decision making, the main control centre must in turn control the various electrical components assigned to the optimization system.
- Completed using basic and advance programming in applicable IEC 61131-3 programming languages.

(b) Monitoring Requirements

The current SCADA / BECMS system should be able to provide the following minimum monitoring services:

- Real Time Monitoring of Building Operation and Performance
- Street area lighting control and optimization
- Control of the ELIDZ's Building Systems and Services
- Trending and Logging of Performance
- Time Scheduling of Building Systems
- Fault Management and Alarming
- Energy Management of the Switching Stations and Reporting
- Generator fuel level monitoring and reporting
- Sea water and sewer water monitoring and reporting
- Automated changeover of power source from mains to generator of connected equipment upon power failure.
- Non-revenue generating energy usage saving
- Manage risks

(c) Minimum communication protocols required

- OPC

- Modbus Ethernet
- BACnet Ethernet
- Twincat Ethernet
- PSDirect – S7PLC
- Modnet - ZP3
- CTICPM
- NetFramework
- Other protocols / open protocol support

(d) Reporting / Dashboards

- Real time and scheduled reports
- Control / Operator Monitoring and Control Stations
- Mobile Device / Tablet Support

2.2.4.6 Area of Implementation

The following schedule of areas and systems will require monitoring and controlling within all the Zones by the BECMS System :

- Fire detection
- Access control
- HVAC
- MV systems
- LV systems
- Sewerage
- Water
- Mariculture
- Maintenance Store
- Node Room
- Booster Pumps (Dairy, Yekani, ASP, Jockey, Electric and Diesel)
- All Estate Buildings (HQ, STP, Admin 1, Admin 2)
- Server Rooms
- Generators
- Substations
- Exterior Lights

2.2.4.7 Handover & Training

The Service provider is to ensure that the Adriot system is successfully licenced for use by the ELIDZ with direct backup support from the Adriot SCADA system service provider for the lifecycle of the Adriot SCADA system. The ELIDZ selected ICT team personnel shall also undergo training from the service provider to conduct the following:

- Daily Operations monitoring and maintenance
- Maintenance of field systems i.e. (PLC inputs/outputs/CPU Cards, Individual system input sensors)
- Conduct repairs on communication faults and sensors displayed
- SCADA Network Maintenance

2.2.4.8 Proof of Compliance with the Law

Service Provider to abide by all relevant and applicable legislation / s and all applicable regulations pertaining to the required services and site.

2.2.4.9 Meetings frequency for upgrade

Work Order or the check list will be kept for the following;

- Inception meeting
- Monthly progress report
- Handover meeting
- Building Management System SCADA daily progress records

2.2.5 SITE ESTABLISHMENT

(a) Facilities provided by the Employer

It is envisaged that the contractor will not require a dedicated power supply for this contract. Plug points that are not utilised and are deemed available at various points within the building may be used provided that permission is required from the Engineer.

Arrangements will be made for the contractor's staff to use the ablution facilities available on the site, provided that they are kept in a clean condition and the contractor takes responsibility for breakages caused by his employees.

The Employer is not able to assist with telecommunication facilities and the Contractor shall make his own arrangements for whatever telephone and facsimile facilities he may require.

(b) Facilities provided by the Contractor

It is envisaged that the Contractor will not require a permanent campsite.

The Contractor will not be required to provide an office, telephone, vehicle or any other facilities or equipment for the exclusive use of the Employer, the Engineer or their staff.

(c) Notice Boards

A notice board is not required, nor will the Contractor be permitted to erect his own advertising board.

2.2.6 SITE USAGE

The Contractor shall restrict his operations to the immediate vicinity of the work being carried out and he shall not be permitted to unnecessarily obstruct or impact on other adjacent areas.

2.2.7 PERMITS AND WAY LEAVES

Permits and way leaves where applicable are required for work on the IDZ services.

