

## **CALL FOR BIDS**

BID NO: ECDC/ELN/287/022021

BID SUBJECT: HIGHMAST LIGHTING AND BULK ELECTRICAL

**SERVICES, STRENGTHENING AND** 

REFURBISHMENT OF ELECTRICAL INFRA

STRUCTURE AT DIMBAZA INDUSTRIAL PARK

## **Consisting Of:**

The Tender (Returnable) - This Document
The Bills of Quantities (Returnable) - This Document
Drawings and Specifications - This Document

BIDDER NAME:
SD No.:
CRS No.:

CLOSING DATE: 09 APRIL 2021
CLOSING TIME: 12h00

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	SECTION A:  ABBREVIATIONS AND ACRONYMS		
2 2 2 2 2			
B-BBEE	Broad-based Black Economic Empowerment		
B-BBEEA	Broad-based Black Economic Empowerment Act 53 of 2003		
B-BBEE Codes	Broad-based Black Economic Empowerment Codes of Good Practice-2007		
CIDB	Construction Industry Development Board		
DTI	Department of Trade and Industry		
ECDC	Eastern Cape Development Corporation		
EME	Exempt Micro Enterprise		
IRBA	Independent Regulatory Board of Auditors		
PCCA	Prevention and Combating of Corrupt Activities Act 12 of 2004		
PFMA	Public Finance Management Act (Act 1 of 1999)		
PPPFA	Preferential Procurement Policy Framework Act (Act 5 of 2000)		
QSE	Qualifying Small Enterprise		
SABS	South African Bureau of Standards		
SANAS	South African National Accreditation System		
SARS	South African Revenue Service		
SASAE	South African Standard on Assurance Engagements		
SCM	Supply Chain Management		
SMME	Small, Medium and Micro Enterprises		
ToR	Terms of Reference		
CSD	National Treasury Central Supplier Database for South African Government		
ECSA	Engineering Council of South Africa		
NMD	Notified Maximum Demand (with Eskom the supply authority)		
СТ	Current transformer		
VT	Voltage transformer		
СВ	Circuit Breaker		
AC	Alternating Current		
DC	Direct Current		
NECR	Neutral Earthing Compensator / Resistor		
kVA	kilo Volt-Ampere (measure of power)		
MVA	Million Volt-Ampere (measure of power)		
kV	Kilo-Volts		
MV	Medium Voltage – 11000V		
HV	High Voltage – 66000V		
GIS	Gas Insulated Switchgear		
OLTP			
BTU			
B: DEFINITIONS			
Acceptable tender	Means any tender which, in all respects, complies with the specifications and conditions of tender as set out in the tender document.		

Accreditation Body	Means the South African National Accreditation System or any other entity appointed by the Minister from time to time whose function it is to:	
	Accrediting verification agencies	
	Developing, maintaining and enforcing of Verification Standards	
Affordable	Means (in terms of a PPP-Agreement) that the financial commitments to be incurred can be met by funds:	
	Designated within ECDC's existing budget for the function to which the agreement relates; and	
	Destined for ECDC in accordance with the relevant Treasury's future budgetary projections.	
All applicable taxes	Includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.	
B-BBEE status level of contributor	means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;	
Bid	Means a written offer or proposal to supply goods and/or provide services, submitted in response to the ECDC's invitation to quote or submit proposals which includes advertised competitive bids, written price quotations or proposals.	
Bid Specification	A specification that lays down the characteristics of goods to be procured or their related processes and production methods, or the characteristics of services to be procured or their related operating methods, including the applicable administrative provisions, and a detailed requirement relating to conformity assessment procedures that an entity prescribes and shall	

	Include TOR for specialised services.
Black People	means 'African', 'Indian' and 'Coloured' people who are citizens of the Republic of South Africa by birth; or are citizens of the Republic of South Africa by naturalisation before the commencement date of the Constitution of South Africa Act (1993); or became citizens of the Republic of South Africa after the commencement of the of the Constitution of South Africa Act (1993), but who for the Apartheid policy that has been in place to that date, would have been entitled to acquire citizenship by naturalisation prior to that date.
Broad Based Black Empowerment	Means broad-based black empowerment means the empowerment of all black people including women, workers, youth, people with disabilities and people living in rural areas through diverse but integrated social-economic strategies that include, but are not limited to:  Increase the number of black people that manage, own and control enterprises and productive assets;
	Facilitating ownership and management of enterprises and productive assets by communities, workers, cooperatives and other collective enterprises
	Human resources and skills development
	Achieving equitable representation in all occupational categories and levels in the
	workforce Preferential procurement; and
	Investment in enterprises that are owned or managed by black people.
Broad Based Black Empowerment Act	means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003)
Close Family Member	Shall mean:- member of the same household, parent (including adoptive parent), parent-in-law, son (including adoptive son), son-in-law, daughter (including adoptive daughter), daughter-in-law, step-parent, step-son, step-daughter, brother, sister, grandparent, grandchild, uncle, aunt, nephew, niece, the spouse or unmarried partner with relation to any of the person's above.
Code of Ethics	refer to the ECDC Code of Ethics for Management and Staff as may be amended from time to time.
Comparative Price	Means the price after the factors of a non-firm price and all the unconditional discounts that can be utilised have been taken into consideration.

Consortium or Joint Venture	Means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.	
Contract	Means the agreement that results from the acceptance of a bid by ECDC.	
Designated Sector	Means a sector, sub-sector or industry that has been designated by the DTI in line with national development and industrial policies for local production, where on local produced goods or locally manufactured goods meet the stipulated minimum threshold for local production and content.	
Duly Sign	means a document that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility (close corporation, partnership or individual).	
Exempt Micro Enterprise (EME)	means an enterprise with a specified total annual revenue as per Department of Trade and Industry Codes of Good Practice on Broad Based Black Economic Empowerment	
Family Member	Means a husband or wife, any partner in a customary union according to indigenous law or any partner in a relationship where the parties live together in a manner resembling a marital partnership or a customary union; and any person related to either one or both persons referred above within the second degree through a marriage, a customary union or a relationship or the third degree of consanguinity.	

Firm Price	Means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract.	
Fronting	Means a deliberate circumvention or attempted circumvention of the B-BBEE Act and the Codes. Fronting commonly involves reliance on data or claims of compliance based on misrepresentation of facts, whether made by the party claiming compliance or by any other person.	
Functionality	Means the measurement according to predetermined norms, as set out in the tender documents, of a service or commodity that is designed to be practical or useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of the tenderer.	
Imported Content	Means that portion of the tender price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the bidder or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour or intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African port of entry.	
In the service	means:	
of the state	an employee of any municipality who has a performance contract with the municipality and is employed on a permanent, temporary or short term basis.	
	an employee or public servant of any national or provincial government as defined in terms of Public Services Act.	
	a member who –	
	is a councillor of any municipal council as defined in the Local Government Municipal Structures Act (Act No 117 of 1998);	
	is a politician serving in any provincial legislature; or	
	is a politician serving in the National Assembly or the National Council of Provinces;	
	a member of the board of directors of any municipal entity;	
	an employee and a member of a government owned entity as defined in the Public Finance Management Act (Act No 1 of 1999); and / or such other meaning ascribed to it by National Legislation from time to time.	

Local content	Means a portion of the tender price which is not included in the imported content, provided that local manufacture does take place.	
Non-firm prices	Means all prices other than "firm" prices	
Person	Includes a juristic person.	
Price Quotation	An estimate describing the product, stating its price, time of shipment, and specifies the terms of the sale and terms of the payment.	
Property	Includes all movable and immovable property and intellectual property belonging to ECDC.	
Public Private partnership	Means a commercial transaction between ECDC and a private party in terms of which: the private party either performs a function o.b.o. ECDC for a specified or indefinite period, or acquires the use of state property for its own commercial purposes for a specified or indefinite period; the private party receives a benefit for performing the function or by utilising state property, either by way of: compensation from a revenue fund charges or fees collected by the private party from users or customers of a service provider to them; or a combination of such compensation and such charges or fees	

Qualifying Small Entity	means an enterprise with a specified total annual revenue as per Department of Trade and Industry Codes of Good Practice on Broad Based Black Economic Empowerment	
Rand value	means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties.	
Related enterprise	Means an entity controlled by a measured entity whether directly or indirectly controlled by the natural persons who have direct or indirect control over that measured entity or the immediate family of those natural persons.	
Service Level Agreement	Shall have the same meaning assigned as "Contract"	
Shareholder	Means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.	
State	Means:	
	any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the PFMA	
	any municipality or municipal entity	
	national Assembly or the national Council of Provinces; or parliament	
Stipulated minimum threshold	Means that portion of local production and content as determined by the DTI	
Sub-Contract	Means the primary contractor's assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract.	
Tender	The same meaning is assigned as 'Bid" above.	
Threshold	Shall mean the financial limits on the value of goods or services to be procured as set and prescribed in this policy which shall determine the manner in which these goods and services will be procured	
Total revenue	Means the total income of an entity from its operations as determined under South African Generally Accepted Accounting Practice.	
Trust	Means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person.	

Trustee	Means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.	
Value for Money	Means that the item (public-private partnership agreement) results in a net benefit to ECDC defined in terms of cost, price, quality, quantity, or risk transfer, or a combination thereof.	

Part T1: Tendering procedures

# T.1.1 TENDER NOTICE AND INVITATION TO BID

#### 1. Invitation to Bid

Eastern Cape Development Corporation (ECDC) wishes to engage with a suitable contractor with a CIDB Grading of **7 EP or Higher** for the Highmast lighting and Bulk Services Network, Strengthening and Refurbishment of Electrical Infrastructure at Dimbaza Industrial Park, Eastern Cape.

The site is located in Dimbaza, Eastern Cape, South Africa.

GPS co-ordinates of the site are 32°49'31.96"S and 27°11'2.98"E

It is estimated that bidders should have a CIDB grading of 7EP or Higher

A Detailed scope of services is described in Scope of Work Section Below.

#### 2. Eligibility to Bid

- a) Bidders should meet the Mandatory Requirements in T2.1(Mandatory List of Tender Returnables)
- b) Only those tenderers who are registered with the CIDB prior to submissions of bid with a contractor grading equal in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for the above-mentioned grading classes of construction work, are eligible to have their tenders evaluated.

## 3. Payment of Bid Document

A non-refundable tender deposit of R0.00 cash deposited in the ECDC Bank Account is required. A deposit slip is required for the collection of the tender documents.

#### 4. Collection /Availability of Documents

Documents will be available for downloading from the ECDC website at www.ecdc.co.za.

#### **Important Note:**

Bidders should send an email to ECDC Procurement at <u>tenders@ecdc.co.za</u> to register their interest in submitting this bid stating the following:

- ✓ Bid Number
- ✓ Name of the Bidder
- ✓ Contact Person
- ✓ Contact Details

#### 5. Queries on Bid Document

Queries relating to the issue of these documents may be addressed to Ms S. Vanda , **E- Mail** at **tenders@ecdc.co.za** 

#### 6. Estimated Timeline

Activity		Date	Time
1.	Placing of Advert	22 February 2021	N/A
2.	Compulsory Briefing Meeting	There will be no briefing meeting. For any enquiries/queries relating to this Bid, the Bidder must email the Procurement Department at <a href="tenders@ecdc.co.za">tenders@ecdc.co.za</a> for attention S Vanda.	
		Bidders are required to register their intention to Bid to the ECDC Procurement Department at tenders@ecdc.co.za.	
		The register will be used to communicate with the Bidders during the Tender Period.	
		Furthermore, ECDC will post Answers/Clarity/Correspondence to this Bid on the ECDC website at <a href="https://www.ecdc.co.za">www.ecdc.co.za</a>	
3.	Last day of questions	2 April 2021	N/A
4.	Final date of submission of bids	9 April 2021	12h00 pm
5.	Bid Validity	90 days	

## 6.1. Briefing Session and Site Location

<u>Due to COVID, there will be no briefing meeting</u>. For any enquiries relating to this Bid, the Bidder is requested to email the ECDC Procurement Department at <u>tenders@ecdc.co.za</u>, attention S Vanda.

Bidders are required to register their intention to Bid to the ECDC Procurement Department at tenders@ecdc.co.za.

The register will be used to communicate with the Bidders during the Tender Period.

Furthermore, ECDC will post Answers/Clarity/Correspondence to this Bid on the ECDC website at www.ecdc.co.za

#### Site Location

The site is located in the following GPS co-ordinate

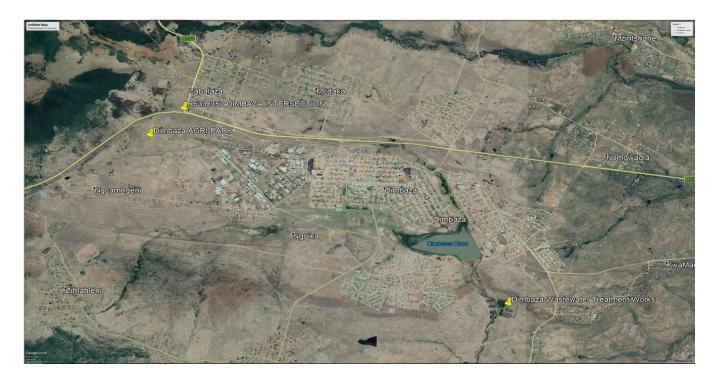
• GPS co-ordinates of the site are 32°49'31.96"S and 27°11'2.98"E.

Bidders must visit the site to ensure that their proper assessment of the site is done and that the Bill of Quantity is Priced Correctly.

Bidders must acquaint themselves of the current site conditions, works complexity and associated safety risks.

ECDC will assume that all bidders have visited the site, no claims will be entertained during the contract period due to lack of information provided prior or during the tender process.

## **Geographical Site Layout**



Telephonic, emailed, telexed, facsimile, and late tenders will not be accepted.

Tenders may only be submitted on the tender documentation that is issued.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the **Tender Data**.

## T1.2 Tender Data

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Construction Procurement (January 2019) as published in Government Gazette No 42622, Board Notice 423 of 2019 on the 8<sup>th</sup> of August 2019 (See www.cidb.org.za).

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.

Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

Tender Data
The employer is Eastern Cape Development Cooperation (ECDC)
The Tender Documents issued by the Employer comprise the following documents:
The Tender Documents issued by the Employer comprise the following documents:  THE TENDER Part T1: Tendering procedures T1.1 - Tender notice and invitation to tender T1.2 - Tender data  Part T2: Returnable documents T2.1 - List of returnable documents T2.2 - Returnable schedules  THE CONTRACT Part C1: Agreements and Contract data C1.1 - Form of offer and acceptance C1.2 - Contract data C1.3 - Performance Bond C1.4 - Adjudicator's contract  Part C2: Pricing data C2.1 - Pricing instructions C2.2 - Bill of Quantities  Part C3: Scope of work C3 - Scope of work C3 - Scope of work C4 - Site information C4 - Site information

## A.1.4 The employer's agent is: BVI Border (Pty) Ltd

Name: Mr. W de Lange

Address: First Floor, Esprit House

Triple Point St Helena Road Beacon Bay, East London

## During Tender stage all communication shall be through the Procurement Department for attention:

Name: Ms. S Vanda

Address: ECDC Head Office at ECDC House

Ocean Terrace park Moore Street Quigney, East London

Tel: 043 704 5600

E-mail: tenderes@ecdc.co.za

## After award all communications should go to

Name: Mr. A Nkungwana

Address: ECDC Head Office at ECDC House

Ocean Terrace park Moore Street Quigney, East London

Tel: 043 704 5600

E-mail: ankungwana@ecdc.co.za

Note: During the Lockdown all communications should be through the email

A.2.1 Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a **EP (Electrical Engineering)** class of construction work, are eligible to have their tenders evaluated.

## Joint ventures are eligible to submit tenders provided that:

- 1. every member of the joint venture is registered with the CIDB;
- 2. the lead partner has a contractor grading designation in the **EP(Electrical Engineering)** class of construction work; not lower than one level below the required grading designation in the class of works construction works under considerations and possess the required recognition status.
- 3. 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 EP class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

## A.2.1 Not Applicable for this Bid

The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated:

- a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a ..... or ......\*. class of construction work; and
- b) contractors registered as potentially emerging enterprises with the cidb who are registered in one contractor grading designation lower than that required in terms of a) above and who satisfy the following criteria:.....\*\*

## A.2.2 Not Applicable for this Bid

The employer will compensate the tender as follows

A.2.7 The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender.

## Paragraph Below is Not Applicable. Bidder to refer to Tender Notice

Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.

## A.2.12 Not Applicable for this Bid

Main tender offers are not required to be submitted together with alternative tenders.

A.2.12 No alternative tender offers will be considered

## A.2.12 Not Applicable for this Bid

If a tenderer wishes to submit an alternative tender offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employer's Agent.

Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.

Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.

The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs in confirming the acceptability of the detailed design.

## A.2.13.3 One original duly signed (by authorised representative) and completed bid document (hardcopy) MUST be submitted inclusive of the terms and conditions of this bid document with any attachments/annexures /returnable required for this Bid. A PDF soft copy of the duly signed and completed original bid (e.g. PDF format in Flash drive/disc) should be submitted with the Original duly signed and completed hardcopy bid document however nonsubmission of a soft copy will not result in the Bid being disqualified ECDC will not be responsible if your bid is not submitted on time All bid documents are to be **completed in permanent ink**. No alterations of the Bid Document will be allowed. No correction fluid will be allowed. Corrections should be initialled. A.2.13.5 Valid originally firmly bound signed complete tender document (by authorized representative) must be A.2.15.1 placed in the Bid Box on or before the final date and time of submission. The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are: a) Location of tender box: Bid Reference Number: ECDC/ELN/287/022021 HIGHMAST LIGHTING AND BULK ELECTRICAL Project Name: SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK Delivered at Physical Address: **ECDC Head Office at ECDC House,** Ocean Terrace Park, Moore Street, Quigney, East London, Bids/Tender offers must be submitted on or before the final date and time of submission of bids as indicated in the Tender Notice and invitation to Tender It is the Bidders responsibility to ensure that all the documents are received on time. The bid box is open on weekdays between 08h00 and 16h30 A 2 13 6 Not Applicable for this Bid

A.3.5	A two-envelope procedure is required.
A.2.13.9	Telephonic, email, telegraphic, telex, email, or facsimile tender offers will not be accepted.
A.2.15	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
A.2.16	The tender offer validity period is 90 days.

_	The procedure for the evaluation of responsive tenders is Method 1
A.3.11.2	Not Applicable for this Bid
A.3.11.1	The financial offer will be reduced to a comparative basis.
	There will be no discussions with any Bidder/Interested Party that Submitted Proposals/ Bids until evaluation have been complete. Any subsequent discussions shall be at the discretion of ECDC.
	There will be <b>NO PUBLIC OPENING</b> of the Bids received; however, the list of bids received may be published on the ECDC website and will be sent to the Bidders that have submitted bids via email.
	Due to the Lockdown regulations
	Tenders will be opened immediately after the closing time for tenders at 12h00 hrs
A.3.4	Opening of the Bids
A.3.1.1	The Employer will respond to requests for clarification received up to 7 working days before the tender closing time.
	The bidders' Tax status will be verified on the CSD prior to the bid award and where the preferred bidders is not compliant, <b>5 working days</b> will be granted for remedy, failing which the bidder will be disqualified
	In Bids where Consortia/Joint venture/Sub-Contractors are involved; each party must submit a separate proof of Tax Compliance Status.
	<ol> <li>Tax Compliance         Bidders must ensure compliance with their tax obligations.     </li> </ol>
A.2.23	The tenderer is required to submit with his tender:
	Return all retained tender documents within 28 days after the expiry of the validity period
A.2.22	Not Applicable for this Bid
A.2.20	The tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Contract Data/Contract of this procurement document
	The site is available for viewing the location of the works.
A.2.19	Access shall be provided for the following inspections, tests and analysis:
A.2.18	The tenderer shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the Labour Intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.  Tenders to submit the associated names being part of the returnable documents failure to submit

## A.3.11.3

#### **Evaluation Criteria**

This bid is subject to the Preferential Procurement Policy Framework Act and the Preferential Procurement Regulations 2017 as applicable to provincial government business enterprises as listed under schedule 3(D) of the Public Finance Management Act and the ECDC Procurement Policy as amended from time to time.

The procedure for evaluation of tenders is as follows:

Mandatory Tender Returnables	Service Providers are to meet all the Mandatory Requirements in order to be evaluated further. Failure to submit the Mandatory Requirements as required will result in the bid being disqualified.
Stage 1	Involves an evaluation of local production and content (goods) only. At this stage Bidders must meet the minimum threshold for local production and content as determined by the DTI for local content before they will be evaluated in terms of preferential procurement points.
	Bidders to complete the Declaration for Local Production and Content for Designated Sectors and Local Content Declaration: Summary Schedule (Annex C)
Stage 2	Functionality: Involves an evaluation of Functionality only – At this stage Bidders must score a minimum score of <b>70</b> % for functionality (services) in order to be evaluated for stage 2 (Preferential procurement points).
Stage 3	Preferential Procurement points: Price: Points will be calculated for price on the relevant prices in accordance with the preference point system, 80/20.

A.3.11.3 The evaluation criteria and maximum score in respect of each of the criteria are as follows: (Details on Functionality Evaluation are on T2.1)

Functionality Criteria	Maximum number of points
Completed Similar Projects in Value and Complexity	30
Experience and Qualifications of the Key Personnel	50
Maximum possible score for functionality (M <sub>s</sub> )	80

Functionality shall be scored by not less than three evaluators in accordance with the Functionality Criteria Evaluation below

The minimum percentage to be achieved for functionality is 70%

## A.3.13 Tender offers will only be accepted if:

- a) the tenderer is Tax Compliant
  - ✓ tenderers must ensure compliance with their tax obligations.
  - √ in Bids where Consortia/Joint venture/Sub-Contractors are involved; each party must submit a
    separate proof of Tax Compliance Status.
  - ✓ the tenderer Tax status will be verified on the CSD prior to the bid award and where the
    preferred bidders is not compliant, 5 working days will be granted for remedy, failing which
    the bidder will be disqualified
- b) the tenderer submits a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Contract Data/Contract of this procurement document
- c) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation;
- d) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement;
- e) the tenderer has not:
  - 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;
- f) the tenderer is able, in the opinion of the employer, to perform the contract free of conflicts
- g) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2003, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.
- the tenderer can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;
- i) the tenderer has the legal capacity to enter into the contract;
- j) the tenderer is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;
- k) the tenderer complies with the legal requirements, if any, stated in the tender data; and

## A.3.17 The number of paper copies of the signed contract to be provided by the employer is one (1).

## Part T2: Returnable documents

T2.1 - List of returnable documents

T2.2 - Returnable schedules

## T2.1 - List of returnable documents

## 1. Evaluation Criteria

This bid is subject to the CIDB and Preferential Procurement Policy Framework Act and the Preferential Procurement Regulations 2017 as applicable to provincial government business enterprises as listed under schedule 3(d) of the Public Finance Management Act and the ECDC Procurement Policy as amended from time to time.

The procedure for evaluation of tenders is as follows:

Mandatory Tender Returnables	Service Providers are to meet all the Mandatory Requirements in order to be evaluated further. Failure to submit the Mandatory Requirements as required will result in the bid being disqualified.
Stage 1	Involves an evaluation of local production and content (goods) only. At this stage Bidders must meet the minimum threshold for local production and content as determined by the DTI for local content before they will be evaluated in terms of preferential procurement points.  Service provider to complete the Declaration for Local Production and Content for Designated Sectors and Local Content Declaration: Summary Schedule (Annex C)
Stage 2	Functionality: Involves an evaluation of Functionality only – At this stage Bidders must score a minimum score of 70% for functionality (services) in order to be evaluated for stage 3 (Preferential procurement points).
Stage 3	Preferential Procurement points: Price: Points will be calculated for price on the relevant prices in accordance with the preference point system, 80/20.

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## 1.1. MANDATORY LIST OF TENDER RETURNABLES

Service Providers are to meet all the Mandatory Tender Requirements in order to be evaluated further for Stage 1. Failure to submit the Mandatory Requirements as required will result in this bid being disqualified.

D		D'a market d	NA 1
Descript	ion	Disqualification	Mandatory
		if not submitted	Requirement
		with Bid	for Award
		Document or	
		Bidder is found	
		to be Non-	
		Compliant at the	
		Time of Bid	
Ri	dders must be registered on the National Treasury Central	Close	
' Su	ipplier Database (CSD). The following information will be verified the National Treasury Central Supplier Database:	Yes	Yes
•	Business Registration including details of directorship and membership, - The bidders' Business Registration Status will be verified on the CSD prior to the bid award and where the preferred bidders status is under deregistration, <b>5 working days</b> will be granted for remedy, failing which the bidder will be disqualified.		
•	ID Number,		
	Government Employee		
•	Tender Defaulting and Restriction Status. Should the Tender be a restricted supplier or a defaulting supplier they will be disqualified		
On	nus on the Service Provider		
	nus is on the Service Provider to make sure that all these are		
	tive and compliant on the CSD at the time of bid closing and		
	nder award.		
	CDC will verify if the Service Provider has been registered on		
	SD. Service Provider to submit CSD Number as required in the		
	over Page. It is the responsibility of the Service Provider to		
	sure that the correct CSD Number is provided.		
	Service Provider is not registered on CSD by the time of closing of e bid they will not be considered for evaluation.		
Dii	rectors in the Service of State		
No the	o quotations/bids will be considered from persons in the service of e state, companies with directors who are persons in the service the state or close corporations with members in the service of the		
VI.	"s and Consortium		
Wh	here the Bidder is a JV/Consortium, each firm must be registered the CSD.		

2.	<ul> <li>Tax Compliance Requirements:</li> <li>Bidders must ensure compliance with their tax obligations.</li> <li>The bidders' Tax status will be verified on the CSD prior to the bid award and where the preferred bidders is not compliant, 5 working days will be granted for remedy, failing which the bidder will be disqualified.</li> </ul>	No	Yes
	In Bids where Consortia/Joint venture/sub-contractors are involved, each party must submit a separate proof of Tax Compliance Status Certificate/SARS Pin Number/CSD Number.		
3.	CIDB Requirements:		
	Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a EP (Electrical Engineering) class of construction work, are eligible to have their tenders evaluated.	Yes (Evaluation Stage)	Yes
	Joint ventures are eligible to submit tenders provided that:		
	every member of the joint venture is registered with the CIDB;		
	<ol> <li>the lead partner has a contractor grading designation in the EP (Electrical Engineering) class of construction work; not lower than one level below the required grading designation in the class of works construction works under considerations and possess the required recognition status.</li> </ol>		
	3. 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 CE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.		
	ECDC will verify whether the Bidders have an active and valid CIDB registration as required above		
4.	Annexure C – Supplier Information (Completed and Signed by the Delegated Authority) Attach Delegation of Authority	Yes	Yes
5.	Annexure L C.1.1 Form of Offer and Acceptance Offer; (Completed and Signed by the Delegated Authority) Attach Delegation of Authority	Yes	Yes
6.	Annexure E - (SBD 4): Declaration of interest (bidder); (Completed and Signed by the Delegated Authority) Attach Delegation of Authority	Yes	Yes

7.	Annexure F– (SBD 8): Declaration of bidder's past supply chain management practices; (Completed and Signed by the Delegated Authority) Attach Delegation of Authority	Yes	Yes
8.	Annexure G – (SBD 9): Certificate of independent Bid determination (Completed and Signed by the Delegated Authority) Attach Delegation of Authority	Yes	Yes
9.	Annexure H: Compulsory Declaration (Completed and Signed by the Delegated Authority) Attach Delegation of Authority	Yes	Yes
10.	Annexure I: Preference Point Claim in terms of the Preferential Procurement Regulations 2017	No	Yes
11.	ANNEXURE K ( which includes annex C ): Declaration of Local Content (SBD 6.2) (Completed and Signed by the Delegated Authority) Attach Delegation of Authority	Yes	Yes
12.	Annex C – Local Content Declaration ( Summary Schedule) (Completed and Signed by the Delegated Authority) Attach Delegation of Authority	Yes	Yes
13.	Attach an original or Certified copy of original B-BBEE Certificate from an accredited verification agency or an Original or Certified Copy of B-BBEE Sworn Affidavit from a Commissioner of Oath. Failure to submit either the original or a certified copy of the original will result in awarding of 0 (zero) points preference points under BBBEE. (A copy of a certified copy will not be accepted	No	No
	Note: A trust, consortium or joint venture must submit a consolidated Original or Certified Copy of B-BBEE Status Level Verification Certificate in order to qualify for points.		
14.	Duly signed Letter of Authority MUST be submitted authorising the individual to sign on behalf of the bidder if:  a) If there are more than one Owner/ Director / Shareholder / Member / Trustee etc. OR	Yes	Yes
	b) If there is only one Director / Shareholder / Member / Trustee / Owner etc. and they are not the one completing the bid document.		
	<b>Note:</b> The Letter of Authority MUST be signed by all directors of the Bidder (or a signed Board Resolution authorising the signatory will be accepted).		
15.	Priced Bills of Quantities completed in ink.	Yes	Yes
16	A Valid ISO 9001:2015 Manufacturer's Certificate and A Valid ISO 14001 Manufacturer's Certificate, e.g. "Miniature Substations and Highmast steel structures."	Yes	Yes

17	Register intention to Bid		
	T.2.2 Functionality Returnable Scheo	dule (	
	T2.2.2 a- Similar projects completed, with 3 reference letter which includes contactable references	Yes	Yes
	T2.2.2 b – Construction Method Statement	No	Yes
	T2.2.2 c – Key personnel Qualifications (Construction Manager)	No	No
	T2.2 .2 d – Key personnel Qualifications (Construction Supervisor)	No	No
	T2.2.2 e – Key personnel Qualifications (OHS Safety Officer)	No	No
	T2.2.2 f – Key personnel Qualifications (Skilled Staff)	No	No
	T2.2 .2 g – Key personnel Experience (Construction Manager)	Yes	Yes
18	T2.2.2 h – Key personnel Experience (Construction Supervisor)	Yes	Yes
	T2.2.2 i – Key personnel Experience (OHS Safety Officer)	Yes	Yes
	T2.2.2 j – Key personnel Experience (Skilled Staff)	No	Yes (with 14 days of award
	T2.2.2 k – Key personnel Experience (Semiskilled Staff)	No	No
	T2.2.2 n– Local Labour Employment and Sub- Contracting	No	Yes ( at construction stage)
	T2.2.2 o – Tenderer confirms he has read the scope of work works and associated detailed specifications	Yes	Yes
	The following will be applicable to Joint Ventur	es/Consortium	
Cons	sortium/Joint Venture Agreement or letter of intent to enter in a sortium / Joint Venture signed by all Consortium Members who are		
	Authorized.	Yes	Yes
	olution of the Board of Directors to enter into a Consortium or Joint ure from each member firm of the Consortium/Joint Venture for this	Yes	Yes
on be	r of Authority of Signatory(individual) authorizing the Signatory to sign chalf of the Consortium/JV.  Letter of Authority should be from each member firm and must be ed by all directors of each member firm (or Board Resolution will be pted).	Yes	Yes

Attach a valid Original or Certified copy of valid Original Consolidated B-BBEE Certificate from an accredited verification agency	No	No	
Failure to submit either the valid original or a certified copy of the valid original will result in awarding of 0 (zero) points preference points under BBBEE. (A copy of a certified copy will not be accepted			

KINDLY NOTE THAT, FAILURE TO SUBMIT THE REQUIRED MANDATORY DOCUMENTATION WITH THE BID WILL RESULT IN YOUR BID BEING DISQUALIFIED WITHOUT FURTHER CONSIDERATION.

## Bidders shall take note of the following conditions:

- 1. The successful bidder will be required to submit a Letter of Good Standing from the Compensation Commission within 14 days after award and before the contract can be signed
- 2. Performance Guarantee to be submitted within 14 days after award.
- 3. The Bid Validity period is 90 day.
- 4. An approved and project specific Health and Safety file within 14 days upon appointment.
- 5. No correction fluid to be used and all errors to be initialled

Queries relating to the issue of these documents may be addressed in writing to:

Ms. Siyabulela Vanda tenders@ecdc.co.za

## 1.2. STAGE 1- LOCAL PRODUCTION AND CONTENT

Declaration of Local Content: Only locally manufactured products with a minimum threshold as per Table 1 and Table 2 and Table 3 below of local production and content will be considered as stated in the National Treasury designation sectors: Transformers and Shunt Reactors.

Bids in respect of the provision of designated sector for local production and content, must contain the minimum threshold for local production and content as indicated in the table below:

Table 1

Designated Sector / Sub-sector / Industries	Minimum threshold for local content		
Miniature Substations and Transformers			
Class of Transformer: Class 1 100%			
Components and Conversion Activities	See Table 2		
Highmast Lighting	Structures		
Steel Structure- Highmast	100%		
Components and Conversion Activities	See Table 3		

For more details on the designated sectors for local production and their minimum threshold and any amendment from time to time, please visit the following website <a href="http://www.thedti.gov.za/industrial\_development/ip.jsp">http://www.thedti.gov.za/industrial\_development/ip.jsp</a>.

Table 2

Classes of Transform	Components and manufacturing processes against which the overall local content must be discharged			
ers and Shunt Reactors	Components and manufacturing processes	% local content	% local content from 01/01/ 2018	
	Fabrication of the tank and parts (i.e. cutting, welding, sand-blasting and painting)	100%	100%	
	Manufacture (rolling, sizing, insulation) of windings and assembly	50%	100% (Continuously Transposed Conductor (CTC) localised)	
	Fabrication of the core (sizing, slitting, cutting, stacking and clamping)	100%	100%	
Class 1	Oil (i.e. blending, processing and handling)	100%	100%	
	Accessories Category A: Radiators Fans Kiosks Oil conservator Breather canisters	100%	100%	
	Accessories Category B: Valves Cables	70% (by the valves instruction) 90% (by the cables instruction)		
	Assembly and testing of the fully-built unit	100%	100%	
	Totał minimum locał content (per unit)	70%	80%	

#### Table 3

The structures are classified under the harmonisation system as follows:

- H730890: Structures and parts of structures iron/steel (Including Steel Powerlines Hardware)
- H730820: Towers and Lattice Masts (including Monopole Pylons and Street Lighting Poles)
- H761090: Aluminium structures and parts for construction (Including Aluminium Powerlines Hardware)

To ensure that local production and content is discharged on manufacturing activities, the following *steel structures* have been designated and must be included in bid invitations:

Product for designation	Minimum local content
Steel Power Pylons	100%
Monopole Pylons	100%
Steel Substation Structures	100%
Powerline Hardware (listed in Appendix A)	100%
Street Lighting Steel Poles	100%
Steel Lattice Towers and Masts	100%

- 1.2.1 Bidder that fails to meet the minimum stipulated threshold for local production and content will be unacceptable and will not proceed to stage 2
- 1.2.2 The exchange rate stipulated for the calculation of local content must be the exchange rate published by the SARB at 12h00 on the date, 7 calendar days prior to the closing of the bid
- 1.2.3 Only the SABS approved technical specification number SATS 1286:2011 shall be used to calculate local content.
- 1.2.4 The following formulae shall be used to calculate the local content.

$$LC = \left(1 - \frac{x}{y}\right) \times 100$$

Where

X = is the imported content in ZAR

Y = tender price in ZAR excluding VAT

Before completing the declaration certificate, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial development/ip.jsp at no cost.

## A bid will be disqualified if -

• The Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and

#### A bid may be disqualified if

• The bidder fails to declare that the Local Content Declaration Templates (Annex C, D and E) have been audited and certified as correct.

## 1.3. STAGE 2-FUNCTIONALITY

Involves an evaluation of Functionality only – At this stage Bidders must score a minimum score of 70% for functionality (services) in order to be evaluated for stage 2 (Preferential procurement points).

## Bidder to note the following for Functionality Evaluation:

- a) Adequate proof supporting the points claimed must be provided. (e.g. <u>documents</u>, <u>agreements</u>, <u>qualifications</u>, <u>previous experience</u>, <u>certifications</u>, <u>etc.</u>)
- b) Failure to submit relevant information with supporting document and adequate proof may result in ECDC not being able to allocate points for the Evaluation Criteria outlined below.

