public works
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Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE
DURBAN REGIONAL OFFICE

FILE NO: 19/2/3/2/3/960

REFERENCE NUMBER – DBN26/10/34

SERVICE DESCRIPTION: JUSTICE: MTUNZINI MAGISTRATE COURT SUPPLY, DERLIVERY AND INSTALLATION OF 12 KVA SOLAR SYSTEM

SUBMITTED BY:

Company Name: _____

CSD registration: _____

CLOSING DATE: 16/11/2026 @11:00
Box Number 16 – 05 Kensington Boulevard @Kingsmead office park

TECHNICAL ENQUIRIES	OTHER ENQUIRIES
Name : Mbongeni Putuzo Contact number : 066 262 2818 Email: mbongeni.Putuzo@dpw.gov.za	Name : Sibuko Mpungose Tel no. : 031 314 7377/ 082 781 9578 Email : sibuko.mpungose@dpw.gov.za

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Private Bag X54315, DURBAN 4000 Int Code: +27 31 Tel: 314 7000 website: www.publicworks.gov.za
Supply Chain Management: Ms. Sibuko Mpungose – 031 314 7377
Works Management – Mr. Mbongeni Putuzo

REQUEST FOR QUOTATION

You are hereby invited to submit a quotation for the supply and delivery of the following service to be rendered at **JUSTICE: MTUNZINI** **DBNQ26/10/34**

Bid response documents to be deposited in the bid box situated at **National Department of Public Works and Infrastructure: 05 Kensington Boulevard ,Kingsmead office park**

Item	Description	Quantity / Period
1	JUSTICE: MTUNZINI: SUPPLY, DERLIVERY AND INSTALLATION OF A 12 KVA SOLAR SYSTEM	ONCE OFF

CLOSING DATE: 16/11/2026, CLOSING TIME @ 11h00 AM

NB: No late documents will be accepted.

Kindly submit your quotation by fully completing the attached bid document and bill of quantities or specifications attached in hereunder, and clearly indicate the delivery period and the validity period of your quotation, Kindly also clearly indicates if you price includes or excludes VAT. ***"You may claim VAT only if you are a VAT Vendor"***

TERMS AND CONDITIONS

- If a supplier fails to deliver any or all goods or fails to deliver the required services within the specified period on the **order/ Contract or appointment letter** the Department of Public Works and Infrastructure may impose a penalty and further deduct from the order / contract a sum of the delayed goods or unperformed services, or terminate the contract in part or in whole.

- The Department of Public Works and Infrastructure quotation documents must be fully completed, signed by the bidder and bear the signature of witnesses and be forwarded to the aforementioned physical address or email, failure to comply with these requirements will result in the quotation being disregarded.

Yours Faithfully

SIGNATURE:

DATE: 30/10/2026

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PART A
PA 32: INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE					
BID NUMBER:	DBNQ26/10/34	CLOSING DATE: 16/11/2026		CLOSING TIME:	11:00 AM
DESCRIPTION	JUSTICE:MTUNZINI :SUPPLY, DERLIVERY AND INSTALLATION OF A 12KVA SOLAR SYSTEM				

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT *(STREET ADDRESS)*

NDPWI DURBAN REGIONAL OFFICE, SCM TENDER HALL, BOX 16

05 Kensington Boulevard ,Kingsmead office park

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO		TECHNICAL ENQUIRIES MAY BE DIRECTED TO:	
CONTACT PERSON	**Sibuko Mpungose**	CONTACT PERSON	**Mbongeni Putuzo**
TELEPHONE NUMBER	**082 781 9578**	TELEPHONE NUMBER	**066 262 2818**
FACSIMILE NUMBER		FACSIMILE NUMBER	
E-MAIL ADDRESS	**sibuko.mpungose@dpw.gov.za**	E-MAIL ADDRESS	**Mbongeni.Putuzo@dpw.gov.za**

SUPPLIER INFORMATION

NAME OF BIDDER				
POSTAL ADDRESS				
STREET ADDRESS				
TELEPHONE NUMBER	CODE		NUMBER	
CELLPHONE NUMBER				
FACSIMILE NUMBER	CODE		NUMBER	
E-MAIL ADDRESS				
VAT REGISTRATION NUMBER				
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR CENTRAL SUPPLIER DATABASE No:	MAAA
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES OFFERED?	☐Yes ☐No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES OFFERED?	☐Yes ☐No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]	

QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ YES ☐ NO
DOES THE ENTITY HAVE A BRANCH IN THE RSA?	☐ YES ☐ NO
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	☐ YES ☐ NO
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	☐ YES ☐ NO
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	☐ YES ☐ NO

IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.

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PART B
TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED (NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.**
1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
1.4. **THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).**
2. TAX COMPLIANCE REQUIREMENTS
2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER: .....

CAPACITY UNDER WHICH THIS BID IS SIGNED: .....
(Proof of authority must be submitted e.g. company resolution)

DATE: .....

A-03 (EC): NOTICE AND INVITATION FOR QUOTATION

THE DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE INVITES QUOTATIONS FOR:

Project title:	MTUNZINI MAGISTRATE COURT SUPPLY, DELIVERY AND INSTALLATION OF A 12 Kva SOLAR SYSTEM

Quotation no:		**Reference no:**	FILE No:19/2/3/2/3/960
Advertising date:		**Closing date:**	
Closing time:		**Validity period:**	84 Calendar days

1. REQUIRED CIDB GRADING

It is estimated that tenderers should have a CIDB contractor grading designation of ***1 EB*** *or higher, or* ***1 EB*** * or higher.

**Select tender value range and select class of construction works" or select "Not applicable" where only one class of construction works is applicable.*

It is estimated that potentially emerging enterprises should have a CIDB contractor grading designation of ***Not applicable Not applicable*** **PE** or higher, *or* ***Not applicable Not applicable*** **PE*** or higher.

**Select tender value range and select class of construction works" or select "Not applicable" where no or only one class of construction works is applicable.*

2. FUNCTIONALITY CRITERIA APPLICABLE YES ☐ NO ☒

Note 1: *Failure to meet minimum functionality score will result in the tenderer being disqualified.*

Functionality criteria[1]:	**Weighting factor:**
Total	**100 Points**

3. METHOD TO BE USED TO CALCULATE POINTS FOR SPECIFIC GOALS

[1]The points allocated to each functionality criterion should not be generic but should be determined separately for each tender on a case by case basis.

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

3.1. For procurement transaction with rand value greater than R2 000, 00 and up to R1 Million (Inclusive of all applicable taxes) the specific goals listed in table 1 below are applicable.

Table 1

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or • Any account or statement which is in the name of the bidder. Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE which is at least 51% owned by black women (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or • National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).
5.	An EME or QSE which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

Black people mean Africans, Coloureds and Indians, who - (a) are citizens of the Republic of South Africa by birth or descent; or (b) became citizens of the Republic of South Africa by naturalisation - (i) before 27 April 1994; or (ii) on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date. (BROAD-BASED BLACK ECONOMIC EMPOWERMENT ACT No 25899, 2003 of

4. RESPONSIVENESS CRITERIA

4.1. Indicate substantive responsiveness criteria applicable for this tender. Failure to comply with the criteria stated hereunder shall result in the tender offer being disqualified from further consideration:

1	☒	Only those tenderers who satisfy the eligibility criteria stated in the Tender Data may submit tenders.
2	☒	Tender offer must be properly received on the tender closing date and time specified on the invitation, completed either electronically (if issued in electronic format), or by writing legibly in non-erasable ink. (All as per Standard Conditions of Tender).
3	☒	Use of correction fluid is prohibited.
4	☒	Submission of a signed bid offer as per the DPW-07 (EC)
5	☒	~~Submission of DPW-09 (EC): Particulars of Tenderer's Projects.~~
6	☐	Bidders must comply with DPW-21 (EC): Record of Addenda to tender documents, if any.
7	☐	Submission of DPW-16 signed by the authorised official and completion of bid briefing attendance register.
8	☐	The tenderer shall submit his fully priced Bills of Quantities / ~~Lump Sum Document~~ (complete document inclusive of all parts) together with his tender.
9	☐	The tenderer shall submit his fully priced and completed sectional summary- and final summary pages with the tender.
10	☒	Submission of SBD3.1 - Pricing schedule must be fully completed.
11	☒	Bidding companies must provide proof that their employed technicians or artisans are qualified and experienced in solar system maintenance/Repairs,installation,commissioning,Testing related services.The submission of valid trade test (Electrical artisan or Heavy current Electrical technician).
12	☒	The Department reserves the right not to appoint if a bidder has been awarded 2 or more contracts of similar nature within the NDPWI in the last six months, for equity & fair distribution of work amongst service providers.
13	☒	Bidders are required to submit references from previous clients, including contact details and a brief overview of the services provided. Proof of past experience and successful completion of similar projects must be included in the form of a letter of award and a completion certificate for evaluation.this experience must include Single phase and 3-phase solar system installation projects.
14	☒	Bidder to submit a Valid PV GREEN CARD (regulated by South African Photovoltaic Industry Association (SAPVIA)) for a technician /Artisan (installation of solar system related work) employed by the bidding company.
15	☒	Valid Wiremans License letter by the Dept of labour for the owner of the company or for the employee who will be perfoming the work and also verifiable proof that He/ She is employed by the company that has been awarded to do the work of Solar system.

4.2. Indicate administrative responsiveness requirements applicable for this tender.

The Employer reserves the right to request further information regarding the undermentioned criteria. Failing to submit further clarification and/or documentation within seven (7) calendar days from request will disqualify the tender offer from further consideration.

1	☒	Any correction to be initialled by the person authorised to sign the tender documentation as per PA 15.1 or PA 15.2 resolution of board/s of directors / or PA15.3 Special Resolution of Consortia or JV's.
2	☒	Submission of applicable (PA-15.1, PA-15.2, PA-15.3): Resolution by the legal entity, or consortium / joint venture, authorising a dedicated person(s) to sign documents on behalf of the firm / consortium / joint venture.
3	☒	All parts of tender documents submitted must be fully completed in ink and signed where required.
4	☒	Submission of (PA-11): Bidder's disclosure
5	☐	Submission of PA-16.1 (EC): Ownership Particulars
6	☐	Submission of documentation relating to **risk assessment criteria** as contained in C 2.1 of DPW-03 Tender Data.
7	☐	Submission of (PA 40): Declaration of Designated Groups.
8	☒	Submission of proof of Registration on National Treasury's Central Supplier Database (CSD). Insert the Supplier Registration Number on the form of offer, including proposed sub-contractors if any
9	☐	Data provided by the tenderer in Part 2 of DPW-04 Contract Data (JBCC 2018) or DPW-05 Contract Data (GCC 2015) whichever applicable to be fully completed.
10	☒	The tenderer shall submit his fully priced Bills of Quantities (complete document inclusive of all parts) within 14 calendar days from request.
11	☐	Upon request, submission of fingerprints obtainable from local SAPS including any other additional documentation and information required for vetting purposes.
12	☐	Upon request, submission of a fully completed security clearance application form with supporting documentation and information as required. The security clearance form will be provided by the Employer for projects requiring a security clearance.
13	☒	Submission of current / valid letter of good standing, Workman's Compensation certificate for electrical related work (COIDA).
14	☒	All documents submitted by Bidder are subject to Verification to confirm validity.
15	☒	Submission of (PA32): Invitation to Bid
16	☒	The awarded Bidder will be required to submit proof of current and valid Public Liability Insurance, issued by a registered and authorised insurer. The cover must be active on the tender closing date and maintained for the full contract period, covering third-party injury/death and damage to property arising from fire-related works, including accidental leakage, discharge or flooding. The policy must not exclude damage to the Employer's existing property caused by the Contractor's operations.
17	☒	Varifiable proof that the contractor has succefully completed the installation,testing and commissioning of solar system (award letter and completion letter or certificate of completion that will be verifiable)
18	☒	Contractor and the client to sign the site visit form for quotation purpose and submitt with the tender document see the copy in the document attachment.

4.3. Indicate administrative requirements applicable for specific goals, Tenderers will not be required to submit the below documents if not provided in the original tender proposals, Failure to comply with the criteria stated hereunder <u>shall</u> result in the tenderer not allocated points for specific goals

1	☒	Submission of (PA-16): Preference Points Claim Form in terms of the Preferential Procurement Regulations 2022
2	☐	A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Certificate issued by a SANAS accredited service provider

5. THE FOLLOWING EVALUATION METHOD FOR RESPONSIVE BIDS WILL BE APPLICABLE:

☐ Method 1 (Financial offer)	☒ Method 2 (Financial and Preference offer)

5.1. This bid will be evaluated according to the 80/20 Preference points scoring system:

6. ELIGIBILITY IN RESPECT OF RISK TO THE EMPLOYER:

Standard risk management assessment criteria in respect of tenders received for routine projects in the engineering and construction works environments:

Tender offers will be evaluated by an Evaluation Committee based on the technical and commercial risk criteria listed hereunder. Each criterion carries the same weight / importance and will be evaluated individually based on reports presented to the Bid Evaluation Committee by the Professional Team appointed on the project. A tender offer will be declared non-responsive and removed from any further evaluation if any one criterion is found to present an unacceptable risk to the Employer.

In order for the evaluation reports to be prepared by the Professional Team, the Tenderer is obliged to provide comprehensive information on form DPW-09 (EC). Failure to complete the said form will cause the tender to be declared non-responsive and removed from any further consideration. The Employer reserves the right to request additional information over and above that which is provided by the Tenderer on said form. The information must be provided by the Tenderer within the stipulated time as determined by the Bid Evaluation Committee, failing which the tender offer will *mutatis mutandis* be declared non-responsive.

6.1 Technical risks:

Criterion 1: Experience on comparable projects during the past 5 years.

The tendering Service Provider's experience on comparable projects during the past 5 years. The number of current and previous comparable projects performed by the Tenderer as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer will be *mutatis mutandis* declared non-responsive.

Aspects to be regarded as "comparable" includes (but may be extended according to circumstances): size of projects (measured against monetary value or other project quantifying parameters), nature of projects (building, engineering, high/low rise, etc.), locality/area of execution (site-specific influences, knowledge of local conditions, etc.), complexity of project, projects for similar client department irrespective of end purpose of buildings/facilities created or in progress of being created and time scales of projects (normal, fast track, etc.) and stage of its/their development.

Criterion 2: Contractual commitment and quality of performance on comparable projects during the past 5 years.

Adherence to contractual commitments and quality of performance of comparable current and previous projects performed by the Tenderer during the past 5 years as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer.