2.2.8 ALTERATIONS, ADDITIONS, AND EXTENSIONS TO EXISTING WORKS

Wherever the Contractor is required to carry out new construction to lines and levels based on or tying into existing infrastructure, he shall first check that the information provided for the existing

works is accurate and correct. Should there be any discrepancies as regards position, or defects in the quality of the existing work which may affect the proposed work, then the Contractor shall report these to the Engineer and request clarification prior to proceeding with the new construction.

2.2.9. SURVEY AND SETTING OUT

The Contractor shall be solely responsible for the survey and setting out of any new work where applicable.

2.2.10 MANAGEMENT

2.2.10.1 Management of The Works

a) Planning and Programming

Within 14 days of the Commencement Date and prior to commencement of any operations on site, the Contractor shall prepare and submit to the Engineer a Project Plan that provides full details of the sequence and timing of the scheduled activities required in terms of the contract. This shall cover the entire contract period, and shall be amended and revised as necessary until approved by the Engineer.

In addition, one week before the end of each month, the Contractor shall submit a list of work to be carried out during the following month, together with the anticipated expenditure, using the relevant items from the Bills of Quantities. The list shall include both scheduled activity items and unscheduled additional work items as requested by the Engineer and shall form the basis of the work to be carried out.

b) Sequence of the Works

The sequence of work shall be carried out strictly in accordance with the project plan and monthly schedule as detailed above.

Certain other aspects of unscheduled work may be required from time to time in response to call-outs.

All works where system outages are required will have to be formally corresponded two weeks in advance to the ELIDZ representative otherwise known in this contract as the Engineer.

c) Methods and Procedures

Prior to the commencement of any work on the site the service provider shall submit method statements for each separate maintenance, repair or installation activity that he is required to undertake. The method statements shall be submitted to the Engineer for approval at least 10 days prior to the scheduled start of the activity. The method statements shall set out the procedures to be followed in carrying out the activity and shall include details of compliance with Occupational Health and Safety. This method statement should also include Environmental aspects where applicable.

The Contractor shall ensure that his staff and workers are properly trained in the safe and effective use of any equipment, plant or materials necessary to undertake the work.

d) **Quality Control**

The Contractor shall ensure that the appearance of his staff is neat and tidy, and he shall provide them with appropriate and easily identifiable uniforms, preferably with the Contractor's logo, to enable them to be recognised at all times while on site.

The Contractor shall provide whatever samples of materials are required for approval prior to commencement and shall undertake all necessary tests that are required in terms of the applicable specification to ensure that his workmanship meets the required standard.

e) **Other Service Providers**

Various other maintenance activities and construction contracts will be underway concurrently with this contract. The Contractor may be required to co-ordinate his activities together with the activities of the other contractors, and shall be notified of specific requirements by the Engineer.

f) **Testing, Completion, Commissioning**

Each separate activity included in the contract shall be fully tested and independently commissioned on completion and shall immediately thereafter be made available for use by the ELIDZ or the relevant tenant. The tests are to comply the standard tests recommend by the IEC and SANS.

g) **Communications**

All communication of whatever nature shall be through the Engineer. The procedure for call-outs shall be discussed and agreed between the Contractor and the Engineer prior to commencement.

Categorisation of call-outs and relevant response times are described in clause b) above.

h) **Key Personnel**

Within 14 days of the Commencement Date and prior to commencement of any operations on site, the Contractor shall submit to the Engineer detailed CV's of his key personnel together with their relevant contact details. Should the key personnel not be the same as those included in the tender submission, then the Contractor shall be required to provide personnel with equivalent or better qualifications and experience.

i) **Management Meetings**

The Contractor shall be required to attend a monthly meeting during which all aspects relating to the progress, scope, expenditure, OHS and general administration of the contract will be discussed. The Contractor shall ensure that his representative at the meeting has the necessary understanding and authority to make decisions regarding these issues.

j) **Payments**

All payments to the Contractor shall be by means of electronic transfer and the Contractor shall provide his banking details to the Engineer for the contractor's remuneration.

