

Tender

**TENDER FOR THE PROPOSAL FOR FUNDING,
PROCUREMENT AND IMPLEMENTATION OF
ENERGY EFFICIENT STREET LIGHTING
TECHNOLOGIES FOR RETROFITTING EXISTING
STREETLIGHTS THROUGHOUT ELIDZ THROUGH A
SHARED SAVINGS SCHEME**

at the

East London Industrial Development Zone

CONTRACT NO: ES/21/SMARTLIGHT/01

VOLUME A (1 of 2): TECHNICAL PROPOSAL

**TENDER FOR THE PROPOSAL FOR FUNDING,
PROCUREMENT AND IMPLEMENTATION OF
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SHARED SAVINGS SCHEME**

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

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TENDER FOR THE PROPOSAL FOR FUNDING, PROCUREMENT
AND IMPLEMENTATION OF
ENERGY EFFICIENT STREET LIGHTING TECHNOLOGIES FOR
RETROFITTING EXISTING
STREETLIGHTS THROUGHOUT ELIDZ THROUGH A SHARED
SAVINGS SCHEME



PART 1 - THE TENDER

CONTRACT NO: ES/21/SMARTLIGHT/01

**TENDER FOR THE PROPOSAL FOR FUNDING,
PROCUREMENT AND IMPLEMENTATION OF
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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, and much of the Phase 1 infrastructure and bulk services required for the development have been completed.

As the East London Industrial Development Zone is now operational and request expression of interest and detailed proposals from suitably qualified and experienced service providers to undertake Energy Efficient Street lighting Project.

The objective of this project is to secure funds from private service providers to retrofit the existing streetlights with LED streetlights in an effort to reduce electricity usage and maintenance costs within the Zone street lighting infrastructure.

The prospective service providers will be expected to provide the required investment capital and resources for the implementation of the project.

The service provider(s) shall enter into a service level agreement (SLA) for a determined period for the implementation of the project at mutually agreed terms and conditions. The agreed percentage savings of which will be shared between the service provider and ELIDZ will form part of the SLA. No binding legal relationship will exist between any of the bidders and the ELIDZ until the execution of a signed contractual SLA.

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 is now operational, tenders are hereby inviting a suitable qualified and experience service provider for the provision to supply, install and commission smart street light, located at our facilities within the West Bank area of the Buffalo City Metropolitan Municipality

The successful service provider will be required to secure funds from private service providers to retrofit the existing streetlights with LED streetlights in an effort to reduce electricity usage and maintenance costs within the Zone street lighting infrastructure.

Tender Reference No.	Tender Description / Name	Closing Date / Time
ES/20/SMARTLIGHT/01	TENDER FOR THE PROPOSAL FOR FUNDING, PROCUREMENT AND IMPLEMENTATION OF ENERGY EFFICIENT STREET LIGHTING TECHNOLOGIES FOR RETROFITTING EXISTING STREETLIGHTS THROUGHOUT ELIDZ THROUGH A SHARED SAVINGS SCHEME	08 October 2021 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 energy efficient LED street lighting technology and options that shall include but not limited to the following:

1.1.1. Consider global best practice case studies of successful similar energy efficient street lighting

Projects.

1.1.2. Consider options for retrofitting street lighting technologies in terms of implementation costs and technical feasibility.

1.1.3. Consider the integration of remote-management solution for public lighting infrastructure as a viable option for the reduction of operational and maintenance costs. The lights must have Internet of things (IOT) devices installed which are capable of linking up using multiple protocols.

1.2. Develop Business Model

The proposal shall include an identification of at least one suitable business model for implementing the street lighting retrofit project. The business model shall:

1.2.1. State the project's potential for job creation and local economic development.

1.2.2. Make proposals regarding the optimal manner in which to structure and manage the project, in order to shift risk and financing from the ELIDZ onto the service provider.

1.2.3. Develop a comprehensive financial model, indicating overall project costs, revenue and

expected returns with the shared savings split.

1.2.4. Assess the financial and commercial viability of the project and make suggestions on the financial structuring and financing options.

1.2.5. Propose procurement mechanisms.

1.3 Proposed Collaboration Model with ELIDZ

1.3.1. The model should list all the available partners with their respective place/country of origin and how they will relate to the IDZ and their roles on the whole model.

1.3.2. Clearly indicate all the options in detail which could be undertaken.

1.3.3. It should be noted that the model should be based on the fact that the ELIDZ will not be required to provide any capital resources to the project.

1.4. Team and Organizational Capacity

1.4.1. Indicate the experience of the company, partners or co-developers on similar streetlight projects. 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 of no less than hundred (400) streetlights.

1.4.2. 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:

- a) The qualifications, knowledge, skills, expertise and experience of the members;
- b) The activities each member is to be involved in;
- c) The estimated time the member will be involved in the relevant activities

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. Project benefits

1.5.1. Provide a clear quantitative and qualitative account of expected benefits to the ELIDZ, giving special focus on the following key priorities listed below.

1.5.2. The following potential benefits are desirable and should be demonstrated for the proposal to be considered as viable from the ELIDZ's point of view:

- a) Potential to create job opportunities for youth and cooperative.
- b) The project shall result in reduction in the ELIDZ's energy usage and operational costs on street lighting infrastructure.
- c) The proposed LED technology must meet the ELIDZ's minimum technical and design requirements for streetlight luminaires and performance specifications. The service provider shall ascertain the quality and performance capability of the LED luminaires offered by providing the test reports certifying that the products comply with the relevant SANS and/or IEC standards.