Table 1: Functionality Evaluation Criteria - Stage 2

EXPERIENCE (Read with Schedule T.2.2.2(a) requirements)	
Bulk Electrical Contracts	
Constructed 3 or more Bulk Electrical Contracts of R20 million or more in the past 10 years	30
Constructed 3 or more Bulk Electrical Contracts of R15 million or more in the past 10years Constructed 3 or more Bulk Electrical Contracts of R10 million or more in the past 10years Constructed less than 3 Bulk Electrical Contracts of at least R10 million in the past 10 years	
Document to be submitted for points allocation	
The Bidder must demonstrate that they have the relevant experience in Bulk Electrical construction works submitting completed T.2.2.2 (a) reference forms or reference letters and/or completion certificates of completed Bulk Electrical construction works (Read with Schedule T.2.2.2(a) requirements	
Reference letter/ Completion Certificate should indicate the following	
Signature of the client	
Client's Letter head or Client Stamp	
<ul> <li>Company name, contact person, contact details (telephone number and email address)</li> </ul>	
Value of the project	
Works carried out	
Works have been completed on time /within the stipulated contract period	
Good or better quality of workmanship	
Reference letters must not be older than 10 years	
Note: The Contract Value of the relevant reference letters will be accumulated. The three (3) reference letters will only be considered if at least the Bidder has completed one (1) Bulk Electrical Contract to the value of R10 million	
EXPERTISE (CV's of other Key Personnel to be included in Returnables)	
Site Agent/ Construction Manager	
More than 10 years' experience in Electrical MV experience More than 5 years up to and including 10 years' experience in Electrical MV experience More than 3 years up to and including 5 years in Electrical MV experience Less than 3 years' experience	

Foreman/ Construction Supervisor	
More than 10 years' experience in Electrical MV experience More than 5 years up to and including 10 years' experience in Electrical MV experience More than 3 years up to and including 5 years in Electrical MV experience Less than 3 years' experience	20 15 10 0
Health and Safety Officer	
More than 10 years' experience as a Health and Safety Rep in construction More than 5 years up to and including 10 years' experience as a Health and Safety Rep in construction More than 3 years up to and including 5 years as a Health and Safety Rep in construction Less than 3 years' experience as a Health and Safety Rep in construction	10 5 3 0
TOTAL MAXIMUM ACHIEVEABLE POINTS	80
MINIMUM POINTS REQUIRED	56

- a) Only bids that have achieved the minimum qualifying score for functionality will be evaluated further in terms of preferential procurement points (stage 3).
- b) All bids that fail to achieve the minimum score will be disqualified.
- c) The minimum qualifying score (in a percentage) for functionality shall be calculated as follows:

$$P_{\text{S}} = \frac{\text{So}}{\text{Ms}} \text{ x100Where:}$$

Ps = percentage scored for functionality by bid under consideration

So = Total score for bid under consideration

Ms = Maximum possible score

The percentages of each panel member shall be added and divided by the number of panel members to establish the average percentage obtained by each bidder for functionality.

## 1.4 Stage 3 – Preference Procurement Point - Evaluation Criteria

Preference points for this bid shall be awarded for price and the B-BBEE Status Level of Contribution. The maximum points for this bid are allocated as follows:

CRITERIA	POINTS
Price	80
B-BBEE status level of contribution 20	
TOTAL POINTS	100

- a) Points awarded for price based will be based on the 80/20 Preference point systems
- b) The points scored by the tenderer/bidder for Price will be added to the points scored for B-BBEE Status Level of Contributor to obtain the bidder's total points scored out of 100 points.
- c) In the event that two or more bids have scored equal total points, the successful bid will be the one scoring the highest number of preference points for B-BBEE.
- d) However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality.
- e) Should two or more bidders/tenderers be equal in all respects, the award shall be decided by the drawing of lots.
- f) The bidder obtaining the highest number of total points will be awarded the contract.
- g) Points scored will be rounded off to the nearest 2 decimal place.

#### h) Price

- (i) The lowest acceptable bid will score 80 points for price.
- (ii) The following formula will be used to calculate the points out of 80 for price in respect of the bid/tender.
- (iii) Preference points for price shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts;

DETAILS	80/20 PREFERENCE POINT SYSTEM
Rand value (competitive bids or quotations) all applicable taxes included.	Equal and above R30 000 to R50 million, inclusive of all applicable taxes.
	Below R30 000 if and when considered to be appropriate
Formulae	$Ps = 80 \left( 1 - \frac{Pt - P\min}{P\min} \right)$
	Ps = Points scored for comparative price of bid / offer under consideration
	Pt = Comparative price of bid / offer under consideration
	Pmin = Comparative price of lowest acceptable bid / offer

## i) B-BBEE Status Level of Contribution

- (i) A maximum of 20 points will be awarded for B-BBEE Status Level of Contribution
- (ii) In terms of Regulation 6(2) the following table must be used to calculate the score out

B-BBEE STATUS LEVEL OF CONTRIBUTOR	NUMBER OF POINTS (80/20 SYSTEM)
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

(iii) The tenderer/bidder must submit proof of its B-BBEE status level contributor. Proof includes original and valid B-BBEE Status Level Verification Certificates issued by a Verification Agency accredited by SANAS or Certified copies thereof. This excludes EME's and QSE's who must submit sworn affidavit in terms of Codes of good practice. The affidavit must be signed by the EME or QSE's representative and attested by a Commissioner of oaths.
ANNEXURE A — Method Statement

(	v) A trust, consortium qualify for points. <b>Project title:</b>	OSJORALVENDEL HYUSRYUMAND ANSTACTIONED ET SIQUE) LISTON WENT in Certificate in order to GENERATOR SETS WATHFOR GRAPING EQUIPMENT INCLUDING CIVIL AND
(	/) Public entities and i	STRECT, UP LIVER RESEARCH NOTE OF A TWO DE ALEGINAS PITAL  THE MENTION SEASON OF THE SEARCH S
,	Bid No:	STRUGHTRUSORES AT NELSON MANDELA ACADEMIC HOSPITAL IN MTHATHA (EASTERN CAPE)
(	ਸ) Certificates issued BiਊrNଡ଼ୀ January 201	by IRBA and Accounting Officers have been discontinued; however valid certificates already issued 7SଜMba adden 356-HO

## **Work Organization Program and Scheduling**

- 1. Bidder to submit a printed copy of the CIDB Grading indicating the Contractor Detail and
- (viii) A **Stream ratio** (Passes որ the loging and economics of the value of the contract to any other person not qualify indications of Critical Path tenderer/bidder qualifies for, unless the intended sub-contractor is an EME that
  - 2.has the papeddiiwherexecuse the subinoveratures are involved each party must submit a printed copy of **Time-lines within the project period** the individual CIDB grading and a printed copy of the combined CIDB Grading indicating; the

Note: The ECDC reserves the right to perform thorough Due Diligence processes prior to Award of the Bid. Furthermore ECDC also reserves the right to award/ not to award the bid to Bidders based on the findings resulting from bide Duer Diligence processes involved each party must submit a printed copy of the

individual CIDB Grading indicating; the Contractor Detail and Contractor Grades including the CRS Worder organization program and scheduling to be attached here

## Annex A

## Standard Conditions of Tender

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Construction Procurement (January 2019) as published in Government Gazette No 42622, Board Notice 423 of 2019 on the 8<sup>th</sup> of August 2019 (See www.cidb.org.za).

## A.1 General

#### A.1.1 Actions

- A.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in A.2 and A.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.
- A.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.
- Note: 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
  - 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.
- A.1.1.3 The employer shall not seek, and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

#### A.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

## A.1.3 Interpretation

- A.1.3.1 The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.
- A.1.3.2 These conditions of tender, the tender data and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.
- A.1.3.3 For the purposes of these conditions of tender, the following definitions apply:
  - a) conflict of interest means any situation in which:

- i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;
- ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
- iii) in compatibility or contradictory interests exist between an employee and the tenderer who employs that employee.
- **b) comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;
- **c) corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;
- **d) fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;

## A.1.4 Communication and employer's agent

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

#### A.1.5 Cancellation and Re-Invitation of Tenders

- A.1.5.1 An employer may, prior to the award of the tender, cancel a tender if
  - a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
  - b) funds are no longer available to cover the total envisaged expenditure; or
  - c) no acceptable tenders are received.
  - d) there is a material irregularity in the tender process.
- A.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the original tender invitation was advertised
- A.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

## A.1.6 Procurement procedures

#### A.1.6.1 General

Unless otherwise stated in the tender data, a contract will, subject to A.3.13, be concluded with the tenderer who in terms of A.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

## A.1.6.2 Competitive negotiation procedure

**A.1.6.2.1** Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of A.3.4, the employer shall announce only the names of the tenderers who make a submission.

The requirements of A.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

**A.1.6.2.2** All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the tender data shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and associated information.

Notwithstanding the provisions of A.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

- **A.1.6.2.3** At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.
- **A.1.6.2.4** The contract shall be awarded in accordance with the provisions of A.3.11 and A.3.13 after tenderers have been requested to submit their best and final offer.

## A.1.6.3 Proposal procedure using the two stage-system

## A.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

## A.1.6.3.2 Option 2

- A.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.
- A.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

## A.2 Tenderer's obligations

## A.2.1 Eligibility

- **A.2.1.1** Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.
- **A.2.1.2** Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

## A.2.2 Cost of tendering

**A.2.2.1** Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

**A.2.2.2** The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

#### A.2.3 Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

## A.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

#### A.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

## A.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

## A.2.7 Clarification meeting

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

#### A.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the tender data.

## A.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

## A.2.10 Pricing the tender offer

**A.2.10.1** Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the tender data.

**A.2.10.2** Show VAT payable by the employer separately as an addition to the tendered total of the prices.

- **A.2.10.3** Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.
- **A.2.10.4** State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

#### A.2.11 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

#### A.2.12 Alternative tender offers

- A.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.
- A.2.12.2 Accept that an alternative tender offer must be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.
- A.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.

## A.2.13 Submitting a tender offer

- A.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.
- A.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.
- A.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.
- A.2.13.4 Sign (Signature by authorized personnel) the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.
- A.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- A.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- A.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

A.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

A.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

## A.2.14 Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and, in the form, required, may be regarded by the employer as non-responsive.

# A.2.15 Closing time

A.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

A.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

# A.2.16 Tender offer validity

A.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.

A.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

A.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).

A.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".

#### A.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

**Note:** Sub-clause C.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.

# A.2.18 Provide other material

A.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the

tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.

Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

A.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

## A.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

# A.2.20 Submit securities, bonds and policies

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

## A.2.21 Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

#### A.2.22 Return of other tender documents

If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the tender data.

#### A.2.23 Certificates

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

## A.3 The employer's undertakings

## A.3.1 Respond to requests from the tenderer

- A.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who collected tender documents.
- A.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:
  - a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
  - b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
  - c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

## A.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated

in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

#### A.3.3 Return late tender offers

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

## A.3.4 Opening of tender submissions

- A.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.
- A.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, whereapplicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.
- A.3.4.3 Make available the record outlined in A.3.4.2 to all interested persons upon request.

## A.3.5 Two-envelope system

- A.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.
- A.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

#### A.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

## A.3.7 Grounds for rejection and disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

# A.3.8 Test for responsiveness

- A.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:
  - a) complies with the requirements of these Conditions of Tender,
  - b) has been properly and fully completed and signed, and
  - c) is responsive to the other requirements of the tender documents.
- A.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender

documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

## A.3.9 Arithmetical errors, omissions and discrepancies

A.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

A.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with A.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate:
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
  - (i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
  - (ii) the summation of the prices.

A.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

A.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern, and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

## A.3.10 Clarification of a tender offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

## A.3.11 Evaluation of tender offers

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is

advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:			
Requirement	Qualitative interpretation of goal		
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.		
Transparent	The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.		
Competitive	The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.		
Cost effective	The processes, procedures and methods are standardized with sufficient flexibility to attain best value outcomes in respect of quality, timing and price, and least resources to effectively manage and control procurement processes.		

# The activities associated with evaluating tender offers are as follows:

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report

## **A.3.11.1 General**

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

# A.3.12 Insurance provided by the employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

# A.3.13 Acceptance of tender offer

Accept the tender offer; if in the opinion of the employer, it does not present any risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement;
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;
- c) has the legal capacity to enter into the contract;
- d) is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;
- e) complies with the legal requirements, if any, stated in the tender data; and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

## A.3.14 Prepare contract documents

A.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents and other revisions agreed between the employer and the successful tenderer.

A.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

## A.3.15 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

## A.3.16 Registration of the award

An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the cidb Register of Projects.

## A.3.17 Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

#### A.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

#### **ANNEXURE B**

#### ADDITIONAL CONDITIONS OF TENDER OF ECDC

Where the CIDB standard condition of tender does not address the following, clauses on the ECDC standard conditions of tender, the ECDC Standard condition of tender will be additional.

#### 1.1 Alteration or withdrawal of Proposals

Bidders may withdraw their proposal by written notification on or before the date Specified for the evaluation of Bids.

#### 1.2 Alternative Bid

Alternative Bids will not be accepted

## 1.3 Costs for preparation of Proposals/presentations

The costs incurred by Bidders in respect of the attendance of any briefing or presentation meetings if necessary or costs incurred in preparing any proposal will be borne by the Bidder and the ECDC shall in no way be liable to reimburse such costs incurred.

# 1.4 Ownership of Proposals and presentations

The ECDC shall on receipt of any proposal relating to this request and submitted in accordance with the procedure set out herein, shall become the owner thereof and the ECDC shall not be obliged to return any proposal.

#### 1.5 Tax Clearance Certificate requirement

It is a condition of all bids inclusive of foreign bidders / individuals) that the South African taxes of the successful bidder must be in order.

The bidders' Tax status will be verified on the CSD prior to the bid award and where the preferred bidders is not compliant, **5 working days** will be granted for remedy, failing which the bidder will be disqualified.

In Bids where Consortia/Joint venture/Sub-Contractors are involved, each party will be verified separately for proof of Tax Compliance Status.

In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate. Applications for the Tax Clearance Certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website <a href="https://www.sars.gov.za">www.sars.gov.za</a>

## 1.6 Confidentiality

The entire process of calling for Bids was initiated by the ECDC in terms of its procurement policy and is confidential. All deliberations in respect of the acceptability or otherwise of the proposals shall be conducted in closed sessions and members of the Evaluation and Procurement Committee and prospective service providers are bound to treat all discussions as highly confidential.

The service provider shall not divulge directly or indirectly to any other person than a person employed by ECDC, make copies or extracts of any of the information obtained during this assignment, while they may have access to ECDC's trade secrets, confidential information which may include, specifications, plans, drawings, pattern, samples, written instructions, notes, memoranda, technical information, know-how or process or method or any other records of whatsoever nature without the written consent of ECDC and shall surrender all these items to ECDC on termination of the assignment or on demand of ECDC.

The service provider shall not be entitled to make use of the information whether for its own benefit or that of others, to make available or derive any profit from any of the information or knowledge specifically related to the business or affairs of ECDC.

Any document shall remain the property of ECDC and shall be returned (all copies) to ECDC on completion of the contract if so required by ECDC.

# 1.7 Inventions Patent and Copy-Rights

The service provider cedes, assigns and transfers to ECDC all rights, title and interest in and to any and all copyright in all works and inventions which relates to the business of ECDC (which includes, but is not limited to, methodologies and products) which arises within the course and scope of this services will be assigned to ECDC.

The Service Provider shall Provide ECDC the sole and exclusive right to alter and adapt the work.

The service provider shall indemnify ECDC against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by ECDC.

#### 1.8 Ethics

Any attempt by an interested Bidder to obtain confidential information, or enter into unlawful agreements with competitors or influence the various ECDC Procurement Committee's or the ECDC during the process of examining, evaluating and comparing Bids/Proposals or Proposals will lead to the rejection of its bid/quotation/proposal in its entirety.

The Bidder must declare any business or other interests it has with the ECDC or any employee of the ECDC, as per the declaration of interest form annexed hereto marked in Section D; failing which the Bidder shall be automatically disqualified from further participation in the Bid or call for proposals. The disqualification will be applicable at any stage of the bidding and / or engagement process.

#### 1.9 Competition

Bidders and their respective officers, employees and agents are prohibited from engaging in any collusive action with respect to the bidding process which serves to limit competition amongst bidders.

In general, the attention of bidders is drawn to Section 4(1) (b) (iii) of the Competition Act 1998 (Act No. 89 of 1998) (the Competition Act) that prohibits collusive biding.

An agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder/s is / are or a contractor(s) was / were involved in collusive bidding.

If bidders have reason to believe that competition issues may arise from any submission of a response to this bid invitation they may make, they are encouraged to discuss their position with the competition authorities before submitting response.

Any correspondence or process of any kind between bidders and the competition authorities must be documented in the responses to this invitation to bid.

In this regard bidders are required to complete the Certificate of Independence Bid Determination, failing which the Bidder shall be automatically disqualified from further participation in the Bid or call for proposals. The disqualification will be applicable at any stage of the bidding and / or engagement process.

If a bidder (s) or contractor (s), based on reasonable grounds or evidence obtained by ECDC, has /have engaged in the restrictive practice referred to above, ECDC may refer the matter to the Competition Commission for investigation and possible imposition of an administrative penalty as contemplated in Section 59 of the Competition Act 89 of 1998.

If a bidder(s) or contractor(s) has / have been found guilty by the Competition Commission of the restrictive practice referred to above, ECDC may in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such an item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) for conducting business with the public sector for a period of not exceeding 10 9ten) years and / or claim damages form the bidder(s) / contractor(s) concerned.

#### 1.10 Cancellation of Bid Process

The ECDC shall be entitled, within its sole and entire discretion, to cancel this Bid/Call for Proposals and/or Quotations at any time and shall notify the interested service providers accordingly. The ECDC shall in no way be liable for any damages whatsoever, including, without limitation, damages for loss of profit, in any way connected with the cancellation of this bid. The publication of the bid does not commit the ECDC to appoint any of the qualifying Bidders.

#### 1.11 Interviews

In terms of the bid evaluation process short listed bidders may be interviewed. This will entail the bidder being invited to a venue as determined by the bid committee. All transport and accommodation costs incurred by the bidder will be for the bidders account and will not be reimbursed in any way. Failure to attend a scheduled interview will lead to immediate disqualification from the bid process. The ECDC reserves the right to appoint a bidder without conducting interviews.

#### 1.12 Contract award

The successful bidder will be notified of the bid award in writing by the Procurement Department.

The acceptance of any proposal shall only be confirmed with the conclusion of a final written signed service level agreement or any other appropriate agreement between the ECDC and the successful Bidder, in terms of which the rights and duties of the parties are recorded, which agreement shall regulate the relationship between the ECDC and the Successful Bidder.

As a guideline regarding the content of the service level agreement, the bidder is referred to the General Conditions of Contract for Construction (2015 edition)

Until such time that an appropriate agreement has been concluded in writing between the ECDC and the successful Bidder, no rights shall be conferred nor shall any legitimate expectations be conferred to the successful Bidder to carry out the works or services provided for in this Bid.

The ECDC, the Accounting Officer and the Bid Committee (as the case may be) does not bind itself to accept either the lowest (price), highest (points) or any other bid and reserves the right to accept the bid which it deems to be in the best interest of the Institution even if it implies a waiver by the ECDC, the Accounting Officer, or the Bid Committee, (as the case may be) of certain requirements which the ECDC, the Accounting Officer, the Bid Committee, (as the case may be) considers to be of minor importance and not complied with by the bidder.

The ECDC will not entertain any request of feedback before the final awarding of the contract.

#### 1.13 Supplier Due Diligence

ECDC reserves the right to conduct supplier due diligence prior to final award or at any time during the contract period. This may include site visits and requests for additional information.

#### 1.14 Disclaimer

This Bid document has been prepared for the purpose of providing information to interested Bidders. The provision of any additional information about the organization to Bidders, are disclosed and will be made available to enable the prospective Bidders to submit comprehensive proposals.

Interested Bidders are accordingly required to conduct their own due diligence in respect of the ECDC and its business operations and the nature and scope of the services required.

The ECDC accepts no responsibility for the fairness, accuracy or completeness of any information or opinions, for any errors, omissions or misstatements, negligent otherwise, made by any person in this Bid document or at any Compulsory briefing session

The ECDC accepts no liability for any loss incurred by any person(s) due to events or action taken as a consequence of the preparation and dissemination of this bid request.

Except in cases of criminal negligence or wilful misconduct, and in the case of infringement the bidder shall not be liable to ECDC, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the bidder to pay penalties and/or damages to ECDC; and

The aggregate liability of the bidder to ECDC, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

#### 1.15 Contact and Communication

A nominated official of the bidder(s) can make enquiries in writing, to the specified person on the table below. Bidder(s) must reduce all telephonic enquiries to writing and send to the above email address.

The delegated office of ECDC, Procurement Department, may communicate with Bidder(s) where clarity is sought in the bid proposal.

Any communication to an official or a person acting in an advisory capacity for ECDC in respect of the bid between the closing date and the award of the bid by the Bidder(s) is discouraged.

All communication between the Bidder(s) and ECDC must be done in writing.

Details	Bidding Procedure
Department	Procurement Department
Contact person	Siyabulela Vanda
Telephone number	043 704 5600
E-mail address	tenders@ecdc.co.za

# **FRAUD HOTLINE**

# **Deloitte Tip-offs**

Web address: https://www.tip-offs.com

E-mail address as applicable: <a href="mailto:ecdc@tip-offs.com">ecdc@tip-offs.com</a>

Free postal address: Freepost KZN 138, Umhlanga Rocks, 4320

Free fax number: 0800 007 788 Toll free number: 0800 116 655

International toll free number: +2731 571 8913

Whilst all due care has been taken in connection with the preparation of this bid, ECDC makes no representations or warranties that the content of the bid or any information communicated to or provided to Bidder(s) during the bidding process is, or will be, accurate, current or complete. ECDC, and its employees and advisors will not be liable with respect to any information communicated which may not be accurate, current or complete.

If Bidder(s) finds or reasonably believes it has found any discrepancy, ambiguity, error or inconsistency in this bid or any other information provided by ECDC (other than minor clerical matters), the Bidder(s) must promptly notify ECDC in writing of such discrepancy, ambiguity, error or inconsistency in order to give ECDC an opportunity to consider what corrective action is necessary (if any).

Any actual discrepancy, ambiguity, error or inconsistency in the bid or any other information provided by ECDC will, if possible, be corrected and provided to all Bidder(s) without attribution to the Bidder(s) who provided the written notice.

All persons (including Bidder(s)) obtaining or receiving the bid and any other information in connection with the Bid or the Tendering process must keep the contents of the Bid and other such information confidential, and not disclose or use the information except as required for the purpose of developing a proposal in response to this Bid.

# T2.2. - Returnable schedules

T2.2.1 – Declarations: pg50

T2.2.2 – Functionality Evaluation Schedules

ANNEXURE C: SUPPLIER INFORMATION/COMPANY ENTERPRISE QUESTIONNAIRE		
Note: Mandatory Requirement. Failure to complete and Sign this document will result in the bid being non responsive.		
Important Note: The following particulars enterprise questionnaires in respect of each	s must be furnished. In the case of a joint venture, separate the partner must be completed and submitted.	
Legal Name of Bidder : (Same as CSD)		
Trading Name of Bidder: (Same as CSD)		
Registration Number (Same as CSD)		
Physical Address		
Postal Address		
Contact Person (of the JV if a the Bidder is a JV)		
Title/Position in the Firm		
Mobile Number (of the JV if a the Bidder is a JV)		
Bidder Telephone Number (of the JV if a the Bidder is a JV)		
Facsimile Number		
Email Address of Contact Person (of the JV if a the Bidder is a JV)		
Email Address of Bidder(of the JV if a the Bidder is a JV)		
VAT Registration Number (Same as CSD)		

Central Supplier Database	Number	MAAA			
CIDB Registration Number					
B-BBEE STATUS VERIFICATION					
Very Important: (Attach B-BBBEE Status Ver EME's and QSEs) must be s					avit (for
Africa for the	□ Yes (If Yes enclose	□ No Proof)	Are you a foreign based supplier for the Goods/Services/Works Offered?	□ Yes (If Yes, answe questionnaire	□ No er the Below)
QUESTIONAIRE TO BIDDING	G FOREIGN SU	PPLIERS			
Is the Entity a resident of the F	Republic of Sout	th Africa (RS	SA)	□ Yes	□ No
Does the Entity have a branch	in the RSA?	,	,	□ Yes	□ No
Does the Entity have a perman	nent establishm	ent in the RS	SA?	□ Yes	□ No
Does the Entity have any sour	ce of income in	the RSA		□ Yes	□ No
If the answer is "No" to all o system pin code from the So	of the above, the outh African Re	en it is not a evenue (SAI	a requirement to register for RS) and if not register	a Tax Complia	ance Status
VERY IMPORTANT					
NO QUOTATIONS/BIDS WILL COMPANIES WITH IRECTOR CORPORATIONS WITH MEM	RS WHO ARE P	PERSONS IN	N THE SERVICE OF THE STA		,
SERVICE PROVIDER ACKNOWLEDGEMENT OF REQUEST AND TERMS AND CONDITIONS:					
I(NAME) HEREBY ACCEPT THE TERMS OF THIS REQUEST FOR BID AND ACKNOWLEDGE THAT I AM APPROPRIATELY DELEGATED TO RESPOND ON BEHALF OF (ATTACH DELEGATION OF AUTHORITY)					
(NAME OF BIDDER).					
Print Name				Date	
Designation			Signature		

An	nexure D: Location	
1	Where is the Bidder's main office?	
	Other offices:	

## Annexure E: Declaration of Interest (SBD4)

Note: Mandatory Requirement. Failure to complete and Sign this document will result in the bid being non responsive.

1. Any legal person including persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes a price quotation, advertised competitive bid, limited bid or proposal).

In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons employed by the state, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest, where-

• the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

NO QUOTATIONS/BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE.

2.	In order to give effect to the above, the following questionnaire must be completed and submitted with
	the bid.

2.1.	Full Name of Bidder:
2.2	Name of the Bidder's representative:
2.3	Identity Number:
2.4	Position occupied in the Company (director, shareholder etc):
2.5	Company Registration Number:
2.6	Tax Reference Number:
2.7	VAT Registration Number:

2.7.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / persal numbers must be indicated in paragraph 3 below.

1"State" means -

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

<sup>&</sup>lt;sup>2</sup>"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

2.8	Are you or any person conne	ected with the bidde	er presently employed by the sta	ate? Yes [	□ No □	
2.8.1	If yes furnish the following do	etails:				
	ame of person / director / tr	ustee / shareholde	er/			
	ame of state institution at erson is connected to the bid		ne			
• F	osition occupied in the said in	nstitution:				
Any other	particulars:					
2.9 me			ny's directors / trustees / share the state in the previous twelve r		Yes 🗌 No 🗍	
Record i	n the Service of the state			•		
	by marking the relevant box e last 12 months in the serv		if any principals or spouse is following	currently or	has been	
□ a men	nber of any municipal council		an employee of any departm			
□ a men	nber of provincial legislature		public entity or constitutional institution within the meaning of the Public Finance Management Act of			
□ an off	icial of any municipality or mu	unicipal entity	1999 (Act No 1 of 1999)			
□ a men entity	nber of the board of directors	of any municipal	□ a member of the National As Council of Provinces	sembly or the	National	
□ an em	ployee of Parliament or a pro	vincial legislature	□ a member of an accounting a or provincial public entity	authority of ar	ny national	
If any of	the above boxes are marke	d, disclose the Fo	ollowing			
Name o	f Principal		Institution, public office,	Status of Service		
		Doard or organic	of state and position held	Tick Appro	priate Box	
				Current	Within last 12 months	

2.	10				Yes 🗌 No 🗌	
a)	Do you, or any person connected very employed by the state and who mabid?					
b)	b) Record of Family member in the Service of the State					
Se	ervice provider is required to reco	rd family member	in the service of state			
lav	<b>Family member:</b> a person's spouse, whether in a marriage or in a customary union according to the indigenous law, domestic partner in a civil union, or a child, parent, brother, sister, whether such a relationship results from birth, marriage or adoption					
	dicate by marking the relevant bo rrently or has been within the last				ned in 2.9 is	
	a member of any municipal council		□ an employee of any departm			
	a member of provincial legislature		public entity or constitutional meaning of the Public Finance			
[	an official of any municipality or mu	unicipal entity	1999 (Act No 1 of 1999)			
	a member of the board of directors ntity	of any municipal	□ a member of the National As Council of Provinces	ssembly or th	ne National	
□ an employee of Parliament or a provincial legislature □ a member of an accounting authority of a or provincial public entity			any national			
lf :	any of the above boxes are marke	d, disclose the Fo	llowing			
١	lame of Principal		Institution, public office,	Status of	Service	
		board or organ	of state and position held	Tick Appr	ck Appropriate Box	
		<u> </u>		_		
				Current	Within last 12 months	
				Current	last 12	
				Current	last 12	
				Current	last 12	
				Current	last 12	
				Current	last 12	
				Current	last 12	
				Current	last 12	
				Current	last 12	
				Current	last 12	
				Current	last 12	
2.	11 Are you, or any person confriend, other) between any othe involved with the evaluation and	r bidder and any p		nip (family,	last 12	
2.	friend, other) between any othe	r bidder and any p	erson employed by the state wi	nip (family,	last 12 months	
2.	friend, other) between any othe involved with the evaluation and	r bidder and any p	erson employed by the state wi	nip (family,	last 12 months	
2.	friend, other) between any othe involved with the evaluation and	r bidder and any p	erson employed by the state wi	nip (family,	last 12 months	
2.	friend, other) between any othe involved with the evaluation and	r bidder and any p	erson employed by the state wi	nip (family,	last 12 months	

	y of the directors / trustees / sha any other related companies		
If so, furnish pa	rticulars		
established in ter	a natural person who is a	( Act 71 of 2008) or a r	etor, a director of a company member of a close corporation 984)
Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number / Personal Number (if applicable)
DECLARATION			
	IAME)		
CERTIFY THAT THE INFO	ORMATION FURNISHED IN PA	RAGRAPHS 2.1 TO 2.11.	1 ABOVE IS CORRECT.
	STATE MAY ACT AGAINST ACT SHOULD THIS DECLARA		RAGRAPH 23 OF THE GENERAL SE.
Signature by delega			Date
Position		 Nam	e of Representative

Annexure F – (SBD 8): Declaration of bidders past supply chain management practices				
Note: Mandatory Requirement. Failure to complete and Sign this document will result in the bid being non responsive.				
This declaration will be used to ensure that when goods and services are being procured, all reasonable steps were aken to combat the				
Abuse of the supply chain	management system.			
The bid of any bidder may management system;	be disregarded if that bidder, or any of its directors have-a	bused ECDC'	s supply chain	
committed fraud or any oth	ner improper conduct in relation to such system; or			
failed to perform on any pr	evious contract.			
In order to give effect to th	e above, the following questionnaire must be completed an	nd submitted v	vith the bid	
	f directors) been listed on the Register for Bid Defaulters in and Combating of Corrupt Activities Act (No 12 of 2004)		Yes 🗌 No 🗌	
If so, furnish particulars:				
Have you (bidder or any of the directors) convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?			Yes 🗌 No 🗌	
If so, furnish particulars:				
	Was any contract between you (the bidder) and any organ of state including ECDC terminated during the past five years on account of failure to perform on or comply with the contract?			
If so, furnish particulars:				
I /we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the information provided above is true and correct and that I / we acknowledge that ECDC may, in addition to any other remedy it may have –				
cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation; forward the matter for criminal prosecution				
SIGNATURE OF DELEGATED DATE				

## Annexure G - (SBD 9): Certificate of independent Bid determination

Note: Mandatory Requirement. Failure to complete and Sign this document will result in the bid being non responsive.

Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging<sup>i</sup>). Collusive bidding is a pe se prohibition meaning that it cannot be justified under any grounds.

I, the undersigned, in submitting the accompanying bid do hereby make the following statements that I certify to be true and complete in every respect:

I have read and I understand the contents of this Certificate:

I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;

I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;

Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;

For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

- (a) has been requested to submit a bid in response to this bid invitation;
- (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
- (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium<sup>3</sup> will not be construed as collusive bidding.

In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

prices; geographical area where product or service will be rendered (market allocation)

- (c) methods, factors or formulas used to calculate prices;
- (d) the intention or decision to submit or not to submit, a bid;
- (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
- (f) bidding with the intention not to win the bid.

In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.

The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

SIGNATURE OF BIDDER OF DELEGATED	DATE	
AUTHORITY	DAIL	

Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

## **Annexure H: COMPULSORY DECLARATION**

Note: Mandatory Requirement. Failure to complete and Sign this document will result in the bid being non responsive.

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the tendering entity, confirms that the contents of this Declaration are within my personal knowledge, save where stated otherwise in an attachment hereto, and to the best of my belief is both true and correct, and that:

- i) neither the name of the tendering entity, nor any of its principals, appears on:
  - a) the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004 (Act No. 12 of 2004); or
  - b) National Treasury's Database of Restricted Suppliers (see www.treasury.gov.za);
- ii) the tendering entity or any of its principals has not been convicted of fraud or corruption by a court of law (including a court outside of the Republic of South Africa) within the last five years;
- iii) any principal who is presently employed by the state has the necessary permission to undertake remunerative work outside such employment (attach permission to this declaration);
- iv) the tendering entity is not associated, linked or involved with any other tendering entities submitting tender offers:
- v) the tendering entity has not engaged in any prohibited restrictive horizontal practices, including consultation, communication, agreement, or arrangement with any competing or potential tendering entity regarding prices, geographical areas in which goods and services will be rendered, approaches to determining prices or pricing parameters, intentions to submit a tender or not, the content of the submission (specification, timing, conditions of contract, etc.) or intention to not win a tender;
- vi) the tendering entity has no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- vii) neither the tenderer nor any of its principals owes municipal rates and taxes or municipal service charges to any municipality or a municipal entity, and are not in arrears for more than three months;
- viii) SARS may, on an on-going basis during the term of the contract, disclose the tenderer's tax compliance status to the Employer and, when called upon to do so, obtain the written consent of any subcontractors who are subcontracted to execute a portion of the contract that is entered into in excess of the threshold prescribed by National Treasury, for SARS to do likewise.

Signed	Date	:
Name	Position	ı
Enterprise name		

NOTE 1: The Standard Conditions of Tender contained in SANS 10845-3 prohibits anticompetitive practices (clause 3.1) and requires that tenderers avoid conflicts of interest, only submit a tender offer if the tenderer or any of his principals is not under any restriction to do business with the Employer (4.1.1) and submit only one tender either as a single tendering entity or as a member in a joint venture (clause 4.13.1). Clause 5.7 also empowers the Employer to disqualify any tenderer who engages in fraudulent and corrupt practice. Clause 3.1 also requires tenderers to comply with all legal obligations.

NOTE 2: Section 30(1) of the Public Service Act, 1994, prohibits an employee (person who is employed in posts on the establishment of departments) from performing or engaging remunerative work outside his or her employment in the relevant department, except with the written permission of the executive authority of the department. When in operation, Section 8(2) of the Public Administration Management Act, 2014, will prohibit an employee of the public administration (i.e. municipalities and all national departments, national government components listed in Part A of Schedule 3 to the Public Service Act, provincial departments including the office of the premier listed in Schedule 1 of the Public Service Act and provincial departments listed in schedule 2 of the Public Service Act, and provincial government components listed in Part B of schedule 3 of the Public Service Act) or persons contracted to executive authorities in accordance with the provisions of section 12A of the Public Service Act of 1994 or persons performing similar functions in municipalities, from conducting business with the State or to be a director of a

public or private company conducting business with the State. The offence for doing so is a fine or imprisonment for a period not exceeding five years, or both. It is also a serious misconduct which may result in the termination of employment by the employer.

NOTE 3: Regulation 44 of Supply Chain Management regulations issued in terms of the Municipal Finance Management Act of 2003 requires that municipalities and municipal entities should not award a contract to a person who is in the service of the State, a director, manager or principal shareholder in the service of the State or who has been in the service of the State in the previous twelve months.

NOTE 4: Regulation 45 of Supply Chain Management regulations requires a municipality or municipal entity to disclose in the notes to the annual statements particulars of any award made to a close family member in the service of the State.

