

TENDER DOCUMENT GOODS AND SERVICES		 CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD
SUPPLY CHAIN MANAGEMENT		
SCM - 542	Approved by Branch Manager: February 2024	Version: 10

TENDER NO: 37S/2024/25

TENDER DESCRIPTION: THE ACQUISITION, SERVICING, REPAIRS, MAINTENANCE AND INSTALLATION OF EMERGENCY GENERATORS AND INVERTER / SOLAR SYSTEMS

CONTRACT PERIOD: 36 MONTHS FROM THE COMMENCEMENT DATE OF THE CONTRACT

CLOSING DATE 30 AUGUST 2024

CLOSING TIME 10:00 am

TENDER BOX NUMBER 125

TENDER FEE R 200.00

Non – refundable tender fee payable to the City of Cape Town (CCT) for a hard copy of the tender document. This fee is not applicable to website downloads of the tender document.

TENDERER	
NAME of Company/Close Corporation or Partnership / Joint Venture/ Consortium or Sole Proprietor /Individual (hereinafter the "Tenderer")	
TRADING AS (if different from above)	
Registration number of Tenderer	
Physical address and chosen domicilium citandi et executandi of Tenderer	

NATURE OF TENDER OFFER (please indicate below)	
Main Offer (see clause 2.2.11.1)	
Alternative Offer (see clause 2.2.11.1)	

TENDER SERIAL NO.:	
SIGNATURES OF CCT OFFICIALS AT TENDER OPENING	
1	
2	
3	

TABLE OF CONTENTS

THE TENDER.....	3
T.1 GENERAL TENDER INFORMATION	3
T.2 CONDITIONS OF TENDER	4
2.1 General.....	4
2.2 Tenderer's obligations	8
2.3 The CCT's undertakings.....	17
THE CONTRACT	23
C.1 DETAILS OF TENDERER/SUPPLIER	24
C.2 FORM OF OFFER AND ACCEPTANCE	25
C.2.1 OFFER (TO BE COMPLETED BY THE TENDERER AS PART OF TENDER SUBMISSION).....	25
C.2.2 ACCEPTANCE (TO BE COMPLETED BY THE CCT)	26
C.2.3 SCHEDULE OF DEVIATIONS (TO BE COMPLETED BY THE CCT UPON ACCEPTANCE)	27
C.2.4 CONFIRMATION OF RECEIPT (TO BE COMPLETED BY SUPPLIER UPON ACCEPTANCE).....	28
C.3 OCCUPATIONAL HEALTH AND SAFETY AGREEMENT	29
C.4 PRICE SCHEDULE	30
C.5 SPECIFICATION(S).....	52
C.6 SPECIAL CONDITIONS OF CONTRACT	89
C.7 GENERAL CONDITIONS OF CONTRACT	102
C.8 ANNEXURES	112
ANNEXURE A – PRO FORMA INSURANCE BROKER'S WARRANTY	112
ANNEXURE B – MONTHLY PROJECT LABOUR REPORT	113
ANNEXURE C - PRO FORMA PERFORMANCE SECURITY/ GUARANTEE	115
ANNEXURE D - PRO FORMA ADVANCE PAYMENT GUARANTEE	118
ANNEXURE F - TENDER RETURNABLE DOCUMENTS.....	119
Schedule F.1: Contract Price Adjustment	119
Schedule F.2: Certificate of Authority for Partnerships/ Joint Ventures/ Consortiums	122
Schedule F.3: Declaration for Procurement above R10 million.....	123
Schedule F.4: Preference Points Claim Form In Terms Of the Preferential Procurement Regulations 2022	124
Schedule F.5: Declaration of Interest – State Employees (MBD 4 amended).....	127
Schedule F.6: Conflict of Interest Declaration	129
Schedule F.7: Declaration of Tenderer's Past Supply Chain Management Practices (MBD 8).....	130
Schedule F.8: Authorisation for the Deduction of Outstanding Amounts Owed to the CCT	132
Schedule F.9: Certificate of Independent Tender Determination	133
Schedule F.10: Proposed Deviations And Qualifications By Tenderer.....	134
Schedule F.11: List of Other Documents Attached By Tenderer.....	135
Schedule F.12: Record of Addenda to Tender Documents	136
Schedule F.13: Information to Be Provided With the Tender	137
Schedule F.14: Appeal Application	138
Schedule F.15: Generators- Work Experience Relating To New Installations.....	139
Schedule F.16: Inverters- Work Experience Relating To New Installations.....	141
Schedule F.17: Generators- Wprk Experience Relating To Servicing And Maintenance.....	143
Schedule F.18: Inverters- Work Experrience Relating To Servicing And Maintenance.....	145
Schedule F.19: Details Of Qualifications And Experience Of Staff.....	147
Schedule F.20: Schedule Of Equipment.....	151