Aspects to be considered include, but are not limited to the following:

1. The level of progress on current projects in relation to the project programme or, if such is not available/applicable, to the contractual construction period in general;

2. The degree to which previous projects have been completed within the contractual completion periods and/or extensions thereto, and the extend of penalties imposed;
3. Project performance: time management & programming of works, timeous ordering of materials and appointment of subcontractors;
4. Financial management: payment to suppliers and cash flow problems;
5. Quality of workmanship: extent of reworks and timeous attention to remedial works;
6. Personnel resources: suitably qualified and experienced, turnover in site staff and labour force, specifically site manager and foreman;
7. Personnel management: extent of labour disputes and ability to resolving labour disputes amicably;
8. Sub-contractors: extent of turnover in subcontractors, general liaison and payment problems experienced;
9. Contract administration: contractual aspects such as complying to laws and regulations, insurances, security, submission of required documentation timeously, reaction to written contract instructions, appointments of subcontractors, etc. as can generally be expected in standard/normal conditions of contract.
10. Health & Safety: adherence to regulations and compliance, and number of transgressions & serious incidents.
11. Plant & equipment: sufficient resources on site and in time.
12. Delays: extent of causing delays, submission of claims timeously, and abuse of or exaggerated delay claims.
13. Final account: extent to which the contractor assisted in finalising the final account.

Criterion 3: Suitably qualified and appropriately experienced human resources

Allocation of suitably qualified and appropriately experienced human resources, both in respect of principals and/or other staff (contract manager, site agent, site foreman including other professional, technical and/or administrative) of the tendering Service Provider to the project, as proof that the tendering Service Provider will be able to react/respond appropriately to the Services required herein. The Company Organogram with CV's and certified ID's of all principals and employed workforce as well as proof of Professional Registration will be verified. Current and future workload of the tenderer in relation to capacity and capability will also be considered. The tenderer should demonstrate that he or she possesses the necessary professional and technical qualifications and -competence in relation to the scope of work and work to be undertaken.

Criterion 4: Attendance of compulsory bid clarification meeting, if applicable

If applicable, submission of confirmation of DPW-16.1 (PSB) attendance of compulsory bid clarification meeting or proof of attending the compulsory virtual meeting by a suitably qualified and experienced representative of the tenderer in terms of PA-04 (EC): Notice and Invitation to Tender.

6.2 Commercial risks:

The financial viability assessment evaluates the risk over the life of the construction period, as to whether the tenderer will be able to deliver the goods and services which are specified in the contract and / or be able to fulfil guarantees or warranties provided for in the contract in order to complete the project successfully for the amount tendered.

Aspects to be considered include but are not limited to, the respective rates tendered, bank rating, financial capability and capacity whether the tenderer has or has access to sufficient financial resources to deliver the goods or services described in the tender documentation (including fulfilling any guarantees or warranty claims), whether the tenderer is not subject to any current or impending legal action (either formal proceedings or notification of legal action) which could impact on the financial standing of the tenderer or the delivery of the goods or services, financial report from auditors as proof of current liquidity, and company or any parent company or investor guarantee/s and financial statements.

7. COLLECTION OF QUOTATION DOCUMENTS

☐ Quotation documents are available for collection during working hours

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REPUBLIC OF SOUTH AFRICA

SBD 3.1

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…… Bid number……

Closing Time **11:00am** Closing date……

OFFER TO BE VALID FOR **84** DAYS FROM THE CLOSING DATE OF BID.

ITEM NO.	***QUANTITY***	***DESCRIPTION***	***BID PRICE IN RSA CURRENCY*** ** (ALL APPLICABLE TAXES INCLUDED)
……	……	……	……

*The price that appears on this form is the one that will be considered for acceptance as **a firm and final offer.***

NOTE:

Tenderers are to note that they have to pressure test every item connected to the Gas Suppression System and provide compliant certificates.

INSTALLATION OF A PV SYSTEM AT NTUNZINI DOJ ELECTRICAL INSTALLATIONS					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PV PANELS AND MOUNTING STRUCTURE				
	Supply, delivery, installation and commissioning of Solar Panels; Sigenergy Inverter, Lithium Iron Battery & a Gateway with communicaton system or similiar, with brackets, angle supports, DBs, cabling and accessories for this installation.				
1	Supply and install 620w bi-facial Solar Panes on a chromodek roof; enersol or equally approved, connections for two strings, panels with a gurantee of 10years & above.	Item	20		
2	Supply and install PV panel mounting equipment including rails, brackets, etc. the equipment must be corrosion-resistant. Contractor to submit the proposal to the engineer before installation.	item	1		
3	Supply and Installation of the lightning Protection and Earthing solar panels, including down-conductors and earth spikes by a Specialist Contractor. Earthing as per Soil Resistivity Test. Earthing of the Solar distribution boards. Allow for resistivity tests, reports and certificates for the this installation (Specialist)	Item	1		
	DC CABLES AND CONNECTORS				
4	Supply and install DC cables 6mm^2	m	100		
5	10mm^2	m	100		
6	Supply and install solar panel connectors compatible with the DC cables listed above. Connectors must be provided for the number of panels listed in item 1 above.	item	20		
	INVERTER, BATTERY, COMBINER BOXE & GATEWAY				
7	Supply and install DC Combiner box, with all the necessary ancilliary equipment, IP65, the combiner box to allow for two (2) strings with all the protection devises.	ea	1		
8	Supply and install a 12 kW 1-phase Hydrid Inverter sigenergy or equally approved, it must be equipped with surge arrestors. It must be flexible for future additions such as battery connections & with IP65 minimum rating. Built in MPPT trancker for the strings, all the necessary accessories; including wall mounts with a 10 year gurantee	ea	1		
9	Supply and install a 10,0kW lithium-ion battery sigenergy or equally approved to suit the above inverter. The battery must come complete with battery disconnector& fuses. Install communication cables and configure the inverter and batteries to the desired depth of discharge. The sigenergy or other equally approved must allow for at least two additional batteries on the Rack. 10 year gurantee on these batteries	ea	2		
10	Supply and install a 24kW Gateway (Controller) Grid Type sigenergy or similar, it must have all the featuers to be configuered with the above panels, inverter & battery. It must have smart features to manage the loads	ea	1		
11	Supply, install a Sigen or simmiliar communication module with a simcard. Any subscriptions & card must have a registration paid for the the contrator for five to ten year maximum.	ea	1		
	SUNDRY INSTALLATION MATERIALS				
12	Supply and install Sundry Installation Materials. These are other items not included in this document to complete the installation. The engineer is to be consulted before using the amount.	item	1		
	DISTRIBUTION BOARDS				
13	The contractor must fix the existing DB6 in the Judges Office, the work includes replacing damaged or missing doors or cover plates, making neat existing wiring, replacing broken door locks, installing new labels, danger signs, updating legends, general cleaning, tightening of loose connections, and remounting DB panels.Repace blanks and re-configure board for solar installation	Item	1		
14	Supply and install a steel surface-mounted distribution board (50A, 6kA, 1-phase main solar DB), IP 65. The contractor must also allow for all the necessary wiring accessories including busbars, mounting brackets, moving circuits and provide a single line schematic once the loads are confirmed by the Engineer, **SUB-DB SOLA**	item	1		
	SUPPLY AND INSTALL CIRCUIT BREAKERS AND EARTH LEAKAGE				
15	Allow for all the necessary mounting, connecting accessories,etc 10 - 40A, 6kA, Curve 2 SP	ea	6		
16	30-60A, 6 kA, Curve 2 DP	ea	2		
17	60 Amp, Double Pole earth leakage	ea	2		
18	Supply and install 4 pole 40kA surge arrester, type 1&2	ea	2		
19	Supply and install 1 pole 10kA surge arrester, type 1&2	ea	1		
				CARRIED FORWARD	R -

INSTALLATION OF A PV SYSTEM AT NTUNZINI DOJ ELECTRICAL INSTALLATIONS					
ITEM NO	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
				BROUGHT FORWARD	R -
20	issuing of CoCs for the DB 6 modified in Judges Office, the Sub Db - SOLA & the entire solar installation i.e. inverter, batteries, communications, etc.	item	2		
	SUPPLY AND INSTALL ISOLATORS				
	Allow for all the necessary mounting, connecting accessories,etc				
21	30-63A 6kA TP 400V AC	ea	1		
22	30-63A 6kA DP 230V AC	ea	2		
	SUPPLY AND INSTALL CONDUCTS, AND TRUNKING				
	PVC conduit surface mounting in ceiling voids including bending, short lengths, draw boxes, couplings, bends, tees and saddles.				
23	P8000 75mmx75mm Trunking with covers	m	90		
24	20mm PVC Diameter Conduit	m	100		
25	Round 20mm PVC conduit box of one to four way with covers	ea	5		
26	25mm PVC Diameter flexible conduit/sleeve	m	55		
	SUPPLY AND INSTALL SMALL POWER				
27	Allow for socket outlets to be replaced in High Court, Judges Office and label to read solar, colour to comply to PV standards.	ea	8		
	SUPPLY AND INSTALL AC CONDUCTORS				
	PVC insulated stranded copper conductors drawn into wireways and trunking including terminations and connections				
28	10mm² x 1C PVC SWA ECC	m	45		
29	6mm² x Insulated Earth Wire ECC	m	45		
30	6mm² x 2C PVC SWA ECC	m	30		
31	4mm² x Insulated Earth Wire ECC	m	30		
32	2.5mm² PVC Cu	m	300		
	GENERAL ITEMS				
33	Re-spray main DB and Sub DB Solar in Judges Office & in Child Witness Room to match existing	ea	2		
34	Trace existing distribution boards circuits, Isolate and remove cabling, circuits, etc. during installations. Make good on the wiring that goes to other offices/spaces after isolating equipment supplied by the solar.	Item	1		
35	The contractor to design this system, sign off by a registered engineer & register this installation with ESKOM or Municipality for SSEG installation. Also allow for As Built drawings for the electrical installation, including the solar system.	Item	1		
36	Undercoat & Painting of the internal wall surfaces to match the existing	m²	10		
37	Allow for roof repairs(Chromodek) sheets if any are damaged, it must match the existing	Item	Sum		
38	The contrator to seal all the joints and holes made for the solar panel brakets on the roof to support the rail for panels	Itwm	Sum		
	Sub-total				R -
	15% Vat				R -
				TOTAL	R -

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CSD No.	CIDB No.	
Name of tendering Entity above	Signature	Date

- Required by: .....
- At: .....
  .....
- Brand and model .....
- Country of origin .....
- Does the offer comply with the specification(s)? *YES / NO
- If not to specification, indicate deviation(s) .....
- Period required for delivery .....
  *Delivery: Firm / not firm
- Delivery basis .....

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

** "all applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

Signature of Bidder **Date**

ANNEXURE TO PA-03 (EC):

NOTICE AND INVITATION FOR QUOTATION

Project title:	**MTUNZINI MAGISTRATE COURT SUPPLY, DELIVERY AND INSTALLATION OF A 12 KVA SOLAR SYSTEM.**
Reference no:	**FILE No:19/2/3/2/3/960**

Quotation No:			
Advertising date:	**/ /2026**	**Closing date:**	**/ /2026**
Closing time:	**11:00PM**	**Validity period:**	**84 Days**

BIDDERS TO TAKE NOTE OF THE FOLLOWING

- Contractor must comply with OHS Act no. 85 of 1993 with Regulation.
- Contractor must be in good standing with Workman's Compensation. (COIDA - Electrical)
- Contractor must provide proof of relevant required registration and all compliant certification of conformances.
- Submission of Safety Plan before commencement on Site and Site Hand Over by Project Leader is compulsory before commencement of work on site, failure to comply may result in the cancellation of the appointment and non-payment for any work done without approval from project leader.
- **Bidding companies must provide proof that their employed technicians or artisans are qualified and that are experienced in the Solar system field. The submission of valid qualifications (Trade test) and accreditations if applicable will be a condition of appointment.**
- **Successful bidders must submit a Certificate of Service and Warranty upon completion.**
- **Valid PV GREEN CARD regulated by South African Photovoltaic Industry Association (SAPVIA) for the owner of the company or the employee who will be doing the SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF A 12kVA SOLAR SYSTEM.**
- **Contractor and the client to sign the site visit form for quotation purpose and submit with the tender document**
- **Non-compliance with this requirement may affect future engagements.**
- Submission of PA-09 Returnable documents

Chief Works Manager / Project Leader: M. Putuzo

Signature: 17-09-2026

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NATIONAL DEPARTMENT OF PUBLIC WORKS & INFRASTRUCTURE: CONFIRMATION OF VISITING THE SITE FOR QUOTATIONS BY THE SERVICE PROVIDER

File No.	-	19/2/3/2/3/960		Call Out No.	-	

M'TUNZINI

DESCRIPTION: ~~NTUZUMA~~ DOJ
SUPPLY, DELIVERY AND INSTALLATION OF A 12kVA SOLAR SYSTEM

The National Departmental Public Works and Infrastructure
Manager
Dear **Project Manager:**

I hereby confirm that I ---------- have visited this site for quotation purpose.
Attach six (6) A4 pictures for the roof structure CSC office where the system will be installed.

Contractor Rep

Date & Stamp

I the Client for **NTUZUMA DOJ** Department confirm that the service provider / contractor:_____visited this Site on _____for quoting.

Client Stamp

Date

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Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

ASSUMPTION OF DUTY & COMPLETION OF SERVICE CONTROL SHEET

Client	Town / Institution	Ref. No.	Normal/ Urgent or Term Contract	NDPWI Official Name
DOJ:	NTUNZINI	19/2/3/2/3/960		M. Putuzo

Description: SUPPLY, DELIVERY AND INSTALLATION OF A 12kVA SOLAR SYSTEM

1. (a) **Normal Services:** -
When assuming duty ensure that the order and bill of quantities/scope of works is shown to the client's representative on site, otherwise you will not be allowed to commence work.

(b) Emergencies/Urgent or Term Contract services: -
Reference number & Control / Area Works Manager's (who called you out) name & cell phone number to be given to clients' representative.

2. On completion of the Works (in all respects) this certificate with all other required paperwork must be immediately emailed or sent to the Area Works Manager to conduct a final inspection. Any delays on your part will result in client dissatisfaction & late payments. A copy of this signed completed sheet, needs to be left with the Client for record purposes.

NOTIFICATION OF COMPLETION BY CONTRACTOR
The above works is complete in all respects and is ready for inspection.

Trading Entity's Name and stamp above Contractors Signature Date

Work Warranty / Guaranty for this services and equipment: ( ) Years, ( ) Months, ( ) Days

THE CLIENTS CONFIRMATION: (COMPULSORY) Logistical Officer who complained or equal.

