



BID DOCUMENT FOR APPOINTMENT OF A CONTRACTOR FOR THE SUPPLY AND INSTALLATION OF SOLAR POWER SYSTEM FOR EASTERN CAPE CET COLLEGE AT CECILIA MAKIWANE CLC, BOFOLO CLC & OSBORN CLC.

BID NO : EC CETC/HO/04/07/20 CLOSING DATE: 22 AUGUST 20 CLOSING TIME: 11H00		
ENQUIRIES REGARDING THE BIDDING	S PROCEDURE MAY BE DIRECTED TO:	
Department:	Finance Department	
Contact Person:	Mr. Machaya	
Tel:	043 753 0060	
E-mail address:	mmachaya@ec.cetc.edu.za	
ENQUIRIES REGARDING TECHNICAL IN	FORMATION MAY BE DIRECTED TO:	
Department:	Finance Department	
Contact Person:	Mr. P. Tali	
Tel:	043 753 0060	
E-mail address:	ptali@ec.cetc.edu.za	
NAME OF BIDDER:		

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### **BID NOTICE**

		DID NOTICE		
BID DESCRIPTION	SITES	BID NUMBER	COMPULSORY BRIEFING SESSION	CLOSING DATE
THE APPOINTMENT OF A CONTRACTOR FOR THE SUPPLY AND INSTALLATION OF SOLAR POWER SYSTEM FOR EASTERN	Head Office	EC CETC/HO/04/07/2023	DATE: 08/08/2023 TIME: 10H00 sharp VENUE : Boarder Training Centre Hall	22 AUG 2023 CLOSING TIME: 11:00am
CAPE CET COLLEGE AT CECILIA MAKIWANE CLC, BOFOLO CLC & OSBORN CLC.			Address : 10 Mfaxa Road Nu1 Mdantsane East London 5219	
			GPS 32°52'41,68S 27°46'41,46E	
			N.B No late service providers will be allowed into the briefing venue.	

Eastern Cape CET College invites professional, competent and experienced service providers for the APPOINTMENT OF A CONTRACTOR FOR THE SUPPLY AND INSTALLATION OF SOLAR POWER SYSTEM FOR EASTERN CAPE CET COLLEGE AT CECILIA MAKIWANE CLC, BOFOLO CLC & OSBORN CLC.Bid documents will be available from the SCM unit and college website https://ec.cetc.edu.za/tenders/

Completed Bid documents are to be placed in a sealed envelope endorsed "THE APPOINTMENT OF A CONTRACTOR FOR THE SUPPLY AND INSTALLATION OF SOLAR POWER SYSTEM FOR EASTERN CAPE CET COLLEGE AT CECILIA MAKIWANE CLC, BOFOLO CLC & OSBORN CLC.(BID NUMBER)" and must be deposited in the bid box/tender box, situated at the reception area, at : EASTERN CAPE CET COLLEGE,BORDER TRAINING CENTRE (BTC);10 MFAXA ROAD NU1 MDANTSANE,EAST LONDON,5219 not later than 11h00 on Tuesday 22 August 2023, at which time the Bids will be opened in public.

The following mandatory documents must be submitted with the tender document and failure to submit will lead to the bids being declared non-responsive:

- Valid tax clearance certificate and tax compliance status documents with pin from SARS must be attached.
- A copy of business entity registration certificate e.g. CK Document
- A certified ID copy/s of company directors.
- A company profile with completed projects for similar work and contactable references.
- Municipal Statement of account not older than three (3) months or Lease agreement if renting premises stating
  that the bidder is not obliged to pay municipal rates or letter from Ward Council confirming proof of address (rural
  areas bidders only)
- Proof of registration with Central Supplier Database (CSD) must be attached.
- **Detailed Pricing schedule on a company letterhead** (If the Bid Sum (amount in words) as per the SBD.1 differs from the SBD 3.1, it will automatically invalidate the offer submitted).
- Bidders must have a CIDB contractor grading with a minimum of 4EB or higher

- Bids from contractors registered as potentially emerging enterprises but with a CIDB contractor
  grading designation lower 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, as per amended notice no. 357 of 2019, will not be
  accepted.
- Bidder must be registered with the Compensation for Occupational Injuries and Diseases Act (COIDA) upon appointment and must be produce a letter of good standing from Department of labour as proof of workmen's registration for compensation for injuries or diseases (COIDA) security services.

### Please note the following:

- Tender documents must be completed with non-erasable ink. Any tender document completed with pencil will
  not be acceptable and shall be disqualified.
- Ensure that there are no errors or omissions as this may lead to bids being declared nonresponsive.
- The submission should be entirely legible. Any changes made to the original text of bid should be crossed through and signed for.
- DO NOT USE CORRECTION FLUID as this may invalidate your submission.

### Evaluation Criteria for this procurement will be as follows:

- Stage 1 Functionality (Attached)
- Stage 2 Price and Preferential Points System.

NB: all bidders should at least obtain a minimum of 70% in stage 1 (functionality) in order to qualify for stage 2 (Price Evaluation).

Price Points	= 80
Specific goals	= <u>20</u>
TOTAL	=100

"On the 04 November, the minister of Finance gazetted new Preferential Procurement Regulations (2022 Regulations) under the Preferential Procurement Policy Framework act, 2000 (PPPFA), this was aimed at aligning the regulations to the February 2022 Constitutional Court judgement. That judgement ruled that the Minister exceeded his powers in prescribing the 2017 Regulations. The Public Procurement Bill is being finalized, which will empower the Minister of Finance to set preferential procurement, the 2022 Regulations repeal the 2017 Regulations and take effect on the 16 January 2023"

### SPECIFIC GOAL POINTS BREAKDOWN

SPECIFIC GOALS	PREFERENCE POINTS ALLOCATED OUT OF 20	DOCUMENTATION TO BE SUBMITTED BY BIDDERS TO VALIDATE THEIR CLAIM FOR POINTS	
<b>Black ownership:</b> An EME or QSE which is at least 51% owned by black people		CIPC (Company registration)     CSD report clearly indicating the percentage shareholding of all owners,	

		(the ownership status of the 2 documents must correspond in order to be awarded points)
Women ownership: An EME or QSE which is at least 51% owned by women	4	CIPC (Company registration)     CSD report clearly indicating the percentage shareholding of all owners, (the ownership status of the 2 documents must correspond in order to be awarded points)
Youth ownership: An EME or QSE which is at least 51% owned by youth (up to 35 years of age)	4	CIPC (Company registration)'     CSD report clearly indicating the percentage shareholding of all owners, (the ownership status of the 2 documents must correspond in order to be awarded points)
<b>Disability:</b> An EME or QSE which is at least 51% owned by people with disability	4	<ul> <li>CIPC (Company registration)</li> <li>CSD report clearly indicating the percentage shareholding of all owners, (the ownership status of the 2 documents must correspond in order to be awarded points)Medical certificate</li> <li>SASSA registration or confirmation of disability from a relevant authority.</li> </ul>
Locality: Located in the Eastern Cape	4	Municipal rates account OR     Letter from councilor confirming residence or Lease Agreement
Non – submissions	0	No points will be claimed if the bidders failed to submit the required documents

### BIDDERS SHOULD TAKE NOTE OF THE FOLLOWING BID CONDITIONS:

- > Eastern Cape CET College Supply Chain Management Policy will apply;
- > Eastern Cape CET College does not bind itself to accept the lowest bid or any other bid and reserves the right to accept the whole or part of the bid;
- > Bids which are late, **incomplete**, **unsigned** or submitted by facsimile or electronically, will not be accepted;
- > Bids submitted are to hold good for a period of 90 days;

### Enquiries should be directed to:

Mr. M. Machaya

Email: mmachaya@ec.cetc.edu.za Tel: 043 753 0060 (Bidding process)

Mr. P. Tali

Email: ptali@ec.cetc.edu.za Tel: 043 753 0060 (Technical queries)

SBD1

### **INVITATION TO BID**

YOU ARE HEREBY INVITED TO BID FOR THE UNDERMENTIONED REQUIREMENTS OF THE EASTERN CAPE CET COLLEGE

BID NUMBER: EC CETC/HO/04/07/2023

**CLOSING DATE: 22 August 2023** 

**CLOSING TIME: 11H00** 

TENDER DESCRIPTION: THE APPOINTMENT OF A CONTRACTOR FOR THE SUPPLY AND INSTALLATION OF SOLAR POWER SYSTEM FOR EASTERN CAPE CET COLLEGE AT CECILIA MAKIWANE CLC, BOFOLO CLC &

**OSBORN CLC** 

As more fully set out in the annexure to this form which contains the specific specifications and /or terms of reference for the aforesaid requirements.

### BID DOCUMENTS MUST BE DEPOSITED IN THE BID BOX SITUATED AT:

Eastern Cape CET College Border Training Centre (Btc) 10 Mfaxa Road Nu1 Mdantsane East London 5219

Bidders should ensure that bids are delivered timeously to the correct address. If the bid is late, it will **not** be accepted for consideration.

The College does not accept any responsibility for the late submission of bids nor for the placement of a bid in the bid box.

The bid box is only open between 08h00 to 16h30, Mondays to Fridays excluding public holidays.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS WHICH MAY NOT BE RETYPED.

THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT

### MO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE

THE FOLLOWING PARTIC BEING DISQUALIFIED.	ULARS MUST BE	FURNISHED FAILURE TO DO SO MAY RESULT IN THE BID
NAME OF THE BIDDER		
POSTAL ADDRESS		
STREET ADDRESS		
TELEPHONE NUMBER	CODE:	NO.
CELLPHONE NUMBER		
FAX NUMBER	CODE:	NO.
EMAIL ADDRESS		
VAT REGISTRATION NO.		

	HAS AN ORIGINAL AND VALID T 2)	AX CLEARANCE CE	RTIFICATE BEEN SU	BMITTED? (SBD	YES	NO
	HAS SPECIFIC GOALS STATUS E	BEEN COMPLETED??	(SBD 6.1)		YES	NO
	(A SPECIFIC GOALS STATUS LEVE FOR PREFERENCE POINTS FOR S		RTIFICATE MUST BE	SUBMITTED IN O	RDER TO	QUALIF
	ARE YOU THE ACCREDITED R SERVICES / WORKS OFFERED?	EPRESENTATIVE IN		OR THE GOODS ES ENCLOSE PR		NO
	DID YOU ATTEND THE COMP APPLICABLE	PULSORY BRIEFING	•			NO
,	SIGNATURE OF BIDDER					
	DATE:					
	CAPACITY UNDER WHICH THIS BI	D IS SIGNED		<u>=</u> -		
	TOTAL BID PRICE: R					
	TOTAL NUMBER OF ITEMS OFFEI	DED				

# **DETAILS OF TENDERING ENTITY'S BANK ACCOUNT**

I/We hereby authorize the Employer/Client to approach all or any of the following bank/s for the purposes of obtaining a financial reference:

DESCRIPTION OF BANK DETAIL	BANK DETAILS APPLICABLE TO TENDERER'S HEAD OFFICE
Name of bank	
Branch name	
Branch code	
Name of Account Holder	
Account number	
Type of Account	

Signature of Tenderer:		
Date:/	20	

### TERMS OF REFERENCE

THE APPOINTMENT OF A CONTRACTOR FOR THE SUPPLY AND INSTALLATION OF SOLAR POWER SYSTEM FOR EASTERN CAPE CET COLLEGE AT CECILIA MAKIWANE CLC, BOFOLO CLC & OSBORN CLC

### **BACKGROUND**

The Community Education and Training (CET) Colleges came into existence on 1 April 2015 when the Public Adult Learning Centres (PALCs) migrated from the Provincial Education Departments (PEDs) to the Department of Higher Education and Training (DHET). The PALCs became the Community Learning Centres (CLCs) and were merged under the CET Colleges.

The mandate of the Colleges is to provide quality and relevant Education and Training programmes for youth and adults to improve their livelihoods. The CET Colleges, through the CLCs, offer programmes that will ensure that students attain skills that will enable them to either find employment or establish their own enterprises which are Community needs based. The College is situated in the Eastern Cape in South Africa. Governance of the College rests with the Council subject to the relevant statutes and policies. Management structure of the College consists of the Principal and three Deputy Principals. The CET College operates in accordance with the requirements laid down in the Continuing Education and Training Act, Act No.16 of 2006.