THE TENDER

T.1 GENERAL TENDER INFORMATION

TENDER ADVERTISED	: 26 JULY 2024
SITE VISIT/CLARIFICATION MEETING	: Time: [11:30] on Date: 8 AUGUST 2024 (Not compulsory, but strongly recommended)
VENUE FOR SITE VISIT/CLARIFICATION MEETING:	The meeting will be an online meeting via skype link: https://meet.capetown.gov.za/mogammad.ismail/H1HMJ5LF
TENDER BOX & ADDRESS	: Tender Box as per front cover at the Tender & Quotation Boxes Office , 2 nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town. : The Tender Document (which includes the Form of Offer and Acceptance) completed and signed in all respects, plus any additional supporting documents required, must be submitted in a sealed envelope with the name and address of the tenderer, the endorsement " TENDER NO. 37S/2024/25: TENDER DESCRIPTION: THE ACQUISITION, SERVICING, REPAIRS, MAINTENANCE AND INSTALLATION OF EMERGENCY GENERATORS AND INVERTER / SOLAR SYSTEMS ", the tender box number and the closing date indicated on the envelope. The sealed envelope must be inserted into the appropriate official tender box before closing time. If the tender offer is too large to fit into the abovementioned box or the box is full, please enquire at the public counter (Tender Distribution Office) for alternative instructions. It remains the tenderer's responsibility to ensure that the tender is placed in either the original box or as alternatively instructed.
CCT TENDER REPRESENTATIVE	: Email: SCM.Tenders5@capetown.gov.za FM.Contracts@capetown.gov.za

TENDERERS MUST NOTE THAT WHEREVER THIS DOCUMENT REFERS TO ANY PARTICULAR TRADE MARK, NAME, PATENT, DESIGN, TYPE, SPECIFIC ORIGIN OR PRODUCER, SUCH REFERENCE SHALL BE DEEMED TO BE ACCOMPANIED BY THE WORDS "OR EQUIVALENT"

T.2 CONDITIONS OF TENDER

2.1 General

2.1.1 Actions

2.1.1.1 The City of Cape Town (hereafter referred to as the "CCT") and each tenderer submitting a tender offer (hereinafter referred to as the "tenderer" or the "supplier") shall comply with item T.2 of this Tender Document Goods and Services (hereinafter referred to as these "Conditions of Tender"). The tenderer and the CCT shall collectively hereinafter be referred to as the "Parties" and individually a "Party"). In their dealings with each other, the Parties shall discharge their duties and obligations as set out in these Conditions of Tender, timeously and with integrity, and behave equitably, honestly and transparently, and shall comply with all legal obligations imposed on the Parties herein and in accordance with all applicable laws.

The Parties agree that this tender Document Goods and Services (hereinafter referred to as the "Tender" / "Tender Document"), its evaluation and acceptance and any resulting contract shall also be subject to the CCT's Supply Chain Management Policy ('SCM Policy') that was applicable on the date the bid was advertised and as amended from time to time. If the CCT adopts a new SCM Policy which contemplates that any clause therein would apply to the Contract emanating from this tender (hereinafter referred to as the "Contract"), such clause shall also be applicable to that Contract. Please refer to this document contained on the CCT's website.

Abuse of the supply chain management system is not permitted and may result, inter alia, (1) in the tender being rejected; (2) cancellation of the contract; (3) restriction of the supplier, and/or (4) the exercise by the CCT of any other remedies available to it as provided for in the SCM Policy and/or the Contract and/or this tender and/or any applicable laws.

2.1.1.2 The CCT, the tenderer and their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the CCT shall declare any conflict of interest to the CCT at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict, and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

2.1.1.3 The CCT shall not seek, and a tenderer shall not submit a tender, without having a firm intention and capacity to proceed with the contract.

2.1.2 Interpretation

2.1.2.1 The additional requirements contained in Annexure F to the contract (hereinafter referred to as the "returnable documents" / "Returnable Schedules") are part of these Conditions of Tender and are specifically hereby incorporated into these Conditions of Tender.

2.1.2.2 These Conditions of Tender and returnable Documents which are required for CCT's tender evaluation purposes herein, shall form part of the Contract arising from the CCT's corresponding invitation to tender.

2.1.3 Communication during tender process

Verbal or any other form of communication, from the CCT, its employees, agents or advisors during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the CCT, unless communicated by the CCT in writing to suppliers / tenderers by its Director: Supply Chain Management or his nominee. Similarly, any communication of the tenderer / supplier that is not reduced to writing by the tenderer / supplier, its employees, agents or advisors, shall not be regarded as binding on the CCT, unless communicated to the CCT in writing by the suppliers / tenderers, or their duly authorised representatives.

2.1.4 The CCT's right to accept or reject any tender offer

2.1.4.1 The CCT may accept or reject any tender offer and may cancel the corresponding tender process or reject all tender offers at any time before the formation of a contract. The CCT may, prior to the award of the tender, cancel a tender if:

- (a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or
- (b) funds are no longer available to cover the total envisaged expenditure; or
- (c) no acceptable tenders are received;
- (d) there is a material irregularity in the tender process; or
- (e) the Parties are unable to negotiate market related pricing.

The CCT shall not accept or incur any liability to a tenderer for such cancellation or rejection, but will give written reasons for such action upon receiving a written request to do so.

2.1.5 Procurement procedures

2.1.5.1 General

The CCT intends to appoint three tenderers (the highest ranked tenderer ("the winner") and in addition two "alternative tenderers") for the allocation of work. If insufficient responsive bids are received, the CCT reserves the right to appoint fewer tenderers, or not to appoint any tenderers at all.

Suppliers, once appointed and subject to operational requirements, will be invited to deliver the goods or services on a "winner-takes-all" basis, whereby the order will always be offered and, if accepted, allocated to the highest ranked tenderer ("the winner"), and only if he refuses will the work be offered to the next highest ranked tenderer from the alternative tenderers).

The contract period shall be for a period of **36 months** from the commencement date of the contract.

2.1.5.2 Proposal procedure using the two stage-system

A two-stage system will not be followed.