NOTE 5: Corrupt activities which give rise to an offence in terms of the Prevention and Combating of Corrupt Activities Act of 2004, include improperly influencing in any way the procurement of any contract, the fixing of the price, consideration or other moneys stipulated or otherwise provided for in any contract, and the manipulating by any means of the award of a tender.

NOTE 6: Section 4 of the Competition Act of 1998 prohibits restrictive horizontal practice, including agreements between parties in a horizontal relationship, which have the effect of substantially preventing or lessening competition, directly or indirectly fixing prices or dividing markets or constituting collusive tendering. Section 5 also prohibits restrictive vertical practices. Any restrictive practices that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties.

# Annexure I: Preference Point Claim in terms of the Preferential Procurement Regulations 2017

SBD 6.1 (Attached)

B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA) or an Accounting Officer as contemplated in the Close Corporation Act (CCA) together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed. ECDC reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required

Bidder:	Ref No	o: ECDC/ELN/287/022021
Any portion of the work that will be sub-	contracted must be in	dicated as follows:
Description of Work to be Sub- Contracted	Value of Work (R)	% of Work to be Sub-Contracted
Signed:		Date:

Annexure J: Declaration of The Value of Work To Be Sub-Contracted By Bidder

ANNEXURE K: SBD 6.2 – Declaration Certificate For Local Production And Content for Designated Sector Note: Mandatory Requirement. Failure to complete and Sign this document will result in the bid being non responsive.

This Standard Bidding Document (SBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates (Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C).

#### 1. General Conditions

- **1.1** Preferential Procurement Regulations, 2017 (Regulation 8) make provision for the promotion of local production and content.
- **1.2** Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced/manufactured goods with a stipulated minimum threshold for local production and content will be considered.
- **1.3** Where necessary, for bids referred to in paragraphs 1.2, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- **1.4** A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- **1.5** The local content (LC) as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = 1 - \left(\frac{x}{y}\right) \times 100$$

Where

- x imported content
- y bid price excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date, one week (7 calendar days) prior to the closing date of the bid as indicated in paragraph 4.1 below.

The SABS approved technical specification number SATS 1268:2011 is accessible on http://www.thedti/industrialdevelopment/ip.jsp at no cost

**1.6** A bid will be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration : Summary Schedule) are not submitted as part of the bid documentation;.

#### 2. Definitions

- **2.1** "bid" includes advertised competitive bids, written price quotations or proposals;
- **2.2** "bid price" price offered by the bidder, excluding value added tax (VAT);
- 2.3 "contract" means the agreement that results from the acceptance of a bid by an organ of state;

- **2.4** "designated sector" means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production,
- 2.5 where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
- **2.6** "duly sign" means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility(close corporation, partnership or individual).
- **2.7** "imported content" means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and
- 2.8 which costs are inclusive of the costs abroad, plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
- **2.9** "local content" means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;
- **2.10** "stipulated minimum threshold" means that portion of local production and content as determined by the Department of Trade and Industry; and
- **2.11** "sub-contract" means the primary contractor's assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.
- The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

## Table 1

Minimum threshold for local content
nd Transformers
100%
See Table 2
Structures
100%
See Table 3

Table 2

Classes of Transform	Components and manufacturin overall local content		
ers and Shunt Reactors	Components and manufacturing processes	% local content	% local content from 01/01/ 2018
	Fabrication of the tank and parts (i.e. cutting, welding, sand-blasting and painting)	100%	100%
	Manufacture (rolling, sizing, insulation) of windings and assembly	50%	100% (Continuously Transposed Conductor (CTC) localised)
	Fabrication of the core (sizing, slitting, cutting, stacking and clamping)	100%	100%
Class 1	Oil (i.e. blending, processing and handling)	100%	100%
	Accessories Category A: Radiators Fans Kiosks Oil conservator Breather canisters	100%	100%
	Accessories Category B: Valves Cables	70% (by the val 90% (by the cal	
	Assembly and testing of the fully-built unit	100%	100%
	Total minimum local content (per unit)	70%	80%

#### Table 3

The structures are classified under the harmonisation system as follows:

- H730890: Structures and parts of structures iron/steel (Including Steel Powerlines Hardware)
- H730820: Towers and Lattice Masts (including Monopole Pylons and Street Lighting Poles)
- H761090: Aluminium structures and parts for construction (Including Aluminium Powerlines Hardware)

To ensure that local production and content is discharged on manufacturing activities, the following *steel structures* have been designated and must be included in bid invitations:

Product for designation	Minimum local content
Steel Power Pylons	100%
Monopole Pylons	100%
Steel Substation Structures	100%
Powerline Hardware (listed in Appendix A)	100%
Street Lighting Steel Poles	100%
Steel Lattice Towers and Masts	100%

	endar days) prior to the closing date of the	e bid.
	The relevant rates of exchange information	ation is accessible on www.reservebank.co.za.
	Indicate the rate(s) of exchange against	st the appropriate currency in the table below:
	Currency	Rates of exchange
	US Dollar	
	Pound Sterling	
	Euro	
	Yen	
	Other	
		challenges are experienced in the meeting the stipulated minimu informed accordingly in order for the DTI to verify and consultation
N RES	LEGALLY RESPONSIBLE P EXECUTIVE OR SENIOR MEMBI	ON BY THE CHIEF FINANCIAL OFFICER OR OTHER ERSON NOMINATED IN WRITING BY THE CHIEF ER/PERSON WITH MANAGEMENT RESPONSIBILITY ATION, PARTNERSHIP OR INDIVIDUAL)
SSUE	BY: (Procurement Authority / Name of I	Institution):
	igation to complete, duly sign and submit ntative, auditor or any other third party ac	t this declaration cannot be transferred to an external authorized cting on behalf of the bidder.
	ce on the Calculation of Local Content to ssible on <a href="http://www.thdti.gov.za/industial">http://www.thdti.gov.za/industial</a>	gether with Local Content Declaration Templates (Annex C, D and E) development/ip.jsp.
	should first complete Declaration D Afte n consolidate the information on Declara	r completing Declaration D, bidders should complete Declaration E tion C.
ina ine		
Declara	ntion C should be submitted with the bestantiate the declaration made in parag	oid documentation at the closing date and time of the bid in order graph C below.
<b>Declara</b> o subs	tantiate the declaration made in paragetion D and E should be kept by the Bidde sful bidder is required to continuously upon	
Declara to subs Declara success he con	stantiate the declaration made in paragetion D and E should be kept by the Bidde sful bidder is required to continuously upon tract.	er for verification purposes for a period of at least 5 years. The

Does any portion of the services, works or goods offered have any imported content?

If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5

NO

4.

4.1.

(Tick Applicable Box)

YES

of	
I have satisfied myself that	
<ul> <li>the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum content requirements as specified in the bid, and as measured in terms of SATS 1286:2011 and</li> </ul>	n local
The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of 1286:2011, the rates of exchange indicated in paragraph 4.1 and information contained in Declaration D and E has been consolidated in Declaration C above :	
Bid price, excluding VAT (y)	
Imported content (x) R	
Stipulated minimum threshold for Local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	
If the bid is for more than one product, the local content percentages for each product contained in Dec C shall be used instead of the table above.  The local content percentages for each product has been calculated using the formula given in clause 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Dec D and E	3 of SATS claration
(d) I accept that the Procurement Authority / Institution has the right to request that the local content be terms of the requirements of SATS 1286:2011	verified in
(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnish application. I also understand that the submission of incorrect data, or data that are not verifiable as described 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as proving Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Policy Framework Acceptable (Act No. 5 of 2000).	ed in SATS vided for ir
NAME:	
SIGNATURE: DATE:	
WITNESS No. 1 DATE:	
WITNESS No. 2 DATE:	

The below listed declarations are attached in the next three pages that follow;

#### Declaration C SATS 1286.2011

Local Content Declaration – Summary Schedule

# Declaration D SATS 1286.2011

Imported Content Declaration – Supporting Schedule to declaration C

## Declaration E SATS 1286.2011

- Local Content Declaration \_- Supporting Schedule to declaration C
- Bidders should first complete annexure D, after completing annexure D, bidders should complete annexure E and then consolidate the information on annexure C.
- Annexure C should be submitted with the with the bid documentation on the closing date in order to substantiate the declaration made on annexure J.
- The successful bidder is required to continuously update annexures C, D and E with the actual for the duration of the contract.
- Bidders should obtain copies of certificates of trading the subject materials from manufactures/suppliers and attach them in the bid document in order to substantiate annexure J above.

Templates of Declarations C, D and E follow;

SATS 1286.2011

					Ar	nnex C						
				Local Co	ontent Decl	aration - S	ummary S	chedule				
Designa	description: ated product(s)	ECDC/ELN/287/022021 HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES,  STRENGT  Steel Products and Components for Construction (100%) Electrical Products and components (90%)										scluded from all
	Authority: ng Entity name:	Eastern Cape Development	Corporation							1	1	
	Exchange Rate:	Pula		EU		GBP						
Specified	d local content %											
			L I		Calculation of Id Tender value	ocal content		1 1		Tender	summary	
Tend	der item no's	List of items	Tender price - each (excl VAT)	Exempted imported value	net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
(C2)		(C3)	(C4)	(C5)	(C6)	(C7)	(C8)	(C9)	(C10)	(C11)	(C12)	(C13)
Items	as per of BOQ	Highmast Steel Structures										
		Mini- Substations										
		Transformers										
		Cables										
		Aluminium Conductors										
							(C14)	Total te	ndervalue			_
Signature	e of tenderer from	Annexure J					. ,	Total <b>Tender</b>		imported content imported content		
							value n			(C23) Total (C24)	Imported content Total local content	
Date:											content % of tender	

				A	nnex D							SATS 128
			Imported Co	ontent Declaration	n - Support	ing Schedu	ule to Anne	¢ C				I
nder No.			1							1		•
naer no. Fender description:			1					Note: VAT to be ex	cluded from			
Designated Product	ts:		1				a	i calculations		]		
Fender Authority:												
Fendering Entity na Fender Exchange R		Pula		] EU		] GBP		1				
		-		•		•		•				
A. Exempte	d imported cont	ent									s	ummary
Tender item	Description of im	norted content	Local supplier	Overseas Supplier	currency	Tender	Local value of	Freight costs to	incurred	Total landed		
Tender Item	Description of Im		Local supplier	Overseas Supplier	value as per Forign	xchange			All locally	Total landed	Tender Qty	Exempted im
no's	•	•			Commercial		Imports	port of entry	ranging costs	cost excl VAT	Tenuer Qty	value
	-				Invoice				& duties			
(D7)	(08	8)	(D9)	(010)	(011)	(D12)	(D13)	(D14)	(015)	(016)	(D17)	(D18)
									(D19	) Total exempt im		
												st correspond v
	d directly by the	Tenderer						mported content			s	ummary
INDEA AGREEMENT	J				Forign	11 PUWF P			All locally	۰۰۰۰۰		
Tender item no's	Description of Im	ported content	Unit of measure	Overseas Supplier	currency value as per Commercial Invoice	renuer nace of Exchange	Local value or imports	port of entry	Incurred landing costs	Total landed cost excl VAT	Tender Qty	Total imported
(020)	(02	1)	(022)	(D23)	(024)	(D25)	(D26)	(D27)	(D28)	(029)	(D30)	(D31)
						-	-	-				-
			<b>-</b>									
									(D32) To	tal imported value	e by tenderer	
									(D32) To	tal imported valu		
C. Imported	d by a 3rd party	and supplied t	to the Tender	rer			Calculation of	mported content	(D32) To	tal imported valu		ummary
Description of	Imported content	Unit of measure	Local supplier	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT		um mar y Total importe
Description of					currency value as per Commercial		Local value of	Freight costs to	All locally incurred landing costs	Total landed	S Quantity	
Description of	Imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe
Description of	Imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe
Description of	Imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe
Description of	Imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe
Description of	Imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe
Description of	Imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe
Description of	Imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe
Description of	Imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice (037)	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe
Description of	Imported content	Unit of measure (034)  ayments  Local supplier making the	Local supplier (035) Overseas	Overseas Supplier (036) Foreign currency value	currency value as par Commercial Invoice (D37)	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe  (D44)  Summa payment  Local vali
Description of	Imported content  1033)  Teign currency p	Unit of measure (D34)  ayments  Local supplier making the payment	Local supplier (035)  Overseas beneficiary	Overseas Supplier (036)  Foreign currency value paid	currency value as par Commercial Invoice (D37)  Tender Rate of Exchange	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe  (D44)  Summa payment  Local vali
Description of	Imported content  1033)  Teign currency p	Unit of measure (D34)  ayments  Local supplier making the payment	Local supplier (035)  Overseas beneficiary	Overseas Supplier (036)  Foreign currency value paid	currency value as par Commercial Invoice (D37)  Tender Rate of Exchange	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe  (D44)  Summa payment  Local vali
Description of	Imported content  1033)  Teign currency p	Unit of measure (D34)  ayments  Local supplier making the payment	Local supplier (035)  Overseas beneficiary	Overseas Supplier (036)  Foreign currency value paid	currency value as par Commercial Invoice (D37)  Tender Rate of Exchange	of Exchange	Local value of Imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total importe  (D44)  Summa payment  Local vali
Description of	Imported content  1033)  Teign currency p	Unit of measure (D34)  ayments  Local supplier making the payment	Local supplier (035)  Overseas beneficiary	Overseas Supplier (036)  Foreign currency value paid	currency value as par Commercial Invoice (D37)  Tender Rate of Exchange	of Exchange	Local value of Imports (D39)	Freight costs to port of entry	All locally incurred landing costs & duties (O41)	Total landed cost excl VAT  (042)  al imported value	Quantity imported (D43)	Total importe  (D44)  Summa payment  Local vali
Description of	Imported content  1033)  Teign currency p	Unit of measure (D34)  ayments  Local supplier making the payment	Local supplier (035)  Overseas beneficiary	Overseas Supplier (036)  Foreign currency value paid	currency value as par Commercial Invoice (D37)  Tender Rate of Exchange	of Exchange	Local value of Imports  (D39)	Freight costs to port of entry (D40)	All locally incurred landing costs & duties (D41)	Total landed cost excl VAT  (D42)  al imported value oy tenderer and/o	Quantity imported (D43) by 3rd party	Total importe  (D44)  Summa payment  Local vali
Description of	Imported content  D33)  reign currency p  of payment	Unit of measure (D34)  ayments  Local supplier making the payment	Local supplier (035)  Overseas beneficiary	Overseas Supplier (036)  Foreign currency value paid	currency value as par Commercial Invoice (D37)  Tender Rate of Exchange	of Exchange	Local value of Imports  (D39)	Freight costs to port of entry (D4G)	All locally incurred landing costs & duties (D41)	Total landed cost excl VAT  (D42)  al imported value oy tenderer and/o	Quantity imported (D43) by 3rd party	Total importe  (D44)  Summa payment  Local vali
Description of	Imported content  D33)  reign currency p  of payment	Unit of measure (D34)  ayments  Local supplier making the payment	Local supplier (035)  Overseas beneficiary	Overseas Supplier (036)  Foreign currency value paid	currency value as par Commercial Invoice (D37)  Tender Rate of Exchange	of Exchange	Local value of Imports  (D39)	Freight costs to port of entry (D40)	All locally incurred landing costs & duties (D41)	Total landed cost excl VAT  (D42)  al imported value oy tenderer and/o	Quantity imported (D43) by 3rd party	Total importe  (D44)  Summa payment  Local vali

SATS 1286.2011 Annex E Local Content Declaration - Supporting Schedule to Annex C Tender No. (E1) Note: VAT to be excluded from all calculations Tender description: (E2) Designated products: (E3) Tender Authority: (E4) Tendering Entity name: (E5) Description of items purchased Local suppliers Value (E6) (E7) (E8) (E9) Total local products (Goods, Services and Works) (E10) Manpower costs (Tenderer's manpower cost) (E11) (Rental, depreciation & amortisation, utility costs, consumables etc.) (E12) (Marketing, insurance, financing, interest etc.) (E13) Total local content Signature of tenderer from Annex B Date:



Private Bag X84, PRETORIA, 0001, **the dti** Campus, 77 Meintjies Street, Sunnyside, 0002, Tel: (012) 394 0000 **the dti** Customer Contact Centre local: 0861 843 384 International: +27 12 394 9500, www.thedti.gov.za

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# **Guidance Document for the Calculation of Local Content**

#### 1. **DEFINITIONS**

Unless explicitly provided in this guideline, the definitions given in SATS 1286:2011 apply.

#### 2. GENERAL

#### 2.1. Introduction

This guideline provides tenderers with a detailed description of how to calculate local content of products (goods, services and works) by components/material/services and enables them to keep an updated record for verification requirements as per the SATS 1286:2011 Annexure A and B.

The guideline consists of two parts, namely:

- a written guideline; and
- three declarations that must be completed:
  - Declaration C: "Local Content Declaration Summary Schedule" (see Annexure C);
  - Declaration D: "Imported Content Declaration Supporting Schedule to Annex C" (see Annexure D); and
  - Declaration E: "Local Content Declaration Supporting Schedule to Annex C" (see Annexure E).

The guidelines and declarations should be used by tenderers when preparing a tender. A tenderer must complete Declarations D and E, and consolidate the information on Declaration C.

Annexure C must be submitted with the tender by the closing date and time as determined by the Tender Authority. The Tender Authority reserves the right to request that Declarations D and E also be submitted.

If the tender is successful, the tenderer must continuously update Declarations C, D and E with actual values for the duration of the contract.

#### NOTE:

Annexure A is a note to the purchaser in SATS 1286:2011; and Annexure B is the Local Content Declaration IN SATS 1286:2011.

## 2.2. What is local content?

According to SATS 1286:2011, the local content of a product is the tender price less the value of imported content, expressed as a percentage. It is, therefore, necessary to first compute the imported value of a product to determine the local content of a product.

# 2.3. Categories: Imported and Local Content

The tenderer must differentiate between imported content and local content.

Imported content of a product by components/material/services is separated into two categories, namely:

- products imported directly by the tenderer; and
- products imported by a third party and supplied to the tenderer.

## 2.3.1. Imported Content

Identify the imported content, if any, by value for products by component/material/services. In the case of components/materials/services sourced from a South African manufacturer, agent, supplier or subcontractor (i.e. third party), obtain that information and Declaration D from the third party.

Calculate the imported content of components/materials/services to be used in the manufacture of the total quantity of the

products for which the tender is to be submitted.

As stated in clause 3.2.4 of SATS 1286:2011: "If information on the origin of components, parts or materials is not available, it will be deemed to be imported content."

#### 2.3.1.1 Imported directly by the tenderer:

When the tenderer import products directly, the onus is on the tenderer to provide evidence of any components/materials/services that were procured from a non-domestic source. The evidence should be verifiable and pertain to the tender as a whole. Typical evidence will include commercial invoices, bills of entry, etc.

When the tenderer procures imported services such as project management, design, testing, marketing, etc. and makes royalty and lease payments, such payments relating to the tender must be included when calculating imported content.

#### 2.3.1.2. Imported by a third party and supplied to the tenderer:

When the tenderer supplies components/material/services that are imported by any third party (for example, a domestic manufacturer, agent, supplier or subcontractor in the supply chain), the onus is on the tenderer to obtain verifiable evidence from the third party.

The tenderer must obtain Declaration D from all third parties for the related tender. The third party must be requested by the tenderer to continuously update Declaration D. Typical evidence of imported content will include commercial invoices, bills of entry etc.

When a third party procures imported services such as project management, design, testing, marketing etc. and makes royalty and lease payments, such payments relating to the tender must be included when calculating imported content.

#### 2.3.1.3. Exempt Imported Content:

Exemptions, if any, are granted by the Department of Trade and Industry (**the dti**). Evidence of the exemptions must be provided and included in Annexure D.

#### 2.3.2. Local Content

Identify and calculate the local content, by value for products by components/materials/services to be used in the manufacture of the total quantity of the products.

#### 3. ANNEXURE C

#### 3.1. Guidelines for completing Annexure C: Local Content Declaration -

#### **Summary Schedule**

Note: The paragraph numbers correspond to the numbers in Annexure C.

#### C1. Tender Number

Supply the tender number that is specified on the specific tender documentation.

#### C2. Tender description

Supply the tender description that is specified on the specific tender documentation.

#### C3. Designated products

Supply the details of the products that are designated in terms of this tender (i.e. buses).

#### C4. Tender Authority

Supply the name of the tender authority.

#### C5. Tendering Entity name

Provide the tendering entity name (for example, Anybody Bus Builders (Pty) Ltd).

#### C6. Tender Exchange Rate

Provide the exchange rate used for this tender, as per the Standard Bidding Document (SBD) and Municipal Bidding

Document (MBD) 6.2.

#### C7. Specified local content %

Provide the specified minimum local content requirement for the tender (i.e. 80%), as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MDB) 6.2.

#### C8. Tender item number

Provide the tender item number(s) of the products that have a local content requirement as per the tender specification.

#### C9. List of items

Provide a list of the item(s) corresponding with the tender item number.

This may be a short description or a brand name.

#### **Calculation of local content**

#### C10. Tender price

Provide the unit tender price of each item excluding VAT.

#### C11. Exempted imported content

Provide the ZAR value of the exempted imported content for each item, if applicable. These value(s) must correspond with the value(s) of column D16 on Annexure D.

#### C12. Tender value net of exempted imported content

Provide the net tender value of the item, if applicable, by deducting the exempted imported content (C11) from the tender price (C10).

#### C13. Imported value

Provide the ZAR value of the items' imported content.

#### C14. Local value

Provide the local value of the item by deducting the Imported value (C13) from the net tender value (C12).

#### C15. Local content percentage (per item)

Provide the local content percentage of the item(s) by dividing the local value (C14) by the net tender value (C12) as per the local content formula in SATS 1286.

#### **Tender Summary**

#### C16. Tender quantity

Provide the tender quantity for each item number as per the tender specification.

#### C17. Total tender value

Provide the total tender value by multiplying the tender quantity (C16) by the tender price (C10).

#### C18. Total exempted imported content

Provide the total exempted imported content by multiplying the tender quantity (C16) by the exempted imported content (C11). These values must correspond with the values of column D18 on Annexure D.

#### C19. Total imported content

Provide the total imported content of each item by multiplying the tender quantity (C16) by the imported value (C13).

#### C20. Total tender value

Total tender value is the sum of the values in column C17.

#### C21. Total exempted imported content

Total exempted imported content is the sum of the values in column C18. This value must correspond with the value of D19 on Annexure D.

#### C22. Total tender value net of exempted imported content

The total tender value net of exempt imported content is the total tender value (C20) less the total exempted imported content (C21).

#### C23. Total imported content

Total imported content is the sum of the values in column C19. This value must correspond with the value of D53 on Annexure D.

#### C24. Total local content

Total local content is the total tender value net of exempted imported content (C22) less the total imported content (C23). This value must correspond with the value of E13 on Annexure E.

#### C25. Average local content percentage of tender

The average local content percentage of tender is calculated by dividing total local content (C24) by the total tender value net of exempted imported content (C22).

#### 4. ANNEXURE D

## 4.1. Guidelines for completing Annexure D: "Imported Content Declaration – Supporting Schedule to Annexure C"

Note: The paragraph numbers correspond to the numbers in Annexure D.

#### D1. Tender number

Supply the tender number that is specified on the specific tender documentation.

#### D2. Tender description

Supply the tender description that is specified on the specific tender documentation.

#### D3. Designated products

Supply the details of the products that are designated in terms of this tender (i.e. buses).

#### D4. Tender authority

Supply the name of the tender authority.

#### D5. Tendering entity name

Provide the tendering entity name (i.e. Anybody Bus Builders (Pty) Ltd).

#### D6. Tender exchange rate

Provide the exchange rate used for this tender, as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

#### **Table A. Exempted Imported Content**

#### D7. Tender item number

Provide the tender item number(s) of the product(s) that have imported content.

#### D8. Description of imported content

Provide a list of the exempted imported product(s), if any, as specified in the tender.

#### D9. Local supplier

Provide the name of the local supplier(s) supplying the imported product(s).

#### D10. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the exempted imported product(s).

#### D11. Imported value as per commercial invoice

Provide the foreign currency value of the exempted imported product(s) disclosed in the commercial invoice accepted by the South African Revenue Service (SARS).

#### D12. Tender exchange rate

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

#### D13. Local value of imports

Convert the value of the exempted imported content as per commercial invoice (D11) into the ZAR value by using the tender exchange rate (D12) disclosed in the tender documentation.

#### D14. Freight costs to port of entry

Provide the freight costs to the South African Port of the exempted imported item.

#### D15. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the exempted imported product(s) as stipulated in the SATS 1286:2011.

#### D16. Total landed costs excluding VAT

Provide the total landed costs (excluding VAT) for each item imported by adding the corresponding item values in columns D13, D14 and D15. These values must be transferred to column C11 on Annexure C.

#### D17. Tender quantity

Provide the tender quantity of the exempted imported products as per the tender specification.

#### D18. Exempted imported value

Provide the imported value for each of the exempted imported product(s) by multiplying the total landed cost (excl. VAT) (D16) by the tender quantity (D17). The values in column D18 must correspond with the values of column C18 of Annexure C.

#### D19. Total exempted imported value

The total exempted imported value is the sum of the values in column D18. This total must correspond with the value of C21 on Annexure C.

#### Table B. Imported Directly By Tenderer

#### D20. Tender item numbers

Provide the tender item number(s) of the product(s) that have imported content.

#### D21. Description of imported content:

Provide a list of the product(s) imported directly by tender as specified in the tender documentation.

#### D22. Unit of measure

Provide the unit of measure for the product(s) imported directly by the tenderer.

#### D23. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the imported product(s).

#### D24. Imported value as per commercial Invoice

Provide the foreign currency value of the product(s) imported directly by tenderer disclosed in the commercial invoice accepted by the South African Revenue Service (SARS).

#### D25. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

#### D26. Local value of imports

Convert the value of the product(s) imported directly by the tenderer as per commercial invoice (D24) into the ZAR value by using the tender exchange rate (D25) disclosed in the tender documentation.

#### D27. Freight costs to port of entry

Provide the freight costs to the South African Port of the product(s) imported directly by the tenderer.

#### D28. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the product(s) imported directly by the tenderer as stipulated in the SATS 1286:2011.

#### D29. Total landed costs excluding VAT

Provide the total landed costs (excluding VAT) for each item imported directly by the tenderer by adding the corresponding item values in columns D26, D27 and D28.

#### D30. Tender quantity

Provide the tender quantity of the product(s) imported directly by the tenderer as per the tender specification.

#### D31. Total imported value

Provide the total imported value for each of the product(s) imported directly by the tenderer by multiplying the total landed cost (excl. VAT) (D29) by the tender quantity (D30).

#### D32. Total imported value by tenderer

The total value of imports by the tenderer is the sum of the values in column D31.

#### Table C. Imported by Third Party and Supplied to the Tenderer

#### D33. Description of imported content

Provide a list of the product(s) imported by the third party and supplied to the tenderer as specified in the tender documentation.

#### D34. Unit of measure

Provide the unit of measure for the product(s) imported by the third party and supplied to tenderer as disclosed in the commercial invoice.

#### D35. Local supplier

Provide the name of the local supplier(s) supplying the imported product(s).

#### D36. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the imported products.

#### D37. Imported value as per commercial invoice

Provide the foreign currency value of the product(s) imported by the third party and supplied to the tenderer disclosed in the commercial invoice accepted by SARS.

#### D38. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

#### D39. Local value of imports

Convert the value of the product(s) imported by the third party as per commercial invoice (D37) into the ZAR value by using the tender exchange rate (D38) disclosed in the tender documentation.

#### D40. Freight costs to port of entry

Provide the freight costs to the South African Port of the product(s) imported by third party and supplied to the tenderer.

#### D41. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the product(s) imported by third party and supplied to the tenderer as stipulated in the SATS 1286:2011.

#### D42. Total landed costs excluding VAT

Provide the total landed costs (excluding VAT) for each product imported by third party and supplied to the tenderer by adding the corresponding item values in columns D39, D40 and D41.

#### D43. Quantity imported

Provide the quantity of each product(s) imported by third party and supplied to the tenderer for the tender.

#### D44. Total imported value

Provide the total imported value of the product(s) imported by third party and supplied to the tenderer by multiplying the total landed cost (D42) by the quantity imported (D43).

#### D45. Total imported value by third party

The total imported value from the third party is the sum of the values in column D44.

#### **Table D. Other Foreign Currency Payments**

#### D46. Type of payment

Provide the type of foreign currency payment. (i.e. royalty payment for use of patent, annual licence fee, etc.).

#### D47. Local supplier making the payment

Provide the name of the local supplier making the payment.

#### D48. Overseas beneficiary

Provide the name of the overseas beneficiary.

#### D49. Foreign currency value paid

Provide the value of the listed payment(s) in their foreign currency.

#### D50. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

#### D51. Local value of payments

Provide the local value of each payment by multiplying the foreign currency value paid (D49) by the tender rate of exchange (D50).

#### D52. Total of foreign currency payments declared by tenderer and/or third party

The total of foreign currency payments declared by tenderer and/or a third party is the sum of the values in column D51.

#### D53. Total of imported content and foreign currency payment

The total imported content and foreign currency payment is the sum of the values in column D32, D45 and D52. This value must correspond with the value of C23 on Annexure C.

#### 5. ANNEXURE E

#### 5.1. Guidelines to completing Annexure E: "Local Content Declaration- Supporting Schedule to Annexure C"

The paragraph numbers correspond to the numbers in Annexure E

#### E1. Tender number

Supply the tender number that is specified on the specific tender documentation.

#### E2. Tender description

Supply the tender description that is specified on the specific tender documentation.

#### E3. Designated products

Supply the details of the products that are designated in terms of this tender (for example, buses/canned vegetables).

#### E4. Tender authority

Supply the name of the tender authority.

#### E5. Tendering entity name

Provide the tendering entity name (for example, Anybody Bus Builders (Pty) Ltd) Ltd).

#### Local Goods, Services and Works

#### E6. Description of items purchased

Provide a description of the items purchased locally in the space provided.

#### E7. Local supplier

Provide the name of the local supplier that corresponds to the item listed in column E6.

#### E8. Value

Provide the total value of the item purchased in column E6.

#### E9. Total local products (Goods, Services and Works)

Total local products (goods, services and works) is the sum of the values in E8.

#### E10. Manpower costs:

Provide the total of all the labour costs accruing only to the tenderer (i.e. not the suppliers to tenderer).

#### E11. Factory overheads:

Provide the total of all the factory overheads including rental, depreciation and amortisation for local and imported capital goods, utility costs and consumables. (Consumables are goods used by individuals and businesses that must be replaced regularly because they wear out or are used up. Consumables can also be defined as the components of an end product that are used up or permanently altered in the process of manufacturing, such as basic chemicals.)

#### E12. Administration overheads and mark-up:

Provide the total of all the administration overheads, including marketing, insurance, financing, interest and mark-up costs.

#### E13. Total local content:

The total local content is the sum of the values of E9, E10, E11 and E12. This total must correspond with C24 of Annexure C.

T2.2 .2- Functionality Evaluation Schedules	

## T2.2.2a: SIMILAR PROJECTS COMPLETED SUCCESSFULLY WITH REFERENCE LETTERS

Note: Mandatory Returnable Schedule. Failure to submit as required will result in the bid being nonresponsive.

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

## <u>It is a requirement that the bidder should have successfully completed at least 3</u> Bulk Electrical Projects

<u>Bidders are required to provide a schedule of similar work in complexity that was</u> successfully completed with contactable references as per the attached forms below.

OR

#### Submit a reference letter that indicates the following

Signature of the Client

On Clients Letter Head or Client Stamp

Company Name, contact person, contact details (telephone number and email etc)

Value of the Project

Scope of works carried out

Works have been completed on time/within stipulated contract period

Good or better workmanship

Reference Letter not to be older than 10 years

#### **Important Notice:**

Only projects where Miniature Sub-Stations, Highmast Steel Structure Installation and <u>MV refurbishment</u> related infrastructure that was completed successfully are to be included for evaluation purposes.

Bidder to have completed atleast one (1) Bulk Electrical Contract to the value of R10 000 000.00















#### Reference No 1

Bid No:	ECDC/ELN/287/022021
	FCDC/FLN/007/00004
	STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Project title:	STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA
	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES,

Sir/Madam,		
We are in the process of evaluating _ project.		for the above
project.	Tenderers Company Name	

They have listed you as a reference. Please evaluate the contractor's performance on the criteria listed below by ticking the appropriate boxes. This form to be submitted with the bid. If you have any questions, please do not hesitate to contact us.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD	VALUE OF WORK

#### 1. KNOWLEDGEABLE IN THE FIELD IN WHICH THIS BID RELATES TO

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

#### 2. TIME PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

#### 3. FINANCIAL PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

4. COMMENTS:		
Project Manager/Principal Agent:		Place company
stamp below:		
Tel:		
E-mail Address:		
Signature:	Date:	













## Reference No 2

Project	t title:	AND R		IENT OF ELE			CES, STRENGTHENING CTURE AT DIMBAZA
Bid No	:	ECDC/	ELN/287/022	2021			
Sir/Mada	ım,						
Ne are in project.	n the proces	ss of eva	luating				for the above
,				Tenderer	s Compan	y Name	
oy ticking		oriate bo					nce on the criteria listed below nave any questions, please de
	NAME OF EMPLOYER		NAME OF I	PROJECT	CONT PER (Start a Da	IOD nd End	VALUE OF WORK
	KNOW! ED	CEARL	E IN THE EIE	I D IN WHICH	L TUIS OUT	OTATION RE	ATES TO
EXCEL			GOOD	GOOD		FAIR	POOR
LXOLL	5	VEIXI	4	3		2	1
2.	TIME PERF	ORMAN	NCE		•		
EXCEL	LENT	VERY	GOOD	GOOD		FAIR	POOR
	5		4	3		2	1
3.	FINANCIAL	PERFO	RMANCE				
EXCEL	LENT	VERY	GOOD	GOOD		FAIR	POOR
	5		4	3		2	1
4.	COMMENT	'S:					
Project	Manager/P	rincipal <i>i</i>	 Agent:				 Place company
stamp	_	•					
Tel:							
E-mail	Address:						
Signatu	ıre:			D:	ate:		













### Reference No 3

Sir/Madam,		
Bid No:	ECDC/ELN/287/022021	
Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK	

1 Toject title.	STRUCTURE AT DIMBAZ						
Bid No:	ECDC/ELN/287/022021	ECDC/ELN/287/022021					
Sir/Madam,							
We are in the prod project.	cess of evaluating			for the above			
		Tenderers Con	npany Name				
	u as a reference. Please eva priate boxes. This form to be act us.						
NAME OF	NAME OF PROJECT	CONTRACT	Γ VALU	E OF WORK			
EMPLOYER		PERIOD (Start and Er Date)	nd				
1KNOWLE	DGEABLE IN THE FIELD IN	   WHICH THIS QUO	TATION RELATE	ES TO			
EXCELLENT	VERY GOOD	GOOD	FAIR	POOR			
5	4	3	2	1			
2. TIME PERI	FORMANCE						
EXCELLENT	VERY GOOD	GOOD	FAIR	POOR			
5	4	3	2	1			
3. FINANCIA	L PERFORMANCE						
EXCELLENT	VERY GOOD	GOOD	FAIR	POOR			
5	4	3	2	1			
4. COMMENT	ΓS:						
Project Manager/P	Principal Agent:			Place company stamp			
here:							
Tel:							
E-mail Address:							
Signature:		Date:					











Reference No 4			OPMENT CORPO	
Project title:	HIGHMAST LIGHTING STRENGTHENING AN STRUCTURE AT DIM	ND REFURBISHMEI	NT OF ELECTRICAL	
Bid No:	ECDC/ELN/287/022021			
Sir/Madam,				
We are in the proce project.	ess of evaluating	Tandarara (	Company Name	for the above
	priate boxes. This form t	evaluate the contra	ctor's performance o	on the criteria listed below any questions, please do
NAME O EMPLOYER	NAME OF PROJEC	CT CONTRACT PERIOD (Start and Date)		DF WORK
1. KNOWLED	OGEABLE IN THE FIELD	IN WHICH THIS Q	UOTATION RELATE	ES TO
EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1
2. TIME PER	FORMANCE			
EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1
3. FINANCIA	L PERFORMANCE			
EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1
4. <b>COMMEN</b>	rs:			
Project Manager/F	Principal Agent:			Place company
stamp here:				
Tel:				
E-mail Address:				
Signature:		Date:		

#### T2.2.2 b - Construction Method Statement

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

## **Work Organization Program and Scheduling**

Bidder to provide a Detailed Ghant Chart (Works Breakdown Structure Program) Showing:

- Summary tasks
- Indicating a Critical Path
- Time-lines within the project period

Work organization program and scheduling to be attached here

## T2.2.2 c - Key Personnel Qualifications (Construction Manager)

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

# T2.2.2 d – Key Personnel Qualifications (Construction Supervisor)

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

## T2.2.2 e – Key Personnel Qualifications (OHS Safety Officer)

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

# T2.2.2 f – Key Personnel Qualifications (Skilled Staff)

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

## T2.2.2 g - Key Personnel Experience

(Site Agent / Construction Manager)

Note: Mandatory Returnable Schedule. Failure to submit as required will result in the bid being non responsive.