### SCOPE AND DEFINITION OF WORK

The Eastern Cape Community Education and Training College (EC CET) invites quotations for appointment of a suitably qualified service provider for the supply and installation of Solar Power Systems at the following sites;

No	Name of Pilot Center	Community Learning Centre address.	
1	Cecilia Makiwane CLC	Border Training Centre (BTC), 10 Mfaxa Rd, No Mdantsane, East London	
2	Bofolo CLC	Cape College Teacher's College, Healdtown Rd, Fort Beaufort, 5720	
3	Osborn CLC	Ingwe TVET College, Mt Frere Campus	

The minimum deliverables for the selected contractor for all three sites entails installation of alternative energy system comprising of the following:

- Solar PV with battery storage
- 370W high efficiency Monocrystalline Solar Panels or 605W Canadian Solar Super High Power Mono PERC
- 16KW Solar Inverter deve or ATESS HPS 100 Hybrid Invertor
- Lithium Battery minimum 48 volts, 8.7KW

### See Annexure A for detailed specification

The College appointed **Afroteam Consultants** as agent for the purpose of this tender is deemed to be the authorized and designated representative of the college. E-mail: afroteam.eng@gmail.com

### **FUNCTIONALITY CRITERIA**

Only bidders that have met the pre-qualification criteria will be evaluated for functional evaluation. An assessment of Functionality will be based on the evaluation criteria noted in the table below. Each of the evaluation criteria in the table will carry a weighting as indicated,

Bidders will be required to achieve a minimum score **70% (or 70 points)**, for Functionality in order to qualify to proceed to next phase, which will be presentation. To ensure simplification, the total functionality score will be rated out of a total of 100. Price and Preference Points System evaluation.

The allocation of points for the evaluation of quality is set out in the table below.

FUNCTIONALITY	REQUIRED EVIDENCE	WEIGHT	MAX VALUE (1- 5)
1. Experience		l.	
(a) Number of clients (contactable refe	rences) that the bidder has successfully	serviced in the	past 5 years.
5 or more reference letters of relevant experience	Experience in experience in supply		5
телемати ехрепенсе	and installation of solar systems in the		5
4 reference letters of relevant	past five (5) years or more, bidders		
experience	must attach reference letters on client's		4
3 reference letters of relevant	letter head with contactable references	50	
experience	in order to be allocated points.	50	3
0 to 2 reference letters of	NB: In all reference letters, corresponding appointment letters/	===	
relevant experience	purchase orders must be attached.		
	Failure to attach these documents,		0
	bidders will not be awarded points		
2. Expertise and Capacity of the	project team		
(a) The Lead Electrical Engineer with e	xperience in supply and installation of so	lar power syste	ems.
	CV and certified copy of qualification of		
>10 years' experience	the Electrical Engineer depicting at		5
	least three (3) years' experience in		
E had 0 was and a sum a sign as	leading similar projects and with	20	
5 to10 years' experience			4

REQUIRED EVIDENCE	WEIGHT	MAX VALUE
		(1- 5)
experience in supply and installation of		
solar power systems.		
The service provider must attach		
Curriculum Vitae of Key Personnel.		
Academic qualifications,		
Professional Membership		
Certificates. Qualifications of the		3
electrical engineer (B.Sc. or B.Eng.		
or B.Tech. Certificate, Pr. Eng or Pr.		
Tech. Eng). Detailed CV of the		
electrical engineer		
The methodology and approach to		
include the full scope of work described		5
in the work specification. The	20	
methodology should highlight all the		3
planned activities, the sequence of		
executing the works and the completion		0
timeframes of the activities.		
e =10	10	
	100	
	solar power systems.  The service provider must attach Curriculum Vitae of Key Personnel. Academic qualifications, Professional Membership Certificates. Qualifications of the electrical engineer (B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng). Detailed CV of the electrical engineer  The methodology and approach to include the full scope of work described in the work specification. The methodology should highlight all the planned activities, the sequence of executing the works and the completion	solar power systems.  The service provider must attach Curriculum Vitae of Key Personnel. Academic qualifications, Professional Membership Certificates. Qualifications of the electrical engineer (B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng). Detailed CV of the electrical engineer  The methodology and approach to include the full scope of work described in the work specification. The methodology should highlight all the planned activities, the sequence of executing the works and the completion timeframes of the activities.

### TAX CLEARANCE CERTFICATE REQUIREMENTS

It is a condition of bid that the taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the bidder's tax obligations.

- 1. In order to meet this requirement, bidders are required to complete in full form TCC 001 "Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The "Tax Clearance Certificate" requirements are also applicable to foreign bidders / individuals who wish to submit bids.
- 2. SARS will then furnish the bidder with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.
- The original Tax Clearance Certificate must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.
- 4. In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.
- **5.** Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za.
- 1. 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 **www.sars.gov.za**.

### PRICING SCHEDULE - FIRM PRICES (PURCHASES)

NOTE:

ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of bidder Closing Time 11:00AM	Bid number			
OFFER TO BE VALID FORDAYS	FROM THE CLOSING DA	ATE OF BID.		_
Total Price per BOQ				
VAT at 15%				
Total Bid Price inclusive of VAT	i <u> </u>			
Total must be transferred to SBD	1, failure to do so v	vill lead to the	bid being dis	qualified.
Pricing Instructions: The bid must b	e inclusive of all costs	including i.e. d	elivery fees, la	bor and
disbursements.				
1.1. By signing the Price Schedule,	a bidder warrants that:			
<ul> <li>1.1.1.the relevant quotation is of</li> <li>1.1.2.the rates(s) and prices(s)</li> <li>1.1.3.the rate(s) and price(s) of</li> <li>disbursements;</li> <li>1.1.4. any mistakes and/or omis</li> <li>supplier's risk.</li> <li>1.1.5. The total price quoted mu</li> </ul>	quoted cover all the wor over all the supplier's ob sions regarding rate(s) a	ligations under a	resulting contract	ct, including all
SIGNED at	(place) on the	day of	, 20	
Signature Print name:	Date			

On behalf of the Supplier (duly authorised)

### PRICING DATA AND BILL OF QUANTITIES

### PRICING INSTRUCTIONS

1. Where any item is not relevant to this specific contract, such item is marked N/A (signifying "not applicable") The adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories by insertion of "F", "V", "T" as the case may be against the price in the "rate" column immediately preceding the "amount" column, where "F" denotes a fixed amount (amount not varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount variable in proportion to time.

### 2. MASSES AND MEASURING UNITS

"These shall be in accordance with the Measuring Units and National Measuring Standards Act No. 76 of 1973 and amendments thereto.

The pages of each of these documents are numbered consecutively and before the Bidder submits his bid he should check the number of pages, and if any are found missing or duplicated, or the figures or writing indistinct, or the documents contain any obvious error, he should apply to Afroteam Consultants. AT ONCE and have same rectified as no liability whatsoever will be admitted by the Administration in respect of errors in Tender due to the foregoing."

### 3. PRICES FOR VARIATIONS

Where prices or quotations for variations are submitted by the Contractor during the currency of the Contract, it is to be clearly understood that these are for the purpose of consideration by the Engineer and EC CET quantity Surveyor and that there is no assumption of acceptance. The Contractor will be notified of acceptance of prices or quotations either by insertion of the amount on the variation order or by written intimation.

### 4. SCALE

The scale to which the Drawings are made is only to be made use of when no figured dimensions are given either on the Drawings or in the tender documents and the figured dimensions are always to be followed though they may not coincide with the scale of the Drawings, but dimensions where possible are to be taken from the buildings.

### 5. PROVISIONAL ITEMS

"All items described as ""Provisional"" shall be used as directed by the Employer and measured and valued or paid for.

No work for which ""Provisional"" items are allowed shall be commenced without written instructions from the Engineer."

### 6. TIMELY ORDERING OF MATERIALS

"The Contractor is warned to place all orders for materials or special articles as early as possible, as he will be held solely responsible for any delay in the delivery of such goods.

Nevertheless this tender is conditional upon no liability being attached to the Contractor if delivery of materials is rendered impossible by reason of any act of the Government."

# 7. STANDARD SYSTEM OF MEASUREMENT WHERE BILLS OF QUANTITIES FORM PART OF THE BID DOCUMENTS

The work executed under this Contract has been measured in accordance with the;

Standard System of Measuring Builders Work (6th Edition)

including all amendments unless descriptions of items indicate a deviation and it shall be understood that the system of measurement which is herein adopted is the only system of measurement which will

be recognised in connection with this contract. Any contradictions to this system of measurement contained in the "Model Preambles for Trades 2008" shall be disregarded (unless same have been accommodated in the system of measurement) but applicable rates shall be included for all requirements stated and not measured separately in compliance with this system.

### 8. BILLS OF QUANTITIES/LUMP SUM DOCUMENT

The Bills of Quantities document forms part of and must be read and priced in conjunction with all the other documents forming part of the contract documents, the Standard Conditions of Bid, Conditions of Contract, Standard Preambles to all Trades, Specifications, Drawings and all other relevant documentation.

### 9. VALUE ADDED TAX

The bid price must include for Value Added Tax (VAT). All rates, provisional sums, etc. in the Bills of Quantities must however be net (exclusive of VAT) with VAT calculated and added to the Total Value thereof in the Final Summary.

### **BILL OF QUANTITIES**

See Annexure A - PDF BOQ attached to this Bid

### **DECLARATION OF INTEREST**

- 1. Any legal person, including persons employed by the state\*, or 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 employed by the state, or to persons connected with or related to them, 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 bidder is employed by the state; and/or

presently employed by the state?

- 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.
- 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 or his or her representative:	
2.2	Identity Number:	
2.3	Position occupied in the Company (director, shareholder etc	):
2.4	Company Registration Number:	·······
2.5	Tax Reference Number:	
2.6	VAT Registration Number:	
* "State"	means –  (a) any national or provincial department, national or provinc constitutional institution within the meaning of the Public I 1999 (Act No. 1 of 1999);  (b) any municipality or municipal entity;  (c) provincial legislature;  (d) national Assembly or the national Council of provinces; o (e) Parliament.	ial public entity or Finance Management Act,
2.7 A	Are you or any person connected with the bidder	YES / NO

2.7.1	is so, turnish the following particulars:
	Name of person / director / shareholder/ member:  Name of state institution to which the person is connected:
	Position occupied in the state institution:
	Any other particulars:
2.8 D	id you or your spouse, or any of the company's directors / YES / NO shareholders / members or their spouses conduct business with the state in the previous twelve months?
2.8.1	If so, furnish particulars:
2.9	Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?
2.9.1	If so, furnish particulars.
2.10	Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between the bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?
2.10.1	If so, furnish particulars.
	6

2.11 Do you or any of the directors /shareholders/ members of the company have any interest in any other related companies whether or not they are bidding for this contract?

2.11.1	so, furnish particulars:		
	251252		

### **DECLARATION**

I, THE UNDERSIGNED (NAME)	
ABOVE IS CORRECT.	TION FURNISHED IN PARAGRAPHS 2.1 TO 2.11.1  AY ACT AGAINST ME IN TERMS OF PARAGRAPH 23
	S OF CONTRACT SHOULD THIS DECLARATION
Signature	Date
Position	Name of bidder

### OHS ACT DECLARATION AND SUBMISSION

The Bidder declares him/herself/herself to be conversant with the following:

- 1. All the requirements, regulations and standards of the Occupational Health
- 2. 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 13: Duty to Inform
  - iv) Section 37: Acts or omissions by employees or mandatories
  - v) Sub-section 37(2) relating to the purpose and meaning of this Agreement
- Construction Regulations, 2014 (Government Notice R.84) pertaining to the Contractor and to all his Subcontractors, or any amendments thereto.

The Bidder declares that he has or will obtain the necessary knowledge, competence and resources to comply fully with all OHS requirements should he be awarded the contract.

The Bidder confirms that he has included with his bid a written proposal describing how he will comply with OHS requirements

Signature _	Date	
Name		Capacity
Bidder	94	

### SCHEDULE OF BIDDER'S EXPERIENCE IN SOLAR INSTALLATION PROJECTS

EC CET shall not be held responsible for incorrect judgement misled by unclear written letters/words on the forms below, to be completed by the Bidder(s). **DO NOT COMPLETE THE FORMS BY WRITING "SEE ATTACHED"**, Bidder(s) who refer to attachment will be scored zero. Attachment shall strictly be made where specified and at the correct location, any attachment other than what has been requested by EC CET, shall be completely ignored, and scored zero, where points allocation is required.

When completing Forms, Bidder(s) may make copies of the original Forms, should the provided forms be inadequate for their completion of the information required. Forms must be hand completed in black ink, no computer regenerated forms will be accepted. Forms must be completed in full, forms not completed in full shall be rejected by scoring zero.

- i) In order to qualify for maximum points, the bidder's Contractor must have completed **more than one (1)** solar installation project of similar magnitude.
- ii) Main contractor must have a CIDB contractor grading designation of 4EB or higher.