2.1.5.3 Nomination of Standby Bidder

"Standby Bidder" means a bidder, identified by the CCT at the time of awarding a bid that will be considered for award should the contract be terminated for any reason whatsoever. In the event that a contract is terminated during the execution thereof, the CCT may consider the award of the contract, or non-award, to the Standby Bidder in terms of the procedures included its SCM Policy, as amended from time to time.

2.1.6 Objections, complaints, queries and disputes/ Appeals in terms of Section 62 of the Systems Act/ Access to court

2.1.6.1 Disputes, objections, complaints and queries

In terms of Regulations 49 and 50 of the Local Government: Municipal Finance Management Act, 56 of 2003 Municipal Supply Chain Management Regulations (Board Notice 868 of 2005):

- a) Persons aggrieved by decisions or actions taken by the CCT in the implementation of its supply chain management system, may lodge within 14 days of the decision or action, a written objection or complaint or query or dispute against the decision or action.

2.1.6.2 Appeals

- a) In terms of Section 62 of the Local Government: Municipal Systems Act, 32 of 2000 a person whose rights are affected by a decision taken by the CCT, may appeal against that decision by giving written notice of the appeal and reasons to the City Manager within 21 days of the date of the notification of the decision.
- b) An appeal must contain the following:
 - i. Must be in writing

- ii. It must set out the reasons for the appeal
 - iii. It must state in which way the Appellant's rights were affected by the decision;
 - iv. It must state the remedy sought; and
 - v. It must be accompanied with a copy of the notification advising the person of the decision
- c) The relevant CCT appeal authority must consider the appeal and **may confirm, vary or revoke** the decision that has been appealed, but no such revocation of a decision may detract from any rights that may have accrued as a result of the decision.

2.1.6.3 Right to approach the courts and rights in terms of Promotion of Administrative Justice Act, 3 of 2000 and Promotion of Access to Information Act, 2 of 2000

The sub- clauses above do not influence any affected person's rights to approach the High Court at any time or its rights in terms of the Promotion of Administrative Justice Act (PAJA) and Promotion of Access to Information Act (PAIA).

2.1.6.4 All requests referring to sub clauses 2.1.6.1 and 2.1.6.2 must be submitted in writing to:

The City Manager - C/o the Manager: Legal Compliance Unit, Legal Services Department, Office of the City Manager

Via hand delivery at: 20th Floor, Tower Block, and 12 Hertzog Boulevard, Cape Town 8001

Via post at: Private Bag X918, Cape Town, 8000

Via email at: MSA.Appeals@capetown.gov.za

2.1.6.5 All requests referring to clause 2.1.6.3 must be submitted in writing to:

The City Manager - C/o the Manager: Access to Information Unit, Legal Service Department, Office of the City Manager

Via hand delivery at: 20th Floor, Tower Block, 12 Hertzog Boulevard, Cape Town 8001

Via post at: Private Bag X918, Cape Town, 8000

Via email at: Access2info.Act@capetown.gov.za

2.1.6.6 The minimum standards regarding accessing and 'processing' of any personal information belonging to another in terms of Protection of Personal Information Act, 2013 (POPIA).

For purposes of this clause 2.1.6.6, the contract and these Conditions of Tender, the terms "data subject", "Personal Information" and "Processing" shall have the meaning as set out in section 1 of POPIA, and "Process" shall have the corresponding meaning.

The CCT, its employees, representatives and sub-contractors may, from time to time, Process the tenderer's and/or its employees', representatives' and/or sub-contractors' Personal Information, for purposes of, and/or relating to, the tender, the contract and these Conditions of Tender, for research purposes, and/or as otherwise may be envisaged in the CCT's Privacy Notice and/or in relation to the CCT's Supply Chain Management Policy or as may be otherwise permitted by law. This includes the Processing of the latter Personal Information by the CCT's due diligence assurance provider, professional advisors and the Appeal Authority as applicable. The CCT's justification for the processing of such aforesaid Personal Information is based on section 11(1)(b) of POPIA, i.e., in terms of which the CCT's Processing of the said Personal Information is necessary to carry out actions for the conclusion and/or performance of the contract, to which the applicable data subject (envisaged in this clause 2.1.6.6 above) is a party.

All requests relating to data protection must be submitted in writing to:

The City Manager - C/o the Information Officer, Office of the City Manager

Via hand delivery at: 20th Floor, Tower Block, 12 Hertzog Boulevard, Cape Town 8001

Via post at: Private Bag X9181, Cape Town, 8000

Via email at: Popia@capetown.gov.za.

2.1.6.7 Compliance to the CCTs Appeals Policy.

In terms of the CCT's Appeals Policy, a fixed upfront administration fee will be charged. In addition, a surcharge may be imposed for vexatious and frivolous or otherwise manifestly inappropriate tender related appeals.

The current approved administration fee is R300.00 and may be paid at any of the Municipal Offices or at the Civic Centre in Cape Town using the GL Data Capture Receipt attached as Annexure F. Schedule F.14: Appeal Application Form. Alternatively, via EFT into the CCT's NEDBANK Account: CITY OF CAPE TOWN and using Reference number: 198158966. You are required to send proof of payment when lodging your appeal.

The current surcharge for vexatious and frivolous or otherwise manifestly inappropriate tender related appeals will be calculated as $\frac{1}{2}$ (Administrative cost of the tender appeal) + 0.25 % (Appellant's tender price).

Should the payment of the administration fee of R300.00 or the surcharge not be received, such fee or surcharge will be added as a Sundry Tariff to the bidder's municipal account.