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

### **Very Important Note:**

It is a requirement of this Bid that the Site Agent/Construction Manager has at least a minimum of 3 years of experience in MV Electrical Works.

Failure to submit a CV of a Site Manager/Construction Manager with the required experience, the Bidder will be disqualified

## T2.2 .2h – Key Personnel Experience

### (Foreman/ Construction Supervisor)

Note: Mandatory Returnable Schedule. Failure to submit as required will result in the bid being non responsive.

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

## **Very Important Note:**

It is a requirement of this Bid that the Foreman has at least a minimum of 3 years of experience in MV Electrical Works.

Failure to submit a CV of a Foreman with the required experience, the Bidder will be disqualified

## T2.2.2 i – Key Personnel Experience

(OHS Safety Officer)

Note: Mandatory Returnable Schedule. Failure to submit as required will result in the bid being non responsive.

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

### **Very Important Note:**

It is a requirement of this Bid that the OHS Safety Officer has at least a minimum of 3 years of experience being a Health and Safety Rep in Construction Work.

Failure to submit a CV of a OHS Safety Officer with the required experience, the Bidder will be disqualified

## T2.2.2 j – Key Personnel Experience (Skilled Staff)

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

## T2.2.2k – Key Personnel Experience (Semi-Skilled Support Staff)

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

## T2.2.2 I – Company Experience

## (1) Practical Completion Certificate (completed projects)

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

Supply and Installation of related projects with similar scope of works and complexity will be considered for evaluation purposes.

Projects with no-related scope of works will be disqualified.

## T2.2.2 m - Contactable References

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

Provide a schedule of contactable references

### T2.2.2n – Local Labour Employment and Sub-Contracting

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021

#### **Sub-Contracting/ Local labour**

The successful contractor will subcontract and employ workers from the local communities in close proximity to Dimbaza Industrial Park to execute labour related activities such as pole and stay excavations and general labour activities with the aim to promote and instill technical skills within the geographical area.

The successful contractor will identify local labour with a capacity to be trained on dressing of MV poles, MV stays, and Stringing of MV conductors.

Tenderer to ensure that local labour are duly monitored to ensure that expensive materials are not damaged or wasted, no claims related to damaging of services will be entertained by the client.

A minimum of 10% of the total installation/labour rates shall be utilised for local labour related activities.

#### **Example:**

Total contract price (less material amount and p	reliminary amounts) = labour amount. (Excluding 15% VAT)
10% of Labour amount = R	(Value to be allocated to local labour activities).

Confirm labour employment-	Woman	Men
Specify total headcount	Specify woman employment	Specify men employment
Total:	Total:	Total:
List activities	1	1

Local labour contract amount as indicated above will be carried forward to the contract financial evaluation calculations being part of the overall tender evaluation process.

The amount as allocated above will be recorded and monitored by the client/ representative during the contract period

## T2.2.2 o - Scope of Works and Detailed Specifications

Note: Mandatory Returnable Schedule. Failure to submit as required will result in the bid being non responsive.

Project title:	HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK
Bid No:	ECDC/ELN/287/022021
	onfirms by signing below that he has read and understand the full scope of works and specifications of this contract.
•	ntertain any additional amount claimed due to a lack of understanding the full spectrum of
the works.	
Company Nam	
Tenderer	
	SignatureDate
Company Auth	orised/
Accountable Pe	erson DateDate
Company Stam	np:

## THE CONTRACT

## Part C1: Agreements and Contract data

- C1.1 Form of offer and acceptance
- C1.2 Contract data
- C1.3 Form of Guarantee

C1.1 - Form of offer and acceptance

#### Annexure L:

#### C.1.1 FORM OF OFFER AND ACCEPTANCE OFFER

Note: Mandatory Requirement. Failure to complete and Sign this document will result in the bid being non responsive.

#### **OFFER**

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

Project: HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK.

Bid No: ECDC/ELN/287/022021

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

Rand (in words)

This offer may be accepted by the Employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the Tender data, whereupon the tenderer becomes the party named as the Service Provider in the conditions of Contract identified in the Contract Data.

THIS OFFER IS MADE BY THE FOLLOWING LEGAL ENTITY: (cross out block which is not applicable)

Company or close corporation:

And: whose registration number is:

Trading under the name and style of:			
AND WHO IS:  Note: A resolution/power of attorney, signed by all the			attorney signed by all the
Represented herein, and who is duly authorized to do so, by:		directors/ members/ paccompany this offer,	partners of the legal entity must authorizing the representative to
Mr/Mrs/Ms:		make this offer.	
In his/her capacity as:			
SI	GNED FOR TH	E TENDERER:	
Name of Representative	Signature		Date
Name of Representative	Signature		Date
	SIGNED BY	WITNESS:	
Name of Representative	Signature		Date
·			
The tenderer elects as its <i>domicilliumcitand</i> notices may be served, as (physical addres		n the Republic of South	n Africa, where any and all legal
Other contact details of the tenderer are: Telephone no			
Cellular phone no			
<u>:</u>			
Fax no			
Postal address			
:			
Banker			
Branch			
:			

#### **ACCEPTANCE**

By signing this part of this form of offer and acceptance, ECDC accepts the bidder's offer. Acceptance of the bidder's offer shall form an agreement between the ECDC and the bidder upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract are contained in the contract to be concluded.

- Agreements and Contract Data, (which includes this Agreement)
- Pricing data
- Scope of work.
- Site information and drawings

and documents or parts thereof, which may be incorporated by reference into the volumes above.

Deviations from and amendments to the documents listed in the bid data and any addenda thereto as listed in the bid schedules as well as any changes to the terms of the offer agreed by the bidder and ECDC during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless agreed by both parties.

The bidder shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the ECDC's Legal Department to arrange documentation to be provided in terms of the conditions of contract identified in the contract. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the bidder receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the bidder within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Name of representative Capacity Date

Address Signature

Witnessed by:

Name of witness Signature Date

#### Schedule of deviations

#### Notes:

- 1. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
- 2. A Tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid becomes the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.
- 3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender document and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.
- 4. Any change or addition to the tender document arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1	Subject	
	Details	
2	Subject	
2	Details	
3	Subject	
3	Details	

By the duly authorised representative signing this agreement, the Employer and the Bidder agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the bid data and addenda thereto as listed in the bid schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Bidder and the employer during this process of acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the bid documents and the receipt by the Bidder of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

Signed for the ECDC

Name of Representative	Capacity	Signature
Signed by Bidder:		
Signed by Bidder:		,
Signed by Bidder:		

C1.2 - Contract data

#### PART 1: DATA PROVIDED BY THE EMPLOYER

#### **CONDITIONS OF CONTRACT**

The General Conditions of Contract for Construction Works 3<sup>rd</sup> Edition (2015), published by the South African Institution of Civil Engineering, are applicable to this Contract and is incorporated herein by reference.

Copies of these Conditions of Contract may be obtained from the South African Institution of Civil Engineering, Tel. No. +27 11 805-5947 or www.saice.org.za.

The General Conditions of Contract for Construction Works make several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the general conditions of contract.

The Contract Data and General Conditions of Contract shall have precedence over the Drawings, Scope of Work and Standardised Specifications in the interpretation of any ambiguity or inconsistency.

The following contract specific data are applicable to this Contract:

The following contract specific data are applicable to this Contract:  CONTRACT SPECIFIC DATA	
Clause	Data
1.1.1.13	The Defects Liability Period is:
	<b>Twelve (12) calendar months</b> measured from the date of the Certificate of Completion separately applicable to each phase.
1.1.1.14	The time for achieving Practical Completion for this project is: <b>(8) calendar months</b> from the Commencement Date. The construction period excludes the period that will be taken for acquiring the construction work Permit. (Contractor to communicate this with the Client)
1.1.1.15	The name of the Employer is: Eastern Cape Development Corporation (ECDC)
1.1.1.16	The name of the Employer's Agent is: BVi BORDER (Pty) Ltd
	The Employer's Agent means any Director, Associate or Professional Engineer appointed generally or specifically by the Management of BVi BORDER (Pty) Ltd to fulfil the functions of the Employer's Agent in terms of the Conditions of Contract.
	Wherever the name "Engineer" appears in the document, it shall be read to mean the "Employer's Agent".
1.1.1.26	The Pricing Strategy is: Re-measurement Contract
1.1.1.35	The following additional definition applies:-
	" <b>Drawings</b> ": Means all drawings, calculations and technical information forming part of the Contract Documents and any modifications thereof or additions thereto from time to time approved in writing by the Employer's Agent or delivered to the Contractor by the Employer's Agent.
1.1.1.36	The following additional definition applies:-
	<b>Letter of Notification</b> ": Means the letters of formal notification, signed by the Employer, of the decision of the Supply Chain Management Bid Adjudication Committee sent to all tenderers.

1.2.1.2	Delivery of Notices	
	The following two additional sub-clauses, covering alternative methods of communication, apply: -	
1.2.1.2.1	Sent by facsimile or any like communication irrespective of it being during office hours or otherwise.	
1.2.1.2.2	Posted to the addressee for certified delivery by the postal Authorities	
1.2.1.2	The address of the Employer for receipt of communications is:	
	Physical address:  Eastern Cape Development Corporation Ocean Terrace Park Moore Street Quigney, East London 5201  Postal address: P.O Box 11197 Southernwood 5213  Tel: +27 43 704 5600	
2.1.4	The following additional clause applies:- "Without limiting the generality of the afore going, the Schedule of Rates and Prices shall include:  The provision and use of all labour, plant, tools instruments, templates, materials, transport and all other appliances that may be required for satisfactorily protecting and efficiently carrying out the works without interruption or delay.  The provision and housing of adequate staff and labour force and the provision of false work of every kind and description necessary for the due and proper performance of the Contract.	
	The execution of the Works in orderly and progressive manner until it has been completed. Time being of the essence of the Contract the progressive development of the Works shall be arranged so that the time from the start to the finish of the construction of the said Works shall not exceed the time laid down in the Tender.  The inclusion in the tendered rates for all and any of the general liabilities such as Establishment Charges, legal contingencies, regulations, risks or damage, Royalties and all other overhead charges.  The submission of a tender shall be considered prima facie evidence that the Contractor has complied with the requirements of this clause and has satisfied himself as to all circumstances and local conditions which may influence or affect his Tender."	
2.4.3	The following additional clause applies:-  In the event of any discrepancy or conflict between any parts of the Contract Documents, the order of precedence shall be as follows:  1. Project Specifications 2. Special Conditions of Contract 3. General Conditions of Contract 4. Conditions of Tender 5. Standardized/Particular Specifications 6. Contract Drawings 7. Schedule of Quantities	

2.5.1	The following additional clause applies:-		
	The Employer may make direct payments to suppliers on behalf of the Contractor subject to the receipt of a specific request from the Contractor and subject to the following conditions:		
	An original of the invoice together with a singed Cession Form is submitted together with a certificate approved by the Employer's Agent.		
	The Contractor cedes, transfers and assigns all the rights, title and interest in and to the materials and goods to the total value of the invoice.		
	The cession shall become effective as soon as payment is made by the Employer or on behalf of the Employer.		
	The Contractor indemnifies the Employer against any loss or damage whatsoever to the said material and goods whilst they are in the Contractors possession and in transit to the site and until such time as they are safely and properly stored on the site, and the Contractor undertakes to effect adequate insurance against these risks. Such insurance shall be for the full value of the materials and goods and goods certified for payment and the insurance policy ceded in full to the Employer.		
3.2.3	The Employer's Agent shall obtain the specific approval of the Employer before executing any of his functions or duties according to the following Clauses of the General Conditions of Contract:		
	Clause 3.3.1 Nomination of Employer's Agent's Representative Clause 3.3.4 Employer's Agent's authority to delegate Clause 5.8.1 Non-working times Clause 5.11.1 Suspension of the Works Clause 5.12.4 Acceleration instead of extension of time		
3.2.5	The following additional clause applies:-		
	The onus rests with the Contractor to raise any item about which the Contractor may be uncertain, with the Employer's Agent's Representative. Any advice given to the Contractor by the Employer's Agent's Representative in response to matters so raised shall not be construed as instructions and shall be held to have been given without prejudice.		
3.3.6	The following additional clause applies:-		
	The Employer or the Employer's Agent under delegated authority, reserves the right to obtain the services of consultants on any matter pertaining to this contract; the employment of such consultants forms no part of this contract; a consultant's advice and/or documentation is to be followed only if the Employer's Agent or the Employer's Agent's Representative so instructs.		
4.1	All references to "design" are deemed to be deleted and the Contractor shall bear no liability in respect of the Projects design, other than the temporary works and items clearly indicated to design on drawings.		

4.3.3	The following additional clause applies:-
	The Employer and the Contractor shall enter into an agreement to complete the work required for the construction of the works in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act (Act 85 of 1993) and the Construction Regulations promulgated thereunder.
	An agreement is included in the Contract Document (C1.1 of Contract Data) and shall be completed and submitted to the Employer together with a letter of good standing from the Compensation Commissioner (if not insured with a Licenced Compensation Insurer) within fourteen (14) days after the Commencement Date. The Contractor shall ensure that any letter of good standing shall be timeously renewed in order that it remains in full force for the duration of the Contract.
4.4.1	The total value of work executed by subcontractors shall be agreed on by the Client and awarded Bidder upon acceptance of appointment.
5.3.1	The documentation required before commencing with the Works execution are:
	<ul> <li>Health and Safety Plan (Refer to Clause 4.3)</li> <li>Initial programme (Refer to Clause 5.6)</li> <li>Security (Refer to Clause 6.2)</li> <li>Insurance (Refer to Clause 8.6.1.3)</li> <li>Letter of Good Standing from the Compensation Commissioner (if not insured with a Licensed Compensation Insurer)</li> </ul>
5.3.2	The time to submit the documentation required before commencement of the Works is:  14 calendar days
5.4.2	Access and possession of site shall not be exclusive to the Contractor but will be shared by the Employers management / maintenance and operational staff on site.
5.4.3	The Contractor shall bear all costs and charges for special and temporary rights of way required by him in connection with access to the Site.
5.1.1 & 5.8.1	The non-working days are: Saturdays and Sundays.
	The special non-working days are:  (1) All gazetted public holidays falling outside the year end break.  (2) The year end break commencing on 15 December 2021 and ending on 14 January 2022 both days included.
5.8.3	The following additional clause shall apply:
	Should the Employer's Agent permit work outside of normal Employer working hours (viz Mondays to Fridays inclusive sunrise to sunset) and on Saturdays, Sundays or on any of the non-working days stated in the Appendix and if he deems the presence of the Employer's Agent's Representative or other duly authorised representative to be necessary, the Contractor will be liable for the cost of such supervision (calculated at a daily rate of 1/130 of the annual salary of such representative). Where the Employer's Agent has ordered such work, the salary of the representative will be to the account of the Employer.
	A minimum of 24 hours notification of intent to work outside normal working hours shall be regarded as sufficient notice as set out in 5.8.1"

5.13.1	The penalty for failing to complete the Works is: 2.75c / R100 of contract value (excl. VAT) per calendar day			
5.14.1	The requirements for achieving Practical Completion shall mean: the commissioning and full operation as listed in the scope of works.			
5.14.7	Different dates to achieve Practical Completion will not be permitted.			
5.16.3	The latent defect period commences after the 12 months defect period: Three (3) years.			
6.2.1	The security to be provided by the Contractor shall be a performance <b>guarantee of 5%</b> of the Contract Price plus retention of 5% of the value of the Works. The performance guarantee shall contain the wording of the document included in PART 3 (Pro-forma Forms).			
6.5.1.2.3:	The percentage allowances to cover overhead charges for day work are as follows:  15% of the gross remuneration of workmen and foremen actually engaged in the day work;  15% on the net cost of materials actually used  No allowance will be made for work done, or for materials and equipment for which day work rates have been quoted at tender stage.			
6.6.1	The provisional sums stated in the Schedule of Quantities are net amounts covering the actual expenditure which the Employer may incur.			
6.7.6	The following additional clause shall apply: The Works are measured in accordance with the current SANS 1200 and the standard system of measurement of Civil Engineering quantities for South Africa, published by the South African Institution of Civil Engineers. No claims arising from the method of measurement will be entertained.			
6.8.2	Contract Price Adjustment: Is applicable  The value of certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following values:  The value of x = 0.15  The value of coefficients are: a = 0.30 b = 0.30 c = 0.35 d = 0.05			
	The province wherein the larger part of the Site is located is the <b>Eastern Cape.</b>			
	The applicable industry for the Producer Price Index for materials is <b>Electrical</b> Engineering.			
	The area for the Producer Price Index for fuel is <b>Inland.</b>			
	The base month is the month prior to tender closing.			
6.8.3	Price adjustment for variations in the cost of special materials are: Not allowed			
6.10.1.5:	The valuation of material on site shall be administered according to GCC Clauses 29 and 49.2			

6.10.3:	The limit of retention money on amounts due to the contractor is 10% and the limit on retention is 10% of the contract sum up to project completion stage.			
8.6.1.1.2:	The value of Plant and materials supplied by the Employer to be included in the insurance sum is: <b>Nil</b> .			
8.6.1.1.3:		The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is 20% of the Contract Sum.		
8.6.1.3:	Pub	lic Lia	ability: R50 Million per incident	
10.5.3	The	numb	per of Adjudication Board Members to be appointed is: <b>One.</b>	
10.7.1:	Dis <sub>i</sub>		are be settled in terms of paragraph 106 of the SCM Policy, which reads as	
	(1)		accounting officer must appoint an independent and impartial person, not directly ved in the supply chain management processes:	
		(a)	to assist in the resolution of disputes between the Municipality and other persons regarding:	
			<ul><li>(i) any decisions or actions taken in the implementation of the supply chain management system; or</li></ul>	
			<ul><li>(ii) any matter arising from a contract awarded in the course of the supply chain management system; or</li></ul>	
		(b)	To deal with objections, complaints or queries regarding any such decisions or actions or any matters arising from such contract.	
	(2)	resp	accounting officer, or another official designated by the accounting officer, is onsible for assisting the appointed person to perform his or her functions tively.	
	(3)	The	person appointed must:	
		(a)	strive to resolve promptly all disputes, objections, complaints or queries received; and	
		(b)	Submit monthly reports to the accounting officer on all disputes, objections, complaints or queries received, attended to or resolved.	
	(4)	A dis	spute, objection, complaint or query may be referred to the provincial treasury if:	
		(a)	the dispute, objection, complaint or query is not resolved within 60 days; or	
		(b)	No response is forthcoming within 60 days.	
	(5)		provincial treasury does not or cannot resolve the matter, the dispute, objection, plaint or query may be referred to the National Treasury for resolution.	
	(6)	This time.	section must not be read as affecting a person's rights to approach a court at any	

The additional Conditions of Contract are:			
Clause	Clause		
4.13	Add new sub clause 4.13:  Applicable labour laws		
	The Ministerial Determination, Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice No R63 of 25 January 2002, as reproduced below, shall apply to works described in the scope of work as being labour-intensive and which are undertaken by unskilled or		

semi-skilled workers.

#### 1 Introduction

1.1 This document contains the standard terms and conditions for workers employed in elementary occupations on a Special Public Works Programme (SPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of a SPWP.

#### 1.2 In this document -

- (a) "department" means any department of the State, implementing agent or contractor:
- (b) "employer" means any department, implementing agency or contractor that hires workers to work in elementary occupations on a SPWP;
- (c) "worker" means any person working in an elementary occupation on a SPWP;
- (d) "elementary occupation" means any occupation involving unskilled or semiskilled work;
- (e) "management" means any person employed by a department or implementing agency to administer or execute an SPWP;
- (f) "task" means a fixed quantity of work;
- (g) "task-based work" means work in which a worker is paid a fixed rate for performing a task;
- (h) "task-rated worker" means a worker paid on the basis of the number of tasks completed;
- (i) "time-rated worker" means a worker paid on the basis of the length of time worked.

#### 2 Terms of work

- 2.1 Workers on a Special Public Works Programme (SPWP) are employed on a temporary basis.
- 2.2 A worker may NOT be employed for longer than 24 months in any five-year cycle on a SPWP.
- 2.3 Employment on a SPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

## 3 Normal hours of work

- 3.1 An employer may not set tasks or hours of work that require a worker to work-
  - (a) more than forty hours in any week;
  - (b) on more than five days in any week; and
  - (c) For more than eight hours on any day.
- 3.2 An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.
- 3.3 A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

#### 4 Meal breaks

- 4.1 A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.
- 4.2 An employer and worker may agree on longer meal breaks.
- 4.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take

The additio	The additional Conditions of Contract are:		
		reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.	
	4.4	A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.	
	5	Special conditions for security guards	
	5.1	A security guard may work up to 55 hours per week and up to eleven hours per day.	
	5.2	A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.	
	6	Daily rest period	
		Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.	
	7	Weekly rest period	
		Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").	

#### **3** Work on Sundays and public holidays

- 8.1 A worker may only work on a Sunday or public holiday to perform emergency or security work.
- 8.2 Work on Sundays is paid at the ordinary rate of pay.
- 8.3 A task-rated worker who works on a public holiday must be paid -
  - (a) the worker's daily task rate, if the worker works for less than four hours;
  - (b) Double the worker's daily task rate, if the worker works for more than four hours.
- 8.4 A time-rated worker who works on a public holiday must be paid -
  - (a) the worker's daily rate of pay, if the worker works for less than four hours on the public holiday;
  - (b) Double the worker's daily rate of pay, if the worker works for more than four hours on the public holiday.

#### 9 Sick leave

- 9.1 Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.
- 9.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.
- 9.3 A worker may accumulate a maximum of twelve days sick leave in a year.
- 9.4 Accumulated sick leave may not be transferred from one contract to another contract.
- 9.5 An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
- 9.6 An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.
- 9.7 An employer must pay a worker sick pay on the worker's usual pay day.
- 9.8 Before paying sick pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –
  - (a) absent from work for more than two consecutive days; or
  - (b) absent from work on more than two occasions in any eight-week period.8
- 9.9 A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.
- 9.10 A worker is not entitled to be paid sick leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

#### 10 Maternity leave

- 10.1 A worker may take up to four consecutive month's unpaid maternity leave.
- 10.2 A worker is not entitled to any payment or employment-related benefits during maternity leave.
- 10.3 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
- 10.4 A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.
- 10.5 A worker may begin maternity leave -
  - (a) four weeks before the expected date of birth; or

- (b) on an earlier date -
  - (i) if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
  - (ii) if agreed to between employer and worker; or
- (c) On a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.
- 10.6 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.
- 10.7 A worker who returns to work after maternity leave, has the right to start a new cycle of twenty-four months employment, unless the SPWP on which she was employed has ended.

## 11 Family responsibility leave

- 11.1 Workers who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances:
  - (a) when the employee's child is born;
  - (b) when the employee's child is sick;
  - (c) in the event of a death of
    - (i) the employee's spouse or life partner;
    - (ii) The employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

#### 12 Statement of conditions

- 12.1 An employer must give a worker a statement containing the following details at the start of employment:
  - (a) the employer's name and address and the name of the SPWP;
  - (b) the tasks or job that the worker is to perform; and
  - (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
  - (d) the worker's rate of pay and how this is to be calculated;
  - (e) The training that the worker will receive during the SPWP.
- 12.2 An employer must supply each worker with a copy of these conditions of employment.

#### 13 Keeping records

- 13.1 Every employer must keep a written record of at least the following:
  - (a) the worker's name and position;
  - (b) in the case of a task-rated worker, the number of tasks completed by the worker:
  - (c) in the case of a time-rated worker, the time worked by the worker;
  - (d) Payments made to each worker.
- 13.2 The employer must keep this record for a period of at least three years after the completion of the SPWP.

#### 14 Payment

- 14.1 An employer must pay all wages at least monthly in cash or by cheque or into a bank account.
- 14.2 A task-rated worker will only be paid for tasks that have been completed.
- 14.3 An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.
- 14.4 A time-rated worker will be paid at the end of each month.
- 14.5 Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
- 14.6 Payment in cash or by cheque must take place -
  - (a) at the workplace or at a place agreed to by the worker;
  - (b) during the worker's working hours or within fifteen minutes of the start or finish of work;
  - (c) In a sealed envelope which becomes the property of the worker.
- 14.7 An employer must give a worker the following information in writing:
  - (a) the period for which payment is made;
  - (b) the numbers of tasks completed or hours worked;
  - (c) the worker's earnings;
  - (d) any money deducted from the payment;
  - (e) The actual amount paid to the worker.
- 14.8 If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it.
- 14.9 If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

#### 15 Deductions

- 15.1 An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.
- 15.2 An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.
- 15.3 An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.
- 15.4 An employer may not require or allow a worker to -
  - (a) repay any payment except an overpayment previously made by the employer by mistake;
  - (b) state that the worker received a greater amount of money than the employer actually paid to the worker; or
  - (c) Pay the employer or any other person for having been employed.

#### 16 Health and safety

- 16.1 Employers must take all reasonable steps to ensure that the working environment is healthy and safe.
  - (e) Report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

- 16.2 A worker must -
  - (a) work in a way that does not endanger his/her health and safety or that of any other person;
  - (b) obey any health and safety instruction;
  - (c) obey all health and safety rules of the SPWP;
  - (d) use any personal protective equipment or clothing issued by the employer;

## 17 Compensation for injuries and diseases

- 17.1 It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a SPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- 17.2 A worker must report any work-related injury or occupational disease to their employer or manager.
- 17.3 The employer must report the accident or disease to the Compensation Commissioner.
- 17.4 An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

#### 18 Termination

- 18.1 The employer may terminate the employment of a worker for good cause after following a fair procedure.
- 18.2 A worker will not receive severance pay on termination.
- 18.3 A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.
- 18.4 A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.
- 18.5 A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

#### 19 Certificate of service

- 19.1 On termination of employment, a worker is entitled to a certificate stating
  - (a) the worker's full name;
  - (b) the name and address of the employer:
  - (c) the SPWP on which the worker worked;
  - (d) the work performed by the worker;
  - (e) any training received by the worker as part of the SPWP;
  - (f) the period for which the worker worked on the SPWP;
  - (g) Any other information agreed on by the employer and worker."

## PART 2: DATA PROVIDED BY THE CONTRACTOR

The Contractor is advised to read the General Conditions of Contract for Construction Works, Third Edition, 2015 published by the South African Institution of Civil Engineering, Private Bag X200, Halfway House, 1685, in order to understand the implications of this data which is required to be completed.

Copies of these conditions of contract may be obtained from www.saice.org.za.

Each item of data given below is cross-referenced to the clause in the Conditions of Contract to which it mainly applies.

Clause	Data	
1.1.1.9	The name of the Contractor is:	
1.2.1.2	The address of the Contractor for receiving notices is:  Physical Address:  Postal Address:	
	Telephone: Facsimile: E-mail:	 
6.2.1	Type of Security	Contractor's Choice Indicate "Yes" or "No"
	The security to be provided by the Contractor shall be one of the following:	
	Cash deposit of 10% of the Contract Sum, incl. VAT	
	Performance guarantee of 10% of the Contract Sum, incl. VAT	
	Retention of 10% of the value of the works.	
	Cash deposit of 5% of the Contract Sum plus retention of 5% of the value of the works.	N/A
	Performance Guarantee of 5% of the Contract Sum plus a retention of 5% of the value of the works.	N/A
6.5.1.2.3	The percentage allowance to cover overhead charges is	%

# PERFORMANCE GUARANTEE PRO FORMA

For use with the General Conditions of Contract for Construction Works, Third Edition (2015).

Contract No: ECDC/RFP/ELN/240/082020

Project Name: HIGHMAST LIGHTING AND BULK ELECTRICAL SERVICES, STRENGTHENING AND REFURBISHMENT OF ELECTRICAL INFRA STRUCTURE AT DIMBAZA INDUSTRIAL PARK.

WHE	REAS  Eastern Cape Development Corporation  (hereinafter referred to as the Employer")	
	ed into, a Contract with:	
	(hereinafter called "the Contractor")	
on th	e	
for	(Describe briefly what is to be procured)	
at	(Indicate site location)	
	WHEREAS it is provided by such Contract that the Contractor shall provide the Employer with security by way of intee for the due and faithful fulfilment of such Contract by the Contractor;	fa
AND	WHEREAS	
the r	has / have quest of the Contractor, agreed to give such guarantee;	at
here renu	THEREFORE WE	der
1.	The Employer shall, without reference and / or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variational alterations, directions or extensions of the completion date of the works under the said Contract, and that its rigurantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alterations of the completic date which the Employer may make, give, concede or agree to under the said Contract.	ons, Ihts S
2.	This guarantee shall be limited to the payment of a sum of money.	
3.	The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to compound or make any other arrangement with the Contractor.	or
4.	This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intentic institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect un such claims have been paid or liquidated.	on to
5.	Our total liability hereunder shall not exceed the Guaranteed Sum of	
	(in words);	Rand
	Rfigures)	(iı

6.	The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon our liability hereunder shall cease.		
7.	We hereby choose our address for the	serving of all notices for all purposes arising here from as	
	IN WITNESS WHEREOF this guarantee	e has been executed by us at	
	on this day of		
	Signature		
	Duly authorized to sign on behalf of		
	Address		
	As witnesses:		
	1Name	Signature	
	2		
	Name	Signature	

## PART.4 AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT No. 85 OF 1993)

THIS AGREEMENT made between:
(Hereinafter referred to as "the Employer")
of the one part, herein represented by:
in his capacity as
AND:
(Hereinafter referred to as "the Mandatory")
of the other part, herein represented by:
in his capacity as
and being duly authorised to act as Mandatory on behalf of the Contractor;
WHEREAS the Employer is desirous that certain works be constructed, viz.
Contract No.
Title:
an
has accepted a tender by the Mandatory for the construction, completion and defects correction of such works and whereas the Employer and the Mandatory have agreed to certain arrangements and procedures to be followed in order to

## NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1. The Mandatory shall execute the work in accordance with the contract documents pertaining to this Contract.
- 2. This Agreement shall hold good from its commencement date, which shall be the date on which the site is handed over to the Mandatory by an order in writing from the Employer's Agent, to either:

ensure compliance by the Mandatory with the provisions of the Occupational Health and Safety Act 1993 (Act 85 of 1993);

- (a) the date of the final certificate issued in terms of Clause 6.10.9 of the General Conditions of Contract for Construction Works 2015, 3<sup>rd</sup> Edition (hereinafter referred to as "the GCC 2015"), as applicable to this Contract, or
- (b) the date of termination of the contract in terms of Clause 9.1 or Clause 9.2 of the GCC 2015.
- 3. The Mandatory declares himself to be conversant with the following:
  - (a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act:

(i) Section 8: General duties of Employers to their employees;

(ii) Section 9: General duties of Employers and self-employed persons to persons other than

employees;

(iii) Section 37: Acts or omissions by employees or mandatories; and

- (iv) Subsection 37(2) relating to the purpose and meaning of this Agreement.
- (b) The procedures and safety rules of the Employer as pertaining to the Mandatory and to all his subcontractors.
- 3. In addition to the requirements of Clause 4 of the General Conditions of Contract and all relevant requirements of the Contract, the Mandatory agrees to execute all the works forming part of this Contract and to operate and utilize all machinery, plant and equipment in accordance with the Act.

- 4. The Mandatory is responsible for the compliance with the Act by all his subcontractors, whether or not selected and/or approved by the Employer.
- 5. The Mandatory warrants that all his and his subcontractors' workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act, 1993 which cover shall remain in force whilst any such workmen are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.
- 6. The Mandatory undertakes to ensure that he and/or subcontractors and/or their respective Employers will at all times comply with the following conditions:
  - a) The Mandatory shall assume the responsibility in terms of Section 16.1 of the Occupational Health and Safety Act. The Mandatory shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Employer. If the Mandatory obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.
  - b) All incidents referred to in the Occupational Health and Safety Act shall be reported by the Mandatory to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.

The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of section 32 of the Occupational Health and Safety Act into any incident involving the Mandatory and/or his employees and/or his subcontractors.

In witness thereof the parties hereto have set their signatures hereon in the presence of the subscribing witnesses:

For and on behalf of the **EMPLOYER** 

At			. on this	day of	20	
SIGNATURE:			C	apacity:		
<u>WITNESSES</u> : SIGNATURES:						
For and on beha		MANDATORY		Name		
At			. on this	day of	20	
SIGNATURE:			C	apacity:		
<u>WITNESSES</u> : SIGNATURES:	(1)			Name:		
	(2)			Name:		

C1.3 - Form of Guarantee

## Part C2: Pricing data

C2.1 - Pricing instructions C2.2 - Bill of Quantities

(See Attached)

Part C3: Scope of work
C3 - Scope of work

## C3 - Scope of Works

## 1 Background To ECDC

#### **Vision**

To be an innovative leader in promoting sustainable economic growth and development of the Eastern Cape.

#### Mission

#### To promote sustainable economic development in the Eastern Cape through focused:

- a) Provision of innovative development finance
- b) Leveraging of resources, strategic alliances, investment and partnerships.

#### Your

#### Legislative Mandate

ECDC draws its mandate directly from the Eastern Cape Development Corporation Act (Act 2 of 1997) and is led by the economic development priorities of the provincial government, as detailed in the Provincial Growth and Development Plan (PGDP), Eastern Cape Provincial Industrial Development Strategy (PIDS), the policy statement

and budget speech of the Member of the Executive Council (MEC) of Economic Development, Environment Affairs and Tourism (DEDEAT).

Section 3 of the ECDC Act states that the Corporation shall "plan, finance, co-ordinate, market, promote and implement development of the Province and its people in the field of industry, commerce, agriculture, transport and finance".

#### 2 Scope of Works

This project consists of the upgrade and refurbishment of the 22/11kV HV Networks and Highmast Lighting Structures Installation at Dimbaza Industrial Park, by the Eastern Cape Development Corporation (ECDC) for Buffalo City Metropolitan Municipality.

All work as part of this upgrade and refurbishment shall comply with the relevant BCMM standards for 11kV substations. This scope of works must be read in conjunction with the Technical Specifications to this document.

This project comprises the following main items:

- 2.1 Refurbishment of 11kV networks, switchgear, underground and overhead lines and earthing networks.
- 2.2 Removal of existing/redundant 11 kV outdoor switchgear structures.
- 2.3 Complete Installation of 23 Highmast Lighting Structures.

#### 3 BID SPECIFICATIONS

#### 4 Inspection Tests and Analysis

It is a bid condition that supplies to be produced or services to be rendered shall at any stage during the production or execution or completion be subject to inspection, the premises of the Bidder or Contractor shall be open, at all reasonable hours, for inspection by a representative of the ECDC or organization acting on behalf of the ECDC.

There will be consecutive inspection that will be conducted and to be witnessed by ECDC and their representatives, The tests will be in accordance to the list of standards with reference to the manufacturing of steel structures and power transformers,

The cost of the inspections, tests and analyses to test if the products/services to be in accordance with the contract requirements and will be for the account for the client.

The programme submitted by the contractor shall make provision for forecasted quantities of work to be performed each week, together with plant used and cash flow for each activity. Should the abovementioned programme fall behind schedule, or the sequence of operations is altered, or if the programme is deviated from in any other way, the contractor shall, within two days after being notified by the Engineer, submit a revised programme.

Should the programme require to be revised due to the contractor falling behind his programme, he shall produce a revised programme showing how he intends to regain lost time to ensure completion of the Works within the time for completion as defined in the General Conditions of Contract or within any granted extension of time.