Name	Signature	Rank	Date Stamp

NDPW USE: CONFIRMATION OF SERVICE
I, the undersigned hereby confirm that the works **has / has not** been inspected and was **found / confirmed** to be satisfactory and complete in all respects (delete where n/a).

Chief WM

Name Rank CWM Signature Date

Order No.		Date issued	/ /	Inv no.	

Please proceed with this payment

	Name	Rank	Date in	Date out	Signature
Chief Works Manager		CWM			
Control Works Manager		CWM			

CONTRACT FORM - RENDERING OF SERVICES

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SERVICE PROVIDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SERVICE PROVIDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE SERVICE PROVIDER)

1. I hereby undertake to render services described in the attached bidding documents to (name of the institution)..... in accordance with the requirements and task directives / proposals specifications stipulated in Bid Number..... at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid .

2. The following documents shall be deemed to form and be read and construed as part of this agreement:

   (i) Bidding documents, *viz*
   - Invitation to bid;
   - Proof of tax compliance status;
   - Pricing schedule(s);
   - Filled in task directive/proposal;
   - Preference claim form for Preferential Procurement in terms of the Preferential Procurement Regulations;
   - Bidder's Disclosure form;
   - Special Conditions of Contract;

   (ii) General Conditions of Contract; and
   (iii) Other (specify)

3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.

5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT) .....

CAPACITY .....

SIGNATURE .....

NAME OF FIRM .....

DATE .....

WITNESSES

1 .....

2 .....

DATE: .....

CONTRACT FORM - RENDERING OF SERVICES

PART 2 (TO BE FILLED IN BY THE PURCHASER)

1. I..... in my capacity as.....
accept your bid under reference number .....dated.....for the rendering of services indicated hereunder and/or further specified in the annexure(s).

2. An official order indicating service delivery instructions is forthcoming.

3. I undertake to make payment for the services rendered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice.

DESCRIPTION OF SERVICE	PRICE (ALL APPLICABLE TAXES INCLUDED)	COMPLETION DATE	TOTAL PREFERENCE POINTS CLAIMED	POINTS CLAIMED FOR EACH SPECIFIC GOAL

4. I confirm that I am duly authorised to sign this contract.

SIGNED AT .....ON.....

NAME (PRINT) .....

SIGNATURE .....

OFFICIAL STAMP

WITNESSES

1 .....

2 .....

DATE: .....

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Department:
Public Works
REPUBLIC OF SOUTH AFRICA

SPECIFICATION FOR

NTUNZINI DOJ

SUPPLY, DELIVERY AND INSTALLATION OF A 12kVA SOLAR SYSTEM

AUGUST 2026

SPECIFICATION FOR THE SUPPLY DELIVERY AN INSTALLATION OF SOLAR ENERGY INSTALLATIONS

SECTION 1 – GENERAL
TABLE OF CONTENTS

Clause		Page
1.	Intent of Specification.....	4
2.	Standards and Codes.....	4
3.	Regulations.....	4
4.	Scope of Work.....	4
5.	Co-ordination.....	4
6.	Test Certificates and Inspections.....	5
7.	Guarantee and Maintenance.....	5
8.	Materials and Workmanship.....	5
9.	Imported Content.....	6
10.	Brochures.....	6
11.	Submittals.....	6

1. Intent of Document

The specification is intended to cover the complete installation of the solar plant. The minimum equipment requirements are outlined, but do not cover all the details of design and construction. Such details are recognised as being the exclusive responsibility of the contractor.

In all cases where a device or part of the equipment is referred to in the singular, it is intended that such reference shall apply to as many devices as are required to complete the installation.

2. Standards and Codes

All work and equipment shall be in accordance with the requirements of NRS097-2, and current regulations of all other codes applicable to this work.

3. Acts and Regulations

The installation shall be erected and tested in accordance with the following Acts and regulations:

a) The latest issue of SANS 10142-1 and -2: "Code of Practice for the Wiring of Premises",
b) The Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended,
c) The Local Government Ordinance 1939 (Ordinance 17 of 1939) as amended and the municipal by-laws and any special requirements of the local supply authority,
d) The Fire Brigade services Act 1993 Act 99 of 1987 as amended,
e) The National Building Regulations and Building Standards Act 1977 (Act 103 of 1977) as emended,
f) The Post Office Act 1958 (Act 44 of 1958) as amended,
g) The Electricity Act 1984 (Act 41 of 1984) as amended and
h) The Regulations of the local Gas Board where applicable.

4. Scope of Work

Supply, delivery and installation of the complete SOLAR installation set specified in this document.

5. Co-ordination

The Contractor shall co-ordinate his program with all relevant parts. His installation rates shall include for such "first fixing of plant as may be required, and for returning at a later stage to complete the installation when the other Contractor's has completed their operations, were necessary.

Delays due to lack of co-ordination between the Contractors shall not form a basis for claims be the Contractor of this Contract.

6. Test Certificates and Inspections

The following tests are to be carried out:

(b) After completion of the works and before first delivery is taken, a full test will be carried out on the installation for a period of sufficient duration to determine the satisfactory working thereof. During this period the installation will be inspected and the contractor shall make good, to the satisfaction of the Representative/Agent, any defects which may arise.
(c) The Contractor shall provide all instruments and equipment required the commissioning and testing of the installation at completion.
(d) Test reports of both tests as specified under (a) and (b) are to be submitted to the Departmental Engineer.

7. Guarantee and Maintenance

The Contractor shall guarantee the complete plant for a period of twelve months after the first delivery has taken place.

If during this period the plant is not in working order, or not working satisfactorily owing to faulty material, design or workmanship, the Contractor will be notified and immediate steps shall be taken by him to rectify the defects and/or replace the affected parts on-site at his own expense.

The Contractor shall maintain the plant in good working condition for the full twelve-month period to the final delivery of the installation. However, should the Contractor fail to hand over the plant in good working order on the expiry of the specified twelfth month, the Contractor shall be responsible for further monthly maintenance until final delivery is taken.

During this period the contractor will undertake to do 24/7-hour online monitoring of the performance of the plant and provide a monthly report to the client. Any on-site maintenance to be performed flowing from the 24/7-hour monitoring shall be taken at the cost of the contractor except for routine household cleaning operations to be attended to by the client and per the project manual.

NB: The Inverter & Battery must be guaranteed for 10 years. The PV Panels from 10year or more and the Gateway for 2 years and above.

8. Materials and Workmanship

(a) The work throughout shall be executed to the highest standards and to the entire satisfaction of the Representative/Agent who shall interpret the meaning of the Contract Document and shall have the authority to reject any work and materials, which, in his judgement, are not in full accordance therewith. All condemned material and workmanship shall be replaced or rectified as directed and approved by the Engineer.
(b) All work shall be executed in a first-class manner by qualified tradesman.
(c) The Contractor shall warrant that the materials and workmanship shall be of the highest grade, that the equipment shall be installed in a practical and first-class manner in accordance with the best practices and ready and complete for full operation. It is specifically intended that all material or labour which is usually

provided as part of such equipment as is called for and which is necessary for its proper completion and operation shall be provided without additional cost whether or not shown or described in the Contract Document.

(d) The Contractor shall thoroughly acquaint himself with the work involved and shall verify on site all measurements necessary for proper installation work. The Contractor shall also be prepared to promptly furnish any information relating to his own work as may be necessary for the proper installation work and shall co-operate with and co-ordinate the work of others as may be applicable.

(e) All components and their respective adjustment, which do not form part of the equipment installation work but effects the optimum and safe operation of the equipment shall be considered to form part of and shall be included in the Contractor's scope of works.

(f) All control equipment and serviceable items shall be installed and positioned such that they will be accessible and maintainable.

(g) The Contractor shall make sure that all safety regulations and measures are applied and enforced during the installation and guarantee periods to ensure the safety of the public and the User Client.

(h) The Contractor is to include for all scaffolding and safety lines for working at heights required to complete the work required.

9. Imported Content

This equipment will not be subject to fluctuations in the rate of exchange.
However, should the Contractor choose to be protected against fluctuations in the rate of exchange on imported equipment, the following conditions will apply:

a) The Materials Offered Ex-Import which forms part of this tender document, must be completed by the Contractor.

b) Any fluctuations in the rate of exchange will be for the account of the Government and shall be calculated from a date seven (7) days prior to the date of the Contractor's tender to a date seven (7) days after receipt by the Contractor's bank of the negotiable bill of lading or the exporter's invoice, provided this latter date is not later than 30 days after the date of payment. Thereafter, fluctuations in the rate of exchange shall not be for the account of the Government.

10. Brochures

Detailed brochures and specifications of all equipment offered shall be presented together with the tender documents.

11. Submittals

Full particulars, performance curves and illustrations of the equipment offered must be submitted with the Tender.

The successful Tenderer must, as soon as possible after receipt of the order, submit detailed drawings and wiring diagrams of the plant and the switchgear. One diagram shall be contained in a metal pouch on the wall adjacent to the logbook cabinet in a position to be agreed on.

SPECIFICATION FOR THE SUPPLY DELIVERY AND INSTALLATION OF A SOLAR POWER PLANT

SECTION 2 – GENERAL TECHNICAL SPECIFICATION

TABLE OF CONTENTS

Clause		Page
1.	General	8
2.	Site Information and Conditions.....	8
3.	Output and Voltage	8
4.	Solar Control Panel Unit	8
5.	Solar Plant General Technical Specification	9-15

1. General

Supply, deliver, install, commission, test and maintain a solar installation at Umlazi SAPS.

This installation must comply fully with all the sections of this document. This technical specification is supplementary to the Equipment Requirements, Section 2, must be read together where they are at variance the Technical Specification shall apply.

2. Site Information and Conditions

2.1 Location

The site is at UMLAZI SAPS

2.2 Site Conditions

The following site conditions will be applicable and equipment shall be suitably rated to develop their assigned rating and duty at these conditions.

a) Height above sea level : 1050 meter
b) Maximum ambient temperature : 37 °C
c) Maximum ambient humidity at lowest temperature : 70 %

3. Output and Voltage

No load voltage	:	400/230 Volt
Rating	:	12 kVA
Power at **0,9 power factor**	:	10,8 kW
Frequency	:	50Hz
Fault Level	:	6kA

The SOLAR plant is required to feed the following electrical load:

Type	Load (kW)	Power Factor
Discharge lighting		0.9
Fluorescent lighting		0.9
Heaters & plugs		1
Computers & radios		0.9
Kitchen Equipment		0.9

4. Solar Control Panel Unit

The switchboard shall comprise the complete change-over panel fed from the Sub-DB. All cables to and from the SOLAR PLANT switchboard will be installed by the electrical contractor as well.

All switch- and control gear shall be rated for a fault current level of 6kA. The switchboard/control panel unit of the SOLAR PLANT shall be a wall-mounted type, which shall be installed in the building earmarked for this purpose i.e. at CSC.

Distribution Board:	Sub –DB in CSC Office
Accommodation:	CSC
Doors:	Lockable Doors
Colour:	PV Regulations & SANS 10142 for Solar Installation
Fault Rating:	6kA
Type:	Wall mounted

5. Cables

The contractor will be responsible for all electrical cable connections associated with the complete SOLAR installation.

6. SOLAR PLANT GENERAL TECHNICAL SPECIFICATION

6.1 TERMS AND DEFINITIONS

Inverter
A power device that converts direct current to alternating current at a voltage and frequency which enables the generator to be connected to the utility grid.

Small-scale embedded generator (SSEG)
A small-scale embedded generator for the purposes of these Requirements is an embedded
generator with a generation capacity of less than 1000kVA (1MVA).

Utility
The electricity distribution service provider is responsible for the electricity grid infrastructure to which the customer is connected.

Suitably interlocked change-over switch
Switch required for off-grid-tied hybrid SSEG.

Abbreviations
ADMD: After Diversity Maximum Demand
AC: Alternating Current
AMI: Advanced Metering Infrastructure
DC: Direct Current
DSD: Distribution System Development (a section within the EGD Department)
ECSA: Engineering Council of South Africa
EG: Embedded Generation
EGD: Electricity Generation and Distribution Department of the City of Cape Town
kVA: kilovolt-ampere (unit of electrical power, often similar in magnitude to kW)
kW: kilowatt (unit of electrical power)
kWp: kilowatt peak (the rated peak output of solar PV panels)
LV: Low voltage
MV: Medium voltage
MVA: Megavolt-ampere (1000kVA)
NERSA: National Energy Regulator of South Africa
PV: Photovoltaic
RPP: Renewable Power Plant
SSEG: Small-scale Embedded Generation/Generator

6.2. APPLICABLE TECHNICAL STANDARDS

6.2.1 Earthing must be in accordance to SANS 10142-1 and NRS 097-2-1.

6.2.2 Lightning protection earthing shall be done on the Faraday Cage protection principle and aligned with the National Department of Public Works (NDPWI) "general electrical specifications" document's earthing-related requirements. This document is found on the NDPWI website.