In the event where the bidder does not have a Municipal account with the CCT, the fee or surcharge may be recovered in terms of the CCT's Credit Control and Debt Collection By-law, 2006 (as amended) and its Credit Control and Debt Collection Policy.

2.1.7 CCT Supplier Database Registration

Tenderers are required to be registered on the CCT Supplier Database as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture.

Tenderers who wish to register on the CCT's Supplier Database may collect registration forms from the Supplier Management Unit located within the Supplier Management / Registration Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5). Registration forms and related information are also available on the CCT's website www.capetown.gov.za (follow the Supply Chain Management link to Supplier registration).

It is each tenderer's responsibility to keep all the information on the CCT Supplier Database updated.

2.1.8 National Treasury Web Based Central Supplier Database (CSD) Registration

Tenderers are required to be registered on the National Treasury Web Based Central Supplier Database (CSD) as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture.

Tenderers who wish to register on the National Treasury Web Based Central Supplier Database (CSD) may do so via the web address <https://secure.csd.gov.za>.

It is each tenderer's responsibility to keep all the information on the National Treasury Web Based Central Supplier Database (CSD) updated.

2.2 Tenderer's obligations

2.2.1 Eligibility Criteria

2.2.1.1 Tenderers are obligated to submit a tender offer that complies in all aspects to the conditions as detailed in this tender document and the Conditions of Tender. An 'acceptable tender must "COMPLY IN ALL" aspects with the tender, Conditions of Tender, all Specifications (i.e., item C.5 below, hereinafter the "Specifications"), pricing instructions herein and the Contract including its conditions.

2.2.1.1.1 Submit a tender offer

Only those tender submissions from which it can be established, *inter alia* that a clear, irrevocable and unambiguous offer has been made to CCT, by whom the offer has been made and what the offer constitutes, will be declared responsive.

2.2.1.1.2 Compliance with requirements of CCT SCM Policy and procedures

Only those tenders that are compliant with the requirements below will be declared responsive:

- a) A completed **Details of Tenderer** to be provided (applicable schedule below to be completed);
- b) A completed **Certificate of Authority for Partnerships/ Joint Ventures/ Consortiums** to be provided authorising the tender to be made and the signatory to sign the tender on the partnership /joint venture/consortium's behalf (applicable schedule below to be completed);
- c) A copy of the partnership / joint venture / consortium agreement to be provided, where applicable.
- d) A completed **Declaration of Interest – State Employees** to be provided and which does not indicate any non-compliance with the legal requirements relating to state employees (applicable schedule below to be completed);
- e) A completed **Declaration – Conflict of Interest and Declaration of Bidders' past Supply Chain Management Practices** to be provided and which does not indicate any conflict or past practises that renders the tender non-responsive based on the conditions contained thereon (applicable schedules below to be completed);
- f) A completed **Certificate of Independent Bid Determination** to be provided and which does not indicate any non-compliance with the requirements of the schedule (applicable schedule below to be completed);
- g) The tenderer (including any of its representatives, directors or members), has not been restricted in terms of abuse of the Supply Chain Management Policy,
- h) The tenderer's tax matters with SARS are in order, or the tenderer is a foreign supplier that is not required to be registered for tax compliance with SARS;
- i) The tenderer is not an advisor or consultant contracted with the CCT whose prior or current obligations creates any conflict of interest or unfair advantage;
- j) The tenderer is not a person, advisor, corporate entity or a director of such corporate entity, who is directly or indirectly involved or associated with the bid specification committee;
- k) A completed **Authorisation for the Deduction of Outstanding Amounts Owed to the CCT** to be provided and which does not indicate any details that renders the tender non-responsive based on the conditions contained thereon (applicable schedules below to be completed);
- l) The tenderer (including any of its representatives, directors or members), has not been found guilty of contravening the Competition Act 89 of 1998, as amended from time to time;
- m) The tenderer (including any of its representatives, directors or members), has not been found guilty on any other basis listed in the Supply Chain Management Policy.

2.2.1.1.3 Compulsory clarification meeting – Not Applicable

Refer to T.1 GENERAL TENDER INFORMATION

2.2.1.1.4 Minimum score for functionality

Only those tenders submitted by tenderers who achieve the minimum score for functionality as stated below will be declared responsive. The description of the functionality criteria and the maximum possible score for each is shown in the table below.