- d) Improve the performance and reduce the maintenance costs of the existing streetlight infrastructure. The proposed solution shall not result in a drastic increase in expenditure on the operation and maintenance of the ELIDZ's streetlight infrastructure.
- e) Only products tested in accordance with the relevant SANS and/or IEC standards and with a proven operating track record in similar working conditions shall be offered.
- f) The ELIDZ reserves the right to request the service provider to install a minimum quantity (not more than 10 lights or any other number as shall be agreed between the parties) of the proposed LED streetlight luminaires in a pilot project to test the performance capability of the luminaires before full roll out of the project.

1.5.3. The following potential benefits shall be available to the prospective service provider(s) should

the proposal be accepted;

- a) The ELIDZ shall enter into a service level agreement with the successful bidder(s) for the repayment of the capital invested through a shared savings scheme.
- b) The conclusion of the SLA agreement shall be subject to the implementation of the project yielding financial savings through the reduction of the operation and maintenance costs on street lighting infrastructure.
- c) Should there be no benefits to either parties, the ELIDZ reserves the right not to appoint any service provider.

1.6. Project Budget and Financial Model

1.6.1. The service provider shall clearly outline the total cost of the project in an itemized format regardless of the fact that ELIDZ will not be utilizing its financial resources for the project. 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.

1.6.2. Indicate a clear full project cost structure [amongst others including the costs of capital, value of assets, installation and operational costs, depreciation etc.]

1.6.3. A well outlined expected collection ratio; planned cost recovery to be indicated. The project price must relate as closely to the specific project deliverables. The ability to relate value for money to price must be supported by the price proposal structure.

1.6.4. A clear detailed project budget must be provided in the form of an activity costing in a table format whereby each proposed project activity item is clearly stated with the quantity, unit cost and total cost.

1.6.5. A clear indication of how will the financial liabilities [outstanding debts] impacts the financial situation of the implemented projects should be given.

1.6.6. The commitment letter of support from the funding sources should form part of the proposal.

1.6.7. A clear outline of the project financing structure should reflect the following core components amongst others:

- a) Internal Rate of Return (IRR)
- b) Net Present Value (NPV)
- c) Payback Period (PBP)
- d) Financing Period
- e) Equity/debt ratio
- f) Shared savings amounts (SSA)
- g) Sources of financing with funding amount (grants/subsidies, public debt, private debt, private equity. etc.) supported by letters of support for funding, if any.

BRIEFING MEETING

Note: It is compulsory for interested bidders to register with the ELIDZ as a potential tenderer. Such registration as a potential tenderer must be effected by sending an email to Anathi Mzantsi at the ELIDZ, confirming your interest in tendering, to be received by **no later than 29 September 2021 at 09h00**.

Please make use of the following e-mail address for such registration: **anathi@elidz.co.za**
Interested bidders who have not registered by the due date and time will not be entitled to submit a tender.

A Teams meeting request (with link) will be emailed to all registered potential tenderers by no later than **29 September at 09h30**.

A virtual Tender Clarification Meeting with representatives of the Employer will take place with the registered potential tenderers on the Teams platform on 29 September 2021 starting at 10h00.

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 **5EP** is compulsory for companies wishing to submit tenders
- ☐ For quality control the bidder will be required to submit a confirmation test/compliance certificate as per Appendix E from the manufacture of the articles.

EVALUATION

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

Score breakdown:

- ☐ 80 Points for Price
- ☐ 20 Points for BBEE

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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 for download from 17 September 2021, at www.elidz.co.za under opportunities section.

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, Sunnyside, 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. Seha

Contact No: 043 702 8200

Email: thato@elidz.co.za

1.1.3 TENDER DATA

Project title:	TENDER FOR THE PROPOSAL FOR FUNDING, PROCUREMENT AND IMPLEMENTATION OF ENERGY EFFICIENT STREET LIGHTING TECHNOLOGIES FOR RETROFITTING EXISTING STREETLIGHTS THROUGHOUT ELIDZ THROUGH A SHARED SAVINGS SCHEME		
Contract No:	ES/21/SMARTLIGHT/01		
Advertising date:	17 September 2021	Closing date:	08 October 2021
Closing time:	12h00	Validity period :	120 Days
Clause number			
	<p>The conditions of tender are the Standard Conditions of Tender as contained in Annexure 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 Specification B Construction Environment Management Plan 		

	<p>C Drawings</p> <p>D ELIDZ guidelines for completion of supplier development bid document</p> <p>E Schedule of particulars and guarantees of luminaire</p>										
F.1.2 (cont.)	<p>VOLUME B: FINANCIAL PROPOSAL</p> <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 border="1"> <tr> <td>Name:</td><td>Thato Sehau</td></tr> <tr> <td>Address:</td><td>ELIDZ Admin 1 Building, lower Chester Rd, Sunnyside, 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 Sehau	Address:	ELIDZ Admin 1 Building, lower Chester Rd, Sunnyside, East London.	Tel:	043 702 8200	Fax:		E-mail:	thato@elidz.co.za
Name:	Thato Sehau										
Address:	ELIDZ Admin 1 Building, lower Chester Rd, Sunnyside, East London.										
Tel:	043 702 8200										
Fax:											
E-mail:	thato@elidz.co.za										
	<p>Add the following sentence:</p> <p>The period of six months may only be reduced should all tenders received be rejected as non-responsive.</p>										
F.2.1	<p>Only tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to submit tenders:</p> <p>a) Contractors who have a contractor grading designation equal to or higher than a contractor designation determined in accordance with the sum tendered for 5EP class of construction work; and</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 5EP 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 5EP class of construction work. • A Joint Venture agreement is submitted together with the tender indicating shareholding percentage • All parties to a Joint Venture should meet bid condition requirements to be acceptable. Unincorporated Joint Ventures are required to compile a consolidated verified BBBEE certificate in order to achieve Preferential Points 										