# **COMPLETED PROJECTS (to be completed for each individual project)**

Name of Bidder	
PROJECT No. 1	
Project Name	
Nature of Project	
Client (Responsible for supervision)	
Client Contact person	
Clients Contact Person (name, tel/Cell no and fax no)	
Clients Contact Person (email address)	
Consulting Engineer (name, tel no and fax no)	
Appointment Value	
Project Location (Province)	
Project Duration(months)	
Project Commencement Date (months/year)	
Is the Project Completed (Yes/No)	
Completion certificate attached (Yes or No)	
Estimated Completion Date (If not yet Completed)	
Completion Date (If Completed) (months/year)	
Main Contractor (Yes/No)	

### **EXPERIENCE OF NOMINATED PERSONNEL**

Bidders must have in their full time employment an experienced Site Agent, OHS officer and a registered electrician with experience in solar system installation projects. The information will be verified with the references provided. The bidder must have in its employment a:-

- Site Agent with 5 years' experience in site management of solar system installation projects, in order to score maximum points.
- ii) Registered electrician with wireman's license and green card license in order to score maximum points.
- iii) OHS officer with SAMTRAC or any equivalent qualification or better in occupational health and safety

### NB:

One individual may not be nominated for more than one role or position for this bid. If an individual is nominated for more than one role then the points will only be allocated for one of the roles and the bidder will score zero on any other role.

It is **mandatory** to complete all fields in Form L for each project listed as this information will be deemed to be material to the award of the Contract. Failure to complete all fields for the project listed may lead to the bidder losing points during functional evaluation under the categories "Site Agent or OHS Officer or Agent". Should the bidder choose to present the required information in the attachments, then the bidder must **COMPLETE FORM (L) FIRST and then** make a clear reference to such attachments so that they may be considered; and such attachments must provide the same information requested for in Form L.

# TYPICAL FORMS TO BE COMPLETED BY THE BIDDERS

Post	Name	Qualifications	Experience in years
Site Agent			
Electrician			
OHS Officer			
	equired to submit as attachments d OHS Officer.	after this page, the certified copies o	f qualifications of the Site Agent,
Signature	((	Date	
Name	:	Capacity_	
Bidder	·		

The Bidder must note that repeating the same year under different project will still be considered as one year's experience.

(a) SITE AGENT				
Name and Surname				
Experience in years' experience as Site Agent				
EXPERIENCE AS SITE AGENT IN SITE	MANAGEMENT OF SOLAR SYST	TEM INSTALLATION PROJECTS.		
YEAR of Experience as Site Agent	Year 1 () (e.g.2019 etc)	Year 2 () (e.g.2018).		
Project Name				
Nature of Project				
Client (Responsible for supervision)				
Client Contact person				
Clients Contact Person (name, tel/Cell no and fax no)				
Clients Contact Person (email address)				
Consulting Engineer (name, tel no and fax no)				
Appointment Value				
Project Location (Province)				
Project Duration(months)				
Project Commencement Date (months/year)				
Is the Project Completed (Yes/No)				
Estimated Completion Date (If not yet Completed)				
Completion Date (If Completed) (months/year)				
Roles/Responsibilities performed by the Bidder on the project:				

(b) ELECTRICIAN		
Name and Surname		
Experience in years' experience as ELEC	FRICIAN	
EXPERIENCE AS ELECTRICIAN FOR S	OLAR SYSTEM INSTALLATION	PROJECTS.
YEAR of Experience	Year 3 () (e.g.2017 etc)	Year 4 () (e.g.2016).
Project Name		
Nature of Project		
Client (Responsible for supervision)		
Client Contact person		
Clients Contact Person (name, tel/Cell no and fax no)		
Clients Contact Person (email address)		
Consulting Engineer (name, tel no and fax no)		
Appointment Value		
Project Location (Province)		
Project Duration(months)		
Project Commencement Date (months/year)		
Is the Project Completed (Yes/No)		
Estimated Completion Date (If not yet Completed)		
Completion Date (If Completed) (months/year)		
Roles/Responsibilities performed by the Bidder on the project:		

(c) HEALTH AND SAFETY OFFICER		
Name and Surname		
Experience in years' experience as Site Aç	gent	
EXPERIENCE AS HEALTH AND SAFETY	OFFICER IN SOLAR SYSTEM IN	ISTALLATION PROJECTS.
YEAR of Experience	Year 5 () (e.g.2015 etc)	Year 6 () (e.g.2014).
Project Name		
Nature of Project		
Client (Responsible for supervision)		
Client Contact person		
Clients Contact Person (name, tel/Cell no and fax no)		
Clients Contact Person (email address)		
Consulting Engineer (name, tel no and fax no)		
Appointment Value		
Project Location (Province)		
Project Duration(months)		
Project Commencement Date (months/year)		
Is the Project Completed (Yes/No)		
Estimated Completion Date (If not yet Completed)		
Completion Date (If Completed) (months/year)		
Roles/Responsibilities performed by the Bidder on the project:		
Signature	Date	
Name	Capacit	y
Bidder		

# EASTERN CAPE CET COLLEGE PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for specific goals

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022 AS WELL AS THE APPLICABLE PROVISIONS OF THE SUPPLY CHAIN MANAGEMENT POLICY OF THE COLLEGE.

### 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 The value of this bid is estimated not to exceed R50 000 000 (all applicable taxes included) and, therefore, the **80/20** system shall be applicable.
- 1.3 Preference points for this bid shall be awarded for:
  - (a) Price; and
  - (b) Specific goals.
- **1.3.1** The maximum points for this bid are allocated as follows:

1.3.1.1	PRICE	POINTS 80
1.3.1.2	SPECIFIC GOALS	20
Total points for Price and Specific goals		

1.4 The purchaser, being the College of or any agency, body or the like established by it, 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

- **2..1 "all applicable taxes"** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- 2.2 Historically Disadvantaged Individual" (HDI) is defined as a South African citizen 1) who, due to the apartheid policy that was in place, had no voting rights in the national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act No. 100 of 1983) or the Constitution of the

Republic of South Africa, 1993 (Act No. 200 of 1993) ("the interim Constitution"), and/or 2) who is a woman, and/or 3) who has a disability With the understanding that any person who received South African citizenship on or before the introduction of the interim Constitution, will not be deemed to be HDI

- 2.3 HDI equity ownership" refers to the percentage of a partnership or business that is owned by individuals, or in the case of a company, the percentage of shares which is owned by individuals who are actively involved in the management decisions and day to day operational activities of the company or business and who exercises control in the business in relation to their ownership at the close of tender. Where individuals are not actively involved in the management and day to day operational activities of the business and who does not exercise control in relation to the percentage of their ownership, Equity ownership points cannot be awarded
- 2.4 "Disability" refers to a person with a permanent physical disability, mental disability, awareness disability, which leads to confinement or disability, or the inability to perform bodily functions in the manner or within the capacity of a normal person, as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act
- 2.5 Black people who are youth as defined in the National Youth Commission Act of 1996
- **2.6** "comparative price" means the price after the factors of a non-firm price and all unconditional discounts that can be utilized have been taken into consideration:
- **2.7 "A woman"** refers to a female person who is a South African citizen
- **2.8** "**contract**" means the agreement that results from the acceptance of a bid by an organ of state;
- 2.9 "EME" means any enterprise with an annual total revenue of R5 million or less;
- 2.10 "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;
- **2.11** "functionality" means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and 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 a bidder;
- 2.12 "non-firm prices" means all prices other than "firm" prices;
- **2.13** "person" includes a juristic person;
- **2.14 "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;
- **2.15** "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;
- **2.16 "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 services, works or goods, through price quotations, advertised competitive bidding processes or proposals;

### 3. ADJUDICATION USING A POINT SYSTEM

3.1 The bidder obtaining the highest number of total points will be awarded the contract.

- 3.2 Preference points 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.
- **3.3** Points scored must be rounded off to the nearest 2 decimal places.
- In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference point for specific goals.
- 3.5 However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for specific goals, the successful bid will be the one scoring the highest score for functionality.
- 3.6 Should two or more bids be equal in all respects, the award shall be decided by the drawing of lots.
- 4. POINTS AWARDED FOR PRICE
- 4.1 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
$$Ps = 80\left(1 - \frac{Pt - P\min}{P\min}\right) \qquad Ps = 90\left(1 - \frac{Pt - P\min}{P\min}\right)$$

Where

Ps = Points scored for comparative price of bid under consideration

Pt = Comparative price of bid under consideration

Pmin = Comparative price of lowest acceptable bid

- 5. Points awarded for Specific goals
- 5.1 In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table below as may be supported by proof/ documentation stated in the conditions of this tender:

### SPECIFIC GOAL POINTS BREAKDOWN

SPECIFIC GOALS	PREFERENCE POINTS ALLOCATED OUT OF 20	BIDDERS SCORING
Black ownership:	4	
Women ownership:	4	
Youth ownership:	4	
Disability:	4	
Locality	4	
TOTAL	20	

### 6. DECLARATION WITH REGARD TO COMPANY/FIRM 6.1 Name of company/firm: 6.2 VAT registration number : 6.3 Company registration number \_\_\_\_\_ 6.4 TYPE OF COMPANY/ FIRM Partnership/Joint Venture / Consortium П One person business/sole propriety Close corporation Company (Ptv) Limited П (TICK APPLICABLE BOX) 6.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES 6.6 COMPANY CLASSIFICATION Manufacturer Supplier Other service providers, e.g. transporter, etc. (TICK APPLICABLE BOX) 6.7 TOTAL NUMBER OF YEARS THE COMPANY HAS BEERN I BUSINESS? \_\_\_\_\_ 6.8 I/we, the undersigned, who is/are duly authorized to do so on behalf of the company/firm, certify that the points claimed, 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 paragraph 5, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct; (iv) If the specific goals points has been claimed or obtained on a fraudulent basis or any of the

conditions of contract have not been fulfilled, the purchaser, being the Eastern Cape CET College,

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;
- 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;
- restrict the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, 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.	
2.	SIGNATURE(S) OF BIDDER
DATE:20	
ADDRESS:	

### **DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES**

- 1. This Standard Bidding Document must form part of all bids invited.
- 2. It serves as a declaration to be used by institutions in ensuring that, when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3. The bid of any bidder may be disregarded if that bidder or any of its directors have
  - **a.** abused the institution's supply chain management system;
  - b. committed fraud or any other improper conduct in relation to such system; or
  - **c.** failed to perform on any previous contract.

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

	with the blu.		
Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?	Yes	No 🗆
	(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the audi alteram partem rule was applied).		
	The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.		
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?	Yes	No
	The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.		
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its 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
4.3.1	If so, furnish particulars:		

4.4	Was any contract between the bidder a five years on account of failure to perfo	nd any organ of state terminated during the past orm on or comply with the contract?	Yes	No 🗆
4.4.1	If so, furnish particulars:			
	<u>, C</u>	ERTIFICATION		
	DERSIGNED (FULL NAME) THAT THE INFORMATION FURNISHE	D ON THIS DECLARATION FORM IS TRUE AN	ID CORF	RECT.
	THAT, IN ADDITION TO CANCELLATE THIS DECLARATION PROVE TO BE F	ION OF A CONTRACT, ACTION MAY BE TAKE ALSE.	N AGAI	NST ME
S	Signature	20 Date		
F	Position	Name of Bidder		

### CERTIFICATE OF INDEPENDENT BID DETERMINATION

- This Standard Bidding Document (SBD) must form part of all bids¹ invited.
- 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>2</sup> Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
  - disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
  - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.

This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.

In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

### **CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in subm	itting the accompanying bid:	
Bid No	Description	
	(Bid Number and De	escription)
·	for the bid made by Eastern Cape be true and complete in every respe	CET College, do hereby make the following
I certify, on behalf of:		that:
	(Name of Bide	der)
I have read and I understan	d the contents of this Certificate;	
I understand that the accord	npanying bid will be disqualified if th	nis Certificate is found not to be true and complete in
every respect;		
I am authorized by the bidd	er to sign this Certificate, and to sub	omit 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	Date
Position	Name of Bidder

<sup>&</sup>lt;sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> Joint venture or Consortium 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.

## **EASTERN CAPE CET COLLEGE**

## **CONTRACT CONDITIONS**

The purpose of this document is to:

- (i) Draw special attention to certain general conditions applicable to municipal bids, contracts and orders;
- (ii) To ensure that prospective tenderers or bidders are familiar with the rights and obligations of all parties involved in doing business with the College:
- (iii) To set out the conditions applicable to all tenders or bids submitted to the college in response to an invitation to submit a tender, bid or quotation, as may be applicable:

In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean the feminine and neuter.

- Any specification issued by the college for the supply of goods or services is subject to the relevant terms and conditions contained herein.
- These General Conditions of Contract will form part of all bid documents.
- Special Conditions of Contract (SCC) relevant to a specific bid, will be compiled separately for every bid (if (applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.