Description of Functionality Criteria	Maximum possible score
1. <u>Track Record/Experience:</u> Generators and /or Inverters - Work experience relating to new installations The Tenderer must demonstrate that the Company has supplied and installed new generators of 100kVA or larger and /or Inverters of 10kVA or larger (refer to schedule F.15 & F.16 of returnable schedules). Points will only be allocated should verifiable documentary evidence be submitted with the schedule, which may include: • employer reference letter (this should include size of the generators/inverters, description of work and the date completed) • completion certificates • invoices/delivery notes	34
2. <u>Track Record/Experience:</u> Generators and /or Inverters - Work experience relating to servicing and maintenance The Tenderer must demonstrate that Company has serviced and maintained generators of 100kVA or larger and /or Inverters of 10kVA or larger (refer to schedule F.17 & F.18 of returnable schedules). Points will only be allocated should verifiable documentary evidence be submitted with the schedule, which may include: • employer reference letter (this should include size of the generators/inverters, description of work and the date completed) • completion certificates • invoices/delivery notes	34
3. <u>Key Personnel</u> (refer to schedule F.19 of returnable schedules) 1 x Project Manager (No duplication of staff will be allowed), •At least 3 years work experience in the management of similar projects relating to the scope of the tender. CV to be submitted. With verifiable references. 1 x Health and Safety Officer (No duplication of staff will be allowed), •At least 3 years work experience as a health and safety officer in the construction environment. CV to be submitted, with verifiable references and certificates of health and safety related courses. Eg: Samtrac, HIRA, (SETA accredited training) etc 1 x Master Electrician (No duplication of staff will be allowed), •It means a person who has been registered as a master installation electrician in terms of electrical installation regulation 11 (2) for the verification and certification of the construction, testing and inspection of any electrical installation •At least 3 years work experience as a Master Installation Electrician in the construction environment. CV to be submitted, verifiable references and Qualification certificate/Registration Card. 1 x Installation Electrician (No duplications of staff will be allowed) •Means a person who has been registered as an installation electrician in terms of the electrical installation regulation 11 (2) for the verification and certification of the construction, testing and inspection of any electrical installation excluding specialised installations. •At least 3 years work experience as an Installation electrician in similar projects as related to the scope of this tender. CV to be submitted, verifiable references and Qualification certificate/ Registration Card. 1 x Diesel Mechanic (No duplications of staff will be allowed) •A Diesel mechanics is a skilled technician that has obtained at least a grade 10 or a matric certificate together with a 4-year apprenticeship and therefore would possess substantial knowledge of mechanics and diesel engines. Together with perfect understanding of electrical installation as they relate, in particular, to generators. •At least 3 years work experience as Diesel mechanic in similar projects, such as the installation of generators and the servicing, maintenance, inspections and repairs of diesel generators, relating to the scope of this tender. CV to be submitted, verifiable references and Qualification Trade Test certificate.	32
Maximum possible score for Functionality	100

Tenders will be evaluated for functionality on the following criteria:

Evaluation Criteria	Evaluation Points	Points
1. Generators and /or Inverters - Work experience relating to new installations The Tenderer must demonstrate that Company has supplied and installed new generators of 100kVA or larger and /or Inverters of 10kVA or larger (refer to schedule F.15 & F.16 of returnable schedules for completion). Points will only be allocated should verifiable documentary evidence be submitted with the schedule, which may include: • employer reference letter (this should include size of the generators/inverters, description of work and the date completed) • completion certificates • invoices/delivery notes	1 point will be allocated for each New Generator 100kVA – 500kVA. 2 points will be allocated for each New Generator above 500kVA. And / Or 1 point will be allocated for each New Inverter 10kVA – 100kVA. 2 points will be allocated for each New Inverter above 100kVA.	Max points 34
2. Generators and /or Inverters - Work experience relating to servicing and maintenance The Tenderer must demonstrate that Company has serviced and maintained generators of 100kVA or larger and /or Inverters of 10kVA or larger (refer to schedule F.17 & F.18 of returnable schedules for completion). Points will only be allocated should verifiable documentary evidence be submitted with the schedule, which may include: • employer reference letter (this should include size of the generators/inverters, description of work and the date completed) • completion certificates • invoices/delivery notes	1 point will be allocated for Servicing and Maintenance of Generator 100kVA – 500kVA. 2 points will be allocated for each Servicing and Maintenance of Generator above 500kVA. And / Or 1 point will be allocated for each Servicing and Maintenance of Inverter 10kVA – 100kVA. 2 points will be allocated for each Servicing and Maintenance of Inverter above 100kVA.	Max points 34
3. Key Personnel 1 x Project Manager 1 x Health and Safety Officer, 1 x Master Electrician, 1 x Installation Electrician, 1 x Diesel Mechanic (refer to schedule F.19 of returnable schedules for completion)	Points will be allocated for each key personnel as follows 1 x Project Manager..... 6 points 1 x Health and Safety Officer....6 points 1 x Master Electrician.... 7 points 1 x Installation Electrician 7 points 1 x Diesel Mechanic..... 6 points	Max points 32
Total		100

The description of the functionality criteria and the maximum possible score for each is shown in the table above. The score achieved for functionality will be the sum of the scores achieved, in the evaluation process, for the individual criteria.

The minimum qualifying score for functionality is **70** out of a maximum of **100**.

Where the entity tendering is a Joint Venture, the tenderer's tender response must be accompanied by a statement describing exactly what aspects of the work will be undertaken by each party to the joint venture.

Tenderers shall ensure that all relevant information has been submitted with the tender offer in the prescribed format to ensure optimal scoring of functionality points for each Evaluation Criteria. Failure to provide all information **IN THIS TENDER SUBMISSION** could result in the tenderer not being able to achieve the specified minimum scoring.

2.2.1.1.7 Provision of samples

Not applicable

2.2.2 Cost of tendering

The CCT will not be liable for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

2.2.3 Check documents

The documents issued by the CCT for the purpose of a tender offer are listed in the index of this tender document.

Before submission of any tender, the tenderer should check the number of pages, and if any are found to be missing or duplicated, or the figures or writing is indistinct, or if the Price Schedule contains any obvious errors, the tenderer must apply to the CCT at once to have the same rectified.

2.2.4 Confidentiality and copyright of documents

The tenderer shall treat as strictly confidential all matters arising in connection with the tender. Use and copy the documents issued by the CCT only for the purpose of preparing and submitting a tender offer in response to the invitation.

2.2.5 Reference documents

The tenderer shall obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, Conditions of Contract and other publications, which are not attached but which are incorporated into the tender document(s) by reference.