	<ul style="list-style-type: none"> Unincorporated Joint Ventures are required to compile a consolidated verified BBEE certificate in order to achieve Preferential Points JV agreement is submitted indicating the participation split of members of JV <p>In Bids where consortia/joint venture/ sub-contractors are involved; each tendering party must submit a separate proof of TCS/PIN/CSD number</p> <p>In the event that the successful Bidder has been awarded the contract with value above R 5 000 000.00 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.</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 : N/A</p> <p>Starting time : N/A</p>
F2.13.2	The tender document, fully completed by hand in black ink, is to be deposited in the tender box in ELIDZ Admin 1 Building.
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"> <input type="checkbox"/> Tenderers are required to submit a Valid SARS Tax Clearance Certificate with their tender . <input type="checkbox"/> 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. <input type="checkbox"/> Tenderers to provide certified copy of Company Registration Certificate <input type="checkbox"/> Tenderers to provide Letter of Good Standing from Compensation Commissioner

	<ul style="list-style-type: none"> ❑ 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 5EP. ❑ 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. <p>The above mentioned evaluation will be subject to offers being responsive and passing the functionality criteria prescribed in the attached schedule.</p>
F3.12	<p>POPIA</p> <p>By submitting this tender, the bidder hereby consents to providing the ELIDZ with personal information as provided in the Protection of Personal Information Act 2013 (POPIA).</p> <p>The ELIDZ undertakes to:</p> <ol style="list-style-type: none"> 1. It will take all reasonable steps and precautions to preserve the integrity of bidders Personal Information and to prevent any corruption or loss of such data. 2. It will not do any of the following: copy, compile, collect, collate, process, store, transfer, alter, delete, interfere with or in any other manner use the bidders Personal Information as described in the Act for any purpose other than with the express prior written consent of the bidder. 3. Utilize the personal information provided for the purposes of assessment of the tender submitted by the bidder and contracting with the successful bidder as the case may be. 4. It will immediately inform the bidder in writing if any Personal Information relating to it has been compromised. The ELIDZ undertakes to immediately inform the bidder in writing as to how it will manage such compromise and what steps will be taken to rectify the situation. 5. Due and reasonable care of the bidders personal information and not to share the said personal information with any third party unless you have authorised such disclosure or the release of such information is required by law. 6. At all times strictly comply with its obligations under Data Protection Legislation. 7. Subject to legislative, regulatory, contractual and other legitimate conditions, the respective bidder has certain rights in terms of how their information is processed. The bidder can request access to information or guidance on how to lodge a complaint from or direct a request to exercise afforded rights to the ELIDZ Information Officer, or his/her deputy/ies, or the Information Regulator.

8. It will maintain guidelines, policies or procedures for the retention or destruction of data and will retain it only as long as necessary for the identified purposes or to meet legal requirements or policies.
 9. It shall implement and maintain, at its cost and expense, appropriate, reasonable technical and organisational measures to prevent loss of, damage to or unauthorised destruction of Personal Information and unlawful access to or Processing of Personal Information.
- The ELIDZ shall not incur any liability for costs, loss or damage arising from the use of inaccurate or incomplete data provided by or on behalf of the bidder.

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	Points Scoring	Points Allocation
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
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		20
2.1. Site Supervisor/ Artisan Electrician not less than 10 years of experience (and/or if the experience is less than 10 but above 5 year a score of 5 points will be given) (CV and attached proof of certificate of Manpower section 26 of the act and certificated of course completed)		10
2.2. Site Electrician not less than 5 years of experience (and/or if the experience is less than 5 but above 3 year a score of 2 points will be given) (CV and attached proof of certificate of courses completed)		5
2.3 Provide a CV of the appointed OHS rep and attach their SMATRAC certificate		5
Criteria 3. Relevant Company Experience		25
3.1. Relevant Experience		
Attach a proof of similar projects with installation of more than 400 streetlights - 5 points can be scored for each confirmed similar project in progress or carried out in the past 5 years (Five referees to complete and stamp Annexure P06-1/ previous client conformation letter on a letter head to score a maximum 25 points)		25

Criteria 4. Methodology Statement		25
4.1. Methodology Statement and Project program indicating how the project be conducted.		
4.1.1 – Resources available with service continuity.		5
4.1.2 – Programme with timelines and deliverables		5
4.1.3 – OHS requirements and implementation.		5
4.1.4 – Backup Service support and warranties		5
4.1.5 – Shared savings approach		5
Criteria 5. Availability of Funds		20
5.1 Availability of Funds (Submit proof from a financial institution confirming the budget/funds the Service Provider secured to implement the project)		
Below R5 million – 5 points R5m – R9 million – 10 points Above R9 million – 20 points		20
		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

	<p>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.</p> <p>ELIDZ reserves the right to have the tenderer's Black Economic Empowerment Credentials verified by an independent agency. (Procurement Handbook – Annexure: 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).</p> <p>In the event that the successful Bidder has been awarded the contract with value above R 5 000 000.00 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.</p>
F3.13.1	<p>Tender offers will only be considered if:</p> <ul style="list-style-type: none"> a) the tenderer has in his or her possession an original valid Tax Clearance Certificate issued by the South African Revenue Services b) the tenderer in possession of a valid or certified BBBEE certificate c) 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. d) 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. e) Proof of registration with the Compensation Commissioner is submitted with this tender. f) Proof of Company Registration is submitted with this tender. g) Proof of of Registration with the CIDB in the category 5EP is submitted with this tender h) All returnable documents and schedules as outlined in this tender have been completed and submitted with this document. i) 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>