SOLAR PHOTOVOLTAIC (PV) MODULES:-

The PV panels will be 620W Enersol, JA Solar/Jinko or similar, installed on a tiled roof on the main building on the section of the CSC as shown on the image attached:

- The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS standards Crystalline Silicon Solar Cell Modules IEC 61215/IS14286.
- The modules must conform to IEC 61730 Part-1 - requirements for construction & Part2 – requirements for testing, for safety qualification or equivalent IS.
- They must qualify to IEC 61701
- The total solar PV array capacity should not be less than the allocated capacity (kWp) and should comprise of solar crystalline modules of minimum 620Wp or above wattage.
- Adequate protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.
- PV modules must be tested and a credited IEC authorized test centres
- The module frame shall be made of corrosion-resistant materials, preferably having anodised aluminium.
- The rated output power of any supplied module shall have a tolerance within +/-3%.
- An identification plate shall be mounted on the rear of each panel listing:
    - Name of the manufacturer of the PV module
    - Name of the manufacture of Solar Cells
    - Month & year of the manufacture (separate for solar cells and modules)
    - Country of origin (separately for solar cells and modules)
    - I-V curve for the module Wattage, Im, Vm and FF for the module
    - Unique Serial No and Model No of the module
    - Date and year of obtaining IEC PV module qualification certificate.
    - Name of the test lab issuing IEC certificate.
    - Other relevant information on traceability of solar cells and module

WARRANTIES:-

Material Warranty shall include:

- The project developer should warrant the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than ten (10) years from the date of sale
- Defects and/or failures due to manufacturing
- Defects and/or failures due to quality of materials
- Non conformity to specifications due to faulty

Performance Warranty shall include:

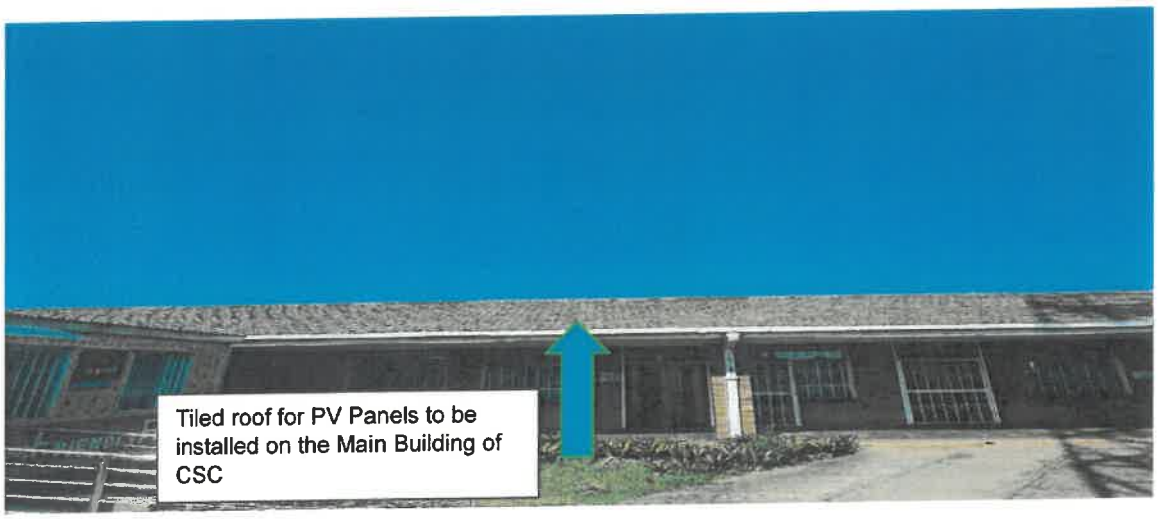
- The predicted electrical degradation of power generated not exceeding 20% of the minimum rated power over the 20 year period and not more than 10% after ten years period of the full rated original output.

ARRAY STRUCTURE :-

- Hot dip galvanized MS mounting structures may be used for mounting the modules / panels / arrays.
- Minimum thickness of galvanization should be at least 120 microns.
- The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed.
- Suitable fastening arrangement shall be provided allowing environmental and vandal-proofing requirements
- Aluminium structures also can be used provided corrosion be provided either by coating or anodization.
- Aluminium frames should be avoided for installations in coastal areas.
- The fasteners used should be made up of stainless steel.
- The structures shall be designed to allow replacement of any module while still have approved vandal-proofing characteristics.
- The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels.
- The total load of the structure (when installed with PV modules) on the roof structure shall be less than 60 kg/m2.
- The minimum clearance of the structure from the roof level should be 100mm.

JUNCTION BOXES (JBs):-

- Junction boxes (JB's) shall be made of GRP / FRP / Powder Coated Aluminium /cast aluminium alloy with full dust, water & vermin proof arrangement.
- All wires/cables must be terminated through cable lugs.
- The JBs shall be equipped with UV-resistant GPRS glands for cables
- Copper bus bars / terminal blocks must be fitted in the junction boxes to terminate each cable individually (no bunching allowed)
- Hinged doors shall have EPDM rubber gaskets to prevent water entry.
- Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs) / SPDs, suitable Reverse Blocking Diodes.
- The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.
- Suitable markings shall be provided on the bus bars for easy identification
- All fuses shall have DIN rail mountable fuse holders and shall be housed in thermoplastic IP 65 enclosures with transparent covers.



INVERTERS

The Inverter will be 12kW, Single Phase, Sigenergy or similar

The minimum technical specification of inverters shall comply with the following:

Nominal AC output voltage and frequency	230V, 1 Phase, 50 Hz
Grid Frequency Synchronization range	± 3Hz
Temperature	25~60°C, >45°C Derating
Humidity	95%
Enclosure	IP65
Grid frequency tolerance	+- 3Hz
Grid voltage range	±10%
No-load losses	1% of rated power
Inverter efficiency	>90%
THD	<3%
PF	>0.9
Niose	<45dB
Cooling	Smart Cooling

- A single-phase inverter shall be used unless otherwise specified by the departmental engineer. The inverter must have multiple string input ports as required by the design.
- The inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
- The output of power factor of the inverter shall be able to operate on a minimum load power factor of 0.8 lagging or leading
- Inverters shall have internal protection arrangement against any sustainable fault or surges in the feeder lines.
- Inverters shall have a built-in meter and data logger to monitor plant performance.
- Certifications and Standards
  Safety EMC / Standard: IEC62109-1/-2, EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4.

BATTERY STORAGE

The battery storage 10kWh (Sigenergy or similar, shall comply with the following:

The latest battery technology shall be applied,

- Unless otherwise specified in the Project Specification, Lithium Titanate Oxide (LTO) batteries shall be used, with the following minimum requirements:
  - Batteries shall be equipped with battery management systems (BMS) and preferably monitor each cell individually.
  - Design life cycle of 20 000 charge cycles at 90% load discharge per cycle.
  - Cells shall be serviceable by replacement on site with minimum interruption of usability.
  - Batteries shall be serviceable over a 0-year period from date of commissioning.
- The BMS shall have the following functionality.
  - Automatic balancing of load per cell and collectively
  - Monitor load distribution per cell collectively and individually
  - Have the facility to pre-set alarms to pre-warn against fault conditions which may arise.
  - Monitor battery temperature, preferably per cell and collectively
  - Monitor battery charging and load rates, preferably per cell and collectively

    - The battery pack shall have a built-in monitor screen on the front panel with basic functionality for on-site monitoring.
- The battery minimum operation voltage shall be set lower than the inverter minimum voltage.
- Battery packs shall be serviceable in the field.
- Batteries shall preferably be untradeable on site as new LTO battery technology takes place.
- The Solar contractor shall ensure the availability of field service staff for a period of 10 years from first day of commissioning.

DATA ACQUISITION SYSTEM / PLANT MONITORING
A gateway control or system controller with a screen shall be provided i.e. Sigenergy or equally approved.

- A 24/7-hour data Acquisition System and logger shall be provided and managed by the solar service provider for the first twelve months after commissioning as part of the tender price.
- The software shall be of open-source design to allow other service providers access should the original service provider be replaced for any reason.
- This service shall be offered on a retainer basis to the client after the twelve-month period.
- Data Logging Provision must be included for plant control and monitoring, time and date stamped system data logs for analysis with the high quality, suitable PC.
- Metering and Instrumentation for display of systems parameters and status indication shall be provided.
- A battery management system (BMS) shall be an integral part of the mentoring system.
- Temperature probes for recording the Solar panel temperature and/or ambient temperature shall be provided complete with readouts integrated with the data logging system.
- The following parameters are accessible via the operating interface display in real time separately for solar power plant:
    - AC Voltage.
    - AC Output current.
    - Output Power
    - Power factor.
    - DC Input Voltage.
    - DC Input Current.
    - Time Active.
    - Time disabled.
    - Time Idle.
    - Power generated.
    - Protective function limits (Viz-AC over voltage, AC under voltage, over frequency, under frequency, ground fault, PV starting voltage, PV stopping voltage).

The system must have a communication module with a simcard as there is no wifi or router on site. All communication systems, subscriptions, sim card registration and fees must be paid for by the service provider five (5) to ten (10) years, which forms part of the Bill of Quantities.

PV ARRAY

- Computerized DC String/Array monitoring and AC output monitoring shall be provided as part of the inverter and/or string/array combiner box or separately.
- The data shall be recorded in a common work sheet chronologically date wise. The data file shall be MS Excel compatible. The data shall be represented in both tabular and graphical form.
- All instantaneous data shall be shown on the computer screen.
- Software shall be provided for USB download and analysis of DC and AC parametric data for individual plant.
- Provision for instantaneous Internet monitoring and download of historical data shall be also incorporated.
- Remote Server and Software for centralized Internet monitoring system shall be also provided for download and analysis of cumulative data of all the plants and the data of the solar radiation and temperature monitoring system.
- Ambient / Solar PV module back surface temperature shall be also monitored on continuous basis.
- Simultaneous monitoring of DC and AC electrical voltage, current, power, energy and other data of the plant for correlation with solar and environment data shall be provided.
- Remote Monitoring and data acquisition through Remote Monitoring System software at the owner / MEDA location with latest software/hardware configuration and service connectivity for online / real time data monitoring / control complete to be supplied and operation and maintenance / control to be ensured.

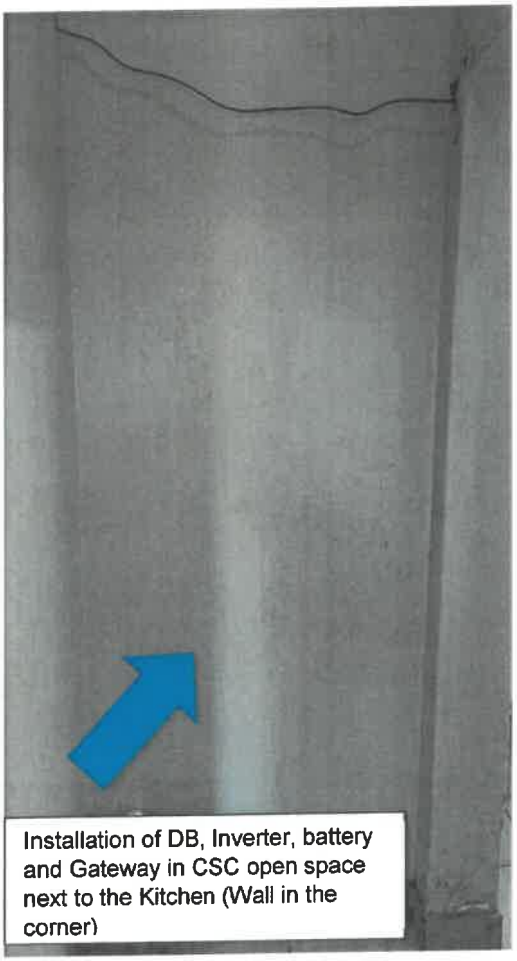
CABLES

Cables of appropriate size used in the system shall comply with the following specifications:

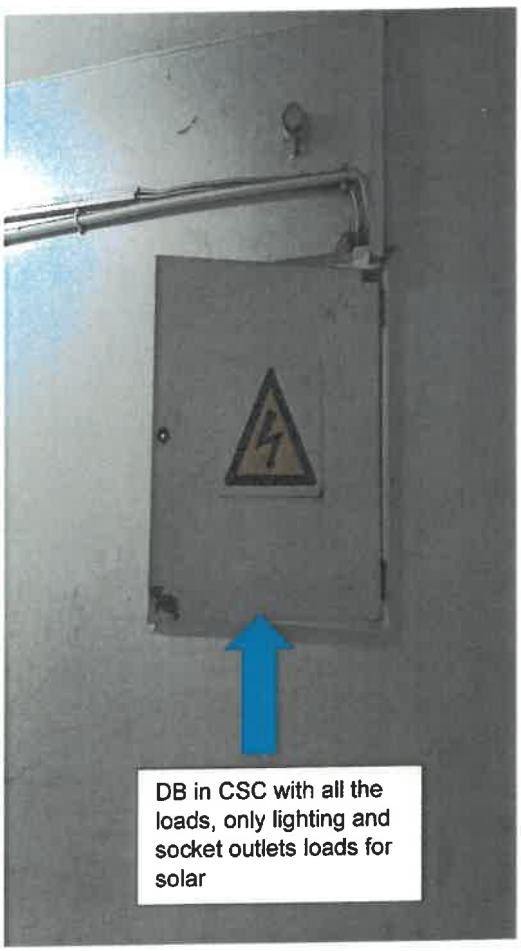
- Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards
- Voltage rating 660/1000V
- Excellent resistance to heat, cold, water, oil, abrasion, UV radiation
- Flexible
- Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum (2%)
- For the DC cabling, XLPE or, XLPO insulated and sheathed, UVstabilized single core multi-stranded flexible copper cables shall be used; Multi-core cables shall not be used.
- For the AC cabling, PVC or, XLPE insulated and PVC sheathed single or, multi-core multi-stranded flexible copper cables shall be used; Outdoor AC cables shall have a UV-stabilized outer sheath.
- The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use. Outer sheath of cables shall be electron beam cross-linked XLPO type and black in colour.
- The DC cables from the SPV module array shall run through a galvanised steel of adequate diameter to SANS specifications.
- Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers.
- All cables and conduit pipes shall be saddled at intervals not exceeding 500mm
- The minimum DC cable size shall be 4.0 mm^2 copper. (Aluminum cables are not allowed).

Cable Routing / Marking:

- All cable/wires are to be routed in conduit or sleeve channels and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified.
- Cable drum numbers / batch numbers shall be embossed/ printed at every one meter and indicated on the as built drawings on installation completion.
- Cable Jackets shall also be electron beam cross-linked XLPO, flame retardant, UV resistant and black in colour.
- All cables and connectors for use for installation of solar field must be of solar grade which can withstand harsh environment conditions including high temperatures, UV radiation, rain, humidity, dirt, salt, burial and attack by moss and microbes for 25 years and voltages as per latest IEC standards.
- DC cables used from solar modules to array junction box shall be solar grade copper (Cu) with XLPO insulation and rated for 1.1kV as per relevant standards only.
- The ratings given are approximate.
- All the cables required for the plant shall be provided by the solar contractor.



Installation of DB, Inverter, battery and Gateway in CSC open space next to the Kitchen (Wall in the corner)



DB in CSC with all the loads, only lighting and socket outlets loads for solar

SECTION 3.0 PROJECT SPECIFICATION

1. **SCOPE**
   This contract involves the manufacture, supply, delivery, installation and commissioning of the following:

   1.1. PV/Solar installation as detailed in the above specification.
   1.2. Coordination with other contractors, to ensure that service sleeves and power will be available for testing and commissioning of equipment. The programs for the various contractors must be coordinated with the main contractor.

   The contractors include but is not necessarily limited to the following:

   1.2.1. Communication and related systems
   1.2.2. Solar Installation
   1.2.3. Electrical Installations

   In case of discrepancies, the following order of precedence shall apply:

   - Statutory requirements.
   - Bills of quantities
   - Project Specification

2. **CABLE SLEEVE PIPES**

Where cables cross under roadways, other services and where cables enter buildings, the cables shall be installed in earthenware or high-density polyethylene pipes. The ends of all sleeves shall be sealed with a non-hardening watertight compound after the installation of cables. All sleeves intended for future use shall likewise be sealed.

The cable sleeves shall comply with the general electrical specification part A&B by the National Department of Public Works and Infrastructure.