2.2.6 Acknowledge and comply with notices

The tenderer shall acknowledge receipt of notices to the tender documents, which the CCT may issue, and shall fully comply with all instructions issued in the said notices, and if necessary, apply for an extension of the closing time stated on the front page of the tender document, in order to take the notices into account. Notwithstanding any requests for confirmation of receipt of the said notices issued, the tenderer shall be deemed to have received such notices if the CCT can show proof of transmission thereof via electronic mail, facsimile, or registered post or other lawful means.

2.2.7 Clarification meeting

The tenderer shall attend, where required, a clarification meeting at which tenderers may familiarise themselves with aspects of the proposed work, services or supply and pose questions. Details of the meeting(s) are stated in the General Tender Information (i.e., in item T.1 above).

Tenderers should be represented at the site visit/clarification meeting by a duly authorised person who is suitably qualified and experienced to comprehend the implications of the work involved.

2.2.8 Seek clarification

The tenderer shall request clarification of the tender documents, if necessary, by notifying the CCT at least one week before the closing time stated in the General Tender Information (i.e., in item T.1 above), where possible.

2.2.9 Pricing the tender offer

2.2.9.1 The tenderer shall comply with all pricing instructions as stated on the Price Schedule.

2.2.10 Alterations to documents

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

2.2.11 Alternative tender offers

2.2.11.1 Unless otherwise stated in the Conditions of Tender, the tenderers may submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted.

If a tenderer wishes to submit an alternative tender offer, he/she/it shall do so as a separate offer on a complete set of tender documents. The alternative tender offer shall be submitted in a separate sealed envelope clearly marked "Alternative Tender" in order to distinguish it from the main tender offer.

Only the alternative of the highest ranked acceptable main tender offer (that is, submitted by the same tenderer) will be considered, and if appropriate, recommended for award.

Alternative tender offers of any but the highest ranked main tender offer will not be considered.

An alternative tender offer to the highest ranked acceptable main tender offer that is priced higher than the main tender offer may be recommended for award, provided that the ranking of the alternative tender offer is higher than the ranking of the next ranked acceptable main tender offer.

The CCT will not be bound to consider alternative tenders and shall have sole discretion in this regard.

In the event that the alternative is accepted, the tenderer warrants that the alternative offer complies in all respects with the CCT's standards and requirements as set out in the tender document.

2.2.11.2 Acceptance of an alternative tender offer by the CCT may be based only on the criteria stated in the Conditions of Tender or applicable criteria otherwise acceptable to the CCT.

2.2.12 Submitting a tender offer

2.2.12.1 The tenderer is required to submit one tender offer only on the original tender documents as issued by the CCT, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the Conditions of Contract and described in the Specifications. Only those tenders submitted on the tender documents as issued by the CCT together with all Tender Returnable Documents duly completed and signed will be declared responsive.

2.2.12.2 The tenderer shall return the entire tender document to the CCT after completing it in its entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

2.2.12.3 The tenderer shall sign the original tender offer where required in terms of the Conditions of Tender. The tender shall be signed by a person duly authorised by the tenderer to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation / founding document of the joint venture or any other document signed by all Parties, in which is defined precisely the conditions under which the joint venture will function, its period of duration, the persons authorised to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner.

2.2.12.4 Where a two-envelope system is required in terms of the Conditions of Tender, place and seal the returnable documents listed in the Conditions of Tender in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each

envelope shall state on the outside the CCT's address and identification details stated in the General Tender Information (i.e., item T.1 above), as well as the tenderer's name and contact address.

2.2.12.5 The tenderer shall seal the original tender offer and copy packages together in an outer package that states on the outside only the CCT's address and identification details as stated in the General Tender Information. . If it is not possible to submit the original tender and the required copies (see 2.2.12.3) in a single envelope, then the tenderer must seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY" in addition to the aforementioned tender submission details.

2.2.12.6 The CCT shall not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

2.2.12.7 Tender offers submitted by facsimile or e-mail will be rejected by the CCT, unless stated otherwise in the Conditions of Tender.

2.2.12.8 By signing the offer part of the Form of Offer (**Section 5, Part A hereto**) the tenderer warrants and agrees that all information provided in the tender submission is true and correct.

2.2.12.9 Tenderers shall properly deposit its bid in the designated tender box (as detailed on the front page of this tender document) on or before the closing date and before the closing time, in the relevant tender box at the Tender & Quotation Boxes Office situated on the 2nd floor, Concourse Level, Civic Centre, 12 Hertzog Boulevard, Cape Town. If the tender submission is too large to fit in the allocated box, please enquire at the public counter for assistance.

2.2.12.10 The tenderer must record and reference all information submitted contained in other documents for example cover letters, brochures, catalogues, etc. in the Returnable Schedule titled **List of Other Documents Attached by Tenderer**.

2.2.13 Information and data to be completed in all respects

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

2.2.14 Closing time

2.2.14.1 The tenderer shall ensure that the CCT receives the tender offer, together with all applicable documents specified herein, at the address specified in the General Tender Information herein prior to the closing time stated on the front page of the tender document.

2.2.14.2 If the CCT extends the closing time stated on the front page of the tender document for any reason, the requirements of these Conditions of Tender apply equally to the extended deadline.

2.2.14.3 The CCT shall not consider tenders that are received after the closing date and time for such a tender (late tenders).

2.2.15 Tender offer validity and withdrawal of tenders

2.2.15.1 The tenderer shall warrant that the tender offer(s) remains valid, irrevocable and open for acceptance by the CCT at any time for a period of 120 days after the closing date stated on the front page of the tender document.