## A. <u>CONDITIONS APPLYING TO ALL SPECIFICATIONS</u>

All specifications for goods and services to be procured by the college shall, except where otherwise stated in any specific specification, be subject to the following requirements and conditions:

## 1. Functionality

Where functionality is utilized as an evaluation criterion, no tender will be regarded as an acceptable tender if it fails to achieve the minimum stipulated qualifying score for functionality and only tenders that have achieved this score will be evaluated further in terms of the preference point systems referred to below.

## 2. 80/20 Preference Point System

- 2.1 The under-mentioned preference points evaluation system for the acquisition of services, works or goods up to a Rand value of R50 000 000. (all applicable taxes included) will be applied with regard to the evaluation of tenders falling within this threshold amount:
  - the following formula will be used to calculate the points for price in respect of tenders (including price quotations) with a Rand value equal to, or above R 30 000 and up to a Rand value of R50 000 000. (all applicable taxes included)

Where

Ps = Points scored for comparative price of tender or offer

under consideration;

Pt = Comparative price of tender or offer under

consideration; and

Pmin = Comparative price of lowest acceptable tender or offer.

(ii) Subject to subparagraph (iii), points must be awarded to a tenderer for attaining the specific goals in accordance with the following table:

# SPECIFIC GOAL POINTS BREAKDOWN

SPECIFIC GOALS	PREFERENCE POINTS ALLOCATED OUT OF 20	DOCUMENTATION TO BE SUBMITTED BY BIDDERS TO VALIDATE THEIR CLAIM FOR POINTS
Black ownership: An EME or QSE which is at least 51% owned by black people	4	CIPC (Company registration)     CSD report clearly indicating the percentage shareholding of all owners, (the ownership status of the 2 documents must correspond in order to be awarded points)
Women ownership: An EME or QSE which is at least 51% owned by women	4	CIPC (Company registration)     CSD report clearly indicating the percentage shareholding of all owners, (the ownership status of the 2 documents must correspond in order to be awarded points)
Youth ownership: An EME or QSE which is at least 51% owned by youth (up to 35 years of age)	4	CIPC (Company registration)'     CSD report clearly indicating the percentage shareholding of all owners, (the ownership status of the 2 documents must correspond in order to be awarded points)
<b>Disability:</b> An EME or QSE which is at least 51% owned by people with disability	4	<ul> <li>CIPC (Company registration)</li> <li>CSD report clearly indicating the percentage shareholding of all owners, (the ownership status of the 2 documents must correspond in order to be awarded points)Medical certificate</li> <li>SASSA registration or confirmation of disability from a relevant authority.</li> </ul>
Locality: Located in the Eastern Cape	4	Municipal rates account OR     Letter from councilor confirming residence or Lease Agreement
Non – submissions	0	No points will be claimed if the bidders failed to submit the required documents

- (iii) a maximum of 20 points may be allocated under subparagraph (ii):
- (iv) the points scored by a tenderer in respect of specific goals contemplated in subparagraph(ii) must be added to the points scored for price as calculated in accordance with subparagraph(i).
- 2.2 In the event of all tenders received exceeding the estimated Rand value of R50 000 000.00, the tender invitation will be cancelled, provided that, if one or more of the acceptable tenders received are within the aforesaid threshold of R50 000 000.00, all tenders received will be evaluated in accordance with this preference point system.
- The B-BBEE status level attained by a tenderer will be used to determine the number of points contemplated in subparagraph 2.1 (ii) above.

## 3. 90/10 Preference Point System

- 3.1 The under-mentioned preference points evaluation system for the acquisition of services, works or goods with a Rand value above R50 000 000. (all applicable taxes included) will be applied with regard to the evaluation of tenders above this threshold amount:
  - (i) the following formula will be used to calculate the points for price in respect of tenders with a Rand value above R50 000 000. (all applicable taxes included):

$$Ps = 90 \quad ( 1- \frac{Pt - Pmin}{Pmin} )$$

Where

Ps = Points scored for comparative price of tender or offer

under consideration;

Pt = Comparative price of tender or offer under

consideration; and

Pmin = Comparative price of lowest acceptable tender or offer.

(ii) subject to subparagraph (iii), points must be awarded to a tenderer for attaining the specific goals in accordance with the following table:

## SPECIFIC GOAL POINTS BREAKDOWN

SPECIFIC GOALS	PREFERENCE POINTS ALLOCATED OUT OF 20	DOCUMENTATION TO BE SUBMITTED BY BIDDERS TO VALIDATE THEIR CLAIM FOR POINTS
Black ownership: An EME or QSE which is at least 51% owned by black people	4	<ul> <li>CIPC (Company registration)</li> <li>CSD report clearly indicating the percentage shareholding of all owners, (the ownership status of the 2 documents</li> </ul>

		must correspond in order to be awarded points)
Women ownership: An EME or QSE which is at least 51% owned by women	4	CIPC (Company registration)     CSD report clearly indicating the percentage shareholding of all owners, (the ownership status of the 2 documents must correspond in order to be awarded points)
Youth ownership: An EME or QSE which is at least 51% owned by youth (up to 35 years of age)	4	<ul> <li>CIPC (Company registration)'</li> <li>CSD report clearly indicating the percentage shareholding of all owners, (the ownership status of the 2 documents must correspond in order to be awarded points)</li> </ul>
<b>Disability:</b> An EME or QSE which is at least 51% owned by people with disability	4	<ul> <li>CIPC (Company registration)</li> <li>CSD report clearly indicating the percentage shareholding of all owners, (the ownership status of the 2 documents must correspond in order to be awarded points)Medical certificate</li> <li>SASSA registration or confirmation of disability from a relevant authority.</li> </ul>
Locality: Located in the Eastern Cape	4	Municipal rates account OR     Letter from councilor confirming residence or Lease Agreement
Non – submissions	0	No points will be claimed if the bidders failed to submit the required documents

- (iii) a maximum of 10 points may be allocated under subparagraph (ii);
- (iv) the points scored by a tenderer in respect of the specific goals contemplated in subparagraph (ii) must be added to the points scored for price as calculated in accordance with subparagraph (i).
- In the event of all tenders received being equal to, or below R50 000 000, the invitation to tender will be withdrawn and all tenders received shall be regarded as having been cancelled provided that, If one or more of the acceptable tenders received are above the prescribed threshold of R50 000 000, all tenders received will be evaluated in accordance with this preference point system.
- The specific goals attained by a tenderer must be used to determine the number of points contemplated in subparagraph 3.1 (ii) above.

## 4. Local Production

Where, in the case of tenders in designated sectors, local production and content is of critical importance, it shall be a specific condition of tender that only locally produced goods, services or

works or locally manufactured goods, with a stipulated minimum threshold for local production and content, will be considered.

- The exchange rate to be used for the calculation of local content or local production referred to in subparagraph 1 will be the exchange rate published by the South African Reserve Bank at 12:00 on the date, one week (7 calendar days) prior to the closing date of the invited bid;
- 4.3 Only the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:201x will be used to calculate local content in accordance with the following formula:

$$LC = 1 - \frac{X}{Y} \times 100$$

Where

x imported content

y bid price excluding value added tax (VAT)

and the prices referred to in the determination of x will be converted to Rand (ZAR) by using the exchange rate published by the South African Reserve Bank at 12:00 on the date, one week (7 calendar days) prior to the closing date of the bid;

- 4.4 Form SBD 6.2 (Declaration Certificate for Local Content) duly completed and signed must be submitted with the bid documentation;
- The college reserves the right to verify the accuracy of the rates of exchange quoted by a bidder in paragraph 4.1 of the aforesaid Certificate.
- The accounting officer of the college reserves the right to include a specific bidding condition that only locally produced goods, services or works or locally manufactured goods with a stipulated minimum threshold for local production and content, will be considered on condition that any such prescript and threshold(s) are in accordance with the specific directives issued for this purpose by the National Treasury in consultation with the Department of Trade and Industry and, in such event, the requirements referred to in subparagraphs 4.2 to 4.4 above must be complied with by a tenderer.
- A two- stage tendering process may be followed for tenders referred to in subparagraphs 4.1 and 4.5 and, in such event, the first stage will involve functionality and minimum threshold for local production and content and the second stage price and specific goals with the possibility of price negotiations only with the short listed tenderers.

## 5. SPECIFIC GOALS

Where a bidder is required to attain a specified specific goal or goals other than contracting with historically disadvantaged persons and implementing Reconstruction and Development Programmes in order to qualify for the award of a contract, such bidder must provide the required information to enable the bid evaluation committee to determine whether or not such specific goal or goals will be attained by the bidder concerned in the event of him/her or it being awarded the relevant contract.

#### 6. Sub-contracting

- A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher specific goals than the person concerned, unless the contract is sub-contracted to an exempted micro enterprise that has the capability and ability to execute the relevant sub-contract.
- 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.

## 7. Miscellaneous conditions

- 7.1 Only tenderers who have completed and signed the declaration part of any tender documentation will be considered when tenders are evaluated.
- 7.2 When comparative prices must be calculated, any discounts which have been offered unconditionally will be taken into account.
- 7.3 A discount which has been offered conditionally will, despite not being taken into account for evaluation purposes, be implemented when payment to a tenderer in respect of an accepted tender is affected.
- **7.4** Bid evaluation points scored will be rounded off to the nearest 2 decimal places.
- **7.5** Equal point scoring:
  - (i) In the event that two or more tenders score equal total points, the successful tender will be the one scoring the highest number of preference points for specific goals:
  - (ii) However, when functionality is part of the evaluation process and two or more tenders have scored equal points including equal preference points for specific goals, the successful tender will be the one scoring the highest score for functionality;
  - (iii) Should two or more tenders be equal in all respects, the award shall be decided by the drawing of lots in accordance with the applicable regulations of the College.

## 8. Cancelling a tender

8.1 The accounting officer may, prior to the award of a tender, by notice in the media in which the original tender was advertised, cancel such tender if, due to changed circumstances, there is no longer a need for the services, works or goods requested or if funds are no longer available to cover the total envisaged expenditure or if no acceptable tenders are received.

## 9. Declarations

A tenderer must -

- (a) Declare that the information provided in a tender document is true and correct;
- (b) Declare that the signatory to a tender document is duly authorized; and
- (c) Undertake to submit documentary proof regarding any tendering issue when required to the satisfaction of the College.

## 10. Remedies

**10.1** A tenderer who submits a tender acknowledges thereby that:

- (a) The college will, upon detecting that the specific goals of contribution has been claimed or obtained by a tenderer on a fraudulent basis or any of the conditions of a contract awarded to such tenderer or contractor have not been fulfilled, act against such tenderer or person awarded the ensuing contract.
- (b) The college may, in addition to any other remedy it may have against the person contemplated in subparagraph (a)-
  - (i) disqualify the person concerned from participating in any future tender process with the College;
  - (ii) Recover all costs, losses or damages it has incurred or suffered as a result of that person's conduct;
  - (iii) cancel the relevant contract and claim any damages which it has suffered as a result of having to make less favorable arrangements due to such cancellation:
- (c) The college may restrict a tenderer or contractor, its shareholders and directors, or only the shareholders and directors, as the case may be, who acted on a fraudulent basis in connection with a tender, from obtaining business from the college for a period not exceeding 10 years, provided that, before exercising this right, the college shall give the persons or parties concerned an opportunity to make representations and be heard in defense of such contemplated action; and
- (d) The college may refer any fraudulent action on the part of a tenderer or contractor or any party aforesaid to the South African Police Services with a view to criminal prosecution.
- (e) Where a tenderer or contractor is restricted in terms of subparagraph (c), the accounting officer will forward the relevant details to National Treasury for inclusion in the Central Database of Restricted Suppliers.
- (f) The college will check the National Treasury's database prior to awarding any contract to ensure that no recommended bidder, or any of its directors, is listed as a person prohibited from doing business with the public sector;
- (g) The college will reject any bid from a bidder -
  - (i) if any municipal rates and taxes or municipal service charges owed by that bidder or any of its directors to the College, or to any other college or municipal entity, are in arrears for more than three months; or
  - (ii) Who during the last five years has failed to perform satisfactorily on a previous contract with the college or any other organ of state after written notice was given to that bidder that performance was unsatisfactory;
- (e) The college will reject a recommendation for the award of a contract if the recommended bidder, or any of its directors, committed a corrupt or fraudulent act in competing for the particular contract;
- (f) The college will cancel a contract awarded to a person if -
  - (i) such person committed any corrupt or fraudulent act during the bidding process or the execution of the contract; or
  - (ii) an official or other role player committed any corrupt or fraudulent act during the bidding process or the execution of the contract that benefited that person; and
- (g) The college will reject the bid of any bidder if that bidder or any of its directors -

- (i) has abused the supply chain management system of the college or has committed any improper conduct in relation to such system;
- (ii) has been convicted for fraud or corruption during the past five years;
- (ii) has willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years;
- (iii) has been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004); and
- (iv) who, in terms of any applicable law, is required to be possession of a current licence, registration certificate or authority to submit a bid in response to a bid invitation by the College.
- (h) The college will reject a bid from any bidder who failed to attend a compulsory site meeting or information session relative to a particular invitation to bid.