TENDER FOR THE PROPOSAL FOR FUNDING, PROCUREMENT
AND IMPLEMENTATION OF
ENERGY EFFICIENT STREET LIGHTING TECHNOLOGIES FOR
RETROFITTING EXISTING
STREETLIGHTS THROUGHOUT ELIDZ THROUGH A SHARED
SAVINGS SCHEME



PART 2

THE CONTRACT

CONTRACT NO: ES/21/SMARTLIGHT/01

**TENDER FOR THE PROPOSAL FOR FUNDING,
PROCUREMENT AND IMPLEMENTATION OF
ENERGY EFFICIENT STREET LIGHTING
TECHNOLOGIES FOR RETROFITTING EXISTING
STREETLIGHTS THROUGHOUT ELIDZ THROUGH A
SHARED SAVINGS SCHEME**

2.1 CONTRACT DATA

2.1.1 Contract Data

2.1.1 CONTRACT DATA FOR

Project title:	TENDER FOR THE PROPOSAL FOR FUNDING, PROCUREMENT AND IMPLEMENTATION OF ENERGY EFFICIENT STREET LIGHTING TECHNOLOGIES FOR RETROFITTING EXISTING STREETLIGHTS THROUGHOUT ELIDZ THROUGH A SHARED SAVINGS SCHEME
Contract No:	CONTRACT NO: ES/21/SMARTLIGHT/01

	PART 1: DATA PROVIDED BY THE EMPLOYER
	CONDITIONS OF CONTRACT
	The General Conditions of Contract for Construction Works (2010) [hereinafter referred to as GCC 2010], 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).
1.2.2	<p>The address of the Employer is</p> <p>Physical Address:</p> <p>Lower Chester Road, Sunnyridge Buffalo City (East London) 5201</p> <p>Postal Address:</p> <p>P.O. Box 5458 Greenfields 5208</p> <p>Telephone: 043 – 702 8200</p>
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 Buffalo City (East London) 5201</p> <p>Postal Address:</p> <p>P.O. Box 5458 Greenfields 5208</p> <p>Telephone: 043 – 702 8200</p>
5.8.1	The special non-working days are statutory public holidays.
5.8.1	The year-end break commences on 13 December 2021 and ends on 03 January 2022
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>
5.6.1	<p>The Contractor shall deliver his Programme of work within 14 days from the Commencement Date.</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>
7.6.4	<p>Replace the words “within a reasonable time” with the words “within the period stipulated by the Engineer in such order...”</p>

7.9.1	<p>Add the following at the end of this clause:</p> <p>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.</p>
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 not required to cover professional fees.
8.6.1.3	<p>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:</p> <ul style="list-style-type: none"> ▪ Spread of fire ▪ Damage to underground services ▪ Surrounding property
6.5.1	The percentage allowance to cover overhead charges on labour and supervision will not be remunerated to the contractor as it's a bidder funded project.
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>
5.5.1	The contract period for the Works is five years.
5.13	Not applicable
6.8.2	Contract Price will not be adjusted annually as per the escalation rates declared in the priced bill of quantities year on year
10.1.3.6	Delete

6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is not applicable.
6.10.3	The percentage retention on the amount due to the Contractor is 0 %. The limit of retention money is Nil.
6.10.3	This clause shall be deleted in its entirety.
6.11	This clause shall be deleted in its entirety.
7.8.1	The Warranty Period is 12 years.
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.
10.4.2	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: **CONTRACT NO: ES/21/SMARTLIGHT/01**

	PART 2: DATA PROVIDED BY THE CONTRACTOR
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
	2.2.1.4	Location of works
	2.2.1.5	Temporary works
2.2.2	Drawings	
2.2.3	Procurement	
	2.2.3.1	Preferential Procurement Procedures
	2.2.3.2	Subcontracting
2.2.4	Maintenance Works	
	2.2.4.1	Works specifications
	2.2.4.2	Variations and additions to Standard and Particular specifications
2.2.5	Existing Services	
2.2.6	Site Establishment	
2.2.7	Site Usage	
2.2.8	Permits and Way Leaves	
2.2.9	Alterations, Additions and Extensions to Existing Works	
2.2.10	Management	

2.2 **SCOPE OF WORK**

2.2.1 **DESCRIPTION OF THE WORKS**

2.2.1.1 **Employer's Objectives**

The 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 can carry out the provision to supply, install and commission of smart streetlights.

2.2.1.2 **Overview of the Works**

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

- Delivery, removal of existing streetlights, disposing of lights and installation of 415 energy efficiency smart streetlighting lighting luminaires.
- Provision of a finance model which is based on a cost sharing system between the ELIDZ and the service provider.
- Delivery and installation of smart wireless controllers Internet of things (IOT's) for the street light project including all ancillary equipment to successfully run the entire project from a hardware and software perspective. The selected IOT devices should be compatible with all protocols and across multiple lighting control software management systems.
- A supply of 10% spares on all luminaires and all ancillaries are to be supplied as free issue to the ELIDZ.
- The selected luminaire with IOT device and dimming receptacles should be able to receive a signal from the ELIDZ selected lighting control system to controlling brightness, measuring energy consumption and monitor the status of each lamp in real-time.
- Implement a smart streetlight monitoring system which will be integrated into ELIDZ SCADA.
- Testing and commissioning of the system together with any regulatory certificates, permits or application
- Training of identified ELIDZ staff relevant to the project and its continued optimal functioning.