2.2.15.2 Notwithstanding the period stated in clause 2.2.15.1 above, bids shall remain valid for acceptance for a period of twelve (12) months after the expiry of the original validity period, unless the CCT is notified in writing of anything to the contrary by the bidder. The validity of bids may be further extended by a period of not more than six months subject to mutual agreement by the parties, administrative processes and upon approval by the City Manager, unless the required extension is as a result of an appeal process or court ruling.

In circumstances where the validity period of a tender has expired, and the tender has not been awarded, the tender process is considered "completed", despite there being no decision (award or

cancellation) made. This anomaly does not fall under any of the listed grounds of cancellation and should be treated as a "non award". A "non award" is supported as a recommendation to the CCT's Bod Adjudication Committee ("BAC") for noting.

2.2.15.3 A tenderer may request in writing, after the closing date, that its tender offer be withdrawn. Such withdrawal will be permitted or refused at the sole discretion of the CCT after consideration of the reasons for the withdrawal, which shall be fully set out by the tenderer in such written request for withdrawal. Should the tender offer be withdrawn in contravention hereof, the tenderer agrees that:

- a) it shall be liable to the CCT for any additional expense incurred or losses suffered by the CCT in having either to accept another tender or, if new tenders have to be invited, the additional expenses incurred or losses suffered by the invitation of new tenders and the subsequent acceptance of any other tender;
- b) the CCT shall also have the right to recover such additional expenses or losses by set-off against monies which may be due or become due to the tenderer under this or any other tender or contract or against any guarantee or deposit that may have been furnished by the tenderer or on its behalf for the due fulfilment of this or any other tender or contract. Pending the ascertainment of the amount of such additional expenses or losses, the CCT shall be entitled to retain such monies, guarantee or deposit as security for any such expenses or loss, without prejudice to the CCT's other rights and/or remedies available to it in accordance with any applicable laws.

2.2.16 Clarification of tender offer, or additional information, after submission

Tenderer's shall promptly provide clarification of its tender offer, or additional information, in response to a written request to do so from the CCT during the evaluation of tender offers within the time period stated in such request. No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

Note: This clause does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the CCT elect to do so.

Failure, or refusal, to provide such clarification or additional information within the time for submission stated in the CCT's written request may render the tender non-responsive.

2.2.17 Provide other material

2.2.17.1 Tenderer's shall promptly provide, upon request by the CCT, any other material that has a bearing on the tender offer, the tenderer's commercial position (including joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the CCT for the purpose of the evaluation of the tender. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the CCT's request, the CCT may regard the tender offer as non-responsive.

2.2.17.2 The tenderer shall provide, on written request by the CCT, where the transaction value inclusive of VAT **exceeds R 10 million**:

- a) audited annual financial statement for the past 3 years, or for the period since establishment if established during the past 3 years, if required by law to prepare annual financial statements for auditing;
- b) a certificate signed by the tenderer certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days;
- c) particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract;
- d) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic.

Each entity to a Consortium/Joint Venture bid shall submit separate certificates/statements in the above regard.

2.2.17.3 Tenderers shall be required to undertake to fully cooperate with the CCT's external service provider appointed to perform a due diligence review and risk assessment upon receipt of such written instruction from the CCT.

2.2.18 Samples, Inspections, tests and analysis

Tenderers shall provide access during working hours to premises for inspections, tests and analysis as provided for in the Conditions of Tender or Specifications.

If the Specifications requires the tenderer to provide samples, these shall be provided strictly in accordance with the instructions set out in the Specification.

If such samples are not submitted as required in the bid documents or within any further time stipulated by the CCT in writing, then the bid concerned may be declared non-responsive.

The samples provided by all successful bidders will be retained by the CCT for the duration of any subsequent contract. Bidders are to note that samples are requested for testing purposes therefore samples submitted to the CCT may not in all instances be returned in the same state of supply and in other instances may not be returned at all. Unsuccessful bidders will be advised by the Project Manager or dedicated CCT Official to collect their samples, save in the aforementioned instances where the samples would not be returned.

2.2.19 Certificates

The tenderer must provide the CCT with all certificates as stated below:

2.2.19.1. Preference Points for Specific Goals

In order to qualify for preference points for HDI and/or Specific Goals, it is the responsibility of the tenderer to submit documentary proof (Company registration certification, Central Supplier Database report, BBBEE certificate, Proof of Disability, Financial Statements, commissioned sworn affidavits, etc.) in support of tenderer claims for such preference for that specific goal.

Tenderers are further referred to the content of the Preference Schedule for the full terms and conditions applicable to the awarding of preference points.

2.2.19.2 Evidence of tax compliance

Tenderers shall be registered with the South African Revenue Service (SARS) and their tax affairs must be in order and they must be tax compliant subject to the requirements of clause 2.2.1.1.2.h. In this regard, it is the responsibility of the Tenderer to submit evidence in the form of a valid Tax Compliance Status PIN issued by SARS to the CCT at the Supplier Management Unit located within the Supplier Management / Registration Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5), or included with this tender. The tenderer must record its Tax Compliance Status PIN number on the **Details of Tenderer** pages of the tender submission.

Each party to a Consortium/Joint Venture shall submit a separate Tax Compliance Status Pin.

Before making an award the CCT must verify the bidder's tax compliance status. Where the recommended bidder is not tax compliant, the bidder should be notified of the non-compliant status and be requested to submit to the CCT, within 7 working days, written proof from SARS that they have made arrangement to meet their outstanding tax obligations. The proof of tax compliance submitted by the bidder must be verified by the CCT via CSD or e-Filing. The CCT should reject a bid submitted by the bidder if such bidder fails to provide proof of tax compliance within the timeframe stated herein.