# B. GENERAL CONDITIONS OF CONTRACT

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## 1. Definitions

- 1. The following terms shall be interpreted as indicated:
- **"Closing time"** means the date and hour specified in the bidding documents for the receipt of bids.
- "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- **1.3 "Contract price"** means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
- **1.4 "Corrupt practice"** means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.
- **"Countervailing duties"** are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
- 1.6 "Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- **1.7** "Day" means calendar day.
- **1.8 "Delivery"** means delivery in compliance of the conditions of the contract or order.
- **1.9** "Delivery ex stock" means immediate delivery directly from stock actually on hand.
- 1.10 "Delivery into consignee's store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
- **1.11** "Dumping" occurs when a private enterprise abroad markets its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
- 1.12 "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.13 "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.
- **1.14 "GCC"** means the General Conditions of Contract.
- **1.15 "Goods"** means all of the equipment, machinery and/or other materials that the supplier is required to supply to the purchaser under the contract.

- 1.16 "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, 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 place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- **1.17 "Local content"** means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- **1.18 "Manufacture"** means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- **1.19** "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- **1.20 "Project site,"** where applicable, means the place indicated in bidding documents.
- **1.21 "Purchaser"** means the Eastern Cape CET College or any other agency or body on whose behalf it has been authorized to procure goods and services and includes the accounting officer of this college or his nominee.
- **1.22** "Republic" means the Republic of South Africa.
- **1.23** "SCC" means the Special Conditions of Contract.
- **1.24 "Services"** means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- **1.25** "State" includes the College:
- **1.26 "Written" or "in writing"** means handwritten in ink or any form of electronic or mechanical writing.

## 2. Application

- 2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- **2.2** Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.
- 2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.
- 3. General
- 3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable, a non-refundable fee for documents may be charged.
- 3.2 With certain exceptions, invitations to bid are only published in the local press or accessed electronically or in hard copy form from the college upon payment of x any prescribed fee.

## 4. Standards

- **4.1** The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.
- 5. Use of contract documents and information and also inspection.
- 5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only insofar as may be necessary for purposes of such performance.
- 5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
- 5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

## 6. Patent rights

The supplier shall indemnify the purchaser 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 the purchaser.

## 7. Performance security

- 7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
- 7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3 The performance security shall be denominated in the currency of the contract or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
  - (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
  - (b) a cashier's or certified cheque
- 7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.

## 8. Inspections, tests and analyses

- **8.1** All pre-bidding testing will be for the account of the bidder.
- 8.2 If it is a bid condition that supplies to be produced or services to be rendered should, at any stage during production or execution or on 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 college or an organization acting on behalf of the College.

- 8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
- Any contract supplies may, on or after delivery, be inspected, tested or analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal, the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.
- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof or to act in terms of Clause 23 of GCC.

## 9. Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- **9.2** The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.

## 10. Delivery and documents

- Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract.

  The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- **10.2** Documents to be submitted by the supplier are specified in SCC.

## 11. Insurance

11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

## 12. Transportation

12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

## 13. Incidental services

- 13.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
  - (a) performance or supervision of on-site assembly and/or commissioning of the supplied goods;
  - (b) furnishing of tools required for assembly and/or maintenance of the supplied goods;
  - (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
  - (d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
  - (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.
- Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

## 14. Spare parts

- As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:
  - such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
  - **(b)** in the event of termination of production of the spare parts:
    - (i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
    - (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

## 15. Warranty

- The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.
- 15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen

- (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.
- 15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 15.4 Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.
- 15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

## 16. Payment

- 16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.
- The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfillment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an acceptable invoice or claim by the supplier.
- **16.4** Payment will be made in Rand unless otherwise stipulated in SCC.

## 17. Prices

17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.

## 18. Contract amendments

**18.1** No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

## 19. Assignment

19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

## 20. Subcontracts

20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

## 21. Delays in the supplier's performance

21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.

- 21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier'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.
- 21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.
- 21.4 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.
- 21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties
- 21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without canceling 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 supplier'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 supplier.

## 22. Penalties

22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser 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. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

## 23. Termination for default

- The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
  - if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
  - (b) if the supplier fails to perform any other obligation(s) under the contract; or
  - (c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.

- 23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.
- Any restriction imposed on any person by the Accounting Officer will, at the discretion of the Accounting Officer, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.
- 23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
  - the name and address of the supplier and / or person restricted by the purchaser;
  - (ii) the date of commencement of the restriction;
  - (iii) the period of restriction; and
  - (iv) the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

## 24. 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, the State 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 the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in 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

## 25. Force Majeure

25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier 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.

25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier 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.

## 26. Termination for insolvency

26.1 The purchaser may, at any time, terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

## 27. Settlement of Disputes

- 27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
- 27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
- 27.4 Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.
- **27.5** Notwithstanding any reference to mediation and/or court proceedings herein:
  - (a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
  - (b) the purchaser shall pay the supplier any monies due the supplier.

## 28. Limitation of liability

- **28.1** Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6;
  - (a) the supplier shall not be liable to the purchaser, 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 supplier to pay penalties and/or damages to the purchaser; and
  - (a) the aggregate liability of the supplier to the purchaser, 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.

## 29. Governing language

29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

## 30. Applicable law

30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.

## 31. Notices

- 31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice.
- 31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

## 32. Taxes and duties

- 32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
- 32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
- 32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid, the college must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

## 33. National Industrial Participation (NIP) Programme

33.1 The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.

## 34. Prohibition of Restrictive practices

- In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, 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 (or bid rigging).
- 34.2 If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.
- 34.3 If a bidder(s) or contractor(s), has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

		FR		

Bidders must furnish hereunder details of similar works/service, which they have satisfactorily completed in the past. The information shall include a description of the Works, the Contract value and name of Employer.

EMPLOYER /INSTITUTION NAME	NATURE OF WORK/ PROJECT NAME	AWARDED AMOUNT	ANTICIPATED / ACTUAL COMPLETION DATE	EMPLOYER CONTACT NO.
DATE			NATURE OF BIRDER	

DATE	SIGNATURE OF BIDDER

Bidders must furnish hereunder details of similar works/service, which they have satisfactorily completed in the past. The information shall include a description of the Works, the Contract value and name of Employer.

PROJECT NAME	AWARDED AMOUNT	CONTRACT START DATE	ANTICIPATED / ACTUA COMPLETION DATE
			-
AL AMOUNT OF PROJECT	S CURRENTLY UNDERTAKE	N FOR EASTERN CAPE	R
	CET COLLEGE		IX.
		***************************************	
DATE		SIGNATURE OF	BIDDER

# **CONSTRUCTION GUARANTEE**

GUARAN	ITOR DETAILS AN	ND DEFINITIONS
"Guaranto	or" means:	
Physical a	address:	
"Employe	r" means:	,
"Contract	or" means:	
"Engineeı	r" means:	
"Works" n	neans:	
"Site" mea	ans:	
		reement made in terms of the Form of Offer and Acceptance and such amendments or may be agreed in writing between the parties.
"Contract	Sum" means:	The accepted amount inclusive of tax of R
Amount ir	n words:	
"Guarante	eed Sum" means:	The maximum aggregate amount of R
Amount in	words:	
"Expire D	ate" means:	
CONTRA	CT DETAILS	
	issues: Interim Pay d in the Contract.	yment Certificates, Final Payment Certificate and the Certificate Completion of the Works
PERFORI	MANCE GUARAN	TEE
1	The Guarantor's I	iability shall be limited to the amount of the Guaranteed Sum.
2	Guarantee and u of Completion of The Engineer and	period of liability shall be from and including the date of issue of this Performance p to and including the Expiry Date or the date of issue by the Engineer of the Certificate the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. d/or the Employer shall advise the Guarantor in writing of the date on which the Certificate the Works has been issued.
3	The Guarantor he	ereby acknowledge that:
3.1	*	this Performance Guarantee to the Contract is made for the purpose of convenience and strued as any intention whatsoever to create an accessory obligation or any intention eate a suretyship;

- 3.2 its obligation under this Performance Guarantee is restricted to the payment of money.
- Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
- A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
- 4.2 A first written demand issued by the Employer to the guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
- 4.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
- Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
- 5.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
- 5.2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
- 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
- It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
- Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
- The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- The Guarantor chooses the physical address as stated above for the service of all notices for al purposes in connection herewith.

- This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
- Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at	
Date	
	0
Capacity	
Guarantor's signatory: (2)	

## SOLAR INSTALLATION TECHNICAL SPECIFICATION

THE APPOINTMENT OF A CONTRACTOR FOR THE SUPPLY AND INSTALLATION OF SOLAR POWER SYSTEM AT CECILIA MAKIWANE CLC, BOFOLO CLC & OSBORN CLC. BID No. EC CETC/HO/04/07/2023

## For

## **Eastern Cape CET College**





## Compiled by

**Afroteam Consultants** 



**JULY 2023** 

## 1. STANDARDS FOR SOLAR SYSTEM INSTALLATION

The following standards shall be adhered to for the installation project;

- The batteries must conform to the latest edition of IEC 62133
- Inverter should comply with IEC 61683/IS 61683
- The inverter must conform to the latest edition of IEC 61727, IEC 61000-6-1, IEC 610006-2, IEC 62109 and IEC 62116 standards
- Solar Panel shell comply with IEC 61215:2000, IEC61730, IEC TS 62941.
- Distribution boards (5 kA short-circuit current) SANS 1765
- Wireways cables trunking and ducting for electrical installation SANS 61084-1

## 2. TECHNICAL SPECIFICATION FOR SOLAR POWER EQUIPMENT TO BE REQUIRED

Solar PV system should consist of following equipment:

- i. Solar Power Generation system consisting of required number of PV Modules.
- ii. Efficient On-Grid/Hybrid Inverters
- iii. Mounting structures
- iv. Cables and hardware
- v. Miscellaneous Item
- a. Junction box and distribution boxes
- b. Earthing kit
- c. Lightning arrestors
- d. PVC pipes and accessories
- e. Control room and civil pedestals

The supplied equipment must comply the below mentioned specifications:

## 3. PANEL MOUNTING STRUCTURE

- (i) The PV solar panel mounting metallic structure should be fixed mount L2 or L3 structure where required with 12 Gauge thickness, mounted on concrete base 6 inches above ground level. The tilt angle should set to year round compromise (Equal to latitude).
- (ii) The entire mechanical structure should be hot dipped galvanized and powder coated for longer life of the structure. Structure should be hot dip galvanized up to 90 micrones.

- (iii) The Surface azimuth angle of PV Module 1800 and the Tilt angle (slope) of PV Module should be according to the site location.
- (iv) The mounting structure must be engineered for wind resistance and safety as per geographical location of site.
- (v) Module should be fixed with the frame through SS bolts. The bolts should be tightened at the required angle.
- (vi) The Nuts, Bolts & Washers for modules & Mounting structures must be stainless steel material with appropriate gauge.
- (vii) Shading shall be avoided all over the year (around) from 30 minutes after the sunrise to 30 minutes before sunset (For installation purpose only).
- (viii) To allow regular cleaning of the solar modules, they should be easily accessible for personnel (For installation purpose only).

## 4. PV MODULE

- (i) The provided PV Module should be of best quality available in market. The PV module should have over nineteen percent (19%) cell efficiency.
- (ii) The PV module(s) shall contain Mono crystalline (PERC) silicon solar cells.
- (iii) The PV module have an ability to Works well with high-voltage input Inverters/ charge controllers
- (iv) The PV Panel must have clear anodized aluminum frame with Anti-reflection cover glass.
- (v) The power output of the module(s) under STC should be at optimum level.
- (vi) The operating voltage corresponding to the power output must be mentioned.
- (vii) The open circuit voltage of the PV modules under STC must be mentioned.
- (viii) The terminal box on the module should have a provision for opening for replacing the cable, if required and it should be waterproof
- (ix) The Solar Panel shell meet the requirement set in IEC 61215:2000, IEC61730, IEC TS 62941.
- (x) A specification sheet containing the following details should be laminated on module so as to be clearly visible from front/back side.
- (a) Name of the manufacturer or distinctive logo.
- (b) Model or Type No.
- (c) Serial number
- (d) Year of manufacturing
- (e) Peak Watt Ratting

- (f) Voltage and Current at Peak Power
- (g) Open Circuit Voltage
- (h) Short Circuit Current
- (i) Maximum input voltages
- (viii) Limited performance guarantees: panel power, in standard conditions, should not be less than 90% of nominal power for first 10-years of operation and at least 80% for the 20 years of operation with 12-year product warranty and 25-year linear power warranty.
- (ix) Solar panel should have to pack for safe transportation on non-metallic roads.