2.2.1.3 **Extent of the Works**

This Specification sets out and states the principal requirements covering the supply and delivery of Street Lighting Luminaires for installation in all areas in Zones 1A, 1B, 1C and 1D.

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.

Although the Bills of Quantities contain a quantity for each item of work, these are included only to ensure realistic pricing and for budget purposes.

The quantities shall not be interpreted as indicating the overall scope of work to be undertaken under the contract, and the Engineer shall instruct the Contractor as to the actual extent of work to be carried out under each billed item.

2.2.1.4 Location of the Works

Zone 1 of 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.

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 **Drawings issued at award stage to successful tenderer**

Drawings and latest asset register 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 street lighting luminaires shall be designed strictly in accordance with Regulation C63 of the Machinery and Occupational Health and Safety Act No. 6 of 1983. (As amended).
- (b) Unless otherwise specified, the LED street lighting luminaires shall comply where applicable with the following specifications. All standards and specifications are subject to revision, and Tenderers are encouraged to investigate the possibility of applying the most recent editions of the documents listed below:

SANS ARP 035	:	Guidelines for the installation and maintenance of street lighting.
IEC 60598-1 Luminaires - Part 1	:	General requirements and tests
IEC 60598-2-3 Luminaires - Part 2	:	Particular requirements - Section 3: Luminaires for road and street lighting
ISO 4762	:	Hexagon socket head cap screws
SANS 10098-1 & 2	:	Lighting of streets and highways.
SANS 1091	:	National colour standards for paint
SANS 1088	:	Luminaire Entries and Spigots
SANS 475:2006	:	Street Lighting Luminaires – Performance Requirement
SANS 60598-2-3	:	Safety Standard
SANS 529	:	Heat-resisting wiring cables
SANS 121	:	Hot dip galvanized coatings on fabricated iron and steel articles — Specifications and test methods.
SANS 60529	:	Degrees of protection provided by enclosures (IP Code)
SANS 1507-1	:	Electric cables with extruded solid dielectric (300/500V to 1 900/3 300V) – Part 1: General
SANS 1507-2	:	Electric cables with extruded solid dielectric insulation for fixed installations (300/500V to 1 900/3 300V) –2: Wiring cables
SANS 1507-3	:	Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1 900/3 300 V) Part 3: PVC Distribution cables
SANS 1574	:	Electric flexible cores, cords and cables with solid extruded dielectric insulation Part 3: PVC-insulated cores and cables SANS
61000-3-2	:	Electromagnetic compatibility (EMC) Part 3-2: Limits — Limits for Harmonic current emissions (equipment input current = 16 A per phase)
SANS 60529/ IEC 60529 (IP Code)	:	Degrees of protection provided by enclosures
OHSACT	:	Occupational Health and Safety Act and (Act 85 of 1993) Regulations
ANSI C136.41-2013	:	Dimming Receptacles

The Particular Specifications applicable to this contract are:

- The ELIDZ Occupational Health and Safety Specification as shown in Appendix A.
 - The ELIDZ Construction Environmental Management Plan as shown in Appendix B.
- (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, cleaning 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.

The design shall incorporate every reasonable precaution and provision for the safety of all those concerned in the operation and maintenance thereof. All material used shall be new and of the best quality. All connections and contacts shall be of ample section and surface for carrying continuously the specified currents without undue heating and shall be secured by stainless steel bolts or set screws of ample size, fitted with lock nuts or lock washers of approved type. Lock nuts shall be used on stud connections carrying current.

All apparatus shall be designed to obviate the risk of accidental short circuits due to animals, birds, insects and vermin.

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

2.2.4.3 GENERAL SPECIFICATION FOR ENERGY EFFICIENT LED STREET LIGHTING LUMINAIRES

General

The LED luminaires shall be designed to meet the lighting criteria for Group A & B roads. The luminaire shall be designed in accordance with the following requirements:

- a) Design life: In excess of 15 years
- b) The Luminaire shall be compatible with future upgrades of the LED module and the driver module when they become available. They shall be mounted on a separate tray for easy replacement.
- c) Managing the thermal properties in the LED luminaire is critical. Only metal core PCB's should be used to maximize heat transfer from the LED, or the luminaire should incorporate a temperature sensor which monitors the temperature of the LEDs on the PCBs. Once a critical