- The Contractor shall draw up and submit his claim using the agreed quantities.

- The Engineer shall check the claim and certify the amount to be paid.
- The Contractor shall provide a VAT invoice to the Engineer for the certified amount.
- The Engineer shall submit the claim, the VAT invoice and the payment certificate to the Employer.
- The Employer undertakes to make payment of all amounts due to the contractor within 30 days from receipt of an invoice from the Engineer.
- All invoices are to be submitted for the attention of the Clients Representative who will in turn deliver the authorized invoices to Accounts.

k) **Records**

The Contractor shall be required to provide a detailed report following each scheduled progress inspection on an Excel spread sheet or Word document in both hard and electronic format. The report shall be in a format to be agreed with the Engineer and shall contain the following:

- A record of completed activities undertaken.
- A daily record of resources (Both personnel and equipment) utilised on site.
- Status Quo Equipment tracker outlining delivery dates for hardware and software.
- OHS Compliance Status Quo.

The report shall be submitted within seven days of the scheduled inspection.

l) **Permits**

The Contractor is required to obtain identity tags and access cards from the ELIDZ for all his staff that enter the site. He shall make prior arrangements with the ELIDZ to obtain the tags timeously, as no member of his staff shall be allowed on site without the identity tag clearly displayed. These will be issued by the ELIDZ at no cost to the Contractor.

m) **Proof of Compliance with the Law**

The Contractor shall be required to comply with all regulations and laws of whatever nature that are applicable to his operations throughout the duration of the contract, and shall produce documentary evidence when requested for all aspects, including, but not limited to:

- Valid proof of registration with the Compensation Commissioner
- Proof of registration for income tax and VAT
- Compliance with the Occupational Health and safety Act and Construction Regulations.

n) **Guarantee**

The entire system shall carry minimum guarantee period of 24 months. The scope of this guarantee includes all hardware and software installed under this contract. If hardware installed are found to have failed within this period as a result of poor manufacturing processes and/or poor materials coupled with a poor installation, it shall be replaced free of charge by the successful bidder.

2.2.11 Health and Safety Requirements and Procedures

The Contractor shall comply with all relevant aspects of the Occupational Health and Safety Act together with the Regulations referred to therein, as applicable to the scope of his activities.

Particular attention must be paid to the issuing of the relevant Notices, appointment of responsible people, undertaking Hazard Identification and Risk Assessments, and preparation of a Health and Safety Plan. All necessary documentation shall be prepared and submitted for comment and approval immediately after the contract award and prior to commencement with any work on site.

Specific Health and Safety considerations applicable to this project are detailed in the ELIDZ Occupational Health and Safety Specification.

Method statements submitted for the Contractor's maintenance activities shall include details of compliance with Occupational Health and Safety, and shall be submitted immediately after the contract award.

The Contractor shall ensure that all his personnel are properly inducted with respect to the ELIDZ Occupational Health and Safety standards prior to their undertaking any work within the IDZ premises.

The Contractor shall provide the necessary personal protective equipment and clothing to all staff as necessary for the type of work being carried out.

Wherever the Contractor's staff may be subjected to hazardous substances, excessive dust or noise, then he is to arrange for pre and post-employment medical examinations on the relevant employees.

No member of the Contractor's staff shall be allowed on site while under the influence of alcohol or drugs. Any member of his staff that exhibits any signs of alcohol or drug usage shall be removed from the ELIDZ premises by security staff.

The Contractor shall be responsible for the protection of the public in the areas in which he is working and shall provide barricades and lighting as necessary to ensure their safety. He shall also be responsible for the safe control of traffic wherever his works impact on the existing roadways.