3. **ELECTRICAL EQUIPMENT**
   Equipment must comply with the general technical specification, schedules of BOQ forming part of this specification

4. **DRAWINGS**
   Contactor will also provide design and as build drawings for this installation.

5. **BALANCING OF LOAD**

   The Contractor is required to balance the load on the three phase system and in the schedules of distribution boards for each building.

6. EARTHING AND BONDING

The Contractor will be responsible for all earthing and bonding of the building and installation. The earthing and bonding is to be carried out strictly as described in the General Technical Specification and to the satisfaction of the Engineer or Facilities Manager.

7. EXTENT OF WORK

For this installation, the Specialist Service Provider will design installation, sign of designs by an Engineer and register this installation with the Municipality as per the SSEG regulation. The work covered under this contract comprises the complete design, supply and installation of a PV System including the inverter, batteries, gateway and all cabling/accessories. The contractor to trace and move the lighting/socket outlet loads from DB in CSC to a separate solar DB, only lights and socket outlet circuits in CSC. The Electrical installation will be handed over in working order, as per this specification, including installations, testing, commission and certification of this solar system. COC for the installation as well as lightning/earthing certificate.

8. MAIN ELECTRICAL SUPPLY AND CONNECTION

The main electrical supply is from the Municipal miniature substation.

9. CONDUIT AND WIRING

Conduit and conduit accessories shall be PVC and black enamelled / galvanised screwed conduit, or black enamelled / galvanized plain end conduit in accordance with SABS 162, 763 and 1007 respectively for all exposed conduit.

9.1. Power Trunking

The Contractor shall be responsible for the supply and installation of all power trunking complete with corner pieces, end pieces, junction pieces, supply conduits, cover plates and power outlets as specified and indicated on the drawings. The rate per meter for the power trunking shall include for the accessories mentioned above.

The power trunking must comply with SABS 1197. The Contractor must ensure that the power trunking is installed to satisfaction of the Engineer before commencing with the wiring of the power trunking. Power trunking shall be of the three-tier steel type, secured to the walls at floor level with "Fisher" or similar approved plugs. Sleeves supplying power, Telkom or other services to the trunking shall end direct into the channel intended to provide the specific service and may not be routed through other channels.

10. CABLES

The Contractor shall supply and completely install all distribution cables as indicated on the drawings.

The storage, transportation, handling and laying of the cables shall be according to first class practice, and the contractor shall have adequate and suitable equipment and labour to ensure that no damage is done to cables during such operations.

11. LABELING OF ELECTRICAL OUTLETS

All electrical power outlets and light switches and cables shall be labelled on each outlet in accordance with the distribution board name and circuit number as indicated on the drawings.

The tender rates in the bill of quantities shall include the cost of the labelling.

Labelling may be done with "Dymo" tape or similar approved system prior to the hand-over of the installation to the client.

The labelling must be coordinated with the labelling system of the distribution boards.

SECTION 4 – SCHEDULES OF TECHNICAL INFORMATION

The following schedules must be completed for tender submission, failure of which the tender may be disqualified:

4.2 Equipment Detail

NO	ITEM	REMARKS
1.	Manufacturer's Name	
2.	Country of Origin	
3.	Inverter manufacturer's model No. and year of manufacture	
4.	Battery manufacturer's model No. and year of manufacture	
5.	Solar panel manufacturer's model No. and year of manufacture	
6.	Inverter kW rating ay 0,8 power factor (Full data sheet and specifications to be attached to the tender).	
7.	Battery pack kWh capacity for the full operating capacity (Full data sheet and specifications to be attached to the tender).	
8.	Solar panel kW rating per panel (Full data sheet and specifications to be attached to the tender)	
9.		
10.		
11.		
12.		

4.3 Recommended Spare Parts and Maintenance Facilities

NO	ITEM	REMARKS
1	Approximate value of spares carried in stock?	
2	Where are these spares held in stock?	
3	What facilities exist for the servicing of the equipment offered?	
4	Where are these facilities located?	

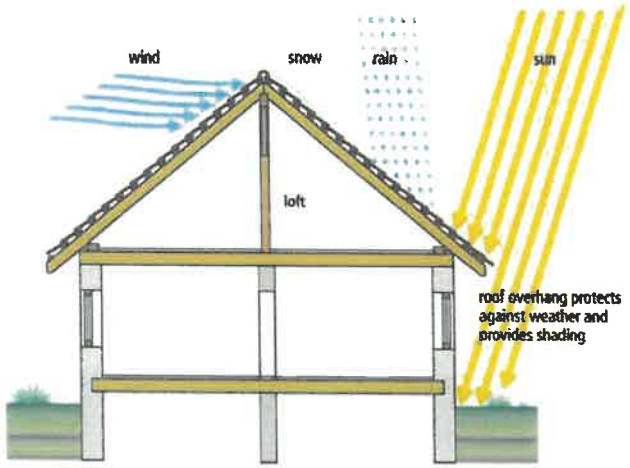
4.4 Deviation from the Specification as Alternative (State Briefly)

Full design details to be provided in case of a major deviation from the specification and quantities with new bills of quantities to be provided with the tender offer.

The main offer as specified will form the basis of evaluation of tenders and must be provided to avoid disqualification of the tender.

NO	DESCRIPTION

Installation example





Roof-top PV system

The roof is protecting the building against wind, sun, rain and – in some regions – also snow. After the installation of a PV system, the proper behaviour of all functions mentioned above must be ensured for the whole life-time of the PV system. The planner and the installer must have the necessary knowledge to avoid damage to the roof and the building itself. In many cases the mechanical installation of the mounting structure and the modules is performed by a roofer. The mechanical installation can also be done by another person – provided it is performed professionally.

During the mechanical installation it is inevitable that some electrical installation will be done as well. Once the modules are mounted, there is no access to the module cables and connectors, because they are between module and roofing and therefore out of reach. The person who does the mechanical mounting of the modules has to interconnect the modules and attach the cables. Today, most modules are equipped with cables and connectors. Therefore the interconnection of modules can be done by a trained non-electrician under supervision of an electrically skilled person – as long as there are no exposed live parts. Additional wiring and assembly of plugs must be performed by an electrician who must also ensure correct wiring of the whole PV system.

All persons involved in the mechanical and electrical mounting of a PV system must be aware of the risks of electrical energy, and the special behaviour of PV modules. An electrically skilled person must be designated to supervise all electrical mounting.

The most common roof types for residential buildings in South Africa are cement tiles and corrugated iron. For most roofing types, a suitable mounting system is provided by one or more mounting-system manufacturers. The installer must know all information given by the manufacturer, and has to follow the given advice and requirements stipulated in the installation guidelines.

The following pages will show a typical mounting situation for a roof-top system on a tiled roof – using hooks and rails as a mounting structure.

Installation example

SCHLETTER GmbH

Check list for a roof-parallel PV-plant

Inquiry regarding a roof-parallel PV-plant

*Please fill in the required fields!

Customer/no.:
Project:

Roof
*Inclination:
Alignment:
*Roofing:

Substructure
Rafters; girders (vertical)
*Distances:
*Material:
Purlins (horizontal)
*Distances:
*Material:

Modules
are clamped to:
L - long side
S - short side
(Approval by module manufacturer)
*Arrangement:
vertical horizontal
Modules per row:
Rows:
Module type:
*Measurements:
Length Width Thickness
Module power:

Geodetic data
*Postal code:
Height above sea level:
*Ridge height above top ground surface:
*Exposed location (for example isolated buildings on hills):
Yes No



*Terrain category 0	*Terrain category I	*Terrain category II	*Terrain category III	*Terrain category IV
Sea, coastal area exposed to the open sea	Lakes or area with negligible vegetation and without obstacles	Area with low vegetation such as grass and isolated obstacles (trees, buildings) with separations of at least 20 obstacle heights	Area with regular cover of vegetation or buildings or with isolated obstacles with separations of max. 20 obstacle heights (such as villages, suburban terrain, permanent forest)	Areas in which at least 15% of the surface is covered with buildings and their average height exceeds 15m

For plants outside of Germany: Basic snow load in kN/m² = Wind load in kN/m² =

Module arrangement (Sketch of the roof area; positioning of the modules; with all required measures and data; consider shadowing; total length north-south, further information, vertical/ horizontal mounting)



SAPVIA
South African Photovoltaic Industry Association

Number and position of hooks and rails

The required number of hooks depends on the load, and the structural behaviour of the hooks and rails. For structural design, the inquiry form of the manufacturer must be filled in. According to SANS 10160-3, a basic fundamental wind-speed of 28m/s is stipulated for most regions in South Africa.

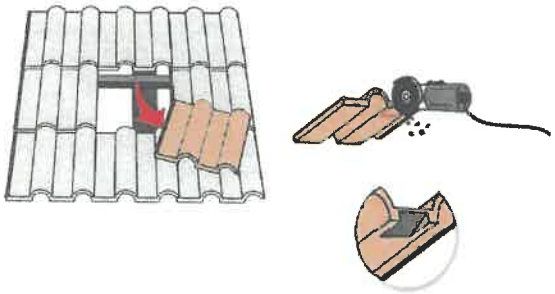
The inquiry will demand information of the location – including height above sea level and the wind load in kN/m², the terrain category, roof orientation and slope, dimensions and orientation of the modules and clamping points, and the distance between rafters and purlins/battens. If the location is prone to higher wind speeds and higher loads, this information must also be added to the inquiry.

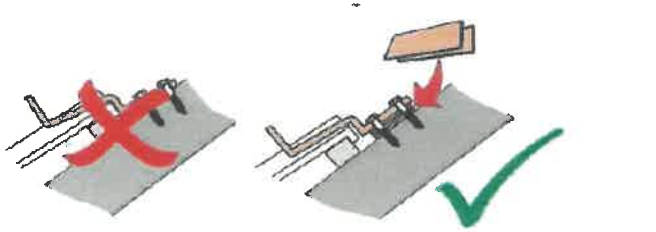
The structural analysis based on this inquiry is usually performed by the manufacturer. The installer is responsible for providing accurate information. The resulting design will stipulate the number of hooks per square metre and the maximum span and excess length of the rails – or even a detailed roof plan including the exact position for hooks and rails. The installer must prepare a roof plan if none is provided by the mounting-system manufacturer. If the hooks are mounted on every second rafter, they should alternate in each row to avoid excessive load on specific rafters. The installer is also responsible for the structural behaviour of the building itself. If in doubt, an expert in structural analysis should perform the necessary calculations.

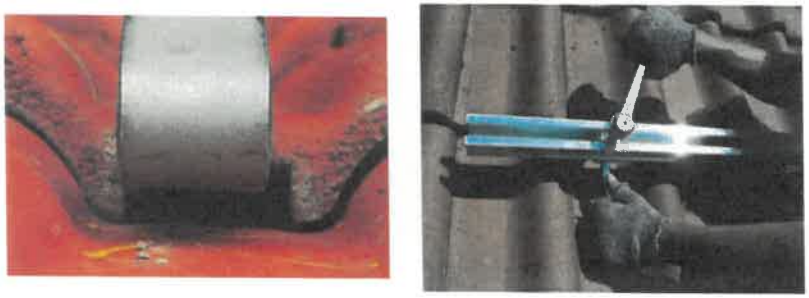
The structural behaviour of rafters can be affected by fungus or for other reasons. Before and during the installation, all abnormalities must be considered. If in doubt, consult an expert on structural analysis.

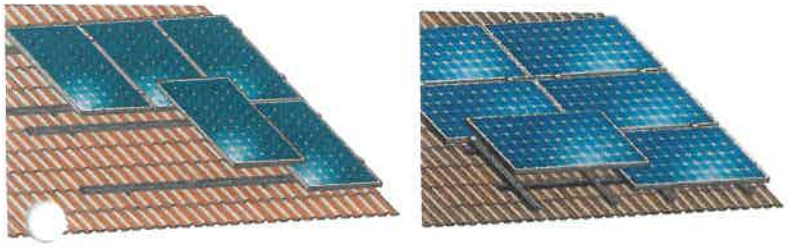
The roof plan has to be transferred onto the roof. With a chalk line and crayons, the outline of the PV array and the position of the hooks can be marked. If the PV system cannot be mounted as originally planned due to roof structures or other reasons, a redesign will be necessary.

Installation example









Hook and rail mounting

Remove the upper tile at a hook position, and grind it to prevent contact between the tile and the hook.

Usually, the shaped tile is replaced in its position, and pushed up to mount the hook.

The hook is mounted to the rafter using at least two screws that can hold the load. To ensure that the wood is not splintered, pre-drilling might be necessary as well as ensuring a sufficient distance to the edge of the rafter.

The hook may not touch the lower tile; it is necessary to have a gap of 5 mm. As necessary, the height must be adjusted with durable layers such as plywood.

After the hook is mounted, the upper tile is pulled back to its former position. It is important that a minimum overlap of the upper and the lower tiles is observed in order to avoid leakage from rain.

It is advisable to start with the upper hooks. To get a proper appearance, these hooks should be aligned with the roof using a chalk-line. Don't use a level, but rather align it to the roof itself to avoid a levelled PV system on a skew roof.

After mounting the hooks, the rails are bolted to the hooks. The position of the hooks depends on the position of the rafters and the tiles. Due to slotted holes in the hooks, some adjustment of the rail position is possible. The position of the rails must ensure correct clamping of the modules. A minimum gap between the module rows needs to be provided. If the hook position doesn't fit these requirements, it might be better to use a double-layer rail installation.