- temperature is reached, the current will be reduced to a safe temperature level. The temperature sensor shall not completely switch off the LEDs at high temperatures.
- d) The Luminaires shall have a replaceable external surge protection system to protect the electronic driver and the LED module with a minimum surge protection rating of 10 KV.
 - e) The power supply or driver should incorporate a thermal switch to prevent exceeding the case temperature for maximum lifetime of equipment. The lifetime of the power supply or driver shall be at least 100 000hrs with 70% survival over the lifetime.
 - f) Minimum IP rating of the light compartment, including driver compartment: IP66.
 - g) The protector shall be smooth, for easy cleaning, and shall be manufactured of Flat Tempered glass.
 - h) It shall be certified, in terms of IEC 60598, to operate at an ambient temperature of 35°C. The thermal design shall be particularly designed for African exterior conditions, i.e. high temperatures, high pollution, corrosion resistant.
 - i) The cooling fins shall be designed in such a manner to prevent the accumulation of dirt, thus ensuring the continuous effective cooling. The cooling rib height to width ratio shall not exceed 0.7. Additionally, the top surface shall be curved in shape.
 - j) The LED life expectancy shall be 100,000 hours at 70% lumen maintenance. (Documentary evidence from the LED manufacturer, by means of an appropriate datasheet shall be supplied upon request)
 - k) Use of high efficiency LED's (> 90 lumens/watt: Absolute photometry) CRI 65 to 90. Documentary evidence of compliance to this clause shall be supplied upon request.
 - l) The Luminaire shall have a colour temperature of 4000k for maximum efficiency.
 - m) Direct conduction & maximized surface for external heat exchange shall be provided.
 - n) The luminaires shall have Marine Grade aluminum housings of grade EN AC-47100 (or higher) aluminum alloy. This shall be substantiated by an independent metallurgical report confirming the grade of aluminum for the luminaires offered. All nuts; bolts, screws and clips to be stainless steel.
 - o) The control gear compartment shall be incorporated into the luminaire housing.
 - p) The power supply connection must take place inside the luminaire.
 - q) The luminaire shall automatically disconnect the supply to the power supply once the luminaire is opened.
 - r) All luminaires must be Smart Streetlight Management System (Dimming Receptacles - ANSI C136.41-2013).
 - s) The smart streetlight system controllers are to be compatible with multiple smart energy management systems (SEMS) and Smart Servers. A ELIDZ selected smart street lighting control system must allow connection to the IOT devices (Including but not limited to a light electronic ballast, luminaire controller, Power line smart transceiver and controller router device) installed with NEMA 7 pin by the bidder to allow the Engineer upon completion to control

brightness, measure energy consumption and monitor the status of each individual lamp in real-time.

- t) Colour of the LED light housing is to match the colour of the pole and be coated to match the pole colour if required.

2.2.4.4 SPIGOT MOUNTINGS

Spigot entries shall be designed to fit easily over the bracket pipe and shall be truly Parallel to the fitting axis and shall comply with Table 1 of SANS 1088 as follows:
The luminaire shall be secured to the spigot by means of at least two stainless steel M8 grub screws, as specified in ISO 4762. This shall be done from the inside of the luminaire to minimize the risk of vandalism and theft. Spigots and Spigot inserts are to be provided to suite LED luminaire.

2.2.4.5 POWER SUPPLY

- (a) The power factor shall be rated at 0.95.
- (b) The power supply shall be removable and shall be suitable for operation with the specified rating of the lamp on a 108-305VAC 50Hz single phase system.
- (c) Operating temperatures shall be from -15deg to +60deg on the housing (case temperature).
- (d) Operating humidity shall be from 20% to 95%.
- (e) Provisions shall be made to withstand surges up to 10kV/10kA.
- (f) The unit shall be EMC compliant to the EN55015 and EN61347-1 standard.

2.2.4.6 LED LUMINAIRE MARKINGS

- (a) Each luminaire shall bear the name or trademark of the manufacturer.

2.2.4.7 IP Rating

The luminaires shall have minimum rating of IP 66 in accordance with SANS 60529 for both the driver and LED module compartments, when normally mounted as per SANS 475.

2.2.4.8 Construction of Luminaires

- a) Luminaires shall be suitable for operation at an ambient temperature, Ta, of 350 C. Fixing devices, junctions, lips and the like shall be designed to shed water. Pockets and ledges in which condensation may accumulate shall be avoided.
- b) The luminaires shall contain a heat sink with no fans, pumps or liquids, and the design thereof on the external surfaces shall prevent the accumulation of dirt and nesting of insects or ants, thus ensuring continuous effective cooling. Heat from the LED source should take the shortest path to the exterior by direct conduction or any other reliable form of cooling that will not compromise the useful life of the LEDs.
- c) The luminaires shall have Marine Grade Aluminum housings of grade EN AC-47100 (or higher) aluminum alloy.

- d) Ferrous components shall be hot-dip galvanized and shall withstand the test specified in the current edition of SANS 121 for heavy duty application.
- e) External small components (such as toggle clips, bolts, screws, nuts, washers) shall be stainless steel (grade 304 or better).
- f) Due attention shall be paid to the accessibility of parts and to other requirements necessary for efficient maintenance and cleaning, where required. If screws are used to secure covers, they shall be held captive when opened.
- g) The upgrading and/or service of the LED unit and the driver/power supply shall be possible without removing the whole luminaire but by means of replacing only the optical/gear compartment.

2.2.4.9 **Mounting Stirrup**

- a) The stirrup shall be manufactured from 4mm x 80mm hot-dipped galvanized steel.
- b) Holes shall be provided for single or double bolt mounting.
- (c) A stainless-steel version shall be available on request.

2.2.4.10 **Optics**

- a) The luminaire shall be able to be equipped with a variety of lenses, providing the desired light distribution, ensuring a great diversity of light distributions for different applications. A minimum of 15 different optic distributions shall be available for flexibility of lighting designs, ensuring compliance to lighting requirements per application.
- b) Luminaires should be photo metered according to the C-Gamma system as detailed in CIE Publication No. 27.
- c) For LED luminaires with non-replaceable LED modules, the intensity values shall be given in candela. The results should be published in an intensity distribution table, indicating the intensity in cd/klm at each horizontal and vertical angle. This intensity distribution table should be converted by an accredited test facility and/or luminaire supplier into a suitable electronic format for use with any of the commercially available lighting computer programs.