Any proposal to increase the tempo of work must be accompanied by providing more labour and plant on Site, or by using the available labour and plant in a more efficient manner. Failure on the part of the Contractor to submit the agreed deliverables according to the programme or revised programmes shall be sufficient reason for the Engineer to take steps as provided for in the General Conditions of Contract.

The approval by the Engineer of any programme shall have no contractual bearing apart from the requirement that the Contractor undertakes to carry out the work in accordance with the programme to the satisfaction of the Engineer. It shall not limit the right of the Engineer to instruct the Contractor to vary the programme should circumstances make this necessary.

#### 4.2 Service Conditions

All components must be designed for at least the site conditions stated in Table 1.

More onerous requirements may be specified for individual components, but otherwise these minimum requirements apply.

Tenderers must allow for all conditions on site in their tenders, since extra claims arising from difficult site conditions in respect of transport, handling, loading, off-loading, labour, housing, etc.; will not be entertained.

Description	Unit	Value
Altitude above mean sea level	°C	45
Maximum ambient temperature for design purposes	°C	25
Minimum ambient temperature for design purposes	°C	5
Maximum average humidity	%	95
Maximum 3 second wind gust velocity	m/s	44
Earthquake loading for design purpose	magnitude	6
Mean annual rain fall	mm	700
Lightning flash density	Flashes/km2/annual	4
Level of atmospheric pollution	Heavy	Coastal

TABLE 4: SITE OPERATING CONDITIONS.

#### 4.3 Inspections and Tests

## 4.4.1 General

During manufacture and prior to dispatch, the Engineer will inspect all poles at the Manufacturer's works. Each pole must be subjected to the tests specified below by the Contractor in the presence of the Engineer and to such tests as may deemed necessary by the Engineer to ensure good quality workmanship.

All tests performed shall be at the expense of the Manufacturer. Not less than ten (10) working days' notice in writing shall be given to the Engineer detailing when the poles will be ready for inspection and tests.

Unless the Engineer shall otherwise direct, no poles shall be delivered unless the Engineer has issued to the Contractor, in respect of such poles, a certificate in the form of a release note certifying that the poles have passed the tests required and are therefore released for delivery.

## 4.4.2 Galvanising test

The quality of the galvanising shall be tested in accordance with SANS 121.

#### 4.4.3 Welding test

If transverse butt-welds are to be used, the poles shall be subjected, at each joint, to a bending load which causes the butt-weld (half circumference) to be under tension.

The load shall be varied according to the section and shall not cause permanent set.

The load (or the amount of deflection produced) shall be to the satisfaction of the Engineer and sufficient to ensure that each butt-weld is of adequate strength.

The Engineer shall witness as many of these tests as he may deem necessary, preferably during the course of manufacture.

The manufacturer shall give adequate notice, to permit the Engineer to attend the inspections. Any joint where cracking occurs shall be ground out to the full thickness of the material, re-welded and tested again.

### 4.4.4 Quality System

The Contractor's quality assurance system shall be approved in terms of SANS 9001 or an alternative quality assurance system to the approval of the Engineer. A copy of the registration certificate shall be submitted with the tender.

## 4.4.5 Damage to other services

The Contractor shall assume full responsibility in the event where he or any person in his service is directly or indirectly responsible for any damages caused to other services already installed (water, sewerage, storm water, roads, surveyors' pegs, etc.) Any such damage shall immediately be reported to the Engineer.

The Contractor shall be held fully responsible for the repair of such damage to the satisfaction of the Engineer.

The costs for the repair of such damage shall be borne by the Contractor. Claims by the Contractor in this connection will not be considered. Should any portion of the works in terms of this Contract, for which the Contractor is responsible, be damaged by other Contractors, the Contractor shall repair such damage at the tendered rate and shall submit full details of such damage to the Engineer so that he can recover such costs from the responsible party.

This repair work may only be done on the written instruction from the Engineer.

The contractor shall make provision for a full scan of the area to determine the position of services in the area.

#### 4.4.6 Local labour and local authorities

Local Labour:

It is intended that the project must make maximum possible use of local labour which is presently unemployed in the area of which the project is performed.

All unskilled labour shall be from the Local Municipal Supply area.

Engagement of local labour shall be controlled in a formal manner through the client's labour liaison body. It is furthermore expected that the labour liaison body will assist in the monitoring of labour goals.

## 4.4.7 Liaison with Local Authorities

The contractor will have to liaise with local authorities regarding the following matters:

4.4.7.1 Locating of existing underground services.

4.4.7.2 Protection of existing services during construction.

It is the contractor's onus to immediately contact all these authorities and to accommodate their involvement in his programme of work.

The contractor should also warn the authorities at least 48 hours before the actual work commence.

Compensation for delays, losses or accidents will not be considered should the contractor at any time have failed to keep the local authorities informed.

The engineer or employer must immediately be notified, should the contractor experience any problem regarding work, which involves a local authority.

## 4.4.8 Community Liaison and Community Relations

In all dealings with the community and workers employed from within the community, the Contractor shall take due cognisance of the character, culture and circumstances of the community involved and shall at all times use his best endeavours to avoid the development of disputes and to foster a spirit of co-operation and harmony towards the project.

The Contractor shall at all times, keep the Engineer fully informed on all matters affecting the contractor and the community, and shall attend all community meetings relating to the project as may be reasonably required by the Engineer.

All matters concerning the community shall be discussed and where possible, resolved at such meetings. Where any resolution of a community meeting shall be contrary to the terms and provisions of the Contract, the Contractor shall not give effect thereto without a prior written instruction from the Engineer.

Where the Contractor is of the opinion that any instruction of the Engineer issued in terms of this clause will result in the incurring of additional costs which were not provided for in his tendered rates and/or that a delay in the progress of the works will result, he shall be entitled to submit a claim in terms of Clause 48 of the conditions of contract, provided always that the period of twenty-eight (28) days referred to in Clause 48 shall be reduced to three (3) normal working days in respect of all claims submitted in terms of this clause.

#### **4.5 CREW**

A competent supervisor must be on site at all times to supervise the work undertaken by the crew.

The work crew shall comprise at least the following:

- 1. A Rigger (Certificate to be submitted).
- 2. Installation Electrician.
- 3. Responsible person in terms of NRS 040.
- 4. Labourers.

#### 4.6 OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993)

Contractors shall meet the health and safety requirements as stipulated in health and safety plan.

## 4.6.1 Safety Precautions

Notwithstanding the fact that the Contractor is solely responsible for the actions of his staff and any duly appointed sub-contractors, the Engineer reserves the right for himself, or his nominated representative, to inspect and monitor working methods and materials handling to ensure that safe working practices are being adhered to at all times.

## 4.6.2 Health and Safety Specifications

Please refer to Annexure A in Part C.4 for the Health and Safety Specification.

#### 4.6.3 Particulars

The following information must be submitted with the Tender:

Full technical design drawings and specification details of the equipment offered in respect of each item tendered. The information must be submitted with the tender documents, failing which, the offer will be deemed non-responsive.

Computer simulations for the flood light luminaires on electronic media in a form compatible with the Dailux Lighting computer program. The information shall have been approved by the South African Bureau of Standards (SABS) or the CIE.

- 4.6.3.1 The location of and the manufacturing facilities of the Tenderer.
- 4.6.3.2 The number of similar high mast lighting poles in actual service in South Africa.
- 4.6.3.3 The names of previous purchasers of high mast lighting poles offered and in service.
- 4.6.3.4 Samples of flood light luminaires offered within 5 working days of being requested to do so.
- 4.6.3.5 A copy of the manufacturer's Certificate of Listing in terms of SANS 9001.
- 4.6.3.6 Design calculations signed and certified by a Professional Structural Engineer to be submitted if requested.
- 4.6.3.7 Certificate of the Professional Structural Engineer to be submitted within 3 days of request if requested
- 4.6.3.8 Proof of qualifications of all construction staff to be engaged in contract work

## 4.6.4 The Contractor shall, prior to commencement of any work:

- 4.6.4.1 Appoint a competent person to sign and submit the "Memorandum of Agreement"
- 4.6.4.2 Supply proof of public liability insurance to indemnify the Municipality from public liability claims up to R50 million per incident. (See Clause 8.3 of Special Conditions of Contract).
- 4.6.4.3 Provide the Engineer with a list of cellphone numbers of his staff required to be contactable.

## 4.6.5 Standards

The following documents contain provisions that, whether referenced in the text or not, constitute requirements of this

## specification.

Note that the National equivalent of IEC standards are generally the same but may include specific variations to be taken into account. Information on currently valid national and international standards can be obtained from the South African Bureau of Standards.

SANS 121	Hot dip Hot dip galvanized coatings on fabricated iron
	and steel articles - Specifications and test methods
SANS 857-1	Defines metal welding processes and related terms
SANS 920	Steel bars for concrete reinforcement
SANS 1200 A	Standardized specification for civil engineering - construction Section A: General
SANS 1200 AA	Standardized specification for civil engineering
	construction Section AA: General
SANS 1200 G	Standardized specification for civil engineering - construction Section G: Concrete (Structural)
SANS 1200 GA	Standardized specification for civil engineering construction Section GA: Concrete (small works)
SANS 1200 H	Standardized specification for civil engineering - construction Section H: Structural steelwork
SANS 1200 HC	Standardized specification for civil engineering construction Section HC: Corrosion protection of structural steelwork
SANS 1700-	Fasteners Part 14: Hexagon nuts Sections 1 to 11
14.1/11	
SANS 2394	General principles on reliability for structures
SANS 9001	Quality management systems - Requirements
SANS 9692-1	Welding and allied processes - Recommendations for joint preparation Part 1:  Manual metal-arc welding, gas-shielded metal-arc welding, gas welding, TIG welding and beam welding of steels
SANS 10142-1	The wiring of premises Part 1: Low-voltage installations
SANS 10145	Detailing of steel reinforcement for concrete, Concrete masonry construction
SANS 10160-1	Basis of structural design and actions for buildings and
	industrial structures Part 1: Basis of structural design
SANS 10160-2	Basis of structural design and actions for buildings and
	industrial structures Part 2: Self-weight and imposed loads
SANS 10160-3	Basis of structural design and actions for buildings and industrial structures Part 3:
	Wind actions
SANS 10162-1	The structural use of steel Part 1: Limit-state design of hot-rolled steelwork
SANS 10162-2	The structural use of steel Part 2: Limit-states design of cold formed Steelwork
SANS 10162-4	Structural use of steel Part 4: The design of cold-formed stainless steel structural members
SANS 10164-2	The structural use of masonry Part 2: Structural design and requirements for
	reinforced and pre-stressed masonry
SANS 10225	The design and construction of lighting masts
SANS 10313	Protection against lightning - Physical damage to structures and life hazard
SANS 10389-1	Exterior lighting Part 1: Artificial lighting of exterior areas for work and Safety
SANS 10389-3	Exterior lighting Part 3: Guide on the limitation of the effects of obtrusive light from
CANC 4 4740	outdoor lighting -installations
SANS 14713	Protection against corrosion of iron and steel in structures - Zinc and aluminium coatings - Guidelines
SANS 15607	Specification and qualification of welding procedures for -metallic materials General rules
SANS 15609-1	Specification and qualification of welding procedures for metallic materials Welding procedure specification Part -1: Arc welding
SANS 15609-2	Specification and qualification of welding procedures for metallic materials Welding procedure specification Part -2: Gas welding
SANS 15609-3	Specification and qualification of welding procedures for metallic materials Welding procedure specification Part 1-3: Electron beam welding
SANS 15609-5	Specification and qualification of welding procedures for metallic materials Welding
	procedure specification Part 1-5: Resistance welding procedures
SANS 15614-1	Specification and qualification of welding procedures for metallic materials Welding
	procedure test Part 1: Arc and gas welding of steels and arc welding of nickel and
CANO 47000 4	nickel alloys
SANS 17660-1	Welding - Welding of reinforcing steel Part 1: Load-bearing welded joints
SANS 17660-2	Welding - Welding of reinforcing steel Part 2: Non-load-bearing welded Joints

Hot rolled products of structural steels
Guidelines for quality management system documentation
Structural Welding Code - Steel
National Colour Standard
Capacitors
Ballasts
Luminaires: Performance requirements
Degrees of Protection provided by Enclosures (IP-Code)
Luminaires: Part 1. General Requirements and Tests
Luminaires: Part 2-3. Particular requirements – Floodlights
Auxiliaries for Lamps (Starting Devices
Auxiliaries for Lamps (Capacitors)
Capacitors (Performance requirements)
Lamp Control Gear: Part 1. General and Safety requirements
Limits and methods of measurement of radio disturbance characteristics of electrical
lighting and similar equipment
Lamp holder's
Guidelines for the installation and maintenance of street lighting

Reference to a particular standard or recommendation in this specification does not relieve the manufacturer of the necessity of the work complying with other relevant standards or recommendations.

Tenderers offering equipment to standards other than those mentioned above may be considered provided it is clearly indicated in which respects the equipment offered does not comply and the likely consequences of such non-compliance.

#### 4.7 TECHNICAL SPECIFICATION

## 4.7.1 Mast Design

The masts must be designed in accordance with SANS 10225.

The design, including calculation details, shall be submitted for approval to the Engineer before commencing manufacture. The relevant structural documents must be signed by a **Professional Structural Engineer** and the technical design calculations and specification shall be submitted with the tender document. The high mast structures must be designed to withstand a maximum 3 second wind gust velocity of 44 m/s measured at a height of 10 m above ground level and acting on a projected area of the mast, masthead frame and luminaries allowing for the increase in wind speed with height as given in SANS 10160 & SANS 10225.

The fully equipped mast must be designed for terrain category 2.5 and for a lifespan of 50 years.

The deflection of the mast top shall not exceed 2,5% of the mast height when subjected to two thirds of the maximum wind velocity.

The masts must be designed so that wind excited oscillations shall be dampened as much as practically possible and allowance made for the stresses due to these oscillations.

The manner in which this is to be achieved shall be clearly stated in the design calculations. The axis of the mast when erected shall not deviate from the vertical by more than 0,3% of the height above the base flange nor from straightness by more than 0,3% of any length, measured at the centre of that length unless the mast is explicitly so designed.

The mast shall carry at its top the Floodlights evenly around its circumference. Data on wind induced oscillations and the dynamic behavior of the mast shall be submitted.

## 4.7.2 Construction

Masts and mast bases must be manufactured of Grade S355J0 steel plate complying with the requirements of SANS 50025. All welding shall comply with SANS 10225 1991-1 specifications. Welding Procedure Specification and shall only be carried out by coded welders, tested according to the AWS specification.

Proof of the relevant Welding Procedure Specification and Welding Qualification documents must be submitted on request. Inspection and acceptance certificates shall be furnished on request.

Any openings in the mast must be reinforced sufficiently in order not to weaken the structure. Each mast must be constructed to form an evenly tapered totally enclosed hollow shaft with a steel base section. The

masts must be delivered to site in sections and joined on site.

A method statement must be submitted to the Engineer detailing the on-site assembly of the mast. Bolted or welded section joints will not be permitted i.e. site slip joints must be used to enable the erection of the masts. The base section must be designed for mounting on a concrete plinth and must be fixed in position with bolts, nuts and washers of adequate dimensions.

For added security, gussets must be welded onto the base between mounting holes. This must be done before galvanizing.

## 4.7.3 Access Opening

An access hole with a hinged flush fitting weatherproof cover must be provided in the base of the mast, with the bottom lintel 600mm above the base plate, for easy access to the electrical distribution board ancillary equipment and the quick and safe attachment of the portable winch to mast and hoisting ropes.

The door shall be adequately protected against vandalism and secured by three screws requiring a special opening tool, or alternative as agreed with Engineer. The opening perimeter must be reinforced to restore the section modules of the mast shaft and have a curved top and bottom to prevent stress concentrations.

The door opening and closing mechanism shall correspond to similar masts in use by **Buffalo City Municipality in East London**. The mounting strips welded opposite the door opening shall be drilled for the mounting of a control board. Earth terminals, as well as a support bar for the incoming supply cables, shall be provided below the door opening.

## 4.7.4 UV Protected Fiber glass canopy

Each mast shall have an UV protected fibre class canopy that will cover all electrical material on top of the mast against UV light. This will be of adequate design to match with the mast and reducing the wind load that is applied to the mast.

## 4.7.5 Raising and Lowering Device

Each mast shall be equipped with a three-point hoisting mechanism, consisting of three 6mm diameter suspension ropes of stainless steel 7/19 construction, running over three pairs of Aluminium pulleys on the head frame of the mast running on shafts manufactured from Stainless steel.

The complete pulley assembly must be enclosed with a corrosion proof top cover, fixed with a bolt incorporating a lightning arrester, to prevent ingress of water all split pins, bolts, nuts and washers shall be of stainless steel. Pulley shafts shall be positively prevented from rotating in their housings. Two Rope systems shall not be considered.

The luminaire carriage shall be drawn against three inverted cones to ensure level positioning of the fittings in the operating position. The hoisting ropes, which will remain under tension at all times, shall terminate inside the mast on a clevis plate, to which the rope of the hoisting unit can be connected or to which, when in the raised position, the locking device can be attached.

The locking device shall be secured to a structurally sound member of the mast base. The other ends of the hoisting ropes shall be firmly secured to the luminaire carriage.

Rope ends shall not be secured by Crosby clamps and only "Talurit" type ferrules of compatible material shall be used. In addition, a safety chain shall be provided between the clevis plate and a structurally sound member of the mast base.

All fasteners connected with the raising and lowering device shall be secured by Nylok type nuts or stainless steel split pins.

The raising and lowering gear must, in complete safety, facilitate the raising and lowering of the floodlight luminaire carriage for maintenance purposes by means of a portable winch. A 12mm diameter earthing stud must be welded to the inside casing of the mast adjacent to the cable termination box. The stud shall be provided with two washers and a nut. The top pulley assembly must have guides and docking stops designed and constructed in such a way that the luminaire ring is always in the same

position after raising it to the top of the mast and that jamming of the ring is prevented.

One end of the wire rope in the bottom of the mast must be attached to the rope lock bar in such a manner that accidental lowering of the luminaire ring, without the use of the winch, is not possible.

## 4.7.6 Hoisting Unit

Provision shall be made at the base of the mast to accommodate a removable type, approved oil bath winch of the Dymot /OM type. The winch shall be of lightweight construction and mounted on a suitable frame for easy transfer from one mast to another, thus not requiring a winch in each mast. It should also, be easily coupled, uncoupled and removable through the door opening provided at the base of the mast.

This shall be a single drum worm gear type, self-sustaining at al loads and operating speeds, without the use of brakes and clutches. It shall have a gear ration of at least 50:1 and be suitable for both hand and power operation.

The winch shall run in a fully enclosed oil bath. The winch shall be fitted with a safety device to ensure that the drum is locked positively when the cranking handle or power tool is removed from the drive shaft.

The safety device shall be applied automatically. A test certificate, stating the safe working load of the winch and issued by a recognised testing authority, shall be supplied with each winch. Winches shall be fitted with a label and rating plate of a permanent nature in an easily visible position.

## 4.7.7 Hydraulic power tool

A Hydraulic power tool is required to drive the single drum winch and must have the following specifications:

A 1.5 kilowatt single-phase electrical motor running at 1440 rpm

A Hydraulic motor with variable speed ranging between 214 rpm and 268 rpm with a pump delivery of 5.5 L/ min.

#### 4.7.8 Corrosion Protection

All steel parts shall be immersed in a heated wash trough to remove all fine foreign particles and lubricants.

If sheet steel is used that has not been pre-galvanised, immediately after degreasing, all parts shall be hot dip galvanised in accordance with SANS 121. All welds shall be de-scaled, all machining carried out and all parts shall be adequately cleaned prior to galvanising.

The preparation for Galvanising and the galvanizing itself shall not adversely affect the mechanical properties of the coated material.

All articles shall be coated to the thickness detailed in Table 2 of SANS 14713 for corrosive category C5 and very long (≥20 years) typical life to first maintenance. All galvanised material shall be substantially free from white rust when it is erected on site.

Close attention shall be paid to the manner in which the material is stacked and stored at the galvaniser's works and also during its subsequent handling.

No welding, drilling, punching or removal of burrs shall be permitted after galvanising. The repair to galvanising damaged by handling or transport shall be done by cleaning the area and applying 2 coats of a zinc rich primer giving a dry film thickness of at least 100 microns and containing at least 94% zinc in the dried film. If in the opinion of the Inspector, damage is excessive; such items will be rejected by the Inspector and shall be replaced by the Contractor at his own expense.

A galvaniser's guarantee or test certificate shall be submitted to the Engineer prior to installation.

## 4.7.9 Luminaire Carriage, Electrical Cables, Board and Floodlights

#### 4.7.9.1 Luminaire Carriage

The carriages for the 30m masts shall be designed and manufactured from suitably sized and graded channel formed steel considering the weight and the windage area of the number of flood light luminaires and all related equipment and shall accommodate at least the following:

- 4.7.9.1.1 Nine (9) 300W LED luminaires (or similar) on each 30m masts.
- 4.7.9.1.2 A suitably sized glass reinforced polymer cable termination box (section 2.4) for the termination of the trailing cable and luminaire supply cables (refer to section 2.2).

- 4.7.9.1.3 A lighting arresting spike.
- 4.7.9.1.4 Guides and docking stops suited to those on the top pulley assembly.
- 4.7.9.1.5 At least four 12mm diameter (after galvanising) holes per luminaire for fixing purposes.
- 4.7.9.1.6 A 300mm long 4mm stainless steel wire safety leash with fixings shall be provided for each luminaire.

#### 4.7.9.2 Electrical Connection to the Luminaires

A flexible, heavy-duty 5-core trailing cable, which runs over a separate set of Aluminium sheaves at the head frame, shall be provided. Sheaves shall be of Aluminium, running on UHDPE shafts. The shafts shall be positively secured from rotating in their housings.

The Aluminium sheaves shall be adequately sized to prevent deformation of the cable. The trailing cable shall be firmly connected to the luminaire carriage at its one end and to the clevis plate at the other end. Suitable connectors of the CEE type with an IP44 rating shall be provided.

#### 4.8 Distribution Board

A fully enclosed IP30 distribution board shall be mounted in the access opening in such a manner as to facilitate easy and safe access for maintenance purposes and shall be wired in a neat and workmanlike fashion. The distribution board shall be of adequate dimensions and fitted with a hinged door with lockable catch.

The door shall seal onto a neoprene gasket. Suitable vermin proofed ventilation holes shall be provided to prevent moisture build-up in the distribution boards.

The following equipment shall be suitably rated for the duty and must be accommodated in the distribution board:

- 4.8.1 One (1) x three pole MCB main switch.
- 4.8.2 Single pole MCBs for individual luminaire protection. Each circuit breaker must supply only one luminaire.
- 4.8.3 One (1) x single phase switched socket outlet for the use of a power tool Means of isolating control cable supply voltage (inside the board)
- 4.8.4 One (1) x single phase switched socket outlet for the use of a power tool
- 4.8.5 One (1) x 5 pin CEE socket
- 4.8.6 One (1) x adequately rated contactor
- 4.8.7 One (1) x single pole MCB acting as by-pass switch
- 4.8.8 One (1) x single pole MCB protecting the contactor
- 4.8.9 One (1) x rated photocell
- 4.8.10 The remote control gear (if required).

#### 4.9 The following must be noted:

- 4.9.1 Contactors, if any, shall be operated electro-mechanically.
- 4.9.2 Circuit breakers shall comply with SANS 156 and SANS 1426 with a fault rating not less than 10kA. All circuit breakers must be accessible from the front of the board.
- 4.9.3 All equipment in the distribution board shall be mounted behind a removable cover with cut-outs to provide access to the circuit breaker toggle switch.
- 4.9.4 All circuits in the distribution board shall be suitably labelled.
- 4.9.5 The photocell of the National type shall be mounted 4m above ground level on the outside of the mast under a vandal proof cover by means of a special locking device.
- 4.9.6 A Splitter box with IP65 rating shall be mounted on top of mast, fitted with a test socket of the CEE type with at least IP44 rating at the bottom of the box.

All switchgear in the distribution board must be labelled to indicate the utilisation of the circuits. All labels shall be white "Traffolite" or equal to approval with black engraved numbers. The "Traffolite" labels shall be fitted to purpose made label holders/or screwed.

No stick-on embossed tape shall be used. The distribution board shall be fully wired and ready for connection to the incoming supply cables.

#### 4.10 Cable Termination Box

A glass fibre cable termination box mounted in each mast shall be a waterproof enclosure of adequate dimensions. The cable termination box shall be fitted with a lid secured with at least four captive screws. All metal parts of the housing shall be bonded to the main earth.

## 4.11 Floodlight Luminaires

The luminaries shall be complete with lamp holder(s), lamp(s), internal wiring, control gear as well as any other components and accessories required, to ensure a complete and working light fitting.

The luminaires must comply with SANS 10389, SANS 475, SANS 60598-1 and SANS 60598-2-5.

The LED luminaire shall be designed to meet the lighting criteria for 30m high mast lighting; the luminaire shall be designed in accordance with the following requirements

- 4.11.1 Design Life: In excess of 30 years.
- 4.11.2 The LED life expectancy shall be at least 60,000 hours (Documentary evidence from the LED manufacturer, by means of an appropriate datasheet, shall be provided).
- 4.11.3 The luminaires shall have an approved asymmetric luminous intensity distribution suitably controlled internally for a medium and narrow beam distribution.
- 4.11.4 Use of high efficiency LED's (Documentary evidence of compliance to this clause shall be submitted with the tender).
- 4.11.5 The luminaire housing shall be robustly constructed of marine grade high pressure die cast aluminium and shall be weatherproof, hail proof, corrosion proof and vandal resistant. Glass reinforced polyester (GRP) luminaires are not acceptable.
- 4.11.6 Surge protection 10kV / 10kA
- 4.11.7 A minimum power factor of 0.9
- 4.11.8 Hinge pins, clips, clamps, set screws, bolts, nuts and washers shall be manufactured from an appropriate grade of stainless steel and shall be to the approval of the Engineer.
- 4.11.9 The front glass to the luminaire lamp enclosure must be manufactured from heat tempered, impact resistant glass with a minimum thickness of 5mm and must be fitted with a silicon gasket seal. Polycarbonate is not acceptable. The front glass shall be fixed at least at the four corners with stainless steel clamps and suitably sized screws to allow for the periodic cleaning and maintenance of the glass.
- 4.11.10 Silicon rubber gaskets shall be fitted into a groove in the housing and shall be kept in place such that the integrity of the IP rating is ensured. The gasket shall be screened against harmful radiation from the light source.
- 4.11.11 An exterior lip shall be provided on the housing to ensure that there is no direct rainwater contact with the gasket between the housing and the diffuser, thus ensuring that no moisture is sucked into the diffuser when the luminaire is switched off and cools down.
- 4.11.12 All metal parts of the luminaire must be connected to a suitable earth terminal.
- 4.11.13 Connections shall be brought to a suitable heat resistant screw type plug in terminal block using silicone heat resistant wiring. The terminal block shall be securely fixed to the control gear holding plate. The terminal shall be indelibly marked either by means of colour coding or by the letters L, N & E.

## 4.12 The new LED luminaires to be installed shall provide similar or better light output at ground level as 400W HPS floodlights.

- 4.12.1 Power consumption Max 270W
- 4.12.2 LED lumen output min 22,000 lm

The contractor must also price for the supply and delivery of floodlights in the range of 440W to 500W as an alternative to HID 1kW HPS/T floodlight type.

## 4.13 Degrees of Protection

The degree of protection shall comply with SANS 60598-2-3 and the categories shall be:

- 4.13.1 Distribution board: IP 65
- 4.13.2 Lamp compartment: IP 66
- 4.13.3 Control gear compartment: IP 66

The IP rating shall be certified by a SABS test report in accordance with SANS 60598-

Test certificates/reports pertaining to each type of luminaire offered must be submitted with the tender.

## 4.14 Foundations

#### 4.14.1 Excavations

To account for soil conditions that may vary along an excavation, rates for 3 different types of soil will be used- "Normal", "Difficult" and "Hard". Hard excavation will be measured as "Normal" with the use of necessary compressor and/or other mechanical equipment being measured as an extra over rate. The types of excavation are defined as follows:

Normal Excavation: Material that can be loosened and removed using pick and shovel (such as grass covered sand, soft clay, dry earth, small stones in sand which can be removed by hand, or thin layers of "koffieklip").

Difficult Excavation: Material that is difficult to loosen and remove using pick and shovel such as large layers of "koffieklip", hard dry clay, ground containing boulders and layers of tar or where progress is slow and other services are affected. The cost of any mechanical plant used to assist in loosening the material is to be included in the given rate.

Hard Excavation: A solid mass of material, 1m or longer, that can be broken only using a paving breaker, or jackhammer and/or blasting and where progress is very slow.

The Engineer must authorise any difficult or hard excavation before it may be claimed. Excavations must be carried out in a neat and workmanlike fashion.

The Contractor must remove tar pieces, stones and sharp objects from the excavated soil and ensure that such material is removed from site daily. No stones, tar pieces or sharp objects may be put back in the trench. No excavations or holes shall be left open for longer than 3 days or over a weekend.

Excavated material may not be dumped or stored against boundary walls or on landscaped gardens unless the prior consent of the property owners is obtained. The Contractor shall be responsible for the restoration of defaced property.

Where excavated material is placed on road surfaces, care must be taken not to block storm water drains or open channels.

Where grass sods or plants are removed, they must be neatly packed adjacent to the trench. The Contractor must keep the grass sods or plants damp after removal by watering or otherwise to ensure that they remain alive.

The Contractor must ensure that all vegetation is replanted after the trench is properly backfilled and compacted. The Contractor must make good at his own cost any vegetation damaged during the excavation and not restored to its original condition.

Brick paving must be removed neatly and stacked adjacent to the area excavated at a location that is acceptable to the user of such brick paved surface. The Contractor shall be responsible for replacing any bricks that are broken. The Contractor must reinstall the removed bricks to the satisfaction of the user.

The same method of operation shall apply for paving slabs. When excavating through kerbs, channels, edgings or any other edge unit, these shall be carefully removed up to the nearest whole unit and replaced. If these units are damaged, they shall be replaced with similar approved new units for the cost of the Contractor.

Any water accumulating in excavated trenches or holes, either as a result of rain or due to the level of the water table, must be pumped out by the Contractor to make work inside the trench or hole possible.

Care must be taken to ensure that effective barriers are erected around all excavations to ensure the safety of the general public. In this regard the contractor must install an orange meshed barrier screen (or other type of barrier if deemed by the Contractor to be more effective) up to at least a metre in height around the entire excavated area.

The barrier must be secured in such a way that it will not be disturbed by adverse weather conditions. Where the public requires access across the excavation, suitable safe crossings must be provided. The Contractor must detail in his safety plan the measures that will be taken to safeguard the public.

The Contractor shall be responsible for any liability arising out of his activities. This includes the safety of the public while the trenches are open.

The Contractor must consult the owners of properties who may be affected by the activities of the Contractor e.g. driveways, well maintained verges or gardens.

#### 4.14.2 Concrete Base

The concrete base, reinforcing cage and fixings shall be designed and constructed to the requirements of SANS 1200 A, SANS 1200 AA, SANS 1200 G, SANS 1200 GA, SANS 10144, SANS 10145, SANS 17660-1, SANS 17660-2 and SANS 920.

The base design shall include at least two 110mm diameter PVC ducting to allow the supply cable and the two 35mm<sup>2</sup> copper earthing conductors access from below ground level to the inside of the mast without being visible above. The positioning of the ducting must be clearly marked on the foundation of the mast.

The Contractor shall test the soil bearing pressure for each mast prior to casting the concrete base to ensure that the soil load bearing conditions are suited to the specific concrete base design. The cost of these tests shall be included in the pricing schedule.

The results of these tests must be discussed with the Engineer prior to casting of the concrete base and hand the results over to the Engineer prior on completion of the project. All reinforcing and foundation bolts shall have a minimum of 100mm concrete cover.

The 28 days cube strength of the concrete shall be stated by the Contractor All foundations shall have a circular flat base from which a square plinth shall rise to above the surrounding ground level. After casting of the foundation, the slab shall be covered by earth, properly compacted.

The area around the plinth shall be brought to the original level and shall be left neat and tidy.

## 4.14.3 Holding down Bolts

The holding down bolts shall be supplied as part of a welded up cage for accurate casting into the foundations. Suitable templates shall be used to ensure correct vertical and horizontal alignment of the bolts.

Two nuts and washers and one locknut shall be supplied with each bolt as part of the holding down bolt assembly. The holding down U-bolts and the associated nuts and washers shall be mild steel hot dip galvanised to SANS 121.

## 4.14.4 Earthing of Mast

Earthing of the mast shall comply with SANS 10142 and SANS 10313. The minimum earthing shall however consist of two (2) x 2,4 m earth spikes installed on opposite sides of the mast.

The top of the spikes shall be at least 600 mm below finished ground level.

The two spikes shall be connected together and from each Spike to the inside of the mast using a 70mm<sup>2</sup> bare copper conductor (or approved equivalent) via the ducting provided. There shall be no joints in the earth conductors and all terminations shall be to the manufacturer's requirements.

## 4.14.4 Marking

Each pole must be identified with an indelible identification mark. The method of marking shall be to the approval of the Engineer.

## 4.15 TESTING AND COMMISIONING

The complete installation shall be tested and commissioned in the presence of the Engineer for his approval.

## 4.16 SCHEDULES - TO BE COMPLETED

Schedule A in the table below must be completed by the Tenderer providing guarantees and technical particulars of the equipment and materials offered.

Failure by the Tenderer to complete Schedule A could invalidate the tender.

## 4.16.1 LED Flood Light Luminaires:

## SHEDULE TO BE COMPLETED BY TENDERER

Item	DESCRIPTION	SCHEDULE A:
		TENDERER OFFER BEING PART
		OF THE MANDATORY
		RETURNABLE
		DOCUMENTATION
4.16.1.1	Ambient Temperature 15 to 45 degrees Celsius	
4.16.1.2	Housing Inherently corrosion resistant material painted grey.	
	Preference is for marine grade high pressure die cast Aluminium.	
4.16.1.3	Place of Manufacture	
4.16.1.4	Manufacturer's identification reference	

4.16.1.5	Delivery Period	
4.16.1.6	Are all the mentioned test reports included with this	
4.16.1.7	Are the simulation software calculations included with the tender	
4.16.1.8	Manufacturer	
4.16.1.9	Warrantee (minimum 5 years)	
4.16.1.10	Lumens offered:	
4.16.1.11	Wattage	
4.16.1.12	Efficacy: System Voltage 220V to 240V at 50 Hz. (Provide test	
	report)	
4.16.1.13	Power Factor Minimum 0.9. (Provide test report)	
4.16.1.14	Surge Protection ≥ 10 kV, 10kA	
4.16.1.15	Lumen Maintenance: IP Rating of Light Fitting ≥ IP66 (Provide	
	laboratory test	
4.16.1.16	Connection of LED inside modules designed that the failure of one	
	LED does not cause additional LED's to switch off.	

## 4.17 MEDIUM VOLTAGE NETWORKS

## 4.17.1 PROPOSED UPGRADE

## 4.17.2 MV Underground Cable Network

4.17.2.1	Identify the actual MV Cable routs and mark up as-built accordingly
4.17.2.2	Isolate dangerous and defective 11kV equipment miniature substations, kiosks and surge arrestors
4.17.2.3	Ensure that the main earthing network is compliant and does provide a safe route for earthing surges
4.17.2.4	Ensure that all switching stations are compliant to the code of practice and regulations
4.17.2.5	Repair and replace faulty cable terminal ends
4.17.2.6	Install MV cable markers on cable routes

#### 4.17.3 MV Miniature Substations

4.17.3.1 Replace and upgrade MS and Kiosks that will feed the LV towards the high mast infra-structure

## 4.17.4 LV Cable Network & Kiosks

4.17.4.1	Install LV cables to high masts, all LV cables to be 35 x 4 (1000V SWA PVC Cable)
4.17.4.2	Install LV kiosks with correct MCB protection to all high masts

#### 4.17.5 MV & LV Overhead Lines

4.17.5.1	Replace defective 11m 9m wooden poles that is either rotten or damaged
4.17.5.2	Upgrade MV & LV overhead conductor size from squirrel to mink conductor
4.17.5.3	Repair and replace stay wires and anchors, small amount requires stay wire tensioning only
4.17.5.4	Constructing a new LV overhead line complete with wooden poles, mink overhead conductors, insulation
	and all associated equipment
4.17.5.5	High mast LV kiosks installation

## 4.18 APPLICABILITY

This guideline is applicable to the Supply, Delivery and Installation of High Mast Lighting Including Related MV Equipment, LV Equipment and Civil Works contract.