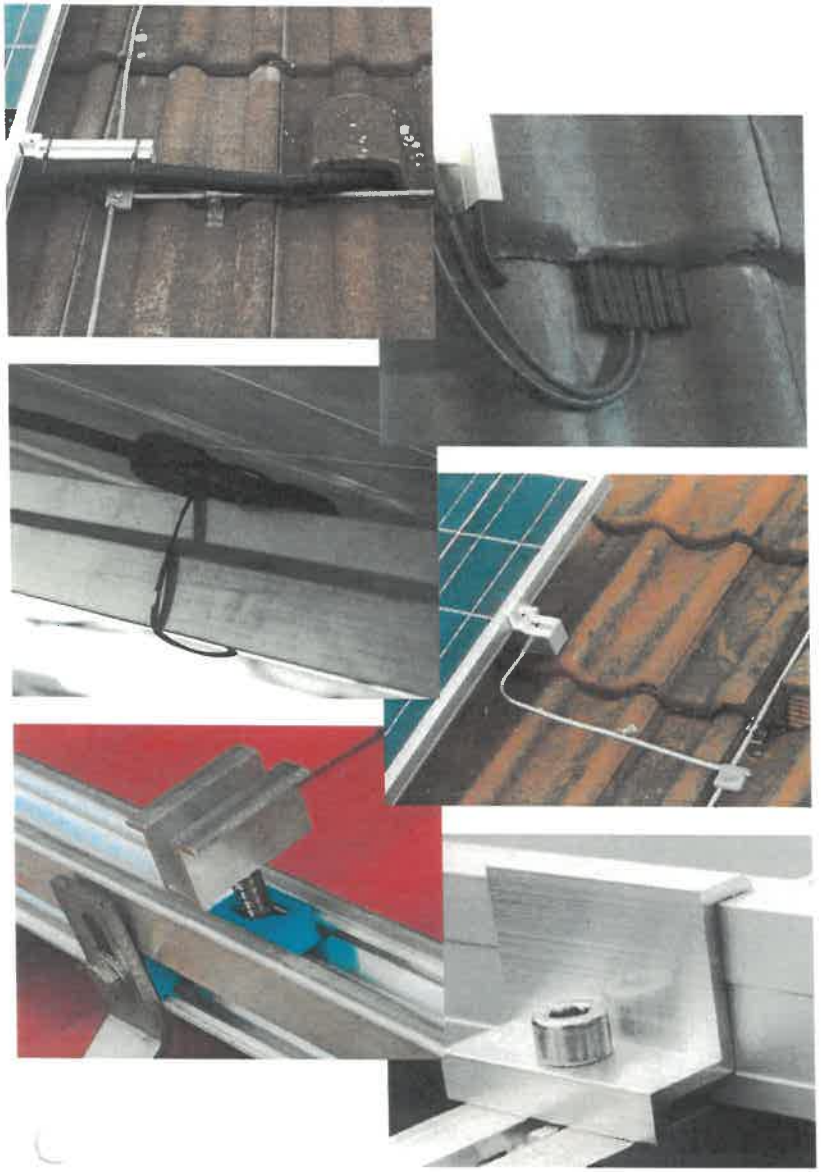
The cutting of rails must be performed on the ground in order to avoid metal swarf on the roof.

For sagging roofs it might be necessary to use plates (aluminium or stainless steel) as an additional layer between hook and rail in order to avoid a sagging PV array.

Some manufacturers provide adjustable hooks for easy adjustment. When in doubt about the suitability of a system always consult the manufacturer.

Observe all safety instructions while using the grinder, cutter and other tools!

Installation example



Cable laying and module mounting

Because the cables and the inlet are underneath the PV modules, the wiring on the roof must be performed before or during mounting of the modules. A detailed wiring plan should be on hand during installation.

For an inlet, one tile may be replaced with a ventilation tile or a tile which is shaped in such a way that cables protected by a soft but durable layer can pass through it without lifting the upper tile. All cables from the inverter to the inlet and the string cable should be laid in place and firmly attached. Plug assemblies for all DC cables should be performed by a skilled electrician. Incorrect assembly and the use of incompatible connectors by third-party manufacturers are the main reasons for arcing and therefore fire.

A bonding of 6 mm² Cu (or comparable) of the metal substructure to potential equalisation must be performed. Because of the anodised aluminium the module frame cannot be used for equalisation. The installer must ensure that all rails are correctly bonded.

Once the wiring is completed, the modules can be put in place and clamped to the mounting structure. The string interconnection of one module to another must be performed in parallel – because the back of the modules are inaccessible once they are mounted. The installer must put the module in place, plug in the cable coming from the previous module, attach the module cable to the mounting structure, lay down the module to its final position, and fasten the clamps – in one work step.

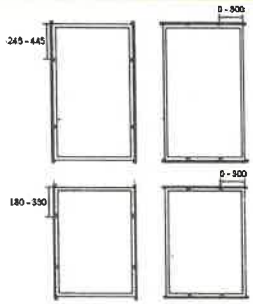
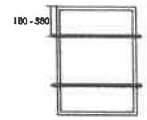
The plugs must not touch the roofing and the cables should not lie on the roofing. The wiring must be fastened in such a way that no damage to cable and plugs will occur for the life-time of the PV installation.

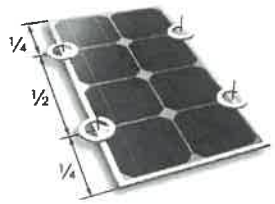
The minimum gap between the modules may depend on the clamp dimensions. Due to roof sagging or other reasons, sometimes the gap can be wider. The installer has to ensure that the clamp lies sufficiently on both module frames and the rail, in order to ensure a proper clamping.

The end clamp lies on the module frame and the rail. To ensure a proper clamping, the height of the clamp must correspond to the frame. Furthermore, a sufficient rail length is necessary to ensure that the end-clamp will not slip off the end of the rail.

Module clamps need to be tightened to the correct torque using a torque wrench. Please refer to the manufacturer's installation manual.

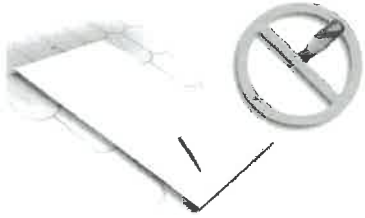
Installation example

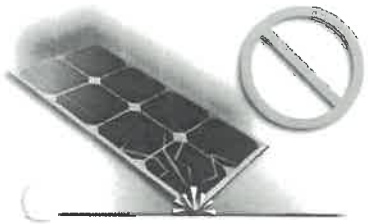
TYPE OF INSTALLATION	MODULE	POINT MOUNTING SYSTEM	LINEAR MOUNTING SYSTEM
INSTALLATION WITH CLAMPS	Q.PRO-G3 Q.PEAK-G3 Q.PEAK BLK-G3		
	Q.PEAK S-G3		













Module handling hints

Follow the module installation manual. If no manual is on hand, the clamping points shall be at the quarter points of the long side of the module.

Do not step on the module. Even if no glass breakage occurs, micro cracks or other visible or invisible damage to the modules may occur. If some work in the PV array area is inevitable, use special tools such as walkways or ladders protected with a soft layer to avoid high-static loads on the modules.

Don't drill into the module frame. This will void the manufacturer's warranty. If the back sheet is damaged, there is also a high risk of isolation faults.

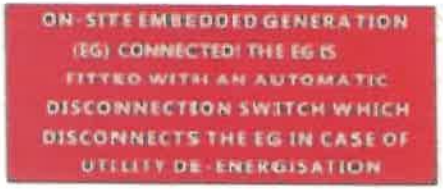
Don't let any tools scratch the back sheet. Be careful at the end of a rail while mounting the module. Avoid clamps under a module during installation. If modules are stored on top of each other, always lift a module without sliding from the pile. When sliding modules across each other, the frame of the lower module might scratch the back sheet of the next module.

Don't let the modules fall down – especially on a corner. Even for framed modules, glass breakage or other damage might occur.

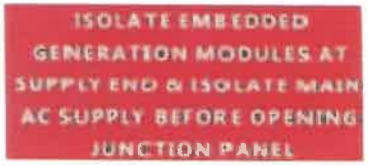
Module handling should always be performed by two persons in order to avoid the risks mentioned above. The best way of handling a module is using a hand-held suction lifting pad.

Installation example









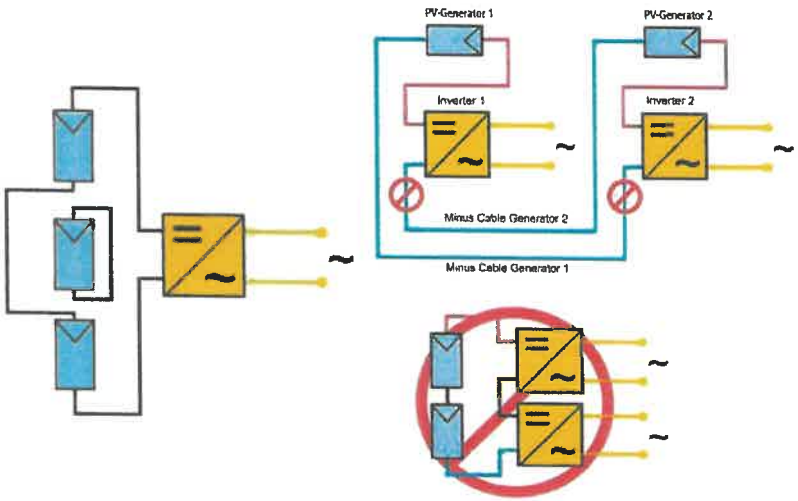
Inverter installation and AC connection

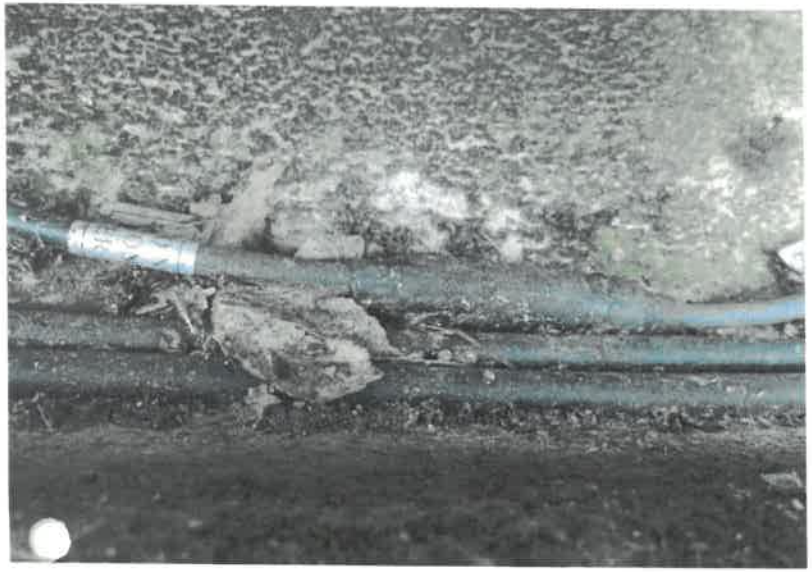
The mounting position for the inverter depends on the ingress protection (IP) rating of the inverter. For outdoor mounting, an IP rating of at least 54 is mandatory. Even then, a sheltered installation is recommended.

The DC string or main cables must not connect to the inverter before commissioning!

The necessary components in the distribution board – such as AC isolators, circuit breakers and an energy meter – depend on the requirements of the grid company and the applicable standards.

Even though it is not mandatory in South Africa, warning signs should be attached near the inverter and at the distribution board. These signs should clearly indicate that a PV installation is mounted on the roof and that the DC cables are energised – even when the inverter is isolated from the grid.





Typical electrical failures in PV installations

During installation some failures may already occur due to wiring faults. If plugs are assembled to a cable the polarity must be correct.

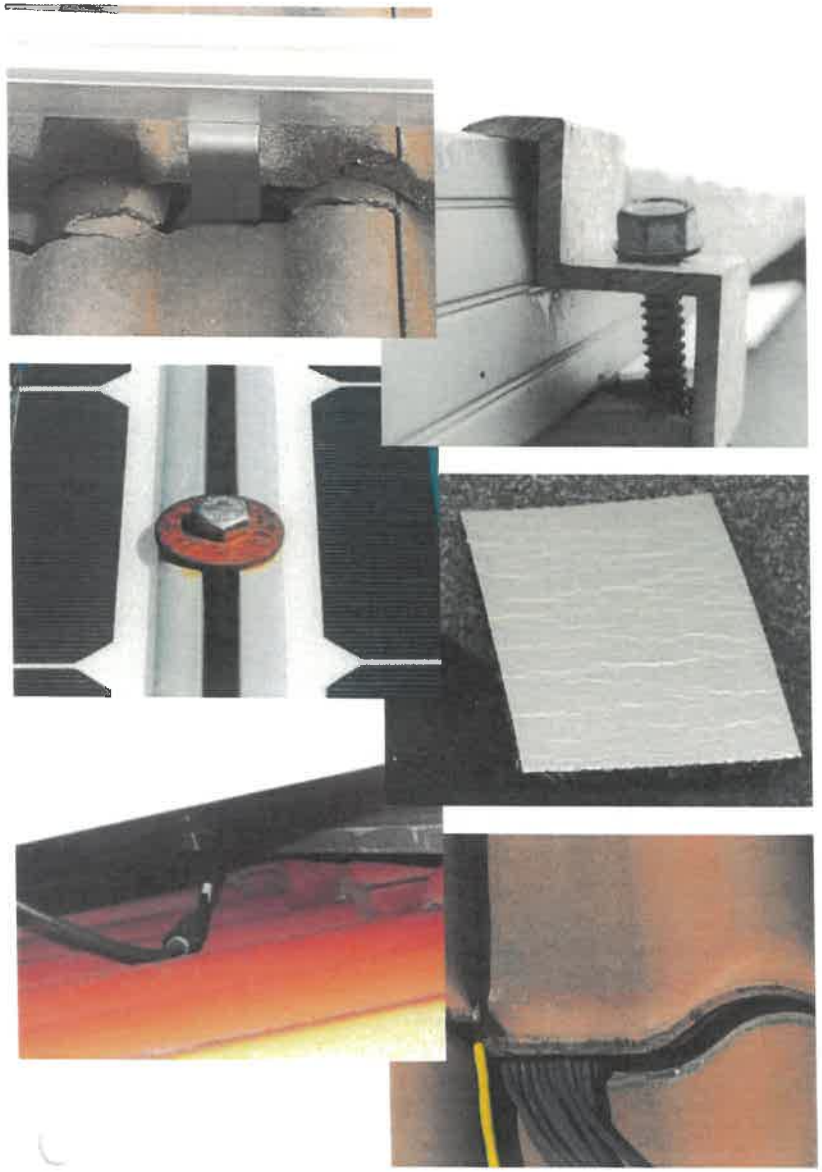
The modules are only interconnected by plugging them into the previous and next modules. Wiring errors occur when the wrong number of modules are connected as a string. Some of these modules are just not plugged into the other modules. Sometimes they are short circuited by plugging the plus and the minus of the same module into each other. In both cases the string voltage and power is reduced.

In installations with more than one inverter, a clear labelling of the string cables is very important, otherwise a cross connection of two PV arrays is possible. The plus of one sub-array is connected to the correct inverter – but the minus is connected to another inverter. The other sub-array is similarly connected. This kind of interconnection is a circuit where both PV arrays are in series and connected to both inverters which are also connected in series. If transformerless inverters are in use they will blow one of their fuses once they are connected to the public grid and might be damaged. If inverters with transformers are in use, this cross connection might work for years. However, both inverters will be operating at half the total PV system voltage. In this case the yield is reduced, because both MPP trackers will attempt to operate the PV system at different set-points.

During operation most electrical failures occur due to mechanical problems. Examples are cracked cells due to glass breakage, or cable-isolation faults caused by a too tight bending radius or laying over sharp edges. In addition, cables and especially plugs must not be in direct contact with the roofing in order to avoid isolation faults.