2.2.4.11 **Protector**

- a) The protector shall be high-impact, toughened, clear flat glass.
- b) The protector shall form a seal completely preventing the entry of moisture, dust and insects into the lamp housing.
- c) A one-piece gasket, made of silicon sponge material, shall be fitted into a groove in the housing and shall be seated in a manner ensuring the integrity of the IP66 rating and shall not work loose during maintenance of the luminaire.

2.2.4.12 **Power Supply or Driver Requirements**

- a) LED module(s) drivers shall be housed fully within the sealed body of the luminaire.
- b) The output frequency of the drivers shall be 100 Hz or greater, to avoid visible flicker. The harmonic distortion levels of the LED module driver(s) shall comply with the limits as stipulated in SANS 61000-3-2.

- c) The LED module driver(s) shall operate at a power factor of **0, 95** or greater, and the harmonic distortion levels shall be limited so as to not cause interference on the electrical network.
- d) The power supply or driver compartment shall be so designed that there is sufficient space to permit replacement of components or repairs and reassembly without difficulty and without the removal of the luminaire from its mounting.
- e) The power supply or driver shall be able to withstand surges of up to 10 kV/10 kA by means of an external inline fused surge protection device mounted inside the gear compartment. This surge protection shall be easily replaceable.
- f) The power supply or driver should incorporate a thermal switch to prevent exceeding the case temperature for maximum lifetime of equipment.

The lifetime of the power supply or driver shall be 100 000hrs with 90% survival over the lifetime.

2.2.4.12 **Earthing**

- a) The luminaire shall be earthed in accordance with Clause 13 of the Electrical Machinery Regulations of the OHSACT (Act 85 of 1993).
- b) Metal parts of luminaires which may become alive in the event of insulation fault and which are not accessible when the luminaire is mounted, but liable to come into contact with the supporting surface, shall be permanently and reliably connected to an earthing terminal and shall withstand the test specified in IEC 60598-2-3.
- c) Earthing terminals shall comply with sub-clause 7.2 of IEC 60598-1. All parts of an earth terminal shall be made of brass or other corrosion resistant metal and the contact surfaces shall be bare metal and not painted or varnished surfaces.
- d) Earth connections shall be effected by means of suitable lugs in a manner avoiding all possibility of electrolytic corrosion.

2.2.4.13 **Wiring**

- a) The internal wiring of the luminaires shall be flexible and suitably insulated to withstand the voltage and the temperature encountered in service.
- b) Wiring to the LED module compartment shall be suitably grommited, ensuring a perfect seal between compartments.
- c) The supply terminals shall accept 1.5 mm² wires and be easily accessible. No part of the cover shall damage the supply wires when closed.

2.2.5 **EXISTING SERVICES**

All areas within which the Contractor is required to undertake works within proximity to existing services with the full range of civil, electrical and communication services, some of which are below ground. The Contractor will be issued with drawings showing the positions of the services that are included in the contract and will be required to determine the position of all other known services which may be affected by his work, by consultation with the Engineer.

The Contractor may be required to undertake works within proximity of existing services in which he shall take all necessary precautions to prevent any damage to these services. Should his

operations result in any damage to existing services, he shall immediately notify the Engineer who will inspect the damage and determine what further action is required. The Contractor shall be responsible for the cost of all repairs or reinstatement necessary, whether these are carried out with his own resources or by a third party.

2.2.6 SITE ESTABLISHMENT

(b) Facilities provided by the Employer

Reticulated potable water exists within each zone of the IDZ. Should the Contractor require a supply of water to enable him to undertake any of his activities on the site then a suitable point of supply will be made available off the relevant reticulation. The Contractor shall be responsible for the cost of removal and reinstatement on completion.

All zones of the IDZ are fully reticulated with electricity. Should the Contractor require an electrical connection then he shall discuss his requirements with the Engineer who will arrange for a supply with the necessary capacity at a suitable position. The Contractor shall be responsible for the cost of removal and reinstatement on completion.

Arrangements will be made for the contractor's staff to use the ablution facilities available on the site provide 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.

(c) Facilities provided by the Contractor

It is not envisaged that the Contractor will require a permanent campsite, with offices, storage or workshop facilities. Should establishment of any temporary facilities be required to enable the Contractor to carry out any aspect of the work, then the location and extent of such facilities shall require prior approval of the Engineer.

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.

(d) Notice Boards

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

2.2.7 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.

2.2.8 PERMITS AND WAY LEAVES

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

2.2.9 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.

2.2.9.1 Survey and Setting Out

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

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. The response to any call-out shall be categorised according to the need for urgency in attending to the call-out.

c) Methods and Procedures

Prior to the commencement of any work on the site the Contractor shall submit method statements for each separate maintenance, repair or construction 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 both Occupational Health and Safety and Environmental aspects.

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) Environment

Environmental considerations applicable to this project are detailed in the ELIDZ Construction Environment Management Plan (CEMP).

The Contractor shall ensure that he is fully aware of the requirements of the CEMP and that he understands his responsibilities regarding both his management of the project and the actual construction activities on site.

f) Accommodation of Traffic

The Contractor shall be responsible for the safety of all vehicular and pedestrian traffic affected by his work and shall provide the necessary deviations together with all warning signs, barricading and lighting fully in compliance with the requirements of the SADC Road Traffic Signs Manual.