#### 4.19 NORMATIVE REFERENCES

The following documents contain provisions, which, through reference in this text, constitute provisions of this standard. At the time of reference, the latest of these shall apply.

Electricity Act Section 5B, 1987 (Act 41 of 1987), as amended Occupational Health and Safety Act, 1993 (Act 85 of 1993), as amended Engineering Profession Act, 2000 (Act 46 of 2000), as amended Electricity Regulation Act, 2006 (Act 4 of 2006), as amended Electricity Regulation Amendment Act, 2007 (Act 28 of 2007), as amended

#### 4.20 TERMS, DEFINITIONS AND ABBREVIATIONS

#### 4.21 TERMS AND DEFINITIONS

#### 4.21.1 Accredited person

Means a person registered in terms of the Regulations as an electrical tester for single phase, an installation electrician or a master installation electrician, as the case may be;

#### 4.21.2 Belted cable

A multi-core cable where a part of the insulation covers each conductor and the rest of the insulation covers the combined cores.

## 4.21.3 Certificate of compliance

Means a certificate issued in terms of the Regulations in respect of an electrical installation or part of an electrical installation by an accredited person;

#### 4.21.4 Consultant

The electrical engineering consultant as appointed by Eastern Cape Development Corporation "ECDC".

#### 4.21.5 Electrical engineer

Means the Electrical engineer appointed by ECDC or any duly authorised official as designated by the Electrical Engineer.

#### 4.21.6 Electrical installation

Means an electrical installation as defined in the Regulations of the Occupational Health and Safety Act

#### 4.21.7 External services

Combination of the bulk and link services external to a development.

## 4.21.8 Low voltage

Means the set of nominal voltage levels that are used for the distribution of electricity and whose upper limit is generally accepted to be an AC. voltage of 1000V (or a DC. voltage of 1500 V). [SANS 1019]

#### 4.21.9 Medium voltage

Means the set of nominal voltage levels that lie above low voltage and below high voltage in the range of 1 kV to 44 kV [SANS 1019]

#### 4.21.10 Meter

Means a device which records the demand and/or the electrical energy consumed and includes conventional and prepayment meters

#### 4.21.11 Point of metering

Means the point at which the consumer's consumption of electricity is metered and which may be at the point of supply or at any other point on the distribution system of "BCMM" or the electrical installation of the consumer, as specified by the "BCM" or any duly authorised official of the "BCMM" provided that it shall meter all of, and only, the consumer's consumption of electricity.

## 4.21.12 Point of supply

Means the point determined by "BCMM" or any duly authorised official of "BCM" at which electricity is supplied to any premises.

#### 4.21.13 Premises

Means any land or any building or structure above or below ground level

#### 4.21.14 Screened cable

A cable in which every core is separately encased by a conducting layer to ensure that the conductor is surrounded by a radial electric filed when it is energised.

#### 4.21.15 Abbreviations

ADMD After diversity maximum demand

Al Aluminium

CNE Combined neutral and earth

Cu Copper

ECBSA Electrical Contracting Board of South Africa

ECSA Engineering Council of South Africa

kVA Kilovolt ampere LV Low voltage MV Medium voltage

NRS Rationalized User Specification PILC paper insulated lead covered

PVC Polyvinyl Chloride

SANS South African National Standards
SABS South African Bureau of Standards

SWA Single steel wire armoured XLPE Cross linked polyethylene

#### 4.22 DESIGN PROCEDURES

#### 4.22.1 Existing Services

No excavation work shall commence until the contractor has applied for way leaves from the various municipal departments.

The Contractor shall also arrange with "BCMM" Electricity Department to have the existing electrical services located on site.

The Contractor shall bear all costs for services damaged on site and the repairs thereof.

Should any existing services need to be relocated as a result of the development, the cost thereof shall be for the contractor.

#### 4.22.2 Program

The Consultant shall notify the Electrical Engineer formally of the electrical works program prior to commencement of work on site. Details of all amendments to this program shall be forwarded formally to the Electrical Engineer.

## 4.22.3 Power Outages and Work Permits

Any request for a power outage shall be lodged with "BCM" Electricity Department at least two (2) weeks in advance to enable them to notify effected consumers and plan accordingly. Outages shall be planned such that disruption of power is restricted to an absolute minimum.

A "permit to work" system will apply to the Contractor when working on Municipal equipment and the Contractor shall be required to adhere strictly to municipal procedures in this regard.

The Contractor shall bear the extra costs should work or inspections need to be held after normal workings hours.

#### 4.22.4 Site Meetings

Regular site meetings shall be held between the Consultant and Contractor.

Minutes of such meetings shall be kept on file.

Bi-Weekly meeting, Progress and Technical.

## 4.22.5 Inspections

The Electrical Engineer reserves the right to visit the site and to observe the construction work as deemed fit, and to this end the Electrical Engineer shall send representatives to carry out ad hoc site visits in order to satisfy himself that all requirements are met.

These site visits shall not be construed as formal inspections, and shall impose no obligation on the ECDC with regard to the acceptance of the electrical network.

Copies of manufacturer's detail drawings of miniature substations, kiosks, meter panels, etc. shall be referred to the

#### 4.22.6 Electrical Engineer for final approval

The Electrical Engineer reserves the right to send a representative to inspect equipment to be installed at the manufacturer's premises. The Contractor shall provide at least 48 hours advance notice that equipment is ready for inspection.

#### 4.22.7 Hold Points

The Engineer shall enforce the following hold points: Inspection of the miniature substation base Inspection of cable trenches before backfilling

### 4.22.8 Pre-commissioning tests

The Contractor shall notify the Electrical Engineer at least 24 hours in advance that the base or trenches are ready for inspection.

The Electrical Engineer shall perform the inspections.

The Engineer shall inform the Contractor that he has to adhere to these hold points before construction commences.

The Electrical Engineer reserves the right to force the Contractor to redo work or re-open trenches where the hold points were not complied with. The Contractor shall bear all costs thereof.

The following testing requirements are the minimum that will be acceptable to the Electrical Engineer:

- 4.22.8.1 Medium voltage paper insulated cables: DC pressure tests/VLF Tests
- 4.22.8.2 All low voltage cables: Insulation resistance tests
- 4.22.8.3 Earthing: Earth resistance tests

The Contractor shall perform all the necessary tests, as per the applicable SANS standard, under the supervision of the Engineer and record the results and detail.

## 4.22.9 Handing-over Procedures

Notice of Completion, final inspection and handover

When the installation is complete, the Engineer shall conduct a preliminary inspection with the Contractor to ensure full compliance with Contractual requirements, where after a final take over inspection and notice of completion.

Once the notice of completion is received, the Electrical Engineer shall do a final visual inspection of the network, with ECDC and Contractor present. Any visible defects shall be repaired/fixed immediately or recorded on a snags list for subsequent attention.

On satisfactory completion of the final inspection, arrangements shall be made for commissioning the network. The Engineer and Contractor shall carry out all pre-commissioning tests deemed necessary by the Client to ensure that the network can be safely connected to the Municipal network. Proof of all these tests must be provided to the Client before the new networks are connected.

#### 4.22.10 Take Over Certificate

Once the network has been commissioned and has been completed to the satisfaction of the Electrical Engineer, with the exception only of the defects fully detailed on the snags list approved by the Electrical Engineer, the Client shall formally take over the network with full operating responsibility, subject to the following documentation that shall be provided to the Client during the pre-commissioning stage:

#### 4.22.11 All applicable Certificates of Compliance

Test certificates of pre-commissioning tests and all required manufacturer's tests including earthing tests and miniature substation manufacturing tests.

Operation and maintenance manuals of equipment that have been installed

#### 4.22.12 Completed defects liability form

"As built" drawings (indicating detail positions of all cables, equipment and duct crossings) shall be provided in electronic format as PDF & DXF or DWG format computer files.

Once the network is taken over, the Contractor shall have no right to access any part of the installation without making prior arrangements with the Client and the "permit to work" system shall apply.

The network shall be taken over by the Electrical Engineer from the Consultant and the event shall be recorded by a formal Take-Over certificate, signed in duplicate by the Engineer on behalf of the ECDC. Once the certificate is signed, the defects liability period will commence, which shall run for a period of one year from the date of the certificate. Adequate proof that a defects liability guarantee for the 12 months is in place, shall be provided to the Client

Once the defects liability period expires, the Client shall accept full responsibility for the network and return the defects guarantee and bank surety to the ECDC.

#### 4.23 DESIGN REQUIREMENTS

#### 4.24 GENERAL

The Client will take formal handover of the electrical network of all developments designed under these guidelines (unless otherwise agreed upon in a written contract), and will be responsible for the operation and maintenance thereof. The design of the electrical network shall therefore comply entirely with the provisions of this guideline.

#### 4.25 NETWORK

Medium Voltage Network: 11kV

Low Voltage network 420/240 V (3 phase 4 wire)

Frequency 50Hz

Transformers 11 000/420 V - Dyn11 - 500 – 1 000 kVA

#### 4.26 MATERIAL REQUIREMENTS

All materials utilised shall be new, and shall comply with the relevant SANS and NRS documentation and the proposed standards as per the technical schedules in Annexure A.

## 4.27 INSTALLATION REQUIREMENTS

#### 4.28 MINIATURE SUBSTATIONS

## 4.28.1 General

The position of the miniature substation shall be indicated on the layout drawing and approved by the Electrical Engineer. An on-site inspection may be required.

#### 4.28.2 Site

In all instances, an unobstructed area around the miniature substation of minimum 1,2m width shall be provided.

## 4.28.3 Plinth

A concrete plinth with details as per the requirements of the miniature substation manufacturer must either be casted in-situ or a pre-cast type provided. The plinth shall protrude at least 100mm above ground level. Where the slope of the site is of such a nature that excavation or backfilling is needed to level the site, a retainer wall must be built to ensure that erosion of the surrounding area does not affect the miniature substation plinth. Care shall be taken that the plinth is not cast directly above any existing services and if the plinth position

coincides with any services, this shall immediately be brought to the attention of the Electrical Engineer who will advise a new position.

#### 4.28.4 Connections

MV cables shall be rising through the plinth opening from below into the MV compartment where they shall be made off onto the end boxes using heat shrink terminations and concertina type silicone boots.

LV cables shall similarly rise from below and shall be mounted using K-clamps or gland onto the gland plate.

Cable access openings below the HV & LV compartments shall be filled with clean sand and top 50mm finished with 10:1 weak sand/cement screed after installation of all cables.

#### 4.28.5 Padlocks

Permanent padlocks shall be installed by the Contractor for the account of the Client once the installation has been completed and the site is handed over. The contractor shall provide temporary padlocks during the construction period to safeguard equipment.

## 4.28.6 Earthing

Two 30m lengths of 70mm<sup>2</sup> hard drawn stranded bare copper conductor shall be installed together with the 11kV cable at both termination points and such lengths as necessary to obtain an earth reading of 1 ohm or less.

A continuous stranded bare copper conductor rated at the next standard size under the cross sectional area of the LV cable, with a minimum of 25mm2, shall be installed between the miniature substation and all kiosks along the LV distribution route.

An Equipotential earth ring shall be installed around the base of the miniature substation at 0.5m from the base and at a depth of 0.5m, this equipotential earth ring shall be 16mm<sup>2</sup> stranded copper and be connected to the MV Earth bar.

The earth resistance may not be more than:

For MV earth electrode: 1 ohm For LV earth electrode: 10 ohm

#### 4.29 MV AND LV CABLES

#### 4.29.1 General

The position of the cables shall be indicated on the layout drawings and approved by the Electrical Engineer. An on-site inspection may be required.

The contractor shall, establish if any municipal services exist within the site area and have these services indicated either on plan (way leave) or identified on site before any construction work commences.

The contractor shall take all the necessary precautions to protect all existing services on site and will be held responsible for all damages to these services, caused by his activities. Should a service be damaged, the contractor shall immediately inform the electrical engineer or department concerned. The contractor shall not repair the damaged service, unless he is instructed to do so.

## 4.29.2 Safety

The contractor shall at all times provide proper and adequate precaution and safety arrangements on site in accordance with the Occupational Health and Safety Act. Should the contractor fail to comply with this requirement, the electrical engineer will take the necessary steps to ensure that this requirement is met and any costs incurred will be for the contractor's account.

#### 4.29.3 Cable installation depth

Cables shall be installed at the following minimum levels below the final ground level:

Medium voltage cable 1000 mm Low voltage and streetlights 750 mm The electrical engineer or his representative shall do an inspection on all trenches before backfilling. The contractor shall arrange for the inspection to be performed. Failure to comply will result in the contractor either excavating inspection holes or re-opening the excavation, and the cost thereof will be for his/her account.

#### 4.29.4 Positioning of cables

All electrical cables shall be installed at least 300 mm from any civil or post office services.

No electrical cables shall be installed parallel above or below post office or civil services.

No electrical cables shall be installed on the same side of the road as potable water services.

In the case of trenches used for a number of electrical cables the minimum free space between cables required to prevent de-rating of the cables, are as follows:

Conductor size  $< 70 \text{mm}^2$  75mm Conductor size  $\ge 70 \text{mm}^2$  150mm

## 4.29.5 Danger tape

Plastic warning tape shall consist of a strip of polyethylene, at least 0.04mm thick and with a nominal width of 230mm. The warning tape shall be totally impregnated with pigment so that it corresponds with the yellow colour of SANS 1091 in a reasonable way. The words "CABLE BELOW" shall be printed on the full length of the tape with maximum intervals of 1 meter.

Danger tape shall be installed 250mm above all medium and low voltage cables.

#### 4.30 Excavations

#### 4.30.1 General

Trench excavations shall comply with the requirements of SANS 1200 LC and SANS 1200 DA. No cables shall be laid before the site is cleaned and the mass earthwork is completed.

Trenches excavated close to railway lines, walls, roads, drains, pipes, cables, structures and on similar places where the danger of sagging exists, shall be secured against such dangers using appropriate measures; ensuring compliance with the requirements of the Occupational Health and Safety Act.

Where possible a 500mm clear walkway shall be provided at each side of the trench to avoid dislodging excavated material into the trench.

Every trench shall be kept as straight as possible and shall be excavated to approve levels. The bottom shall be level and changes in gradient shall be as gradual as possible.

Excavated material shall be placed along the trench in such a way that it does not obstruct or damage adjacent fences, trees, drains, gate openings and other properties and shall be heaped up in such a way that traffic is not obstructed. Should this not be possible, the material shall be removed from site and brought back later to backfill the trench after the cable(s) has been laid. All surplus material shall be removed once the trench has been back filled and compacted.

#### 4.30.2 Bedding

The bottom of the trench shall be free from loose rocks or stones. It may be necessary to sift excavated soil to achieve this bedding, or even to import a quantity of sand or clay if the excavated material is unsuitable. The depth of this bedding should be  $\pm$  100 mm after compaction.

#### 4.30.3 Road crossing

Cables laid under roads or railway lines, shall be laid through sleeves or cableways that are strong enough to withstand the expected shock loads applied by traffic.

For road crossings PVC sleeves shall be used.

One 200mm sleeve for each MV cable and one 110mm sleeve for each LV cable

## 4.30.4 MV Joint holes

All medium voltage cables joint holes shall be 2000mm wide, 5000mm long and 1000mm deep or 150mm below

existing cable depth. The sides of the joint hole shall be stepped by 250mm at a depth of 500mm, thus leaving a 1500mm wide base /work area.

## 4.30.5 Back filling and Reinstatement

Once the cables have been laid, and before commencing with back filling, carry out a visual inspection of the installation to ensure that:

The cables are properly bedded. Correct spacing between cables, if there are more than one in the trench.

Cable entrances at ducts are suitably protected against the possibility of vermin gaining entrance.

#### 4.30.6 Laying and pulling equipment has been removed.

That there is no obvious damage to cable sheaths. Up to 90% of the service failures experienced in any cable system can be avoided if appropriate action is taken at this stage.

After checking on the installation details, the sand blanket, free from loose rocks or stones, can be applied over the cables to a nominal thickness of 150mm. If the excavated trench material is suitable for use, the trench can be backfilled and compacted. For the first 50mm of bedding, compacting by hand is required, thereafter layers of 150mm can be backfilled and compacted using a mechanical compactor.

#### 4.30.7 Cable Laying, cable bends and handling of cable drums

The proper use of cable rollers, angle rollers, and cable socks, pulling eyes, skid plates and cable drum rollers shall be used as per the installation guidelines of the cable manufacturer. Cable bends shall strictly be as per the minimum bending degrees allowed by the manufacturer.

#### 4.31 DISTRIBUTION KIOSKS

#### 4.31.1 General

Dual door Kiosk, circuit breakers mounted in front compartment secured behind a steel cover plate secured with panel locking mechanisms. Bus bars mounted in rear compartment, secured behind Perspex cover bolted in position.

The position of all kiosks shall be indicated on the layout drawing and approved by the Electrical Engineer. An onsite inspection may be required.

## 4.31.2 Installation

The kiosks shall be installed 1,0 m from the erf boundaries and as shown on the drawings. Specific installation positions must be confirmed on site. The switchgear shall face the road with the cable entries on the erf side.

After installation of the kiosks and all the cables, it shall be backfilled with sand with a 30 mm layer of sand: cement (6:1) on top.

All bolts, nuts, washers, hinges and any other metal objects shall be made of stainless steel. Busbars shall be copper and shall be rated for 300 A minimum.

The colour of the kiosk shall be grey according to SABS 1091 Locks for the kiosks shall be supplied by Contractor for the account of the Client.

## 4.31.3 Earthing

The continuous earth of the LV network shall be connected onto the earth bar in the kiosk. The neutral shall be connected to the earth bar.

No T-off from the earth conductor is permitted and all earth conductors shall be terminated separately in the kiosk.

## 4.31.4 Labeling

Labels must be provided according to the approved design drawings:

External designation label	Engraved Celeron or similar material, 5 mm BLACK

	lettering on WHITE background fixed with rivets to the shell.
Danger signs :	Durable, non-corrosive "electrical flash" sign to OHS Act requirements.

#### 4.32 HIGH MAST LIGHTS

#### 4.32.1General

The position of the high mast lights as well as the specific type shall be indicated on the layout drawing and approved by the Electrical Engineer. An on-site inspection may be required before Installation

The high mast light poles shall be no closer than 1.5m from the edge of any roadway and on the positions as shown on the drawings. The inspection opening of the poles shall be positioned such that the technician working at the inspection opening shall face oncoming traffic.

The electrical supply shall be taken from the miniature substation or metering kiosk as indicated. All street-crossing shall be done by means of 110 mm PVC sleeves.

#### 4.33 OVERHEAD LINES

#### 4.33.1 General

The position of poles and any other associated equipment shall be indicated on the layout drawings and approved by the Electrical Engineer. An on-site inspection may be required.

#### 4.33.2 Installation

All installations shall be constructed along the line routes as shown on the drawings.

Poles for 11kV lines shall be 11m in length with minimum pole top diameter of 180mm, and for low voltage lines, 9m poles with minimum pole top diameter of 160mm shall be used.

(All poles will be procured from suppliers that complies with Eskom standards and specifications)

At intermediate 11kV structures, a delta-configuration with A-frames shall be used.

The insulators shall be of the Class-A 4 kN porcelain post type.

At 11kV strain structures, A-frames with silicone rubber strain insulators shall be used.

All A-frames shall be bolted to the poles using galvanised bolts, nuts and washers.

For 11kV street crossings, poles shall either be equipped with compression dead-end connections with strain insulators on both sides of the road, or intermediate structures with special road crossing twin ties on Class A 10 kN insulators.

#### 4.33.3 Materials

All materials as listed with the bills of quantities shall comply with the similar standards and specification as per Eskom Southern Region.

#### 5 CONDITIONS SPECIFIC TO THIS BID

#### 4.1 Responsibilities and duties

Notwithstanding the fact that a description of the services has been provided above, ECDC shall be entitled to request additional services related to deliverables required to ensure the successful completion of the services set out above on such further terms and conditions as may be agreed between the parties in writing.

The service provider shall at all times faithfully and timeously carry out and perform the Services and shall use its best endeavours to properly conduct, improve, extend and develop the business of ECDC in the provisioning of the services.

The Services Provider shall as part of his duties, attend such meetings as may be required by ECDC from time to time and submit weekly or monthly progress reports on the services as may be required and requested by ECDC.

## 4.2 Obligation to perform and sub-contracting

The bidder shall notify ECDC in writing of all subcontracts awarded under this contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the bidder from any liability or obligation under the contract.

The bidder shall not assign, in whole or in part, its obligations to perform under the contract, except with ECDC's prior written consent.

#### 4.3 Performance guarantee

Within fourteen (14) days of receipt of the notification of contract award, the successful bidder shall furnish to ECDC the performance security of the amount specified above.

The proceeds of the performance security shall be payable to ECDC as compensation for any loss resulting from the bidder's failure to complete his obligations under the contract.

The performance security shall be denominated in the currency of the contract or in a freely convertible currency acceptable to ECDC and shall be in one of the following forms:

A bank guarantee or an irrevocable letter of credit issued by a reputable bank located in South Africa, acceptable to ECDC, in the form provided in the bid documents or another form acceptable to ECDC; or

A cashier's or certified cheque

The performance security will be discharged by ECDC and returned to the bidder not later than thirty (30) days following the date of completion of the bidder's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.

Notwithstanding the provisions above, the bidder shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

#### 4.4 Anti-dumping and countervailing duties and rights

When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, ECDC is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to ECDC or ECDC may deduct such amounts from moneys (if any) which may otherwise be due to the contract or regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.

#### 4.5 ECDC facilities

Unless otherwise agreed in writing by ECDC, the Service Provider will work from its own office and provide its own facilities, such as transport, telephone, cell phone, fax and computer facilities to perform the services.

The service provider may use certain facilities made available by ECDC to assist in performing the services, including but not limited to computer facilities, telephone and fax facilities and stationery. In this regard the service provider agrees to:

Abide by the health, safety and security measures as prescribed by ECDC from time to time;

To use such accommodation and facilities entirely at his own risk and ECDC shall not be liable for any loss or damage whatsoever and howsoever caused arising out of or in connection with the use of these items, other than loss or damage caused as a result of ECDC's own wilful misconduct.

#### 4.6 Force majeure

If a force majeure situation arises, the bidder shall promptly notify ECDC in writing of such condition and the case thereof. Unless otherwise directed by ECDC in writing, the bidder shall continue to perform its obligations under the contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

#### 4.7 Spare parts (Not Applicable)

The bidder may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the bidder:

Such spare parts as ECDC may elect to purchase from the bidder, provided that this election shall not relieve the bidder of any warranty obligations under the contract; and In the event of termination of production of the spare parts:

Advance notification to ECDC of the pending termination, in sufficient time to permit ECDC to procure needed requirements; and

Following such termination, furnishing at no cost to ECDC, the blueprints, drawings, and specifications of the spare parts, if requested.

## 4.8 Insurance

The contractor shall affect and maintain all required and/or necessary insurances in accordance with Clause 8.6 and Subclauses of the GCC2015 third edition contract (GCC 2015), as applicable.

## 4.9 Responsibility to perform

Delivery of the goods and performance of services shall be made by the bidder in accordance with the time schedule prescribed by ECDC in the contract.

If at any time during performance of the contract, the bidder or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the bidder shall promptly notify ECDC in writing of the fact of the delay, it's likely duration and its cause(s). As soon as practicable after receipt of the bidder's notice, ECDC shall evaluate the situation and may at his discretion extend the bidder's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

ECDC reserves the right to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the bidder's point of supply is not situated at or near the place where the supplies are required, or the bidder's services are not readily available.

A delay by the bidder in the performance of its delivery obligations may render the bidder liable to the imposition of penalties, unless an extension of time is agreed upon without the application of penalties.

ECDC shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance.

ECDC may also consider termination of the contract.

#### 4.10 Duration of the contract

The construction project duration is estimated to be 8 **Months** from date of appointment. The successful Bidder shall be required to complete and submit the signed and duly completed **client recommended Services Level Agreement.** 

Upon any delay beyond the delivery period in the case of a supplies contract, ECDC shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the bidder's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the bidder. (N/A)

### 4.11 Payments and tax

Payments shall only be made in accordance with the fees as quoted in this documentation. Prices charged by the bidder for goods delivered and services performed under the contract shall not vary from the prices quoted by the bidder in this bid, with the exception of any price adjustments authorized at ECDC's request for bid validity extension, as the case may be.

ECDC will reimburse the service provider for expenses and disbursements incurred subject to the submission of satisfactory proof that such expenses and disbursements have been incurred and subject to it being within the budget as indicated in this documentation.

The service provider shall from time to time during this contract duration furnish ECDC with a VAT compliant tax invoice accompanied by a copy of the delivery note and upon fulfilment of other obligations stipulated in the contract.

Each invoice must be accompanied by a detailed timesheet and expense claim forms substantiating the amount claimed.

Payments shall be made promptly by ECDC in Rand, but in no case later than thirty (30) days after submission of a VAT compliant tax invoice and supporting documentation by the service provider if the services have been properly executed as agreed.

The service provider shall retain all proof of expenditure and maintain such accounts and records as are reasonably necessary, claimed above, should ECDC require an audit to substantiate that expenditure and allows ECDC's own personnel or an independent auditor access to those records.

Should the above audit reveal that ECDC has been overcharged, the Service Provider will re-imburse the ECDC the amount overcharged within 30 days inclusive of interest calculated at prime plus 2% per annum;

A foreign bidder shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Republic of South Africa.

A local bidder shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to ECDC.

## 4.12 Contractor's Domestic Sub-contractors

It is recommended that the successful electrical contractor appoint sub-contractors to assist in non-electrical exposed activities.

Tenderer shall provide the amount of staff required from the local area to assist in implementing of the said works.

## 7. Subcontracting

The successful Contractor will subcontract and employ workers from the local communities in close proximity to Dimbaza Industrial Park to execute labour related activities such as pole and stay excavations and general labour activities with the aim to promote and instil technical skills.

5.1 A minimum of 10% of the labour rates associated with unskilled workers shall be utilised for local labour related work activities.

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C <sup>2</sup>	+ - Site	<mark>ii ii Oi ii iatioi</mark>	i, recilling	al Scriedule a	<mark>ınd Drawings</mark>

# PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

## 1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all bids:
  - the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
  - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2

- a) The value of this bid is estimated to exceed/not exceed R50 000 000 (all applicable taxes included) and therefore the \_\_\_\_\_\_ preference point system shall be applicable; or
- b) Either the 80/20 or 90/10 preference point system will be applicable to this tender (delete whichever is not applicable for this tender).
- 1.3 Points for this bid shall be awarded for:
  - (a) Price; and
  - (b) B-BBEE Status Level of Contributor.
- 1.4 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	
B-BBEE STATUS LEVEL OF CONTRIBUTOR	
Total points for Price and B-BBEE must not exceed	100

- 1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

## 2. **DEFINITIONS**

- (a) "B-BBEE" means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) "B-BBEE status level of contributor" means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) "bid" means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals:
- (d) "Broad-Based Black Economic Empowerment Act" means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) "EME" means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) "functionality" means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) "prices" includes all applicable taxes less all unconditional discounts;
- (h) "proof of B-BBEE status level of contributor" means:
  - 1) B-BBEE Status level certificate issued by an authorized body or person:
  - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
  - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) "QSE" means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) "rand value" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes:

## 3. POINTS AWARDED FOR PRICE

## 3.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis: 80/20 or 90/10

$$Ps = 80\left(1 - \frac{Pt - P\min}{P\min}\right)$$
 or  $Ps = 90\left(1 - \frac{Pt - P\min}{P\min}\right)$ 

Where

Ps = Points scored for price of bid under consideration

Pt = Price of bid under consideration
Pmin = Price of lowest acceptable bid

## 4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8
6	3	6
	2	4
8	1	2
Non-compliant contributor	0	0

5. B	ID D	ECLA	\RA]	TON
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5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6.	B-BBEE	STATUS	<b>LEVEL</b>	OF	CONTRIBUTOR	CLAIMED	IN	<b>TERMS</b>	OF
	PARAGR	<b>APHS 1.4</b> A	AND 4.1						

6.1	B-BBEE Status Level of Contributor:	 =	(maximum of 10 or 20
	points)		

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

## 7. SUB-CONTRACTING

7.1 Will any portion of the contract be sub-contracted?

(Tick applicable box)

YES	NO	

7.1.1 If yes, indicate:

i)	What subcontract	percentage ted	of	the%	contract	will	be
ii)	The contractor	name		of	the		sub-
iii)	The	B-BBEE	status	level	of	the	sub-

iv) Whether the sub-contractor is an EME or QSE

(Tick applicable box)
YES NO

v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2017:

Designated Group: An EME or QSE which is at last 51% owned	EME	QSE
by:	√	√
Black people	_	_
Black people who are youth	_	
Black people who are women		

Black people with disabilities	
Black people living in rural or underdeveloped areas or townships	_
Cooperative owned by black people	
Black people who are military veterans	
OR	
Any EME	1
Any QSE	

8.	DECLARATION WITH REGARD TO COMPANY/FIRM
8.1	Name of company/firm:
8.2	VAT registration number:
8.3	Company registration number:
8.4	TYPE OF COMPANY/ FIRM
	Partnership/Joint Venture / Consortium One person business/sole propriety Close corporation Company (Pty) Limited [Tick APPLICABLE BOX]
8.5	DESCRIBE PRINCIPAL BUSINESS ACTIVITIES
8.6	COMPANY CLASSIFICATION
	Manufacturer Supplier Professional service provider Other service providers, e.g. transporter, etc. [TICK APPLICABLE BOX]
8.7	Total number of years the company/firm has been in business:
8.8	I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:
	i) The information furnished is true and correct;

ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have
  - (a) disqualify the person from the bidding process;
  - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
  - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation:
  - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
  - (e) forward the matter for criminal prosecution.

	-	
WITNESSES		
1		GNATURE(S) OF BIDDERS(S)
2	DATE:	
	ADDRESS	

#### CONTRACT No.

#### SUMMARY

#### BUDGET AMOUNTS: BILLS OF QUANTITIES

#### DIMBAZA- ELECTRICAL INFRA-STRUCTURE REFURBISHMENT FOR THE HIGH MAST LIGHTING AND ASSOCIATED MV & LV SYSTEMS

#### CONTRACT No:

#### 8 MONTH CASHFLOW BREAKDOWN - 2021/2022

BILL NO	DESCRIPTION	AMOUNT	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total Amount
Bill No 1	Preliminary & General	R -									-
Bill No 2	High Mast Lighting	R -									-
Bill No 3	MV Equipment and Cabling	R -	-	-	-	-	-	-			-
Bill No 4	LV Equipment and Cabling	R -	-	-	-	-	-				-
Bill No 5	Overhead Lines	R -	-	-	-	-	-	-			-
Bill 6	Future clients/tenant requirements	R -	-	-	-	-	-	-			-
Sub Total			-	-	-	-	-	-			-
Add: Continge	ency Amount		-	-	-	-	-	-			-
Add: Escalation	on Amount		-		-		-	-			-
Sub Total			-	-	-	-	-	-			-
Add: 15% VA	Т		-		-	-	-	-			-
Tender Amou	nt forwarded to form of tender		-	-	-	-	-	-			-

## PRELIMINARY & GENERAL

ITEM	DESCRIPTION	UNITS	QTY	RATE	AMOUNT
	PRELIMINARY & GENERAL				
1	Contractual Items				
1.1	Guarantee of the Works	Sum	1		-
1.2	Insurances	Sum	1		-
1.3	Public Liability (R 50 Mil) for contract period	Sum	1		-
2	Fixed Cost Items				
2.1	Time and Travelling rates as per the Scope of Works and BOQ componets. Contract period of 7 months.				
2,1,1	Contracts Liaison Officer	Month	8		-
2,1,2	Transport costs.	Month	8		-
2,1,3	Staff Accommodation, Living Out Allowance	Month	8		-
2,1,4	Site Establishment: Site offices for H&S officer & Electrical contractor, Storage facilities for material and security facilities, Abultion facilities including a fence around the site office.	Month	8		-
2,1,5	Contractor to make provision for week-end and after hours work due to MV network that must Remain-"ON" during business hours.  Intermitted work during the MV overhead line refurbishment will be the norm.  Ensure that work breakdown structure and installation costs cater for this activities as per the detailed scope of works.	Sum	1		-
2,1,6	Specialist contractor to identify $MV$ underground cable routes: All related costs included, eg: travelling, time and equipment.				
2,6,1	Test-MV Cable length: 900m	Route/length	5		
2,6,2	Test- MV Cable length: 500m	Route/length	5		
2,6,3	Test - MV Cable length: 400m	Route/length	5		
2,6,4	Test - MV Cable length: 300m	Route/length	5		
2,6,5	Test - MV Cable length: 200m	Route/length	5		
2,6,6	Test - MV Cable length: 100m	Route/length	5		
2,6,7	Test - MV Cable length: 50m	Route/length	8		
1.4	Occupational Health and Safety Act and Construction Regulations				
	The amount shall represent full compensation for the contractor's obligations in terms of the Occupational Health and Safety Act. This will include the updating and administration of the Health and Safety file of each person and maintain the safety regulations for the duration of the contract period. The contractor shall not work without the H&S officers attendance. Comntractor to compensate for working after hours and on week-ends as per the emplyment contract agreement between the two parties.				
1,4,2	Full time H&S Officer for contract period	Month	8		-
1.5	Dayworks as directed by the Electrical Engineer				
	Cost of labour including working over week-ends as well as extra time, overheads, levies, leave pay and bonusses. All inclusive				
1,5,1	Electrical Foreman	Rate/ hr	400		-
1,5,2	Electrician	Rate/ hr	400		-
1,5,3	Semi-skilled labourer	Rate/ hr	650		-
1,5,4	Unskilled labourer	Rate/ hr	800		-
1,5,5	Cost of transport and plant including for overheads, levies, fuel, operations, insurances and supervision				
1,5,6	1 Ton LDV	Rate/ km	1000		-
1,5,7	5 Ton crane truck for lifting poles, transformers and minature substations	Rate/ km	1000		-
1,5,8	Rock Drilling machine for MV pole holes, 300mm dia x 2000mm deep	Rate/ hole	10		-
1.6	DRAWINGS, MANUALS, ETC.				
1,6,1	Prepare as-built drawings in arch lever files of the Electrical Installation, including three (3) sets of 1:100-scale prints to the Client. Colour prints and CD information to be provided by the contractor.	Item	3		-
	Total for Bill 1 Carried Forward to Summary				-

## HIGH MAST LIGHTING

BILL NO 2									
ITEM	DESCRIPTION	UNITS	QTY	RATE	AMOUNT				
THIS B	THIS BILL OF QUANTITIES MUST BE READ IN CONJUNCTION WITH THE ASSOCIATED PROJECT SPECIFICATIONS  DOCUMENT AND DRAWINGS								
2.0	Supply, deliver and installation of Railow Type High Mast Lights, 30m I concrete base, internal LV control panel, luminairs and maintanance equidetailed specifications and BCMM requirements.								
	Important notice for pricing, contractor shall comply with the <u>detailed be</u> failure to comply will have the tender rendered as non compliant.	ements,							
2.1	High Mast Structures with headgear including the cabling excluding luminaires								
2,1,1	Supply	each	23		-				
2.2	Template Set								
2,2,1	Supply	ea	23		-				
2,2,2	Install	ea	23		-				
2.3	Delivery and off-loading at site at various positions of the highmast								
2,3,1	installation Off-loading	ea	23		_				
۵,3,1	On Muning	Ca	23						
2.4	Assembly and erection of masts								
2,4,1	Install Complete	ea	23		-				
2.5	Hi-Up Crane truck for lifting highmast structures								
2,5,1	Supply	ea	23		-				
2.6	LV highmast control panel								
2,6,1	Supply	Sum	23		-				
2,6,2	Install	Sum	23		-				
2.7	Highmast Bases, Excavations. Contractor to provide detailed engineers specifications for the excavations and reinforcement requirements.								
2,7,1	Obtain BCMM servitude approval for highmast positioning.	each	23		-				
2,7,2	Excavations only as per the detailed sizes of the structural engineer.	each	23		-				
2.8	Concrete foundations, Testing of ground conditions, structural engineers reinforcement certification, concrete casting, concrete cube test results for 7 day and 21 day strenght test reports with bolt and cage assembly. Complete.								
2,8,1	Supply	each	23		-				
2,8,2	Install	each	23		-				
2.9	Earthing of structures								
2,9,1	Supply	each	23		-				
2,9,2	Install	each	23		-				
2.10	Luminairs as per detailed specifications								
2,10,1	Supply	each	207		-				
2,10,2	Install	each	207		-				
	Total for this page carried forward to next page				-				

HIGH MAST LIGHTING								
ITEM	DESCRIPTION	UNITS	QTY	RATE	AMOUNT			
	Amount brought forward from previous page							
2.11	Portable double drum winch for headgear							
2,11,1	Supply	Item	1					
2.12	Electrical power tool to lower headgear							
2,12,1	Supply	Item	1					
2.13	3m Test lead							
2,13,1	Supply	Item	1					
2.14	4 Pin vandal proof Key							
2,14,1	Supply	Item	2					

R

Amount carried forward to summary.