Note: Bidder should justify the specs with appropriate lab test reports/certifications from the principle manufacturer as part of the methodology.

## 5. POWER AND CONTROL CABLES

Power Cables of adequate rating as per IEC standard shall be required for interconnection of:

- Modules/panels within array
- Array & Hybrid Inverter
- Charge Controller & Battery
- Automatic Distribution Box & Loads
- i) The cable shall be A grade, heavy duty, stranded flexible copper conductor, PVC type A insulated, galvanized steel wire/strip armored, flame retardant low smoke (FRLS) extruded PVC type ST-1 outer sheathed. The cables shall, in general conform to IS-1554 P+I & other relevant standards.
- ii) External cables should be specifically adapted to outdoor exposure (see IEC 60811). Especially the outer insulation must be sunlight (UV)-resistant, weatherproof and designed for underground installation. Preferably rubber-coated and PE-coated cables shall be used.
- iii) The temperature resistance of all interconnecting wires and cables should be > 75° C. The minimum acceptable cross-section of the wire in each of the following sub-circuits is as in ISO IEC prescription:
- iv) Notwithstanding the ISO /IEC requirements, all wires must be sized accordingly to keep line voltage losses to less than 3% between PV generator and battery, less than 1% between battery and charge regulator, and less than 3% between battery and load, all of them at the maximum current conditions. (specifically for service providers)
- v) All wiring shall be color-coded (and/labeled in case of service providers)
- vi) All supplied wires must be in UV-resistant conduits or be firmly fastened to the building and/or support structure. Cable binders, clamps and other fixing material must also be UV-resistant, preferably

made of polyethylene. (for the case of service providers) vii) All connections should be properly terminated, soldered and/or sealed using MC4 connectors for outdoor and indoor elements. Relevant codes and operating manuals must be followed.

#### 6. INVERTERS

The DC power produced is fed to inverter for conversion into AC. In a grid interactive system AC power should be fed to the grid at three phase bus. Inverter should comply with IEC 61683/IS 61683 for efficiency and measurements and should comply IEC 60068-2 (1, 2, 14, 30) / Equivalent BIS Standard for environmental testing. Inverter should supervise the grid condition continuously and in the event of grid failure (or) under voltage (or) over voltage, Solar System should be disconnected to share with National Grid circuit Breaker / Auto switch provided in the inverter. Two types of inverters i.e. Grid Tie and Hybrid Inverters has been recommended based on the site design. Technical specifications of both inverters have been mentioned below: -

## 7. GRID-TIED INVERTERS/ ON-GRID INVERTERS

Important Features/Protections required in the Grid-Tie Inverter are-

- i) The grid-connected inverters shall comply with UL 1741 standard.
- ii) Power generated from the solar system during the day time is utilized fully by powering all building loads and feeding excess power to the grid as long as grid is available. In cases, where solar power is not sufficient due to more demand or cloud cover etc. the building loads should be served by drawing power from the grid. The inverter should always give preference to the Solar Power and will use Grid power only when the Solar Power is insufficient to meet the load requirement.
- iii) The output of the inverter must synchronize automatically its AC output to the exact AC voltage and frequency of the grid.
- iv) Inverter equipped with array ground fault detection option.
- v) Grid voltage should also be continuously monitored and in the event of voltage going below a pre-set value and above a pre-set value, the solar system should be disconnected from the grid within the set time. Both over voltage and under voltage relays should have adjustable voltage (50% to 130%) and time settings (0 to 5 seconds).
- vi) Metal Oxide Visitors (MOVs) should also be provided on DC and AC side of the inverter.
- vii) The inverter control unit should be so designed so as to operate the PV system near its maximum Power Point (MPP), the operating point where the combined values of the current and voltage of the solar modules result in a maximum power output.
- viii) The inverter should be a pure sine way inverter for a grid interactive PV system.
- ix) The degree of protection of the outdoor inverter panel should be at least IP-65.

- x) Typical technical features of the suggested inverters must mention as per following sequence.
- Continuous output power rating (1.1 times for 60 seconds)
- Nominal AC output voltage and frequency
- Accuracy of AC voltage control ±1%
- Accuracy of frequency control ±0.5%
- Grid Frequency Control range +/- 3 Hz
- Maximum Input DC Voltage range
- MPPT Range DC
- Ambient temperature -10 deg C to 55 deg C
- Humidity 95 % non-condensing
- Protection of Enclosure IP-65 (minimum)
- Grid Voltage tolerance -20 % and + 15 %
- Power factor control 0.95 inductive to 0.95 capacitive
- No-load losses < 1% of rated power
- Inverter efficiency (minimum) plus 97%
- Liquid crystal display should at least be provided on the inverters front panel or on separate data logging/display device to display following
- a. DC Input Voltage
- b. DC Input current
- c. AC Power output(kW)
- d. Current time and date
- e. Time active
- f. Time disabled
- g. Time Idle
- h. Temperatures (C)
- i. Converter status

The following should also be displayed like Protective function limits:

- Over voltage
- AC under voltage
- Over frequency

- Under frequency
- Ground fault
- PV starting voltage
- PV stopping voltage
- Over voltage delay
- Under voltage delay over frequency
- Ground fault delay
- PV starting delay
- PV stopping delay
- xi) Nuts & bolts and the inverter enclosure should be adequately protected taking into consideration the atmosphere and weather prevailing in the area.
- xii) Dimension and weight of the inverter should be indicated by the bidder in the offer.
- xiii) All doors, covers, panels and cable exits should be gasketed or otherwise designed to limit the entry of dust and moisture. All doors should be equipped with locks.
- xvi. Operation Modes:
- a. Night or sleep mode: where the Inverter is almost completely turned off, with just the timer and control system still in operation, losses shall be less than 2 W per 5 kW.
- b. Standby mode: where the control system continuously monitors the output of the solar generator until pre-set value is exceeded (typically 10 W).
- c. Operational of MPP tracking mode: the control system continuously adjusts the voltage of the generator to optimize the power available. The power conditioner should automatically re-enter standby mode input power reduces below the standby mode threshold. Front panel should provide display of status of the inverter.

#### **8. GRID TIED HYBRID INVERTER**

Hybrid inverter(s) (system configuration) with provision for net-metering and battery back-up, should convert DC power produced by SPV modules in to AC power and adjust the voltage & frequency levels to suit the local grid conditions. Pure Sine wave output. Ground Fault Protection. Residual Current Detection (RCD) protection. Monitoring software for real-time status display and fault control. The unit should be able to operate in a high ambient temperature environment. Efficiency must be 96% or above at full load. The inverter must conform to the latest edition of IEC 61727, IEC

61000-6-1, IEC 610006-2, IEC 62109 and IEC 62116 standards

Other important Features/Protections required in the INVERTER

- i) The grid-connected hybrid inverters shall comply with UL 1741 standard.
- ii) Power generated from the solar system during the daytime should be utilized fully by powering the critical building loads and feeding excess power to the grid as long as grid is available. In cases, where

solar power is not sufficient due to more demand or cloud cover etc. the building loads should be served by drawing power from the grid. The inverter should always give preference to the Solar Power and will use Grid/DG power only when the Solar Power is insufficient to meet the load requirement.

- iii) The output of the hybrid inverter must synchronize automatically its AC output to the exact AC voltage and frequency of the grid.
- iv) Inverter equipped with array ground fault detection option.
- v) The offered On-Grid Inverter must be of Hybrid type has an ability to synchronize with battery bank as backup system.
- vi) On-grid hybrid Inverters should have anti-islanded features built in and should continuously monitor the condition of the grid and in the event of grid failure; the inverter automatically switches to off-grid supply within 20-50 milliseconds and synchronize with battery bank and fulfil shortcoming from battery bank as PV-Battery hybrid system. The solar system should be resynchronized with the grid within two minutes after the restoration of grid or DG set.
- vii) Grid voltage should also be continuously monitored and in the event of voltage going below a preset value and above a pre-set value, the solar system should be disconnected from the grid within the set time. Both over voltage and under voltage relays should have adjustable voltage (50% to 130%) and time settings (0 to 5 seconds).
- viii) The inverter control unit should be so designed so as to operate the PV system near its maximum Power Point (MPP), the operating point where the combined

values of the current and voltage of the solar modules result in a maximum power output.

- ix) The inverter should be a true sine wave for a grid interactive PV system.
- x) The degree of protection of the outdoor inverter panel should be at least IP-65.
- xi) Typical technical features of the suggested inverters must mention as per following sequence.
- Continuous output power rating (1.1 times for 60seconds)
- Nominal AC output voltage and frequency
- Accuracy of AC voltage control ±1%
- Accuracy of frequency control ±0.5%
- Grid Frequency Control range +/- 3 Hz
- Maximum Input DC Voltage range
- MPPT Range DC
- Battery Input voltages + 48 VDC or Plus
- Ambient temperature -10 deg C to 55 deg C
- Humidity 95 % non-condensing

- Protection of Enclosure IP-55 (minimum)
- Grid Voltage tolerance -20 % and + 15 %
- Power factor control 0.95 inductive to 0.95 capacitive
- No-load losses < 1% of rated power
- Inverter efficiency (minimum) plus 97%
- Following should also be displayed like Protective function limits, Over voltage, AC under voltage, Over frequency, under frequency, ground fault, PV starting voltage, PV stopping voltage, over voltage delay, under voltage delay over frequency, ground fault delay, PV starting delay, PV stopping delay.)

Note: Bidder should justify the specs with appropriate lab test reports/certifications from the principal manufacturer.

## 9. SYNCHRONIZING EQUIPMENT

Solar PV systems should be provided with synchronizing equipment having three inputs for comparison i.e. grid supply vs. solar output, DG output vs solar output so as to connect the Solar PV systems in synchronism with grid or DG.

In case of grid failure, solar PV system should be disconnected from the grid and out of synchronization for a period DG supply is not restored. PV system should be synchronized with the DG supply after DG is started.

## 10. PROTECTIONS AND CONTROL

- i. PV system software and control system should be equipped with islanding protection as described above. In addition to disconnection from the grid (islanding protection i.e. on no supply), under and over voltage conditions, PV systems should be provided with adequate rating fuses, fuses on inverter input side (DC) as well as output side (AC) side for overload and short circuit protection and disconnecting switches to isolate the DC and AC system for maintenances are needed. Fuses of adequate rating should also be provided in each solar array module to protect them against short circuit
- ii. A manual disconnect switch and change over switch beside automatic disconnection to grid should also be provided at utility end to isolate the grid connection by the utility personal to carry out any maintenance. This switch should be locked by the utility personal.

#### 11. INTEGRATION OF PV POWER WITH GRID:

The output power from Solar PV system would be fed to the Hybrid inverter which feed some portion to battery bank for backup in case of grid failure and major portion converts DC produced by SPV array to AC and feeds it into the main electricity grid after synchronization. In case of grid failure, or low or high voltage, solar PV system shall be out of synchronization and shall be disconnected from the grid and feed power to the load as PV-Battery backup hybrid system. Once the DG set comes into service

PV system shall again be synchronized with DG supply and load requirement would be met to the extent of availability of power. The connection of the grid connected SPV power plant with the existing power supply system is shown in the diagram stated below

#### 12. HARMONICS STANDARD:

As per the standard of IEEE 519, the permissible individual harmonics level shall be less than 3% (for both voltage and current harmonics) and Total Harmonics Distortion (THD) for both voltage and current harmonics of the system shall be less than 5%.

#### 13. BATTERY BOX

i) The battery bank should be housed in a vented compartment that prevents users from coming in contact with batteries terminals. This compartment should be strong enough to accommodate the weight of the batteries. A mechanism to prevent opening and entry of the batteries should be provided. ii) The entire enclosure must be constructed to last at least twenty years without maintenance and should be protected against corrosion. The battery bank enclosure should have a clean and neat appearance.

## 14. BATTERY

Lithium-ion batteries of appropriate capacity with complete battery management system should be used in hybrid and off grid system where required.

The following testing information must be provided by the bidders:

- i) Charge/Discharge Efficiency
- ii) Self-Discharge
- iii) The batteries must conform to the latest edition of IEC 62133 and/or IEC 61960 (whichever is applicable).
- iv) The battery bank should provide backup to a critical load of building.
- v) The battery must ensure safe and reliable operation in the whole range of ambient temperatures from  $-10^{\circ}$  C to  $+50^{\circ}$  C.