With earth faults or short circuits due to isolation faults arcing may occur – leading to a high risk of fire

Reoccurring duties



Typical mechanical failures in PV installations

Breakage of a tile is a typical problem if hooks are not mounted properly. If a minimum gap between hook and lower tile was not observed, the tile will break due to pressure on it under load. The roof is not sealed anymore if this happens and the PV installation must be dismantled to replace the broken tiles.

Incorrect clamping is another common failure. The end clamp is not dimensioned correctly according the height of the frame, the rails are too short, the clamps slip off the rail, and the support of the clamp on the module frame is insufficient. Also, for the clamp between two modules, insufficient support on the frame due to a wider gap can loosen the module if it slips off the frame. If one module is loose and is blown away – a chain reaction is possible.

The wrong combination of two metals may lead to corrosion. Minor problems can be fixed with an anticorrosive coating – but the installer must ensure a proper structural behaviour for the life-time of the installation. Therefore, a replacement of affected components is recommended in most cases.

A waterproof lining between the mounting structure and the roof structure may be compromised if the wrong material is used. Sheeting like vinyl can crack after some years. The roof is then no longer waterproof and the PV installation must be dismantled in order to renew the whole sheeting.

Unsupported cable lying on the roof may cause isolation faults. Also, too tight a bending radius or sharp edges can damage the insulation layer of a cable. If the cable can swing around in the wind, the cables in the whole installation might be affected. In that case, due to the possible arcing in the DC installation and the high risk of fire, the cables must be replaced. For a roof parallel installation the PV modules must be dismantled in order to gain access to the module cables.

PA-11: BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest (1) in the enterprise, employed by the state?

YES / NO

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

(1) the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution?

YES / NO

2.2.1 If so, furnish particulars:

.....

.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?

YES / NO

2.3.1 If so, furnish particulars:

.....

.....

3 DECLARATION

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

3.1 I have read and I understand the contents of this disclosure;

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

3.3 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 consortium2 will not be construed as collusive bidding.

3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

3.5 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.

3.6 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

---

2 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.

3.7 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.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....	.....
Signature	Date
.....	.....
Position	Name of bidder

This form has been aligned with SBD4

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

PA-15.1: RESOLUTION OF BOARD OF DIRECTORS

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

_____

(Legally correct full name and registration number, if applicable, of the Enterprise)

Held at _____ *(place)*

on _____ *(date)*

RESOLVED that:

1. The Enterprise submits a Bid / Tender to the Department of Public Works in respect of the following project:

   _____

   (Project description as per Bid / Tender Document)

   Bid / Tender Number: _____ *(Bid / Tender Number as per Bid / Tender Document)*

2. *Mr/Mrs/Ms: _____

   in *his/her Capacity as: _____ *(Position in the Enterprise)*

   and who will sign as follows: _____

   be, and is hereby, authorised to sign the Bid / Tender, and any and all other documents and/or correspondence in connection with and relating to the Bid / Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid / Tender to the Enterprise mentioned above.

	Name	Capacity	Signature
1			
2			
3			
4			
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8			
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11			
12			
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14			
15			
16			

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

17			
18			
19			
20			

The bidding enterprise hereby absolves the Department of Public Works from any liability whatsoever that may arise as a result of this document being signed.

Note:

1. ** Delete which is not applicable.*
2. ***NB:** This resolution must, where possible, be signed by <u>all</u> the Directors / Members / Partners of the Bidding Enterprise.*
3. *In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).*
4. *Directors / Members / Partners of the Bidding Enterprise may alternatively appoint a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).*
5. *Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.*

ENTERPRISE STAMP

PA-15.2: RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

_____

_____

(Legally correct full name and registration number, if applicable, of the Enterprise)

Held at _____ *(place)*

on _____ *(date)*

RESOLVED that:

1. The Enterprise submits a Bid /Tender, in consortium/Joint Venture with the following Enterprises:

   _____

   _____

   (List all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium/Joint Venture)

   to the Department of Public Works in respect of the following project:

   _____

   _____

   (Project description as per Bid /Tender Document)

   Bid / Tender Number: _____ *(Bid / Tender Number as per Bid / Tender Document)*

2. *Mr/Mrs/Ms: _____

   in *his/her Capacity as: _____ *(Position in the Enterprise)*

   and who will sign as follows: _____

   be, and is hereby, authorised to sign a consortium/joint venture agreement with the parties listed under item 1 above, and any and all other documents and/or correspondence in connection with and relating to the consortium/joint venture, in respect of the project described under item 1 above.

3. The Enterprise accepts joint and several liability with the parties listed under item 1 above for the due fulfilment of the obligations of the joint venture deriving from, and in any way connected with, the Contract to be entered into with the Department in respect of the project described under item 1 above.

4. The Enterprise chooses as its *domicilium citandi et executandi* for all purposes arising from this joint venture agreement and the Contract with the Department in respect of the project under item 1 above:

   Physical address: _____

   _____

   _____

   _____ (code)

PA-15.2: Resolution of Board of Directors to enter into Consortia or Joint Ventures

Postal Address: _____

_____

_____

_____ (code)

Telephone number: _____

Fax number: _____

	Name	Capacity	Signature
1			
2			
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The bidding enterprise hereby absolves the Department of Public Works from any liability whatsoever that may arise as a result of this document being signed

Note:

1. ** Delete which is not applicable.*
2. ***NB:** This resolution must, where possible, be signed by <u>all</u> the Directors / Members / Partners of the Bidding Enterprise.*
3. *In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).*
4. *Directors / Members / Partners of the Bidding Enterprise may alternatively appoint a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).*
5. *Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.*

ENTERPRISE STAMP

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

PA-15.3: SPECIAL RESOLUTION OF CONSORTIA OR JOINT VENTURES

RESOLUTION of a meeting of the duly authorised representatives of the following legal entities who have entered into a consortium/joint venture to jointly bid for the project mentioned below: *(legally correct full names and registration numbers, if applicable, of the Enterprises forming a Consortium/Joint Venture)*

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

6. _____

_____

7. _____

_____

8. _____

_____

Held at _____ *(place)*

on _____ *(date)*

RESOLVED that:

RESOLVED that:

A. The above-mentioned Enterprises submit a Bid in Consortium/Joint Venture to the Department of Public Works in respect of the following project:

_____

_____

(Project description as per Bid /Tender Document)

Bid / Tender Number: _____ *(Bid / Tender Number as per Bid /Tender Document)*

B. *Mr/Mrs/Ms: _____

in *his/her Capacity as: _____ *(Position in the Enterprise)*

and who will sign as follows: _____

be, and is hereby, authorised to sign the Bid, and any and all other documents and/or correspondence in connection with and relating to the Bid, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid to the Enterprises in Consortium/Joint Venture mentioned above.

C. The Enterprises constituting the Consortium/Joint Venture, notwithstanding its composition, shall conduct all business under the name and style of:

_____

D. The Enterprises to the Consortium/Joint Venture accept joint and several liability for the due fulfilment of the obligations of the Consortium/Joint Venture deriving from, and in any way connected with, the Contract entered into with the Department in respect of the project described under item A above.

E. Any of the Enterprises to the Consortium/Joint Venture intending to terminate the consortium/joint venture agreement, for whatever reason, shall give the Department 30 days written notice of such intention. Notwithstanding such decision to terminate, the Enterprises shall remain jointly and severally liable to the Department for the due fulfilment of the obligations of the Consortium/Joint Venture as mentioned under item D above.

F. No Enterprise to the Consortium/Joint Venture shall, without the prior written consent of the other Enterprises to the Consortium/Joint Venture and of the Department, cede any of its rights or assign any of its obligations under the consortium/joint venture agreement in relation to the Contract with the Department referred to herein.

G. The Enterprises choose as the *domicilium citandi et executandi* of the Consortium/Joint Venture for all purposes arising from the consortium/joint venture agreement and the Contract with the Department in respect of the project under item A above:

Physical address: _____

_____

_____

_____ (Postal code)_____

Postal Address: _____

_____

_____

_____(Postal code)_____

Telephone number: _____

Fax number: _____

PA-15.3: Special Resolution of Consortia or Joint Ventures

	Name	Capacity	Signature
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15			

The bidding enterprise hereby absolves the Department of Public Works & Infrastructure from any liability whatsoever that may arise as a result of this document being signed.

Note:

1. ** Delete which is not applicable.*
2. ***NB:** This resolution must be signed by <u>all</u> the Duly Authorised Representatives of the Legal Entities to the consortium/joint venture submitting this tender, as named in item 2 of Resolution PA-15.2.*
3. *Should the number of the Duly Authorised Representatives of the Legal Entities joining forces in this tender exceed the space available above, additional names, capacity and signatures must be supplied on a separate page.*
4. *Resolution PA-15.2, duly completed and signed, from the separate Enterprises who participate in this consortium/joint venture, must be attached to this Special Resolution (PA-15.3).*

PA-16: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

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

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

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1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- 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 **Preference Points System to be applied**

(*tick whichever is applicable*).

☒ The applicable preference point system for this tender is the **80/20** preference point system.

☐ The applicable preference point system for this tender is the **90/10** preference point system.

☐ Either the **90/10 or 80/20** preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 **Points for this tender shall be awarded for:**

1.3.1 Price; and

1.3.2 Specific Goals

1.4 **The maximum points for this tender are allocated as follows:**

CHOOSE APPLICABLE PREFERENCE POINT SCORING SYSTEM	☒ 80/20	☐ 90/10
PRICE	80	90
SPECIFIC GOALS	20	10
Total points for Price and Specific Goals	100	100

1.5 **Breakdown Allocation of Specific Goals Points**

☒ **1.5.1. For procurement transaction with rand value greater than R2 000, 00 and up to R1 Million (Inclusive of all applicable taxes) the specific goals listed in table 1 below are applicable.**

Table 1

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or • Any account or statement which is in the name of the bidder. Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE which is at least 51% owned by black women (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

			and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or • National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).
5.	An EME or QSE which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

☐ **1.5.2. For procurement transaction with rand value greater than R1 Million and up to R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 2 below are applicable.**

Table 2

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	10	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or

			• Any account or statement which is in the name of the bidder. Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).

5.	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

☐

1.5.3. For procurement transaction with rand value greater than R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 3 below are applicable.

NB. The use of one of goal numbers' 4 or 5 is mandatory. The BSC must select either one of the two, but not both.

Table 3

Serial No	Specific Goals	Preference Points Allocated out of 10	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or • Any account or statement which is in the name of the bidder. Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51%	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

		owned by black women (mandatory)		
	4. ☐ OR	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPPDSA).
	5. ☐	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable

Black people mean Africans, Coloureds and Indians, who - (a) are citizens of the Republic of South Africa by birth or descent; or (b) became citizens of the Republic of South Africa by naturalisation - (i) before 27 April 1994; or (ii) on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date. (BROAD-BASED BLACK ECONOMIC EMPOWERMENT ACT No 25899, 2003 of 9 JANUARY 2004).

1.6 Failure on the part of the tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals, if the service provider/ tenderer did not submit proof or documentation required to claim for specific goals will be interpreted to mean that preference points for specific goals are not claimed.

1.7 The organ of state reserves the right to require of a service provider/tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

(a) **"tender"** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations,

competitive tendering process or any other method envisaged in legislation;

(b) **"price"** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

(c) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

(d) **"tender for income-generating contracts"** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and

(e) **"the Act"** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1. 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**

$$Ps = 80\left(1 - \frac{Pt - P\,min}{P\,min}\right) \text{ or } \qquad Ps = 90\left(1 - \frac{Pt - P\,min}{P\,min}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 **or** **90/10**

$$Ps = 80\left(1 + \frac{Pt - P\,max}{P\,max}\right) \text{ or } \qquad Ps = 90\left(1 + \frac{Pt - P\,max}{Pmax}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. 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 1,2 and 3 above as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 4: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
1. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black people	4	10		
2. Located in a specific Local Municipality or District Municipality or Metro or	2	2		

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Province area for work to be done or services to be rendered in that area				
3. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black women	2	4		
4. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black people with disability	2	2		
5. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black youth.*	2	2		

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number: .....

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company

☐ State Owned Company
[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

i) The information furnished is true and correct;

ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;

iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

(a) disqualify the person from the tendering process;

(b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

(c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;

(d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted 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, if deemed necessary.

.....

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME: .....

DATE: .....

ADDRESS: .....

.....

.....

.....

public works & infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

PA- 40: DECLARATION OF DESIGNATED GROUPS

Tender no:

Name of Tenderer ..... ☐ EME[1] ☐ QSE[2] ☐ Non EME/QSE (tick applicable box)

1. **LIST ALL PROPRIETORS, MEMBERS OR SHAREHOLDERS BY NAME, IDENTITY NUMBER, CITIZENSHIP AND DESIGNATED GROUPS.**

Name and Surname #	Identity/ Passport number and Citizenship##	Percentage owned	Black	Indicate if youth	Indicate if woman	Indicate if person with disability	Indicate if living in Rural (R) / Under Developed Area (UD) / Township (T) / Urban (U).	Indicate if military veteran
1.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
2.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
3.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
4.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
5.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
6.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
7.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
8.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
9.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
10.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
11.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
12.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No

\# Where Owners are themselves a Company, Close Corporation, Partnership etc, identify the ownership of the Holding Company, together with Registration number
\## State date of South African citizenship obtained (not applicable to persons born in South Africa)

[1] EME: Exempted Micro Enterprise
[2] QSE: Qualifying Small Business Enterprise

PA- 40: DECLARATION OF DESIGNATED GROUPS

Tender no:

2. DECLARATION:

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the Tenderer, hereby confirms that:

1 The information and particulars contained in this Affidavit are true and correct in all respects;
2 The Broad-based Black Economic Empowerment Act, 2003 (Act 53 of 2003), Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000), National Small Business Act 102 of 1996 as amended and all documents pertaining to this Tender were studied and understood and that the above form was completed according to the definitions and information contained in said documents;
3 The Tenderer understands that any intentional misrepresentation or fraudulent information provided herein shall disqualify the Tenderer's offer herein, as well as any other tender offer(s) of the Tenderer simultaneously being evaluated, or will entitle the Employer to cancel any Contract resulting from the Tenderer's offer herein;
4 The Tenderer accepts that the Employer may exercise any other remedy it may have in law and in the Contract, including a claim for damages for having to accept a less favourable tender as a result of any such disqualification due to misrepresentation or fraudulent information provided herein;
5 Any further documentary proof required by the Employer regarding the information provided herein, will be submitted to the Employer within the time period as may be set by the latter;

Signed by the Tenderer

Name of representative	**Signature**	**Date**

public works
& infrastructure
Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

Additions to health and safety specifications for all construction sites to include COVID 19

1. Introduction
2. References
3. Special appointments
4. Workers transport
5. Security/access control/control of visitors onsite
6. Pre-construction evaluation of medical requirements, screening and training
7. Facilities, resources and action required by principal contractor where applicable contractor onsite
8. Required procedures, documentation development and updates
9. Procedures at start during and at end of shift
10. Managing and controlling flammable hazardous chemicals
11. Contractor management
12. Compliance monitoring and discipline
13. Additional resources and recourse management

1. Introduction

COVID 19 Novel Corona virus has changed the world we live in and how we will conduct business activities and life in the future. Due to this it has become necessary to take special precautions, to plan and implement control measures, to prevent further spread of this disease.