## MV EQUIPMENT AND CABLING

ITEM	DESCRIPTION	UNITS	QTY	RATE	AMOUNT
T	HIS BILL OF QUANTITIES MUST BE READ IN CONJUNCTION SPECIFICATIONS DOCUMENT AND I			ASSOCIATEI	O PROJECT
3.0	XLPE insulated, PVC bedded, steel wire armoured, PVC sheathed, stranded copper conductors 6.35/11 kV three core cables to SANS 1339: Type A, (Individually screened).				
3.1	95mm <sup>2</sup> x 3 core XLPE with SABS Mark C/W,				
3,1,1	Supply	m	300		-
3,1,2	Install	m	300		-
3.2	50mm <sup>2</sup> x BCEW				
3,2,1	Supply	m	300		-
3,2,2	Install	m	300		-
3.3	Indoor heat shrink termination boot for 11kV 95mm² individually screened XLPE cable onto the Miniature substation RMU, including bimetal torque shear lugs and consertina type bushing boots.				
3,3,1	Supply	each	30		-
3,3,2	Install	each	30		-
3.4	Heat shrink joint kit for 11kV 95mm <sup>2</sup> individually screened XLPE cable, complete with bi-metal torque shear ferrules.				
3,4,1	Supply	each	22		-
3,4,2	Install	each	22		-
	MINIATURE SUBSTATIONS				
3.5	11kV/400V 500 kVA miniature substation complete with 3 way ring main unit and street light control panel, in accordance with the BCMM Specification. Complete with pre-cast concrete plinth				
3,5,1	Supply	each	4		-
3,5,2	Install	each	4		-
3.6	11kV/400V 500 kVA miniature substation complete with 4 way ring main unit and street light control panel, in accordance with the BCMM Specification. Complete with pre-cast concrete plinth				
3,6,1	Supply	each	3		-
3,6,2	Install	each	3		-
	Total for this page carried forward to next page				-

## MV EQUIPMENT AND CABLING

## BILL NO 3 Cont

## ELECTRICAL

ITEM	DESCRIPTION	UNITS	QTY	RATE	AMOUNT
	Amount brought forward from previous page				
	EARTHING OF MINIATURE SUBSTATIONS				
3.7	Supply and install an 16mm² equipotential earth ring and a complete "crows foot trench earth" with 1.2m earth electrodes. (70mm² BCEW conductor connected between all earth electrodes). Bonded to all metal frames and the armouring of all the cabling. Earthing to be welded at each joint. Including earth resistance test measurements and provide certificate of compliance for the complete earthing installation. (refer to item 7.1.6 of specifications and design requirements)				
3,7,1	Supply per MV & LV crowfoot	Item	7		
3,7,2	Install complete per MV & LV crowfoot	Item	7		
3,7,3	Trench excavations: 1000 x 500mm	1/m	750		
3,7,4	Material Refill, Compaction and Reconciliation	1/m	750		
	EXCAVATIONS & TRENCHING				
3.8	Trenching for Cable installation network including all cable marker tape and cable protecting concrete slabs. (in accordance with section 7.2 of the general specifications).				
3,8,1	Supply concrete protection slab above the MV cable with 300mm danger tape	m	650		
3,8,2	Trench excavations: 1000 x 500mm	1/m	650		
3,8,3	Material Refill, Compaction and Reconciliation	1/m	650		
3.9	Road crossings under tarmac finish, 2 x 110mm kabelflex sleeves complete with kabelflex joints and galvanised steel draw wires, sleeves to extend 1000mm beyond curb.				
3,9,1	Supply	Item	20		
3,9,2	Install	Item	20		
3.10	Excavations for Miniature substation plinths (in accordance with section 7.2 of the general specifications). Including the removal of excess material.				
3,10,1	Install pre-cast concrete plinth for M/S	ea	7		
3,10,2	Pickable soil- Excavations & compaction	m³	4.5		
3,10,3	M/S vermin proofing application, 4mm thick inside the M/S	Unit	7		
3.11	Excavations for MV joint holes (in accordance with section 7.2 of the general specifications). Including the making good after completion of joints				
3,11,1	Labour	m³	60		
3,11,2	Pickable soil, Excavations & Compaction	m³	4.5		
	Total for this page carried forward to next page				

## MV EQUIPMENT AND CABLING

## BILL NO 3 Cont

## ELECTRICAL

ITEM	DESCRIPTION	UNITS	QTY	RATE	AMOUNT
	Amount brought forward from previous page				-
3.12	Cable Markers. Pre-cast complete with galvanised wire fastened to cable or sleeve and aluminum marker plate, engraved with cable and or sleeve details.				
3,12,1	Supply	Item	100		-
3,12,2	Install	Item	100		-
	TESTING AND COMMISSIONING				
3.13	Miniature substation commissioning tests, MV cable phasing, cable pressure tests, insulation resistance tests, and earth resistance test, etc, required for commissioning and handing over, issue the test certification per MV cable and switchgear tests.				
3,13,1	Miniature substation commissioning tests.	Item	8		-
3,13,2	Cable commissioning tests	Item	12		-
3.14	Dismantle and remove redundant various MV Minature S/S, outdoor switchgear and old transformers as illustrated per the attached list of photos  Disconnect and remove from position and cart away as scrap.				
3,14,1	Redundant minature sub-stations	Item	14		-
3,14,2	Redundant outdoor switchgear	Item	15		-
3,14,3	Redundant transformers- 100-500kVA outdoor floor mounted	Item	9		-
3.16	MV Outdoor Equipment, Install support galvanised steel poles with a wire mesh and a single gate with a locking mechanism for padlocks. Including all regulation danger sinage mounted against the fence.				
	Area: 4m x 5m x 2,5 high fence with a 250 width x 300 deep concrete base for the fencing				
3,16,1	Supply	Units	15		-
3,16,2	Install	Units	15		-
	Total Carried Forward to Summary	-			

## LV EQUIPMENT AND CABLING

ITEM	DESCRIPTION	UNITS	QTY	RATE	AMOUNT
TH	IIS BILL OF QUANTITIES SHALL BE READ IN CONJUNCTIO SPECIFICATIONS DOCUMENT AND			ASSOCIATE	D PROJECT
4.0	LV Cables for High Masts 600/1000 V-SWA-PVC Cables including all facopper conductors. Cable Glands Including Shroud, Earthing Tag, Bras shrinks per phase terminals and cable identification name tag.	stening n	naterials		
4.1	35mm² x 4 Core Cable - Armoured				
4,1,1	Supply	m	5600		
4,1,1	Install	m	5600		_
7,1,2	listaii	111	3000		
4.2	25mm² x Bare Copper Wire				
4,2,1	Supply	m	5600		<u> </u>
4,2,2	Install	m	5600		-
4.3	Circuit breakers to be installed in distribution kiosks				
	50A Feeder Circuit Breaker - Unit				
4,3,1	50A Dual Mount Circuit Breaker QF-3Pole 6kA - QF-3(26)				
4,3,2	Supply	Item	23		-
4,3,3	Install	Item	23		-
4.4	100A Feeder Circuit Breaker - Unit				
4,4,1	100A Dual Mount Circuit Breaker QF-3Pole 6kA - QF-3(26)				
4,4,2	Supply	Item	2		-
4,4,3	Install	Item	2		-
4.5	125A Dual Mount Circuit Breaker QF-3Pole 6kA - QF-3(26)				
4,5,1	Supply	Item	1		-
4,5,2	Install	Item	1		-
4.6	150A 18kA 3 pole front terminal - moulded case circuit breaker				
4,6,1	Supply	Item	2		-
4,6,2	Install	Item	2		1
4.7	150A Dual Mount Isolator QF-3Pole 6kA - QF-3(26)				
4,7,1	Supply	Item	5		-
4,7,2	Install	Item	5		-
	DISTRIBUTION KIOSKS				
4.8	Double door Kiosk's as specified including all fixing materials and switchgear, as per the drawings and the Detailed Project and Standard Specifications (All to SANS 1765), refer to section 7.3.1 of the specifications.				
4,8,1	Supply	Item	5		-
4,8,2	Install	Item	5		-
	TRENCHING				
4.9	Trenching for Cable installation including all cable marking tape.				
4,9,1	Soft- Medium Soil, Excavation 800 x 450mm deep	m	2500		-
4,9,2	Hard Rock, Excavations 800 x 450mm deep	m	250		
4,9,3	Refill, compaction and re-instatement	m	2500		-
.,,,,	•	-11	2500		
	Total Carried Forward to Summary				-

## OVERHEAD LINES

ITEM	DESCRIPTION	UNITS	QTY	RATE	AMOUNT			
THIS I	BILL OF QUANTITIES MUST BE READ IN CONJUNCTION SPECIFICATIONS DOCUMENT AND I			ASSOCIAT	TED PROJECT			
5	Refurbishment and upgrade of specific existing MV overhead line network, including, pole replacement, installing new Hare ASCR and re-tensioning conductor, replacement of insulators, replacement of aluminium conductor, installation new cut out links and installation of new network open points. All materials to be as per the attached material qui the contractor has to verify the components and price accordingly. all as per detailed drawings. Poles as per Eskom specification.							
5.1	12m x 180 dia wooden poles							
5,1,1	Supply	each	27		-			
5,1,2	Remove old and Install new	each	27		-			
5.2	11m x 180 dia wooden poles							
5,2,1	Supply	each	160		-			
5,2,2	Remove old and Install new	each	160		-			
5.3	1,5m x 120dia wooden cross arm as per the material list.							
5,3,1	Supply complete unit per structure	each	160		-			
5,3,2	Install complete unit per structure	each	160		-			
5.4	22kV Intermediate Structure Flat 3 phase, O deviation. Complete as per the material list.							
5,4,1	Supply complete unit per pole	each	95		-			
5,4,2	Remove old and Install new	each	95		-			
5.5	22kV Strain 0-60deg Structure Flat 3 phase, Complete as per the material list.							
5,5,1	Supply complete unit per structure	each	22		-			
5,5,2	Remove old and Install new	each	22		-			
5.5	22kV Strain 60-90deg Structure Flat MV 3 phase, Complete as per the material list.							
5,5,1	Supply complete unit per pole	each	18	<u> </u>	-			
5,5,2	Remove old and Install new	each	18		-			
5.6	22kV Strain/ Terminal Structure Flat 3 phase, Complete as per the material list.							
5,6,1	Supply complete unit per structure	each	22		-			
5,6,2	Remove old and Install new	each	22		-			

5.7	22kV Set of 3 Cut-Out Fuses Structure Flat 3 phase, Complete as per the material list.			
5,7,1	Supply complete unit per structure	each	22	-
5,7,2	Remove old and Install new	each	22	-
5.7	25-100kVA Single Transformer Pole Structure Flat MV 3 phase, Complete as per the material list.			
5,7,1	Remove existing transformer from old pole and re-install onto new pole, excavations measured elsewhere.			
5,7,2	Supply materials complete unit per pole	each	10	-
5,7,3	Remove old and Install new	each	10	-
5.8	MV pole make off components for a typical structure as per material list.			
5,8,1	Supply	each	120	-
5,8,2	Remove old and Install new	each	120	-
5.9	MV stays, complete. Excavations measured elsewhere			
5,9,1	Supply	each	22	-
5,9,2	Remove old and Install new	each	22	-
5.10	MV Strut , complete. Excavations measured elsewhere			
5,10,1	Supply	each	5	-
5,10,2	Remove old and Install new	each	5	-
5.11	MV flying stay, complete. Excavations measured elsewhere			
5,11,1	Supply	each	7	-
5,11,2	Remove old and Install new	each	7	-
5.12	Holes for poles, stays and strut excavations at 1800mm to 2000mm			
5,12,1	Excavate, Medium to Hard soil conditions, Pickable	each	150	-
5,12,2	Excavate hard rock, compressor or phneumatic drill/ plant and	each	35	-
5,12,3	Refill, compact and re-instatement	each	185	-

5.13	Hare aluminium ACSR conductor			
5,13,1	Supply as per material list.	m	12000	-
5,13,2	Stringing per phase/meter,	m	12000	-
5,13,3	Tensioning, binding-in and terminations per phase (3 x pole)	each	185	-
5,13,4	Re-install earth conductor on new poles	each	185	-
5.14	Remove existing 12 & 11m MV poles complete with all related pole dressing equipment.			
5,14,1	Supply	m	90	-
5,14,2	Install	m	90	-
5.15	Remove existing 11m MV stays complete with all related equipment.			
5,15,1	Supply	m	45	-
5,15,2	Install	m	45	-
5.16	Remove MV conductor from existing structures, and re-install onto new pole structures. Attach new clamps and ferrol including new postop straps on 4kn post top insulators.			
5,16,1	Disconnect, remove and re-coil old reduntant conductors.	m	7000	-
5,16,2	Transport cost from Dimbaza to BCMM stores in East London	unit	1	-
5.17 5,17,1	Dismantle and remove old and damaged 11m & 12m wooden poles from planted position, as scrap  Disconnect and remove from position and cart away as scrap.	Sum	1	_
	Approximate 140 poles		1	_
5,17,2	Add percetage mark-up for item 5,17,1	%		
3.18	Hare Aluminium conductor auto joint			
3,18,1	Supply	m	26	-
3,18,2	Install	m	26	-
3.19	LV make-offs on existing MV poles to be transferrred onto the new MV pole including all related LV matreials. Complete as per the detail unit drawings			
	Supply & install			
3,19,1	Intermediate	ea	15	 -
3,19,2	0-30°	ea	8	-
3,19,3	60-90°	ea	7	-
3,19,4	Terminal	ea	15	 -
3.20	Disconnect and remove and discard existing pole mounted streetlight luminaires complete.			
3,20,1	Remove	ea	55	-
				1

## ADDITIONAL MV INSTALLTION FOR TENANT REQUIREMENTS

ITEM	DESCRIPTION	UNITS	QTY	RATE	AMOUNT
Т	THIS BILL OF QUANTITIES MUST BE READ IN CONJUNCTION SPECIFICATIONS DOCUMENT AND I			SSOCIATED	PROJECT
3.0	XLPE insulated, PVC bedded, steel wire armoured, PVC sheathed, stranded copper conductors 6.35/ 11 kV three core cables to SANS 1339: Type A, (Individually screened).				
3.1	95mm <sup>2</sup> x 3 core XLPE with SABS Mark C/W,				
3,1,1	Supply	m	275		-
3,1,2	Install	m	275		-
3.2	50mm <sup>2</sup> x BCEW				
3,2,1	Supply	m	275		-
3,2,2	Install	m	275		-
3.3	Indoor heat shrink termination boot for 11kV 95mm² individually screened XLPE cable onto the Miniature substation RMU, including bimetal torque shear lugs and consertina type bushing boots.				
3,3,1	Supply	each	12		-
3,3,2	Install	each	12		-
3.4	Heat shrink joint kit for 11kV 95mm <sup>2</sup> individually screened XLPE cable, complete with bi-metal torque shear ferrules.				
3,4,1	Supply	each	2		-
3,4,2	Install	each	2		-
	MINIATURE SUBSTATIONS				
3.5	11kV/400V 500 kVA miniature substation complete with 3 way ring main unit and street light control panel, in accordance with the BCMM Specification. Complete with pre-cast concrete plinth				
3,5,1	Supply	each	6		-
3,5,2	3.0 stranded copper conductors 6.35/ 11 kV three core cables to SANS 1339: Type A, (Individually screened).  3.1 95mm² x 3 core XLPE with SABS Mark C/W,  3.1.1 Supply m 275  3.1.2 Install m 275  3.2 50mm² x BCEW  3.2.1 Supply m 275  3.2.2 Install m 275  3.3.2 Indoor heat shrink termination boot for 11kV 95mm² individually screened XLPE cable onto the Miniature substation RMU, including bimetal torque shear lugs and consertina type bushing boots.  3.3.1 Supply cach 12  3.3.2 Install each 12  3.3.3 Install each 12  3.4 Heat shrink joint kit for 11kV 95mm² individually screened XLPE cable, complete with bi-metal torque shear ferrules.  3.4.1 Supply each 2  MINIATURE SUBSTATIONS  11kV/400V 500 kVA miniature substation complete with 3 way ring main unit and street light control panel, in accordance with the BCMM Specification. Complete with pre-cast concrete plinth  3.5.1 Supply each 6	-			
	Total for this page carried forward to next page				-

## MV EQUIPMENT AND CABLING

## **BILL NO 3 Cont**

## ELECTRICAL

	ELECTRICAL	T	1		1
ITEM	DESCRIPTION	UNITS	QTY	RATE	AMOUNT
	Amount brought forward from previous page				-
	Amount brought forward from previous page  EARTHING OF MINIATURE SUBSTATIONS  Supply and install an 16mm² equipotential earth ring and a complete "crows foot trench earth" with 1.2m earth electrodes, 10mm² BCEW conductor connected between all earth electrodes, Bonded to all metal frames and the armouring of all the cabling. Earthing to be welded at each joint. Including earth resistance test measurements and provide certificate of compliance for the complete earthing installation, (refer to item 7.1.6 of specifications and design requirements)  3.7.1 Install complete per MV & LV crowfoot				
	EARTHING OF MINIATURE SUBSTATIONS				
3.7	"crows foot trench earth" with 1.2m earth electrodes. (70mm² BCEW conductor connected between all earth electrodes). Bonded to all metal frames and the armouring of all the cabling. Earthing to be welded at each joint. Including earth resistance test measurements and provide certificate of compliance for the complete earthing installation. (refer to				
3,7,1	Supply per MV & LV crowfoot	Item	6		-
3,7,2	Install complete per MV & LV crowfoot	Item	6		-
3,7,3	Trench excavations: 1000 x 500mm	l/m	438		-
3,7,4	Material Refill, Compaction and Reconciliation	l/m	438		-
3.8	and cable protecting concrete slabs. (in accordance with section 7.2 of the				
3,8,1	Supply concrete protection slab above the MV cable with 300mm danger tape	l/m	255		-
3,8,2	Trench excavations: 1000 x 500mm	l/m	255		-
3,8,3	Material Refill, Compaction and Reconciliation	l/m	255		-
3.9	with kabelflex joints and galvanised steel draw wires, sleeves to extend				
3,9,1	Supply	Item	4		-
3,9,2	Install	Item	4		-
3.10					
3,10,1	Install pre-cast concrete plinth for M/S	ea	6		-
3,10,2	Pickable soil- Excavations & compaction	m³	7.5		-
3,10,3	M/S vermin proofing application, 4mm thick inside the M/S	Unit	6		-
3.11	general specifications). Including the making good after completion of				
3,11,1	Labour	m³	20		-
3,11,2	Pickable soil, Excavations & Compaction	m³	20		-
	Total for this page carried forward to next page				_

## MV EQUIPMENT AND CABLING

## **BILL NO 3 Cont**

## **ELECTRICAL**

	ELECTRICAL	ı			ı
ITEM	DESCRIPTION	UNITS	QTY	RATE	AMOUNT
	Amount brought forward from previous page				-
	Cable Markers. Pre-cast complete with galvanised wire fastened to cable				
3.12	or sleeve and aluminum marker plate, engraved with cable and or sleeve				
	details.				
3,12,1	Supply	Item	20		-
3,12,2	Install	Item	20		=
	TESTING AND COMMISSIONING				
	Miniature substation commissioning tests, MV cable phasing, cable				
	pressure tests, insulation resistance tests, and earth resistance test, etc,				
3.13	required for commissioning and handing over, issue the test certification				
	per MV cable and switchgear tests.				
3,13,1	Miniature substation commissioning tests.	Item	6		_
3,13,2	Cable commissioning tests	Item	6		_
3,13,2	Cable Commissioning tests	Item	0		-
	Total Carried Forward to Summary				-
		1			

Related Structures	Material per structure	EA
POLES		
All poles as per Eskom Southern Region specifications	Pole 11m 160-179 wooden	
POLE 11M 180 DIA WOODEN	nail-clout 40mm galv	15
	pole-wood 11.0x180 top dia	1
	plate-blank alu pole mk 25x150	1
	Pole 12m 180-199 wooden	
POLE 12M 180 DIA WOODEN	nail-clout 40mm galv	0.01
	pole-wood 12.0x 180 top dia	1
	plate-blank alu pole mk 25x150	1
POLE 12M 200 DIA WOODEN Transformer	nail-clout 40mm galv	0.01
	pole-wood 12.0x 200 top dia	1
	plate-blank alu pole mk 25x150	1
	Pole 12m 200 wooden	EA

MV STRUCTURES 3 PHASE WITH HARE ASCR CONDUCTOR		
Intermediate Flat - Delta 2.5m Wooden Cross Arm	11kv Inland Hare ASCR	
	buckle-strap 12mm	2
	insul-line post 22kv 4kn 20mm/kv	3
	rod-threaded galv m20x450 wash+nuts	1
	staple-galv wire 40mm lg x 4mm	0.26
	strapping-s/st 12.00x0.75	0.03
	tie-top grve b/hare	1
	wire strand-st 3x3.35 1100mpa100m	2.5
	xarm-wood 2-5x14o-159 crs 55mpa	1
	strap-tie st galv 910x50x6	2
	rod-threaded galv m20x350 wash+nutsd	3
	insul-1/rod 22kv 40kn 450c/l 20c	2
	rod-threaded galv m20x250 wash+nutsd	2
	bracket-pole top 402x60x110 arm	1
	set screw-hx galv m20x65 nut+wash	1
	armor rod-helically form acac/hare	2
	clamp-susp cradle con 8-0-18-0	2
	shackle-d h/back pin 70kn	2
	bolt-eye galv m20x250mm	2
	clip-bonding st galv 22d hole	5
Ferminal Ass Delta Flat	bolt-eye galv m20x250mm	4
2.5m Cross - Arm	clamp-thimble clev a-alloy 40kn	6
	coach screw-galv 75x12 hex hd	0
	dead end, helically formed hare/acac	6
	insul-l/rod 22kv 40kn 450c/l 20c	6
	link-crossarm twisted galv	12
	rod-threaded galv m20x350 wash+nuts	6
	pin-insul m20x250 shank	0
	shackle-d h/back pin 70kn	6
	strap-tie st galv 910x50x6	0
	xarm-wood 2-5x14o-159 crs 55mpa	1 1
	strap-tie st galv 910x50x6	4
	rod-threaded galv m20x350 wash+nuts	6
	nut-eye 70kn m20x2-5-6h bolt	3
	clip-bonding st galv 22d hole	15 5
	wire strand-st 3x3.35 1100mpa100m	3
T-off Ass Delta Flat	rod-threaded galv m20x350 wash+nuts	3
EXL. T-OFF EQUIPMENT	strap-tie st galv 9101x50x6	0
	dead end-helically formed hare	3
<u> </u>	clamp-thimble clev a-alloy 40kn	3
	shackle-d h/back pin 70kn	3
	bolt-eye galv m20x250mm	2
	insul-l/rod 22kv 40kn 450c/l 20c	3
	xarm-wood 2-5x14o-159 crs 55mpa	1
	strap-tie st galv 910x50x6	2
	rod-threaded galv m20x350 wash+nuts	12
	clip-bonding st galv 22d hole	5
	wire strand-st 3x3.35 1100mpa100m	10
Strain 0-60deg	bolt-eye galv m20x250mm	3
	clamp-thimble clev a-alloy 40kn	6

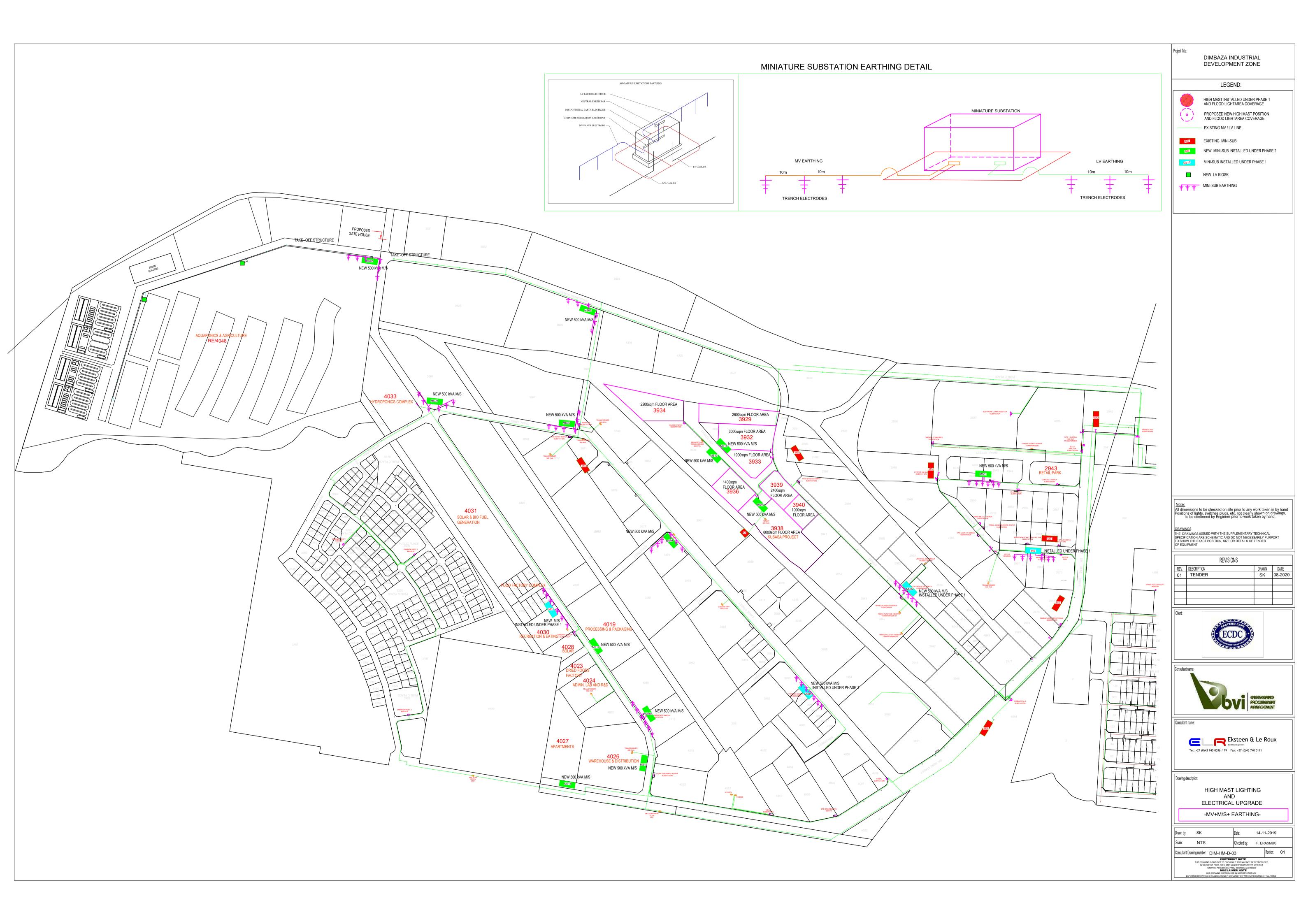
	alin handing at calv 22d hala	T 5
	clip-bonding st galv 22d hole dead end, helically formed hare/acac	5
	insul-l/rod 22kv 40kn 450c/l 20c	6
	joint-non-ten al hare c/crimp	3
	nut-eye 70kn m20x2-5-6h bolt	3
		6
	pin-insul m20x2-5-6g 250 shank	
	shackle-d h/back pin 70kn	6
	staple-galv wire 40mm lg x 4mm	0.02
	tie-side grve b/hare inland	6
	wire strand-st 3x3.35 1100mpa	12
	strap-tie st galv 910x50x6	2
	rod-threaded galv m20x350 wash+nuts	3
	rod-threaded galv m20x450 wash+nuts	6
	bolt-eye galv m20x250mm	6
	bracket-pole top 402x60x110	1
	pin-insul m20x250 shank	1
	insul-line post 22kv 4kn 20mm/kv	2
	tie-top grve b/hare inland	6
Studio 60 00do WI C/ADM	vvius stuoped at 2-2 25 1100	10
Strain 60-90deg W C/ARM	wire strand-st 3x3.35 1100mpa	12
	staple-galv wire 40mm lg x 4mm	0.02
<u></u>	clip-bonding st galv 22d hole	12
	shackle-d h/back pin 70kn	6
	bolt-eye galv m20x250mm	4
	insul-l/rod 22kv 40kn 450c/l 20c	6
	clamp-thimble clev a-alloy 40kn	6
	dead end, helically formed hare/acac	6
	joint-non-ten al hare c/crimp	3
	xarm-wood 2-5x14o-159 crs 55mpa	2
	strap-tie st galv 910x50x6	4
	rod-threaded galv m20x350 wash+nuts	6
	rod-threaded galv m20x450 wash+nuts	2
	nut-eye 70kn m20x2-5-6h bolt	2
	bracket-pole top 402x60x110	1
	set screw-hx galv m20x65 nut+wash	0
	pin-insul m20x250 shank	1
	insul-line post 22kv 4kn 20mm/kv	2
	tie-top grve b/hare inland	1
	rod-threaded galv m20x250 wash+nuts	0
	11kv inland -hare	
T - OFF Int Delta	rod-threaded galv m20x350 wash+nuts	2
1 OII III DOIG	xarm-wood 2-5x14o-159 crs 55mpa	1
	strap-tie st galv 910x50x6	$\frac{1}{2}$
	clamp-thimble clev a-alloy 40kn	$\frac{2}{2}$
	dead end, helically formed hare/acac	$\frac{2}{2}$
	set screw-hx galv m20x65 nut+wash	4
	insul-l/rod 22kv 40kn 450c/l 20c	2
		2
	link-crossarm twisted galv	2
		2 2
	link-crossarm twisted galv	
MV STAYS	link-crossarm twisted galv	
MV STAYS	link-crossarm twisted galv	
MV STAYS  Conventional Stay	link-crossarm twisted galv tap conn-t off 6.3- 9.0 i/c	
	link-crossarm twisted galv tap conn-t off 6.3- 9.0 i/c  stay mv conventional f/glass	2

	plate-stay for 2000xm20 stay rod	1
	pole top-make off 7/4.0 2290lg	1
	stayrod 2000xm20 non-adjust	1
		1 1
	thimble-st to fit 14mm dia.wire	12
	wire strand-st 7x4.00 1100mpa100m	13
	mv flying stay 9m f/glass	
Flying Stay	bolt-eye galv m20x250mm	6
11/111g 2 (W)	coach screw-galy 75x12 hex hd	1
	guygrip-d/end st cond 7/4.0	10
	insul.strain-stay 97kn bil150/60	2
	plate-stay for 2000xm20 stay rod	1
	pole top-make off 7/4.0 2290lg	1
	pole-wood 9.0x160-179 top dia	1
	stayrod 2000xm20 non-adjust	1
	thimble-st to fit 14mm dia.wire	3
	wire strand-st 7x4.00 1100mpa100m	20
	wife straine st. 7x 1.00 1100mpa100m	20
	mv strut pole 12m swivel-	
Strut (12m)	anchor assy-st soil 380x220x70	1
	bracket-strut swivel wood pole	1
	nail-clout 40mm galv	0.01
	plate-stay for 2000xm20 stay rod	1
	pole-wood 9.0x160-179 top dia	0
	sign-danger 150x150x0.5 elec safety	1
	staple-galv wire 40mm lg x 4mm w	0.14
	rod-threaded galv m20x350 wash+nuts	4
	wire-barbed galv 12swg 12.5kg	4
G. (11)	lv strut pole 11m -	1
Strut (11m)	plate-stay for 2000xm20 stay rod	1
	staple-galv wire 40mm lg x 4mm w	0.14
	nail-clout 40mm galv	0.01
	anchor assy-st soil 380x220x70	2
	pole-wood 9.0x160-179 top dia	1

	wire-barbed galv 12swg 12.5kg	12
	bracket-strut 10x60x720	1
	bracket-strut 10x60x720 sign-danger 150x150x0.5 elec safety rod-threaded galv m20x250 wash+nuts  mv flying stay 9m -  Fly Stay (9m) wire strand-st 3x3.35 1100mpa100m stayrod 1500xm12 non-adjust stay bracket light duty 45 deg thimble-st to fit 14mm dia.wire plate-stay oct.300x300x6 w/slot bolt-eye galv m20x250mm pole-wood 9.0x160-179 top dia insul-strain-stay lv porcelain guygrip-d/end st cond 3/3.35  ILIARIES  11kv 3ph hare  22kv i/l hare 3ph off/l fused 2.5m wire strand-st 3x3.35 1100mpa100m rod-threaded galv m20x350 wash+nuts rod-threaded galv m20x350 wash+nuts staple-galv wire 40mm lg x 4mm w clip-bonding st galv 22d hole xarm-wood 2-5x14o-159 crs 55mpa strap-tie st galv 910x50x6 cond-acsr hare 8.37 d ungrs tap conn-t off 6.3-9.0 i/c tie-top grve b/hare fuseholder 22kv 100a fuse-cut/out insul-line post 11kv 4kn 20mm/kv bracket-l fuse-cut/out 22kv wdxarm fuse-cut/out base 22kv inland  DUCTORS PHASE Hare cond-acsr hare e Length ) Times 3,15 for the three phases	1
	rod-threaded galv m20x250 wash+nuts	4
	on a constant of	
MATTER CL. (O.)	my flying stay 9m -	20
MV Fly Stay (9m)		20
		<u>l</u>
		1
		4
		1 1
		2
		<u>l</u>
		1 1
	guygrip-d/end st cond 3/3.35	6
AUXILIARIES		
NONLIMILIS	11kv 3ph hare	
DROPOUT FUSES (FUSED) 3PH,	wire strand-st 3x3.35 1100mpa100m	20
Carriges and fuseholedrs with 15A fuses	rod-threaded galv m20x350 wash+nuts	3
	rod-threaded galv m20x450 wash+nuts	6
	staple-galv wire 40mm lg x 4mm w	0.03
	clip-bonding st galv 22d hole	5
		2
	strap-tie st galv 910x50x6	2
	cond-acsr hare 8.37 d ungrs	6
	tap conn-t off 6.3-9.0 i/c	3
	tie-top grve b/hare	3
	fuseholder 22kv 100a fuse-cut/out	3
	:1 1: + 1 11 41 20 /l	3
	insui-line post 11kv 4kn 20mm/kv	
		3
	bracket-l fuse-cut/out 22kv wdxarm	3 3
CONDUCTORS	bracket-l fuse-cut/out 22kv wdxarm	
CONDUCTORS MV 3 PHASE Hare	bracket-l fuse-cut/out 22kv wdxarm fuse-cut/out base 22kv inland	3
MV 3 PHASE Hare	bracket-l fuse-cut/out 22kv wdxarm fuse-cut/out base 22kv inland cond-acsr hare	
	bracket-l fuse-cut/out 22kv wdxarm fuse-cut/out base 22kv inland cond-acsr hare	3
MV 3 PHASE Hare	bracket-l fuse-cut/out 22kv wdxarm fuse-cut/out base 22kv inland  cond-acsr hare Times 3,15 for the three phases	3
MV 3 PHASE Hare (Route Length )	bracket-l fuse-cut/out 22kv wdxarm fuse-cut/out base 22kv inland  cond-acsr hare Times 3,15 for the three phases joint-m/span hare	3.15











position MV

omitted omitted

ERF

2947

3967

4304

4016

3968

perimeter 3way

2986 existing

VOLT

3.66

4.69

7.10

6.18

3.66

2.75

4.58

8.01

4.58

0.32

7.42

2.06 3.78

10.00

16.07

2.06

6.98

13.62

20.49

4.35

0.92

7.10

8.47

4.58

2.52

1.03

1.37

3.43

DROP (V) DROP (%)