- vi) The maximum permissible self-discharge rate is 5 percent of rated capacity per month at 25 C.
- vii) Cycle life of the batteries must be greater then 6000 when discharged down to depth of discharge (DOD) of 80% percent discharge rate.
- viii) The battery shall have a certificate of compliances, issued by a recognized laboratory.
- ix) Batteries should be packaged in order to withstand transportation on non-metallic road.
- x) The performance guarantee shall cover at least 05 years.

Note: Bidder should justify the specs with appropriate lab test reports/certifications from the principle manufacturer.

#### 15. MISCELLANEOUS ITEMS FOR INSTALLATION

#### **EARTHING MATERIAL:**

- i. Earthing is essential for the protection of the equipment & manpower. Two main grounding must be used for power equipment protection are:
- > DC Earthing.
- > AC Earthing.
- ii. DC and AC earthing should be installed separately where required as per standard.
- iii. In case of equipment earth all the non-current carrying metal parts are bonded together and connected to earth to prevent shock to the man power & also the protection of the equipment in case of any accidental contact.
- iv. To prevent the damage due to lightning the terminal of the lightning protection must be earthed separately. The provision for lightning & surge protection of the solar PV power source is required to be made as per standard.
- v. In case the solar PV Array could not installed close to the equipment to be powered & a separate earth has been provided for solar PV Panel.
- vi. Earth resistance shall not be more than 3 ohms. It shall be ensured that all the earths are bonded together to make them at the same potential.
- vii. `The Earthing conductor rating shall be rated for the maximum short circuit current. & shall be 1.56 times the short circuit current. The area of cross-section shall not be less than 2.5 sq. mm in any case.
- viii. The array structure of the PV modules shall be grounded properly using adequate numbers of earthing pits. All metal casing/ shielding of the plant shall be thoroughly grounded to ensure safety of the power plant.

## WIRING PVC/GI CHANNEL DUCTS

A product of good quality standard material with suitable size to be provided / used.

#### **FLEXIBLE PVC PIPE**

The flexible PVC pipe should be of good quality material with suitable size should be used.

#### **COMBINER BOX**

Combiner Box should be manufactured through GI material with 100% copper strip in it for termination of PV Arrays must be IP65 for outdoor installation.

#### **JUNCTIONS BOXES OR COMBINERS**

Dust, water and vermin proof junction boxes of adequate rating and adequate terminal facility made of fire resistant Plastic (FRP) shall be provided for wiring. Each solar shall be provided with fuses/ Circuit breakers of adequate rating to protect the solar arrays from accidental short circuit.

## **16. CIVIL WORKS**

The following civil works should be carried out.

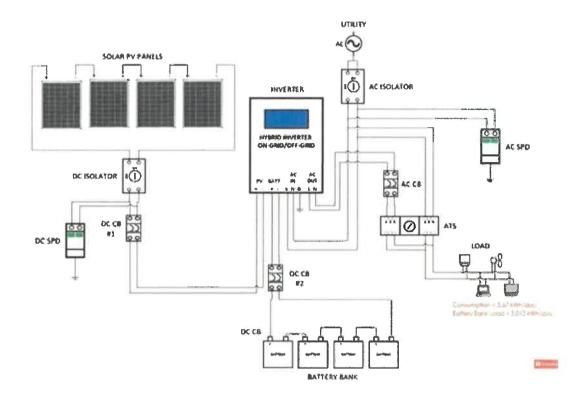
- i. Site grading, levelling, drilling exploratory bore holes and consolidation of the area pertaining to the installation of SPV modules.
- ii. Embedment of structures suitable for mounting PV modules.
- iii. Lying of earthing equipment /structures and connecting to the main ground as per the statutory requirements.
- iv. Construction of control room v. Cutting of cable trenches etc. wherever necessary

## **17. OTHER FEATURES:**

- (i) The PV Module(s) should be warranted for a minimum period of 10 years from the date of supply, inverter with five years and the battery should be warranted for a period of 5 years from the date of installation. The warranty card to be supplied with the system must contain the details of the system. The manufacturers can also provide additional information about the system and conditions of warranty as necessary.
- (ii) Adequate space should be provided behind the PV module/array for allowing unobstructed airflow for passive cooling.
- (iii) Cable of appropriate size should be utilized to keep electrical losses to a bare minimum.

- (iv) The control electronics should not be installed directly with the battery. All wiring should be in proper conduit of capping casing. Wire should not be hanging loose.
- (v) Instruction and O&M manuals
- ✓ Two copies of Instruction and Operation and Maintenance Manual in English and the local language should be provided with the system.
- √ The manual shall be furnished at the time of dispatch of the equipment and shall include the following aspects:
- a. Precautions during unpacking
- b. Instructions for handling at site.
- c. Erection drawings with written assembly instructions that would enable the Purchaser to carry out erection with his own personnel if opted by him.
- d. Detailed instructions and procedures for the installation operation and maintenance.
- e. Pre-commissioning tests.
- f. About solar PV system its components and expected performance.
- g. Principle of Operation of various equipment
- h. Safety and reliability aspects
- i. About power conditioning unit's software and controls
- j. Clear instructions on regular maintenance and troubleshooting of solar power plant.
- k. Name and address of the person or service centre to be contacted in case of failure or complaint.
- I. Outline dimension drawings showing relevant cross sectional views, earthing details, constructional features. Rated voltages and current etc.

# **CIRCUIT DIAGRAM**



## Preliminaries and Generals

Item	Description	Unit	Qty	Rate	Tota	1
	METERING AND CONTROL					
1	METER MUNICIPAL CONNECTION (three sites)					
	Bi-directional 6.6kV Bulk Meter, 3 phase, Demand and kWh					
	Schneider type EM3555 or similar, for monitoring import and					
	export to POS, including 6.6kV VT and 400/200:1 CTs and ethernet					
	communications					
1,1	Supply, deliver and installation	no	3		R	-
1,2	Commissioning	no	3		R	-
2	CONTROLLERS					
2,1	Power plant controller to manage active/ reactive	no	3		R	-
	power, one per bulk intake point, export monitoring and control.					
3	PERFORMANCE MONITORING SYSTEM					
3,1	Performance monitoring system for early detection of faults	item	1		R	_
	including communication to maintenance team. (price must be for					
	three sites)					
4	MISCELLANEOUS					
4,1	All other items not included above to complete the					
4.1.1	installation Supply, deliver and installation	prov sum	1	R 200 000,00	R	200 000,00
5	TESTING AND COMMISSIONING					
5,1	Testing and commissioning of installation and issue of Certificates	item	1		R	
	of Compliance					
6	WARRANTY AND MAINTENANCE					
6,1	Full warranty and maintenance of complete system for 5 years	month	12		R	
	after Practical Completion including inspections, cleaning, on site					
	replacement of faulty inverters, solar PV modules, etc. including cost of materials, labour, monthly reporting and overheads.					
	, and a second s					
	Total				R	200 000,00
	GENERAL OBLIGATIONS AND SITE ESTABLISHMENT					
1	Fixed Obligations Office	Item	1		R	
	Office equipment	Item	1 1		R	8
	Store	Item	1		R	- 5
	Workshop	Item	1		R	*
	Other (Specify)	Item	1		R	
2	Time related					
	Site Staff Supervision	Month Month	1 1		R R	*
	Company profit	%	R -		R	
	Transport and Accomodation	Month	l" 1		R	_
	Security	Month	1		R	-
3	Items related to Tender					
	Insurance	Prov Sum Prov Sum	1			30 000,00
	Cost of gurantee Financial retention	Prov Sum Prov Sum	1 1			20 000,00 16 700,00
E.	I menera retention	J. 101 Juli	. 1	11 10 700,00		10 / 00,00

		1	1			1
4	OHS					
	Provision of safety plan	Prov Sum	1	R 8 000,00	111	8 000,00
	Health and Safety Managent and supervison	Prov Sum	1	R 20 000,00	R	20 000,00
	Provision of medical aid kit on site	Item	1		R	- 1
	Appointment of accredited person on site	Item	1		R	-
	Safety clothing	Item	1		R	-
	OHS Compliance	Item	1		R	-
5	MOUNTING STRUCTURE FOR PV PANELS (3 sites)					
ľ	Carport mounting structure for mounting PV panels including					
	1 .					
	foundations, rails, brackets, etc. and removal of existing					
	structures. Structures to comply with SANS 10400-B and SANS	1				
	10160 for Johannesburg Wind Conditions 1:50 Year Design Wind					
5.1	Gust of 36m/s Supply, deliver and installation	sum	1	R 130 000,00	R	130 000,00
5.2	Commissioning	sum	1	R 30 000,00		30 000,00
J			1		R	-
6	Lightning protection LPL 1 and earthing, including air- terminals,	sum	1	R 30 000,00		30 000,00
	down-conductors and earth spikes, Dehn or					
	similar approved					
7	Structural Engineer's Involvement (3 sites)					
7.1	Inception	item	1		R	-
7.2	Stage 1	item	1		R	-
7.3	Stage 2	item	1		R	-
7.4	Handing Over to Client / Contractor	item	1		R	-
	Total				R	
	1001				Ë	
A	CECILIA MAKIWANE CLC COMPUTER LA	B AND HEA	D OFFICE ADM	IIN-100KVA		
14	Description		0.		T - 4 -	
Item	Description	Unit	Qty	Rate	Tota	
item	CABLE TRENCHES, CABLE SLEEVES & MARKERS	Unit	uty	Kate	Tota	
	CABLE TRENCHES, CABLE SLEEVES & MARKERS	Unit	City	Kate	1013	
1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING	Unit	City	Kate	Tota	
	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine	Unit	City	Rate	Tota	
1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated	Unit	City	Kate	1013	
1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD	Unit	Luty	Kate	10ta	
1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of	Unit	Uty	Kate	10ta	
1 1,1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surfaces material for sleeves ( cables.			Kate		_
1 1,1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surface material for sleeves (rables. 1000mm deep x 600mm wide	m	200	Kate	R	-
1 1,1 1.1.1 1.1.2	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surnlus material for sleeves (rables. 1000mm deep x 600mm wide 600mm deep x 600 mm wide			Kate		-
1 1,1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surface material for sleeves (rables. 1000mm deep x 600mm wide	m m	200 80	Kate	R R	-
1 1,1 1.1.1 1.1.2	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surplus material for sleeves/ cables. 1000mm deep x 600mm wide 600mm deep x 600 mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in	m m	200 80	Kate	R R	- - -
1 1,1 1.1.1 1.1.2 1.1.3	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surnlus material for sleeves/ cables. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).	m m	200 80 80	Kate	R R R	- -
1 1,1 1.1.1 1.1.2 1.1.3	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surplus material for sleeves/ cables. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services,	m m	200 80	Kate	R R	- - -
1 1,1 1.1.1 1.1.2 1.1.3 2	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surnlus material for sleeves (cables, 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services	m m m	200 80 80	Kate	R R R	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surflus material for sleeves (rahles. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables	m m	200 80 80	Kate	R R R	
1 1,1 1.1.1 1.1.2 1.1.3 2	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surnlus material for sleeves (cables, 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services	m m m	200 80 80 3 5	Kate	R R R	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surflus material for sleeves (rahles. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables	m m m	200 80 80 3 5	Kate	R R R	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surnlus material for sleeves (rables. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables  Supply & Installation of Danger Tape	m m m	200 80 80 3 5	Kate	R R R	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3 3 3,1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surplus material for sleeves/ cables. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200). Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables Supply & Installation of Danger Tape  CABLE MARKERS Cable Markers	m m m m³ m³	200 80 80 3 5 200	Kate	R R R R	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3 3 3,1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of suraliss material for sleeves (cables, 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables Supply & Installation of Danger Tape  CABLE MARKERS Cable Markers  Zin1 Combiner box	m m m³ m³ m	200 80 80 3 5 200	Kate	R R R R R R R	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3 3,1 4 4,1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surflus material for sleeves (rahles. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables  Supply & Installation of Danger Tape  CABLE MARKERS Cable Markers  2in1 Combiner box Supply	m m m m³ m³ m	200 80 80 3 5 200	Kate	R R R R R R R	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3 3	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of suraliss material for sleeves (cables, 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables Supply & Installation of Danger Tape  CABLE MARKERS Cable Markers  Zin1 Combiner box	m m m³ m³ m	200 80 80 3 5 200	Kate	R R R R R R R	
1 1,1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3 3 3,1 4 4,1 4,2	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surnlus material for sleeves (rables. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200). Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables Supply & Installation of Danger Tape  CABLE MARKERS Cable Markers  2in1 Combiner box Supply Install	m m m m³ m³ m	200 80 80 3 5 200	Kate	R R R R R R R	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3 3,1 4,1 4,2 5	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surnlus material for sleeves (rables. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables Supply & Installation of Danger Tape  CABLE MARKERS Cable Markers  Zin1 Combiner box Supply Install  6mm pv cable Red	m m m m³ m³ no	200 80 80 2 2 2 2	Kate	R R R R R R R R R	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3 3 3,1 4 4,1 4,2 5 5,1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surnlus material for sleeves/ rables. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200). Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables Supply & Installation of Danger Tape  CABLE MARKERS Cable Markers  2in1 Combiner box Supply Install  6mm pv cable Red Supply	m m m³ m³ no no	200 80 80 2 2 2 2 2	Kate	RRR RRR RRR RR	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3 3,1 4 4,1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surnlus material for sleeves (rables. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables Supply & Installation of Danger Tape  CABLE MARKERS Cable Markers  Zin1 Combiner box Supply Install  6mm pv cable Red	m m m m³ m³ no	200 80 80 2 2 2 2	Kate	R R R R R R R R R	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3 3 3,1 4 4,1 4,2 5 5,1	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surnlus material for sleeves/ rables. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200). Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables Supply & Installation of Danger Tape  CABLE MARKERS Cable Markers  2in1 Combiner box Supply Install  6mm pv cable Red Supply	m m m³ m³ no no	200 80 80 2 2 2 2 2	Kate	RRR RRR RRR RR	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3 3,1 4,1 4,2 5 5,1 5,2	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surnlus material for sleeves (rahles. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200). Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables Supply & Installation of Danger Tape  CABLE MARKERS Cable Markers  2in1 Combiner box Supply Install  6mm pv cable Red Supply Install  6mm pv cable black Supply	m m m³ m³ no no	200 80 80 3 5 200 2 2 2 2 2 2 500 500		RRR R RR RR RR RR	
1 1,1 1.1.1 1.1.2 1.1.3 2 2,1 2,2 2,3 3,3,1 4 4,1 4,2 5 5,1 5,2 6	CABLE TRENCHES, CABLE SLEEVES & MARKERS  CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine excavation) for trenches to widthsand depths as indicated below, backfill and compact in 200mm layers to 90% MOD AASTHO, including reinstating road surface, dispose of surflus material for sleeves (rables. 1000mm deep x 600mm wide 600mm deep x 600mm wide 600mm deep x 450mm wide  Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in hard rock material (as defined in SANS 1200).  Hand excavation for cross cuts, to expose services, excavation on top of or next to existing services Bedding and covering sand for cables Supply & Installation of Danger Tape  CABLE MARKERS Cable Markers  2in1 Combiner box Supply Install  6mm pv cable Red Supply Install  6mm pv cable black	m m m m³ mo no no no	200 80 80 3 5 200 2 2 2 2 2 2 500 500		RRR R RR RR RR	