These specifications are based on the prevention of persons, objects/tools being contaminated with the virus, infection transmission and specific occupational hygiene practices that focus on the need for employers to implement measures to mitigate or eliminate the transmission of the virus in the workplace.

This document is an addendum to the original project health and safety specification to assist the principal contractor and contractors to protect their workers, and to comply with the interim Regulations that has been gazetted

2. References

The Department of Employment and Labour has appealed to employers to use the prescriptions of the Occupational Health and Safety (OHS) Act of 1993 in governing workplaces in relation to Coronavirus Disease 2019 COVID19 under the National Disaster Act

Department of labour, notice no. 479, 29 April 2020, covid-19, Occupational health and safety measures in workplaces Covid-19 (c19 ohs), directive by the minister of employment and labour in terms of regulation 10 (8) of the regulations issued by the minister of cooperative governance and traditional affairs in terms of section 27 (2) of the disaster management act, 2002 (act no. 57 of 2002)

The OHS Act read with the Hazardous Biological Agents Regulations requires the employer to provide and maintain as far as is reasonably practicable a working environment that is safe and without risks to the health of employees

Section 8(2)(b) of OHS act *requires steps such as may be reasonably practicable to eliminate or mitigate any hazard or potential hazard before resorting to personal protective equipment (PPE).* However, in the case of COVID19, a combination of controls is required, although the main principle is to follow the hierarchy of controls

However, before the implementation of control measures, current risk assessments need to be reviewed and updated, considering the new hazards posed by exposure to COVID-19 in the workplace. The risk assessment should take the Risk Assessment Guides published online by the National Department of Health into account

3. Special appointments

a. *The employer must appoint a manager (from within the existing structure) to address the concerns of employees and workplace representatives concerning COVID 19*
b. Appointment and training of security personnel and adequate personnel to conduct procedures of screening, isolating, conducting questionnaire and further actions required if person presents positive COVID 19 symptoms

4. Workers transport

a. Where possible the contractors must arrange transport of their employees in line with the travel rules of not more than 70% occupancy and social distancing

b. Where not possible to avoid the use of public transport provide employees with information on the virus and precautions to take during public transport travel:

i. Frequent sanitising
ii. Maintain social distancing (at least 2 m)
iii. Always wear a mask
iv. Coughing, sneezing safe practice and spitting
v. When being coughed or sneezed on, turn face away and do not touch face before hands have been sanitised
vi. Do not travel if experiencing symptoms of infection
vii. Provide employees with CIPC travel certificate

5. **Security/access control/control of visitors onsite**

a. **Only 1 access point allowed** on site during the Phase lockdown period.

b. A policy of lockdown inside site for the whole shift must be maintained which will mean that employees will not be allowed to exit and re-enter the site during working hours. This will prevent employees from bringing contaminated food or articles onto site and **will have to bring food from home**

c. The principal contractor must enforce strict access control and no person may enter the site except those who have undergone induction training and who is listed on the employee list

d. The only exceptions are persons who have pre-arranged official appointment which has been approved by the project construction manager. This person may not enter the site before they have passed the screening procedure (fever and questionnaire) and thereafter must be escorted by a person designated by the construction manager

e. Biometric or any form of touch access entry is prohibited

f. Delivery vehicle drivers must undergo and pass the full COVID 19 screening procedure or may not leave the cab of the vehicle and wear a face mask

g. Where more than one Principal Contractor operates on site. A meeting must be held with all the Principal Contractors where an access plan must be formulated and **agreed to in writing**, which incorporates the sharing of expenses and other resources.

6. **Pre-construction evaluation, screening and training**

Principal contractor and contractor's pre-construction requirements:

It is critical that the principal contractor conduct the following preparatory actions before going to site. These actions must be documented and each employee must sign that he/she has undergone this screening and training and understands and procedures

a. **Evaluation**:

i. Employees medical evaluation, ensuring annual medical is valid

ii. Screening:

1. Fever screening
2. **Health questionnaire** (signs and symptoms)
3. Questionnaire of travel during shut down level 4 and exposure
4. Employee practical understanding of:

a. the risks of the virus
b. how do you get contaminated?
c. how do you get infected?
d. signs and symptoms
e. prevention

b. Training program

It is important to understand that workers have been of site for an extended period and which requires that the principal contractor and contractors develop a full risk based induction training and awareness program, policies and procedure for COVID 19 and communicate it with management, employees and contractors which include the following:

i. Employees responsibility to look after their own health and safety and preventing from being infected or infecting other persons
ii. What is COVID 19
iii. How are you infected
iv. Explanation of symptoms and signs (ever, cough, sore throat, redness of eyes or shortness of breath or difficulty in breathing, body aches, loss of smell or loss of taste, nausea, vomiting, diarrhoea, fatigue, weakness or tiredness
v. Incubation period
vi. Explain the risk of underlying conditions, i.e.:

1. People 60 years and older
2. People with chronic lung disease or moderate to severe asthma
3. People who have serious heart conditions
4. People who are immunocompromised
5. People with diabetes
6. People with chronic kidney disease undergoing dialysis
7. People with liver disease

vi. Self-monitoring and reporting of symptoms, possible exposure or infection to company
vii. The importance of being aware of who you have been in contact with during work and after hours to assist with tracking in case of being infected
viii. How to self-isolate
ix. Company COVID sick leave and Temporary Employer Relief Scheme under regulation 10(8) of the Regulations promulgated in terms of section 27(2) of the Disaster Management Act

x. How to prevent infection:

1. Correct methods of sanitising

f. Hands
g. Personal hygiene

h. Site facilities

2. Social distancing
3. Not touching face
4. The correct way to cough or sneeze
5. Correct use, limitations of and disposal of PPE
6. How to protect yourself and family after hours

xi. What to do if employee is not feeling well and are presenting with the symptoms when already at the work-place or before arrival onsite include:

1. Employees

a. If already onsite

i. Immediate reporting to employer
ii. Social distancing and other preventative actions

b. When not onsite yet

i. Do not go to work
ii. Who to contact at your company?
iii. Relevant company contact numbers

2. Principal contractor and contractors

a. Procedures and PPE required when employee presents with symptoms at the site screening and needs to be isolated and tracking of persons in contact with that employee
b. Procedures and care of persons who are in self isolation or being treated at hospital or COVID 19 facility
c. Company and employee return to work after recovery procedures

xii. Updated company COVID 19:

1. SHE plan and risk assessment
2. Policies
3. PPE requirements
4. Method statements & risk assessment
5. Stay at home policy and sick leave
6. Employee assistance/care program

xiii. Include COVID awareness in every day DSTI/permit to work system

7. Facilities, resources and action required by principal contractor where applicable contractor onsite

a. Provide these employees with appropriate PPE for their tasks
b. Prevention of employees having to come into close-proximity (Queuing or bundling together)
c. Method/procedure of providing drinking water that cannot be contaminated with the virus
d. Adequate and appropriate risk-based:

i. PPE
ii. Sanitising/hand washing facilities at entrance, eating areas, offices, kitchens, toilets (Foot pedal hand sanitisers is the preferable option)
iii. Awareness signage and posters

e. Procedures for sanitising site, offices, toilets, eating areas, meeting rooms communal kitchen appliances, printers and telephones
f. Procedures and rules to minimise exposure during:

i. Meetings (Alternates to close contact meetings)
ii. Duration and maximum number of delegates at close contact meetings
iii. Induction, Toolbox talk, DSTI
iv. Sanitising of areas, offices, boardrooms and furniture
v. Communal drinking facility use
vi. Housekeeping and garbage removal

g. Provide an isolation area/tent/room where person can be interviewed and remain until instructions have been received from the COVID 19 control centre on next step to be taken

CORONA 24 Hour HOTLINE 0800029999

8. Required procedures, documentation development and updates

The contractor must develop new and update existing plans, policies, documentation and procedures to include COVID 19

a. She plan and policy
b. Company COVID 19 plans, policies, procedures and programs to include:

i. Prevention, exposure, infection
ii. Social distancing during entering and exiting site, meetings, training
iii. Creating different areas for and staggering start of work and lunch-times, training sessions and effective planning of required staff compliments
iv. Cooperation with local police, clinic, emergency services and notifying them of the project and developing beneficial relationships
v. Engaging with CLO and communities and establish a trust relationship by providing relevant information and possible assistance where possible
vi. Emergencies (mass infections)
vii. Post-infection return to work guideline, which include:

1. minimum medical and practical criteria for return to work

2. medical evaluation by occupational health practitioner

viii. Employee emotional care and assistance during and post infection
ix. Management and disposal of contaminated PPE and equipment
x. Planning to maximise social distancing
xi. Planning of production and progress to optimise the work-force to minimise the amount of persons onsite at one-time
xii. Managing and disposal of biological (Virus) contaminated PPE and other personal waste
xiii. Daily reporting to management of screening results and of persons who were isolated, taken for testing and follow-up
xiv. Reporting of persons who have been confirmed to be infected to company management, department of labour and Health
xv. Contact-tracing of persons who were in contact with a person who have been isolated or who has been confirmed as being infected
xvi. Updated risk assessment to include COVID 19 hasards and risks
xvii. Evaluation of daily screening, reporting to management and if required update procedure and training
xviii. Company policy related to paid sick leave in terms of section 22 of the BCEA illness benefit in terms of clause 4 of the Directive issued on 25 March 2020 on the COVID-19 Temporary Employer Relief Scheme under regulation 10(8) of the Regulations promulgated in terms of section 27(2) of the Disaster Management Act;
xix. Also revise the permit to work where required.

9. Procedures at start during and at end of shift

a. Include conducting and recording information of:

i. Sanitisation

1. At start of shift all persons must sanitise with sanitiser that contains at least 70% alcohol with foot pedal or automatic detection and spray device, no hand contact
2. Site facilities, offices, boardrooms, toilets, eating areas, surfaces
3. Hand and power tools, and other communal equipment to be wiped down

ii. Fever screening and procedure when person has fever

1. Re-do fever screen and if high fever

a. Isolate and questionnaire
b. Procedure if evidence points at infection
c. Contact call centre and follow instructions
d. Also follow company procedure for reporting to management, client and authorities

10. Managing and controlling flammable hasardous chemicals

a. The type of sanitiser used for CIVID 19 must have a minimum of 70% alcohol and it is important that adequate stock is held onsite

b. Due to its high alcohol content it poses a fire risk as well as a possible risk of being used by workers for intoxicating purposes which can lead to poisoning
c. It is therefore particularly important to include these risks into account when the risk assessments is updated
d. The principal contractor and contractors must ensure that they provide a flammable liquid storage facility, considering the quantities they will be storing onsite which conforms with local government fire regulations and GSR 4
e. The storage area must be lockable and issuing and stock levels must be controlled by an appointed competent hasardous chemical substance controller
f. Records of stock levels, issuing and usage must be updated daily and any discrepancies must be reported to management and investigated
g. Decanting procedures must be developed which includes spillage control. Bottles into which it has been decanted into must be marked to clearly show the contents
h. Appropriate and adequate signage must be posted
i. Adequate Alcohol resistant foam or Carbon dioxide (CO2) fire extinguishers must pe appropriately positioned Inspections of the flammable hasardous chemicals store must be conducted at least monthly
j. Inspections of the flammable hasardous chemicals store must be conducted at least monthly
k. First aiders should be trained on the first aid measures as set out in the MSDS

11. Contractor management

It is the responsibility of the principal contractors to ensure that all contractor comply with the requirements of the addition to the original project health and safety specifications

12. Compliance monitoring and discipline

a. Monitoring of compliance is critical to the prevention program and there may be no tolerance of non-compliance
b. Strict appropriate disciplinary action must be instituted against employees, contractors, consultants or any person
c. found in breach of the requirements
d. The client will be responsible for compliance through audits and inspections and evaluation of principal contractors' reports
e. The principal contractor must monitor compliance through inspections and COVID 19 specific audit of:

i. Available equipment
ii. Sanitiser/washing facilities
iii. Sanitising of site facilities
iv. Employee screening
v. Access control
vi. Availability of isolation facilities
vii. Separation and procedures followed when employees present with symptoms
viii. Continues awareness training
ix. Recordkeeping

x. Sub-contractor training and screening records, risk assessments and monitoring

f. Any suspected or confirmed infection or noncompliance with the COVID 19 requirements must be reported to the client health and safety agent with immediate effect
g. A written incident report must be supplied within 24 hours after the incident. If the risk assessment or procedures are required to be reviewed, same will be done within 36 hours.

13. Additional resources and recourse management

a. It is a fact that finance and budgets of active projects that were shut down due to COVID 19 have approved budgets and available capital projects that are currently running have already been allocated and approved and Therefore funds should be available from the client to pay Principal Contractors/Contractors
b. It is therefore critical that the principal contractor ensure that their payment certificates and related documents are correct and is submitted before deadline dates with their invoices. Many delays in payment from clients are due to incorrect or insufficient documentation that has been submitted late.
c. It is important to understand that the COVID 19 virus has affected all parties and cooperation will increase the probability of completing the project successful
d. It is critical that the client and principal contractor re-negotiate and discuss the project deadlines and budget and agree on solutions to the benefit of all. The impact of screening, site access, delayed delivery of long lead items due to manufacturing constraints and restrictions due to COVID19 legislation must be considered when negotiating the program and deadlines specifically.
e. Clients must not delay payment to principal contractors and principal contractors must do the same with their contractors. Delaying payments will have a snowball effect all the way down to the workers who have in some case already not received salaries or has only received partial payment
f. Businesses most do their utmost to protect the workers who are the most crucial asset of construction
g. Although SMME are businesses in their own right, many of these companies were already struggling financially before lockdown started and the principal contractor could use the assistance of the project CLO to ensure that workers are being paid and if not report it to the principal contractor.
h. Contractor must assist employees with UIF claims.

i. All the above requirement and information must be filtered down to the contractors onsite

"Health and safety is not negotiable"