1.49%

2.41%

3.87%

4.94%

0.61%

0.25%

mm<sup>2</sup> BCEW -

160

205

310

270

160

120

200

350

200

14

324

90

165

437

702

90

305

595

895

190

40

310

370

200

110

45

60

150

YPE OF

3way

3way

4way

4way

3way

4way

DIMBAZA INDUSTRIAL DEVELOPMENT ZONE

			MV CON	NECTIONS T	O MINIATU	RE SUBST	ATIONS	
M/S	95mm² PILC m	70mm² BCEW m	TERMINATION KIT	JOINT KIT	MV TRENCH EARTH	LV TRENCH EARTH	EQUIPOTENTIAL EARTH	POSITION
1	10	10	2	1	1	1	1	REPLACE OLD MV EQUIP
2	10	10	2	1	1	1	1	REPLACE OLD MV EQUIP
3	0	0	2	0	1	1	1	REPLACE OLD MV EQUIP
4	40	40	4	0	1	1	1	REPLACE OLD MV EQUIP
5	0	5	4	2	1	1	1	REPLACE OLD MV EQUIP
6	40	40	4	0	1	1	1	NEW N/O POINT ON OHL
7	20	20	2	0	1	1	1	NEW N/O POINT ON OHL
8	10	10	2	2	1	1	1	REPLACE OLD MV EQUIP
9	50	50	4	0	1	1	1	NEW N/O POINT ON OHL
10	0	0	2	2	1	1	1	NEW M/S FOR ECO IND PARK
11	40	40	4	0	1	1	1	NEW M/S FOR ECO IND PARK
12	40	40	4	0	1	1	1	NEW M/S FOR ECO IND PARK
13	10	10	2	1	1	1	1	NEW M/S FOR LIGHT INDUSTRIES
14	20	20	2	1	1	1	1	NEW M/S FOR LIGHT INDUSTRIES
15	10	10	2	2	1	1	1	NEW M/S FOR LIGHT INDUSTRIES
TOTAL	300	305	42	12	15	15	15	

LV-TRENCH EARTH 30m 70mm² BARE COPPER EARTH WIRE + 3x1.2m EARTH SPIKES MV-TRENCH EARTH 30m 70mm² BARE COPPER EARTH WIRE + 3x1.2m EARTH SPIKES EQUIPOTENTIAL EARTH 15.5m 16mm² BARE COPPER EARTH WIRE

M/S	REPLACING
1	OLSTAM
2	LION PADLOCK
3	THREADS
4	BEN COX SCHOOL
5	SWIMLINE
6	NEW N/O
7	NEW N/O
8	DYNASTY
9	NEW N/O

PHASE 1 OMMISIONS

## LAND USE TABLE

				PHASE	1 OF DIMBAZA ECO INDUSTRIAL PARK			
ERF ECDC	REF	LOAD	FLOOR SPACE	LOAD per FLOOR AREA	USE	ELECTRIITY SUPPLY	LV CABLE	
4019	H	75 W/m²	6 500 m²	488 Kw	PROCESSING AND PACKAGING	MINI SUB 12 INSTALLED UNDER ELECTRICAL PHASE2	50m	
4291-4303	С	75 W/m²	6 400 m²	480 Kw	FOOD FACTORY COMPLEX	MINI SUB INSTALLED UNDER ELECTRICAL PHASE 1	120m	
4030	D	75 W/m²	2 300 m <sup>2</sup>	173 Kw	RECREATION AND EATING	MINI SUB INSTALLED UNDER ELECTRICAL PHASE 1	90m	Correct
2943	L	75 W/m <sup>2</sup>	1 300 m <sup>2</sup>	98 Kw	RETAIL CENTRE	MINI SUB 1 INSTALLED UNDER ELECTRICAL PHASE 2	180m	cable size
4023	F	75 W/m²	1 000 m <sup>2</sup>	75 Kw	DRIED FOOD FACTORY	MINI SUB 8 INSTALLED UNDER ELECTRICAL PHASE 2	245m	subject to
4024	G	65 W/m²	6 000 m²	390 Kw	ADMIN, LAB AND R&D	MINI SUB 8 INSTALLED UNDER ELECTRICAL PHASE 2	185m	electrical
4026	1	75 W/m²	6 200 m <sup>2</sup>	465 Kw	WAREHOUSE AND DISTRIBUTION	MINI SUB 10 INSTALLED UNDER ELECTRICAL PHASE 2	50m	load per
4027	J	20 W/m <sup>2</sup>	34 500 m <sup>2</sup>	690 Kw	RESIDENTIAL COMPLEX	MINI SUB 11 INSTALLED UNDER ELECTRICAL PHASE 2	50m	building
4048	Α	W/m²	none m²	Kw	AQUAPONICS & AGRICULTURE	MINI SUB 7 INSTALLED UNDER ELECTRICAL PHASE 2	Kiosk1or2	building
4033		W/m²	none m²	Kw	HYDROPONICS COMPLEX	MINI SUB 9 INSTALLED UNDER ELECTRICAL PHASE 2	85m	
RE 4048	В	W/m²	none m²	Kw	<b>ENERGY GENERATING COMPLEX &amp; SOLAR</b>			

					LIGHT MANUFACTURING		
RF ECDC	REF	LOAD	FLOOR SPACE	LOAD per FLOOR AREA	USE	ELECTRIITY SUPPLY	LV CABLE
3934	none	50 W/m <sup>2</sup>	2 200 m <sup>2</sup>	110 Kw	unknown	MINI SUB 13 INSTALLED UNDER ELECTRICAL PHASE 2	175m
3936	none	50 W/m <sup>2</sup>	1 400 m²	70 Kw	unknown	MINI SUB 13 INSTALLED UNDER ELECTRICAL PHASE 2	120m
3938	none	75 W/m²	6 000 m²	450 Kw	KUSASA PROJECT	MINI SUB 15 INSTALLED UNDER ELECTRICAL PHASE 2	100m
3940	none	50 W/m <sup>2</sup>	1 000 m²	50 Kw	unknown	EXISTING MINI SUB (KAYO SHOES MINI 500kVa)	85m
3939	none	50 W/m <sup>2</sup>	2 400 m <sup>2</sup>	120 Kw	unknown	EXISTING MINI SUB (KAYO SHOES MINI 500kVa)	45m
3933	none	50 W/m <sup>2</sup>	1 900 m²	95 Kw	unknown	MINI SUB 14 INSTALLED UNDER ELECTRICAL PHASE 2	75m
3932	none	50 W/m <sup>2</sup>	3 000 m <sup>2</sup>	150 Kw	unknown	MINI SUB 14 INSTALLED UNDER ELECTRICAL PHASE 2	50m
3929	none	50 W/m²	2 600 m <sup>2</sup>	130 Kw	unknown	MINI SUB 14 INSTALLED UNDER ELECTRICAL PHASE 2	135m

BASED ON BASED ON INDUSTRY EXISTING AVERAGES BUILDING PER m² FOOTPRINT

Correct cable length subject to positioning of building

Correct
cable length
subject to
positioning
of building

## Dimbaza - Buffalo City Metropolitan Municipality Substation Number 1

Current nominated maximum demand from Eskom Current capacity from Eskom Future capacity from Eskom Peak demand as recorded at April 2019

Current Load		
Month	Demand-MVA	
Aug-18	4.9	
Sep-18	no data	
Oct-18	no data	
Nov-18	no data	
Dec-18	no data	
Jan-19	no data	
Feb-19	no data	
Mar-19	no data	
Apr-19	5.5	
May-19	no data	
Jun-19	no data	
Jul-19	3.9	
Aug-19	3.8	
Sep-19	3.7	
Oct-19	3.4	
Nov-19	no data	
Dec-19	no data	
Jan-20	3.4	
Feb-20	3.7	
Mar-20	3.3	
Apr-20	3.4	

FEEDER CABLES TO HIGH MAST LIGHTS - 35mm<sup>2</sup> PVC PVC SWA & 25mm<sup>2</sup> BCEW

M/S - HM

S/S - HM

S/S - HM

M/S - HM

MS - Highmast to be read in-conjunction with the site layout drawing

HM-18 to HM-17

HM-17 to HM-21

HM-25 to HM-26

HM-26 to HM-27

HM-27 to HM-28

FEEDER CABLE mm² PVC SWA

160

205

310

270

160

120

200

350

200

14

324

90

165

437

702

90

305

595

895

190

40

310

370

200

110

45

60

150

15000 W

**HIGH MAST** 

LIGHT

HM-22

HM-24

HM-14

HM-10

HM-12

HM-19

HM-18

HM-17

HM-21

HM-25

HM-26

HM-27

HM-28

HM-20

HM-7

HM-4

MINIATURE

SUBSTATION

M/S-1

TO M/S INSTALLE

**UNDER PHASE 1** 

TO M/S INSTALLED

**UNDER PHASE 1** 

M/S-4

M/S-5

M/S-6

M/S-7

M/S-8

M/S-2

KAYO SHOES M/S HM-13

BARKOR S/S

MINERWA S/S

## 5MVA 2 X 10MVA transformers

2 X 20MVA transformers 5.5MVA

5		5.5	NAD = 500V
4			J. 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
з -		-1 11	100 -0
2 -			
1			
o 🏴	-		
AUR'18	ers of the	,9 9 a	The state of the s
	. dr. de. 1	Aril Haril Late 19	Oct. Dec. 19 FEB. TO TOLIT

All dimensions to be checked on site prior to any work taken in by hand Positions of lights, switches, plugs, etc. not clearly shown on drawings, to be confirmed by Engineer prior to work taken by hand.

DRAWINGS

THE DRAWINGS ISSUED WITH THE SUPPLEMENTARY TECHNICAL SPECIFICATION ARE SCHEMATIC AND DO NOT NECESSARILY PURPORT TO SHOW THE EXACT POSITION, SIZE OR DETAILS OF TENDER OF EQUIPMENT.

	REVISIONS		
REV.	DESCRIPTION	DRAWN	DATE
01	TENDER	SK	08-2020





ant name:

Eksteen & Le Roux

Electrical Engineers

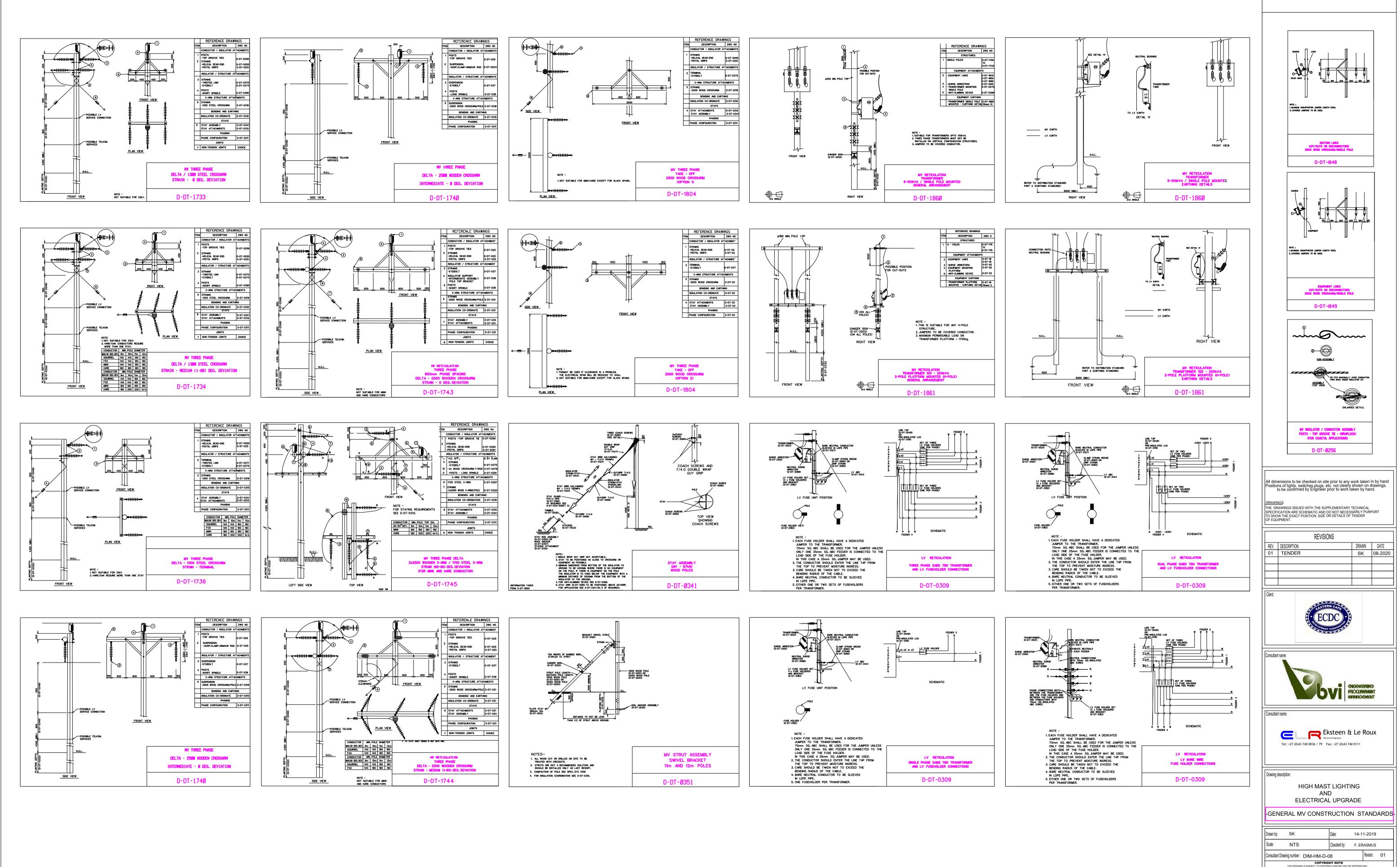
Tel: +27 (0)43 740 0036 / 79 Fax: +27 (0)43 740 0111

Drawing description:

HIGH MAST LIGHTING
AND
ELECTRICAL UPGRADE

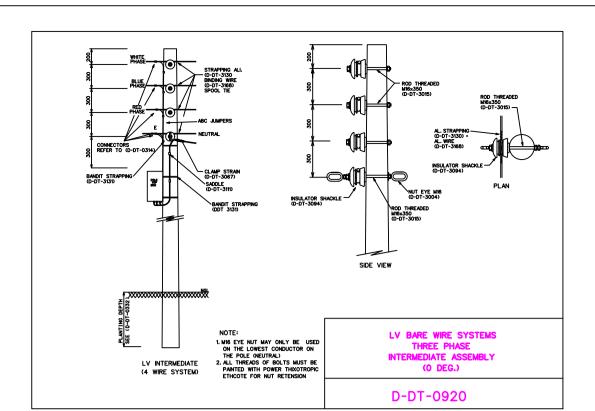
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Consultant Dra	wing number:	DIM-HM-D-0	06		Revision:	01
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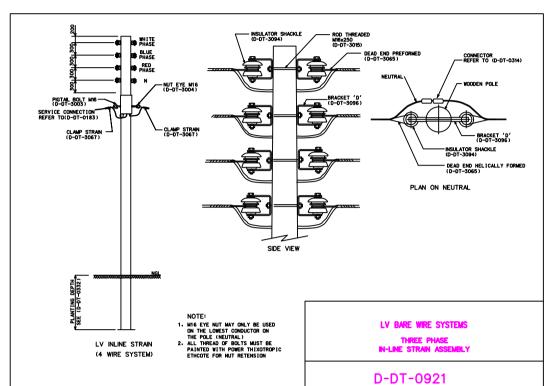
-INFORMATION TABLES-

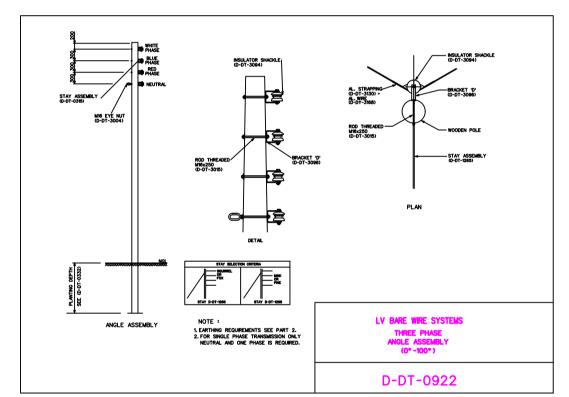


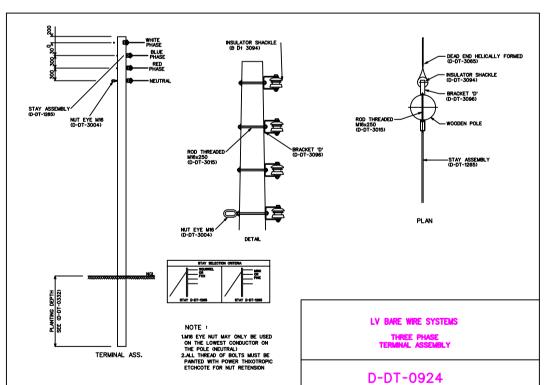
DIMBAZA INDUSTRIAL **DEVELOPMENT ZONE** 

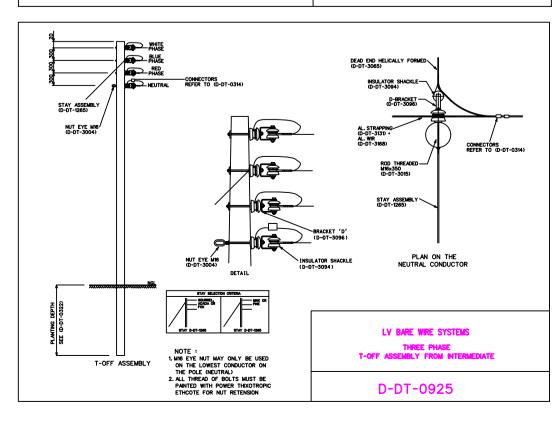
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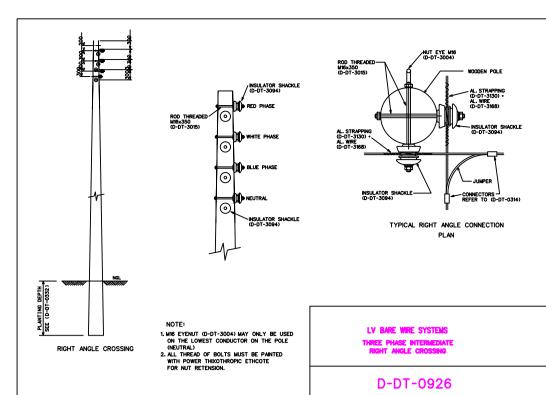


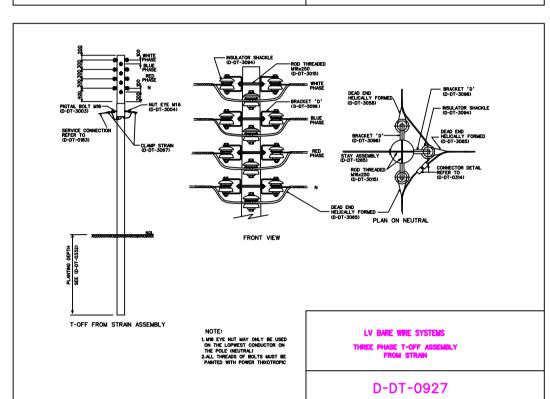


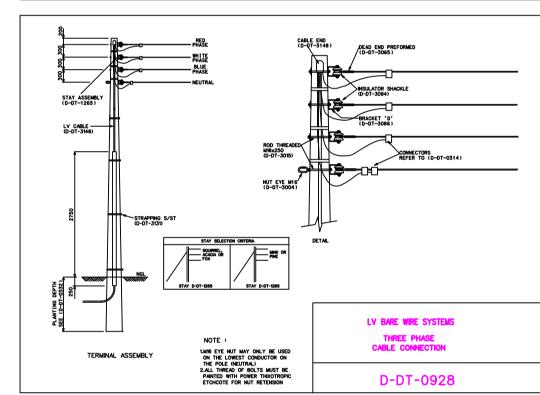


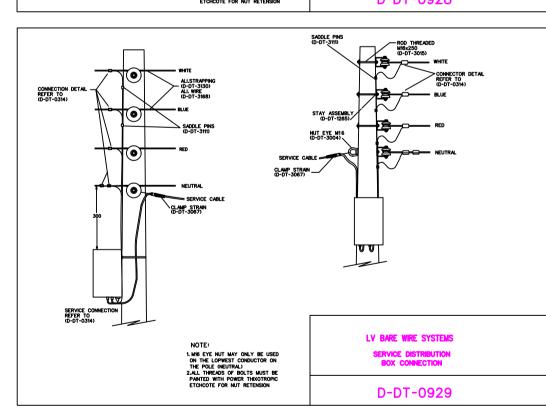


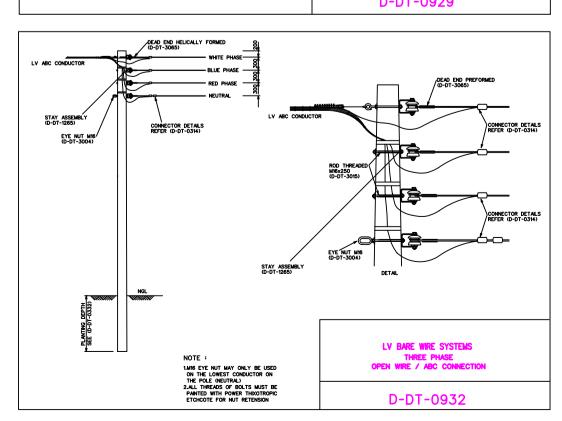


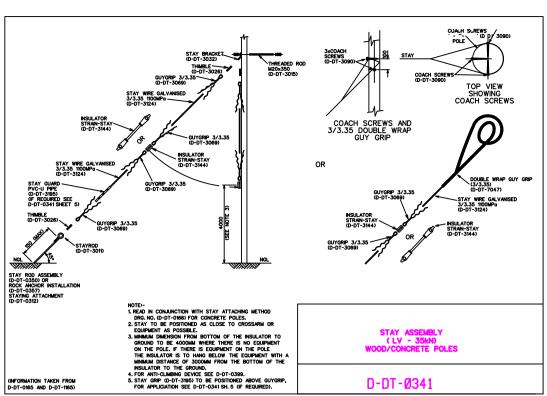


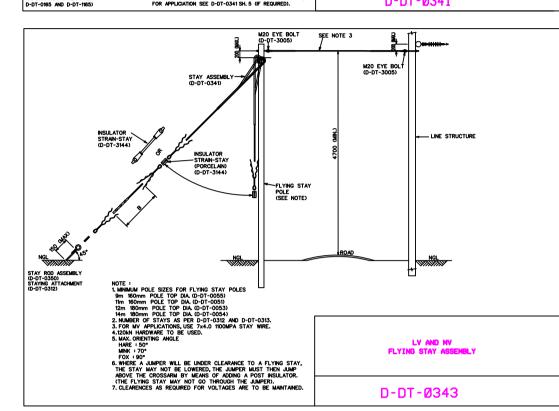


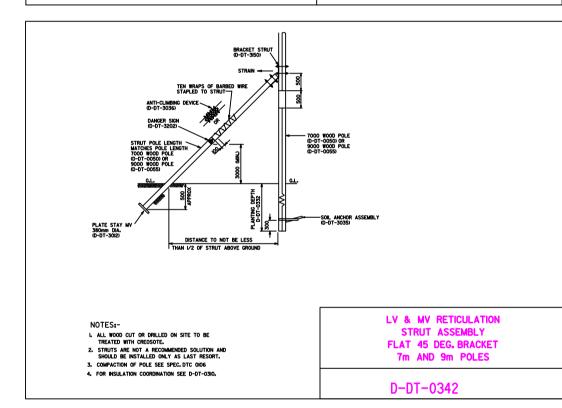


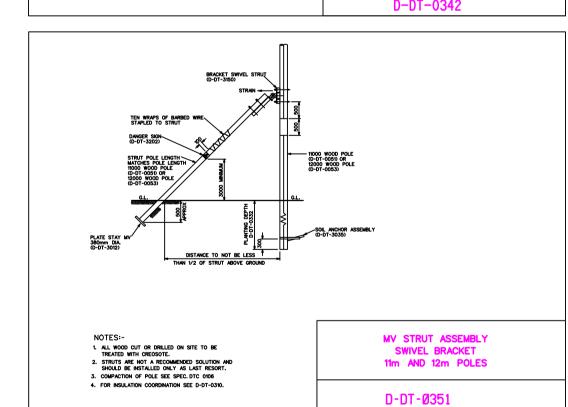


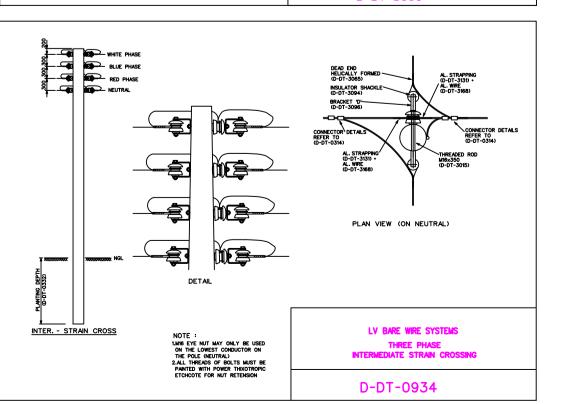


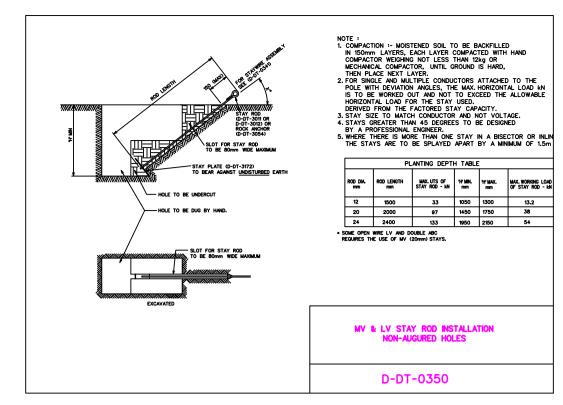


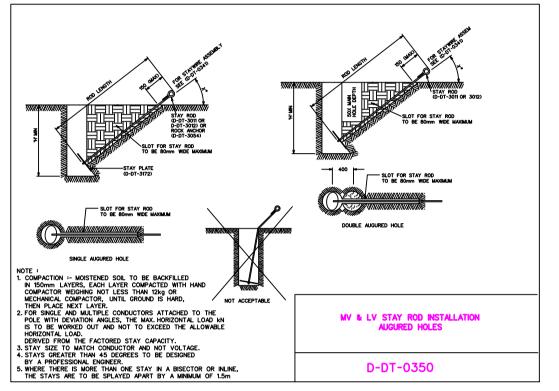


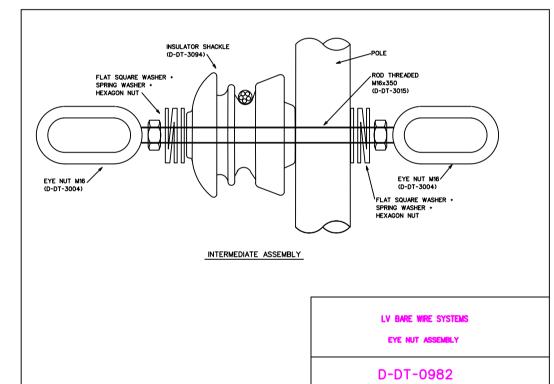


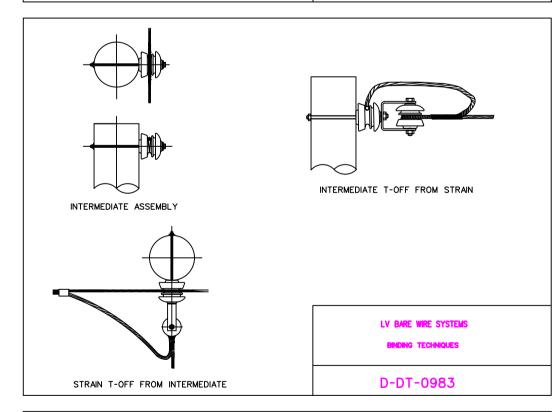


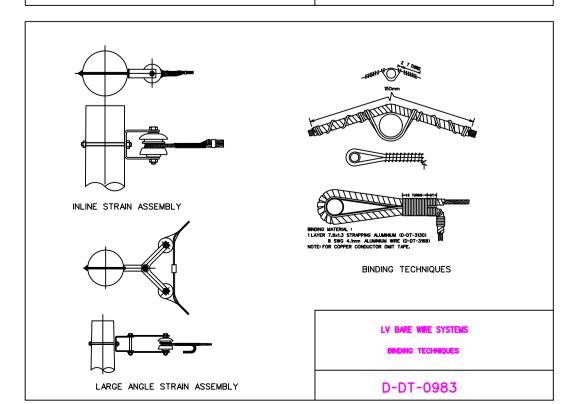


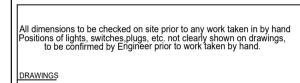












DIMBAZA INDUSTRIAL DEVELOPMENT ZONE

	SPECIF TO SHO	AWINGS ISSUED WITH THE SUPPLEMENTARY TO ALTION ARE SCHEMATIC AND DO NOT NECESS WITHE EXACT POSITION, SIZE OR DETAILS OF IPMENT.	SARILY PURF	PORT
ŀ		REVISIONS		
	REV.	DESCRIPTION	DRAWN	DATE
	01	TENDER	SK	08-2020









Drawing descripti	on:				
-	HIGH MAS AN ELECTRICA	D			
-GENEF	RAL LV CONSTE	RUCTION	I ST	ANDA	RD
Drawn by:	SK	Date:	14-1	1-2019	
Scale:	NTS	Checked by:	F. ER	RASMUS	
Consultant Drawir	ng number: DIM-HM-D-0	07		Revision:	01

COPYRIGHT NOTE

<b>ITEM</b>	DESCRIPTION	REQUIREMENTS
SECTIO	N 1: OUTDOOR SECONDARY SWITCHING STAT	IONS
1.1	GENERAL	
	Erf Size	6m x 4m
	Finished ground surface	Chipped stone
	Physical protection:	
	Fence: Side and rear	Palisade / Vibracrete
	: Front	Palisade / Vibracrete
	Security lighting	NONE
	Voltage	11 kV
1.2	SWITCHGEAR	
	Indoor / Outdoor	Outdoor
	Voltage	12 kV
	Fault level	20 kA
	Busbar rating	630 A
	Metal clad	NO
	Colour	AVOCADO
	Extensible / non-extensible	Extensible
	Material	3CR12
	Terminations	Dry
	Products in use throughout the electrical network	SCHNEIDER
	1 Todacis in use throughout the electrical network	ABB
		ACTOM
		EATON
1.3	INCOMING SUPPLY OR RING	LATON
1.5	Cable / Overhead line	Cable
	Cable or Overhead line construction	PILC-STA
	Cable of Overhead fine construction	Screened
	Applicable SANS Specifications	
	Applicable SANS Specifications	SANS 97 Table 19
	Conductors	
	Conductors	Copper
1 /	Size (mm²)	95 - 185
1.4	FEEDERS	C 11
	Cable / Overhead line	Cable
	Cable or Overhead line construction	PILCSTA
	Applicable SANS Specifications	SANS 97
		Table 19
	Conductors	Copper
	Size (mm²)	25; 95
1.5	EARTHING	
	Earth mat	NO
	Trench / electrode earth	YES: 2 x 30m
		of 70mm² bare
		copper conductor

ITEM	DESCRIPTION	REQUIREMENTS
SECTIO	N 2: POLE-MOUNTED TRANSFORMERS	
2.1	GENERAL	
	Type	SABS 780
	Colour	Avocado green
	Material	3CR12
	Preferred ratings (kVA)	100; 200; 315;
	Free breathing / sealed	Welded cover
	Vector group	Dyn 11
	Voltage ratio (on load)	11500 / 420
	Windings	Double wound
		copper
	Losses	Low loss
	Impedance	4 - 5%
	Frequency	50 z
2.2	TAPPINGS	
	Tapping range	± 2,5 % / ± 5 %
	On-load / Off-load	Off-load
2.3	LADDER RESTS	
	Required	NO
2.4	PREFERRED MANUFACTURER	POWERTECH TRANSFORMERS
		ACTOM

ITEM	DESCRIPTION	REQUIREMENTS
SECTIO	ON 3: MINIATURE SUBSTATIONS	
3.1	GENERAL	
	Ratings (kVA)	315
	Overload capacity	20%
		once in 24 hours
	Enclosure	3CR12
	Colour	Avocado Green
	Manufacturer	POWERTECH TRANSFORMERS
		ACTOM
3.2	MV COMPARTMENT	
	Switchgear	SCHNEIDER
		ABB
		ACTOM
		EATON
	Cable fault indicator (outgoing MV cables)	YES
	Cable termination	Heat Shrink
3.3	TRANSFORMER	
	Type	Low loss 4 %
	Construction	Double wound
	Winding material	Copper
	Sealed	YES
	Tapping settings	$\pm 2.5 \% / \pm 5 \%$
	Vector group	Dyn 11
	Voltage ratio	11 00 / 420
3.4	LV COMPARTMENT	
	Bulk meter	YES Landis & Gyr (ZMD310)
	Feeder protection	Circuit breakers L20B CB1
	Voltmeter	YES Landis & Gyr (ZMD310)
	Ammeter	3 instantaneous and
		maximum demand
	Protetion	HRC fuse 63 A
	Control	Photocell
	Street-light feeder protection	Circuit breakers
	kWh meter required	YES
3.5	POSITION OF MINIATURE SUBSTATION	
	In road reserve	1000 mm from erf
		boundary
	In public open space	1000 mm from erf
		boundary
3.6	LOCKS	
	Provided by	Contractor

ITEM	DESCRIPTION	REQUIREMENTS
SECTIO	N 4: LV CABLES	
4.1	GENERAL	
	Construction	PVC SWA PVC
	Conductors	Copper
	Standard sizes	35; 50; 70; 95;
		120; 150; 185;
4.2	INSTALLATION	
	Laying depths:	
	Road reserves	750 mm
	Public open space	750 mm
	• Erven	750 mm
	Physical protection:	
	Road reserves	Warning tape
	Public open space	Warning tape
	• Erven	
	• Any cable less than 300mm below ground level	Concrete cable slabs
	Position in road reserves	1000 mm from
		erf boundary or
		1000 mm from kerbs
4.3	SLEEVES	
	110 mm dia. PVC	YES
4.4	TERMINATION	
	Cable support of terminations in kiosks and min-sub	K-Clamps
	Hydraulic crimping tools for cables	
	> 70mm <sup>2</sup> Cu and 95mm <sup>2</sup> aluminium	
	young out and young areas	

ITEM	DESCRIPTION	REQUIREMENTS
SECTIO	ON 5: EARTHING	
5.1	APPLICABLE STANDARDS	SABS 0142 - 1
		NRS 016
5.2	SWITCHING STATION / SUBSTATIONS	
	Earth mat	YES
	Earth resistance	1 OHM (max.)
5.3	MV CABLES	
	Cable armour	YES
	Earth conductor	YES
5.4	MINIATURE SUBSTATIONS	
	Enclosure	YES
	MV switchgear	YES
	MV cable ends	YES
	Transformer tank	YES
	Transformer neutral	YES
	LV cable ends	YES
	Earth conductor size	60 m x 70mm <sup>2</sup>
		copper
5.5	LV DISTRIBUTION CABLES	
	Cable ends	YES
	Earth busbar	FULL
	Neutral earthed	YES
	Earth resistance	10 hm (max.)
5.6	STREET-LIGHT CABLES	
	Cable armour	YES
	Earth conductor	10mm <sup>2</sup> copper