8,1 8,2 9	35mm Battery cable black Supply Install 35mm Battery cable Red	m m	20 20	R	-
7,2 8 8,1 8,2	Install	1	1 1		
8 8,1 8,2 9 9,1	35mm Battery cable Red		1 20	R	-
8,2 9					
8,2 9	Supply	m	500	R	-
	Install	m	500	R	-
9,1	Anti-theft middle and End crumps				
	Supply	no	20	R	-
9,2	Install	no	20	R	-
10	6m Pv Rail				
10,1	Supply	no	60	R	-
10,2	Install	no	60	R	-
11	35mm 4 core Electric cable				
11,1	Supply	m	100	R	-
11,2	Install	m	100	R	-
12	550w Canadian solar panels		10		
12,1	Supply	no	48 48	R R	-
12,2	Install	no	48	"	-
13	Wall Trunking structure		100		
13,1 13,2	Supply Install	m m	100	R R	-
13,2	Install	"	100	"	-
11	10kw Hybrid inverter			P	
11,1	Supply Install	m m	5	R R	-
11,2	Iristan	"		"	_
12	Inline DC fuse and holders				
12,1 12,2	Supply Install	no no	8 8	R R	-
12,2	IIIStali	110		"	
13	48v/100ah Utra Energy Lithium ion Battery (4.8kw)		12	R	
13,1 13,2	Supply Install	no no	12	R	
15,2		"0		"	
14	Lugs 30 R25.00 R750.00		15	R	_
14,1 14,2	Supply Install	no no	15 15	R	-
14,2	IIIStali	lio	13	"	-
15	Pv fuse and holders		12		
15,1	Supply	no	12 12	R R	-
15,2	Install	no	12	"	-
16	Battery fuse Box				
16,1	Supply	no no	4 4	R R	-
16,2	Install	lio lio	4	"	-
17	Pv fuse and holders				
17,1	Supply	no	2	R R	-
17,2	Install	no	2	"	-
18	25mm Round flexable pipe		50		
18,1	Supply	m	50 50	R	-
18,2	Install	m	50	R	-
19	2in1 mc4 connector				
19,1	Supply	no	8	R	-
19,2	Install	no	8	R	-
20	MC4 connector			_	
20,1 20,2	Supply Install	no no	10	R R	-

	Tetal	-			T <sub>E</sub>	
_	Total	LOUINT CO			R	_
	OSBORN CLC - N	OUNT FE	RERE	ř –	T	
n	Description	Unit	Qty	Rate	Total	
	Description	Unit		Nacc	Total	
	CABLE TRENCHES, CABLE SLEEVES & MARKERS	1				
	CABLE TRENCH EXCAVATION AND RESURFACING Excavate in machine removable materials (hand or machine	1				
	excavation) for trenches to widthsand depths as indicated					
	below, backfill and compact in 200mm layers to 90% MOD					
	AASTHO, including reinstating road surface, dispose of					
	surnius material for sleeves/ cables.					
.1	1000mm deep x 600mm wide	m	200	1	R	-
.2	600mm deep x 600 mm wide	m	80		R	-
.3	600mm deep x 450mm wide	m	80		R	-
	Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in					
	hard rock material (as defined in SANS 1200).					
	Hand excavation for cross cuts, to expose services,	m³	] з		R	-
	excavation on top of or next to existing services					
	Bedding and covering sand for cables	m³	5		R	-
	Supply & Installation of Danger Tape	m	200		R	-
	CABLE MARKERS					
	Cable Markers	no	2		R	_
	Cubic Markers	110	1		"	
	2in1 Combiner box					
	Supply	no	4		R	-
	Install	no	4		R	-
	6mm pv cable Red					
	Supply	m	500		R	
	Install	m	500		R	-
					I"	
	6mm pv cable black					
	Supply	m	500		R	-
	Install	m	500		R	-
	35mm Battery cable black					
	Supply	m	20		R	
	Install	m	20		R	-
	35mm Battery cable Red		= 0.0			
	Supply Install	m	500 500		R	-
	IIIStali	m	300		R	-
	Anti-theft middle and End crumps					
	Supply	no	20		R	-
	Install	no	20		R	-
	6m By Pail					
1	6m Pv Rail Supply		30			
2	Install	no no	30		R R	3
			30		"	
	35mm 4 core Electric cable					
L	Supply	m	25		R	90
2	Install	m	25		R	-
	550w Canadian solar panels					
1	Supply	no	48		R	ä
2	Install	no	48		R	-
	Wall Trunking structure					
L	Supply	m	100		R	
2	Install	m	100		R	=

ĭ	Î.u	i	î			
11	10kw Hybrid inverter	_	,			
11,1 11,2	Supply Install	m m	3 3		R R	-
,-	instan	'''			"	-
12	Inline DC fuse and holders					
12,1	Supply	no	2		R	-
12,2	Install	no	4		R	-
13	48v/100ah Utra Energy Lithium ion Battery (4.8kw)					
13,1	Supply	no	6		R	-
13,2	Instali	no	6		R	-
l						
14 14,1	Lugs 30 R25.00 R750.00 Supply		8		R	
14,2	Install	no no	8		R	-
15	Pv fuse and holders					
15,1	Supply	no	6		R	-
15,2	Install	no	6		R	•
16	Battery fuse Box					
16,1	Supply	no	2		R	-
16,2	Install	no	2		R	-
17	Pv fuse and holders					
17,1	Supply	no	1		R	_
17,2	Install	no	1		R	-
18	25mm Round flexable pipe					
18,1 18,2	Supply   Install	m m	500 500		R R	-
10,2	Install	""	] 300		n	-
19	2in1 mc4 connector	1				
19,1	Supply	no	8		R	-
19,2	Install	no	8		R	-
20	mc4 connector					
20,1	Supply	no	10		R	-
20,2	Install	no	10		R	-
	Total	-			R	
С	BOFOLO CLC -FORT I	SEAUFORT 5	OKVA		I N	
Item	Description	Unit		Rate	Total	
	CABLE TRENCHES, CABLE SLEEVES & MARKERS					
1	CABLE TRENCH EXCAVATION AND RESURFACING	1				
1,1	Excavate in machine removable materials (hand or machine					
	excavation) for trenches to widthsand depths as indicated					
	below, backfill and compact in 200mm layers to 90% MOD					
	AASTHO, including reinstating road surface, dispose of		1			
l	surnlus material for sleeves/ cables.				_	
1.1.1	1000mm deep x 600mm wide	m	200		R	*
1.1.2 1.1.3	600mm deep x 600 mm wide 600mm deep x 450mm wide	m m	80 80		R	2
1.1.5	doonial deep x 450mm wide	""	00		n n	-
2	Extra over for items 2.1.1 to 2.1.3 for excavation (provisional) in					
	hard rock material (as defined in SANS 1200).	1.				
2,1	Hand excavation for cross cuts, to expose services,	m³	3		R	*
2,2	excavation on top of or next to existing services Bedding and covering sand for cables	m³	5		R	
2,2	Supply & Installation of Danger Tape	m	200		R	8
Ĭ	,		-30			
3	CABLE MARKERS				l_	
3,1	Cable Markers	no	2		R	~
4	2in1 Combiner box					
4,1	Supply	no	2		R	*
14,1	Panhhik	1110	. 2	) i	l K	

4,2	Install	no	2	R		
5	6mm pv cable Red					
5,1	Supply	m	500	R		
5,2	Install	m	500	R	(a)	
6	6mm pv cable black					
6,1	Supply	m	250	R	-	
6,2 	Install	m	250	R	-	
7	35mm Battery cable black	1				
7,1	Supply	m	20	R	- 1	
7,2	Install	m	20	R	-	
8	35mm Battery cable Red		]			
8,1	Supply	m	250	R	- 1	
8,2	Install	m	250	R	-	
9	Anti-theft middle and End crumps					
9,1	Supply	no	10	R	-	
9,2	Install	no	10	R	-	
10	6m Pv Rail					
10,1	Supply	no	60	R	- 1	
10,2	Install	no	60	R	-	
11	35mm 4 core Electric cable					
11,1	Supply	m	50	R	-	
11,2	Install	m	50	R	-	
12	550w Canadian solar panels					
12,1	Supply	no	45	R	-	
12,2	Install	no	45	R	- 1	
13	Wall Trunking structure					
13,1	Supply	m	100	R	-	
13,2	Install	m	100	R	-	
11	10kw Hybrid inverter					
11,1	Supply	no	4	R	-	
11,2	Install	no	4	R	-	
12	Inline DC fuse and holders					
12,1	Supply	no	2	R	-	
12,2	Install	no	2	R	-	
13	48v/100ah Utra Energy Lithium ion Battery (4.8kw)					
13,1	Supply	по	4	R	-	
13,2	Install	no	4	R	-	
14	Lugs 30 R25.00 R750.00					
14,1	Supply	no	15	R	-	
14,2	Install	no	15	R	-	
15	Pv fuse and holders					
15,1	Supply	no	3	R	-	
15,2	Install	no	3	R	-	
16	Battery fuse Box					
16,1	Supply	no	4	R	-	
16,2	Install	no	4	R	-	
17	Pv fuse and holders					
17,1	Supply	no	2	R	-	
17,2	Install	no	2	R	-	
18 18,1	25mm Round flexable pipe		50			
	Supply	m		R		

18,2	Install	m	50		R -		
19	2in1 mc4 connector						
19,1	Supply	no	16		R -		
19,2	Install	no	16		R -		
20	mc4 connector						
20,1	Supply	no	20		R -		
20,2	Install	no	20		R -		
	Total				R -		
D	PROFESSIONAL SERVICE PROVIDERS						
	Add the sum of R234 000.00 for professional service providers	item	1	R 234 000,00	R 234 000,0		
	Add the sum of R30 000.00 for health and safety agent		1	R 30 000,00	R 30 000,0		
	TOTAL				R		
	Metering and Control				R		
	Preliminaries and General				R		
	Sub Total 1 (A,B,C,and D)				R		
	Sub Total 2				R		
	Add R20 000 Contigency				R 20 000,0		
	Sub Total 3				R		
	Add 15% VAT				R		
	FORM OF OFFER						