2.3 SITE INFORMATION

2.3.1 Existing Services

2.3.2 Environmental Restrictions

2.3 **SITE INFORMATION**

2.3.1 **EXISTING SYSTEM**

The ELIDZ has a license with Schneider for their SCADA system, Citect, v2016. Generally, with Schneider Citect, there are 3 types of licenses on offer:

- a) Full Server;
- b) Client read-only; and
- c) Client read-write:

Schneider Citect usually makes no differentiation between modules and normally a single full licence enables all functionality. A full license also acts as a Client on Server hardware and the system can be operated from the Server. The existing system uses a On-Premise solution. The ELIDZ does not have an SLA in place at the moment and were not privy to support services. The Citech SCADA system has been renamed to AVEVA Plant SCADA. The current Citect SCADA 2016 package runs from two off-site Server units that operate in standby backup mode.

The current Citect SCADA system on site does not allow for multiple view nodes, remote view stations or access via mobile digital devices. All that is needed are the applicable licences and software. The current SCADA system is programmed to send SMS alarm messages to designated staff for information and/or action. The Citect system was highly interoperable and extensive at its time. It supported majority of requirements of the East London Industrial Development Zone. However, there are many interface challenges with new equipment installed that's linked to system shortfalls that must be overcome with the new SCADA system. Customaries drivers to integrate the Windows Framework with this system are required. However, there are limited local support available.

The existing SCADA system are approximately 20000 I/O Counts with a Server and Hot Standby. 5 Control clients are being utilized with abilities for full control and switch remote equipment on correct privilege login. There is also 1 view client that can only view information. Various communication protocols exist in the ELIDZ for Fire Detection, CCTV, HVAC, MV systems, LV systems, Instrumentation, etc. The most common protocols used for the SCADA and field hardware communication are:

- OPC - For Estate Buildings, Kiosks and Sub Stations – Software interface of SSE_OPC.
- Modbus Ethernet - Alarm Panels, QOS, Generators
- BACNet Ethernet - Aircon units at Head Quarters(HQ) and STP (4 Units/Devices in Total)
- TwinCat Ethernet - Lighting at HQ and STP (13 Units/Devices in Total)
- PSDirect – S7PLC - Siemens PLC at Mariculture WS for Pump and Level Status's
- Modnet – ZP3 - Interface for Fire Network, monitoring all Fire Devices on Site
- CTICMP - Network Monitoring
- NetFramework - Fencing Interface – Not currently included in the SCADA network. Must be configured on Windows Framework.

The upper-level network connecting the SCADA and Controllers is single mode fiber optic cables and Moxa Layer 3 network switches. All control networks are using VLAN's over the fiber optic network. The upper level fiber network is managed by the IT department. Any changes that may be required is done via an email to the IT department

Compatibility is achieved amongst varying protocols using multiple drivers to connect equipment from different vendors to controllers. There are two off-site servers. Data is written to both services to ensure that there is back-up if one server fails. The existing SCADA system Graphic User Interface(GIU) Faceplates are in Appendix B of this tender.

2.3.2 ENVIRONMENTAL RESTRICTIONS

Certain areas within the ELIDZ have been designated as "Environmentally sensitive areas". Drawings indicating the location and extent of these areas can be obtained by request from the Engineer. Under no circumstances shall the Contractor enter or use these areas for any purpose whatsoever, without the specific written approval of the Engineer.

2.3.3 EXISTING BUILDINGS

Numerous buildings exist within the area in which the Contractor is required to undertake maintenance operations. Should the Contractor require drawings of any existing building to enable him to undertake his activities on site, then he shall request these from the Engineer, who will make the necessary arrangements with the ELIDZ or other consultants for the provision of the record drawings for these buildings.

APPENDICES

APPENDIX A

ELIDZ OHS Regulations

APPENDIX B

SCADA SYSTEM GU SCADA SYSTEM GUI ONLY

***Remaining Data (To be issued to the
successful bidder upon appointment)***

APPENDIX C

ELIDZ GUIDELINES FOR COMPLETION OF SUPPLIER DEVELOPMENT BID DOCUMENT