The Contractor shall maintain access to all buildings and properties affected by his work and shall liaise with the relevant tenants and the IDZ to agree temporary or partial closure of any access point.

g) Other Contractors

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.

h) 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 following test reports are to be made available immediately to the Engineer:

- Type test according to IEC 60598-1:2004 and IEC 60598-2-3:2003.
- IP rating test reports for all items offered in accordance with SANS 60529.
- A separate ambient temperature (Ta rating) test report shall be provided, in accordance with SANS 475.
- Metallurgical report to be provided as proof of quality of aluminium (Attach to page 52).

i) 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.

j) 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.

k) 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.

l) 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 contractors remuneration.

- Payment will be made on the mutually agreed shared savings amount for the streetlights installed by the contractor only as part of this contract.
- The payment of the shared savings amount will be calculated on the average power consumption consumed by the streetlights throughout the shared savings period.
- The contractor is to invoice ELIDZ for the amounts saved on a monthly basis over the duration of the agreed contract to the limit agreed upon by ELIDZ.
- The Contractor shall provide a VAT invoice to the Engineer.
- The Engineer shall check the claim and certify the amount to be paid.

m) 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:

- Condition assessment report to be carried out on streetlights prior to installation.
- OHS and Environmental Status Quo.
- ELIDZ Labour Returns
- Streetlights installation and decommissioning measures and briefing on works carried out..

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

n) 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.

o) 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.

p) Guarantee

All luminaires offered shall have a minimum guarantee period of **Twelve years**. The scope of this guarantee includes the LED module drivers, luminaire housing, LED module(s), brackets and protector. If luminaires 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.

2.2.14 Environmental Management Plan (EMP) Requirements and Procedures

The Contractor shall comply with all relevant aspects of the ELIDZ Construction Environmental Management Plan (CEMP) together with the Regulations referred to therein, as applicable to the scope of his activities.

The ELIDZ CEMP is attached as Appendix B

Particular attention must be paid to the issuing of the relevant Notices, appointment of responsible people, undertaking Environmental Risk Assessments, and preparation of Method Statements for comment and approval prior to commencement with any work on site.

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

2.3 SITE INFORMATION

2.3.1 Existing Services

2.3.2 Environmental Restrictions

2.3 **SITE INFORMATION**

2.3.1 **EXISTING SERVICES**

All areas within which the scope of the contractor is required to undertake project activities near serviced area with the full range of civil, electrical and communication services, most of which are below ground. He will be required to determine the position of all other known services which may be affected by his work, by consultation with the Engineer.

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.

TENDER FOR THE PROPOSAL FOR FUNDING, PROCUREMENT
AND IMPLEMENTATION OF
ENERGY EFFICIENT STREET LIGHTING TECHNOLOGIES FOR
RETROFITTING EXISTING
STREETLIGHTS THROUGHOUT ELIDZ THROUGH A SHARED
SAVINGS SCHEME



APPENDIX

APPENDIX A

ELIDZ OHS Regulations

APPENDIX B

ELIDZ CEMP

APPENDIX C

Drawings (To be issued to the successful bidder upon appointment)

APPENDIX D

ELIDZ GUIDELINES FOR COMPLETION OF SUPPLIER DEVELOPMENT BID DOCUMENT

APPENDIX E

SCHEDULE OF PARTICULARS AND GUARANTEES OF LUMINAIRE

LED Streetlight Luminaire Equivalent replacement of the 70/150 Watt HPS streetlight Luminaire

Schedule A: Purchaser's specific requirements

Schedule B: Guarantees and technical particulars of equipment offered

ITEMS	TECHNICAL DETAILS	SCHEDULE A	SCHEDULE B
1	Name of LED streetlight luminaire manufacturer	XXXXXXXXXXXX	
2	Place of manufacture	XXXXXXXXXXXX	
3	Manufacturer's identification reference	XXXXXXXXXXXX	
4	Type of luminaire	35W LED	
5	Standard to which LED luminaire complies	Specify	
6	Luminaire installation inclination angle	XXXXXXXXXXXX	
7	Nominal flux at Tq of 35°C	XXXXXXXXXXXX	
8	Class and type of luminaire	Class 1 of IEC 60598 – 1 and totally enclosed type	
9	Streetlight luminaire to be replaced	70W/150W	
10	Rated Wattage of the equivalent luminaire	XXXXXXXXXXXX	
11	Mass of luminaire	XXXXXXXXXXXX	
12	Colour temperature	4 000K (neutral white (minimum) (Neutral white 740))	
13	Luminaire efficacy (lm/W)	162lm/W (minimum)	
14	Colour rendering index	70 (minimum)	
15	Minimum energy saving by LED luminaire compared to 70W HPS streetlight	69% (minimum)	
16	Lumen depreciation of LED luminaire after 60 000 hours of operation	80% of initial lumens	
17	Degree of protection to SANS 60529		
	a) LED module compartment	IP66 (minimum)	

	b) Driver/power supply compartment	IP66 (minimum)	
18	Material of LED luminaire housing	LM 6 die cast aluminium	
19	Does luminaire have a heat sink	Required	
20	Location of LED driver	Inside the luminaire housing	
21	Is the driver accessible and replaceable with the aid of commonly available hand tools?	Yes (Required)	
22	Type and nominal size of spigot entry	Side entry, Inside diameter of 42 mm	
23	Maximum length of spigot entry	150mm	
24	Test reports submitted with the proposal	Required	
25	Luminaire controller	Compatible with multiple Software platforms	
26	Power Line Smart transceiver	Compatible with multiple Software platforms	
27	Controller router device	C Compatible with multiple Software platforms	
28	Dimming Receptacle	NEMA 7-Pin	
29	Lifecycle of Driver and LEDs	100,000h	