Only foreign suppliers who have answered "NO" to all the questions contained in the Questionnaire to Bidding Foreign Suppliers section on the **Details of Tenderer** pages of the tender submission, are not required to register for a tax compliance status with SARS.

2.2.20 Compliance with Occupational Health and Safety Act, 85 of 1993

Tenderers are to note the requirements of the Occupational Health and Safety Act, 85 of 1993. The Tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the Tenderer shall submit **upon written request to do so by the CCT**, a Health and Safety Plan in sufficient detail to demonstrate the necessary competencies and resources to deliver the goods or services all in accordance with the Act, Regulations and Health and Safety Specification.

2.2.21 Claims arising from submission of tender

By responding to the tender herein, the tenderer warrants that it has:

- a) Inspected the Specifications and read and fully understood the Conditions of Contract.
- b) Read and fully understood the whole text of the Specifications and Price Schedule and thoroughly acquainted himself with the nature of the goods or services proposed and generally of all matters which may influence the Contract.
- c) visited the site(s) where delivery of the proposed goods will take place, carefully examined existing conditions, the means of access to the site(s), the conditions under which the delivery is to be made, and acquainted himself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials, plant and equipment to and from the site(s) and made the necessary provisions for any additional costs involved thereby.
- d) requested the CCT to clarify the actual requirements of anything in the Specifications and Price Schedule, the exact meaning or interpretation of which is not clearly intelligible to the Tenderer.
- e) Received any notices to the tender documents which have been issued in accordance with the CCT's Supply Chain Management Policy.

The CCT will therefore not be liable for the payment of any extra costs or claims arising from the submission of the tender.

2.3 The CCT's undertakings

2.3.1 Respond to requests from the tenderer

2.3.1.1 Unless otherwise stated in the Conditions of Tender, the CCT shall respond to a request for clarification received up to one week (where possible) before the tender closing time stated on the front page of the tender document.

2.3.1.2 The CCT's duly authorised representative for the purpose of this tender is stated on the General Tender Information page above.

2.3.2 Issue Notices

If necessary, the CCT may issue addenda in writing that may amend or amplify the tender documents to each tenderer during the period from the date the tender documents are available until one week before the tender closing time stated in the Tender Data. The CCT reserves its rights to issue addenda less than one week before the tender closing time in exceptional circumstances. If, as a result a tenderer applies for an extension to the closing time stated on the front page of the tender document, the CCT may grant such extension and, shall then notify all tenderers who drew documents.

Notwithstanding any requests for confirmation of receipt of notices issued, the tenderer shall be deemed to have received such notices if the CCT can show proof of transmission thereof via electronic mail, facsimile or registered post.

2.3.3 Opening of tender submissions

2.3.3.1 Unless the two-envelope system is to be followed, CCT shall open tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the Conditions of Tender.

Tenders will be opened immediately after the closing time for receipt of tenders as stated on the front page of the tender document, or as stated in any Notice extending the closing date and at the closing venue as stated in the General Tender Information.

2.3.3.2 Announce at the meeting held immediately after the opening of tender submissions, at the closing venue as stated in the General Tender Information, the name of each tenderer whose tender offer is opened and, where possible, the prices indicated.

2.3.3.3 Make available a record of the details announced at the tender opening meeting on the CCT's website (<http://www.capetown.gov.za/en/SupplyChainManagement/Pages/default.aspx>.)

2.3.4 two-envelope system

2.3.4.1 Where stated in the Conditions of Tender that a two-envelope system is to be followed, the CCT shall open only the technical proposal of tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the Conditions of Tender and announce the name of each tenderer whose technical proposal is opened.

2.3.4.2 The CCT shall evaluate the quality of the technical proposals offered by tenderers, then advise tenderers who have submitted responsive technical proposals of the time and place when the financial proposals will be opened. The CCT shall open only the financial proposals of tenderers, who have submitted responsive technical proposals in accordance with the requirements as stated in the Conditions of Tender, and announce the total price and any preference claimed. Return unopened financial proposals to tenderers whose technical proposals were non responsive.

2.3.5 Non-disclosure

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

2.3.6 Grounds for rejection and disqualification

The CCT shall determine whether there has been any effort by a tenderer to influence the processing of tender

offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

2.3.7 Test for responsiveness

2.3.7.1 Appoint a Bid Evaluation Committee and determine after opening whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

2.3.7.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the CCT's opinion, would:

- a) Detrimentially affect the scope, quality, or performance of the goods, services or supply identified in the Specifications,
- b) Significantly change the CCT's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of any material deviation or qualification.

The CCT reserves the right to accept a tender offer which does not, in the CCT's opinion, materially and/or substantially deviate from the terms, conditions, and specifications of the tender documents.

2.3.8 Arithmetical errors, omissions and discrepancies

2.3.8.1 Check the responsive tenders for:

- a) The gross misplacement of the decimal point in any unit rate;
- b) Omissions made in completing the Price Schedule; or
- c) Arithmetic errors in:
 - i) line item totals resulting from the product of a unit rate and a quantity in the Price Schedule; or
 - ii) The summation of the prices; or
 - iii) Calculation of individual rates.

2.3.8.2 The CCT must correct the arithmetical errors in the following manner:

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

Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of the arithmetical error in the manner described above.

2.3.8.3 In the event of tendered rates or lump sums being declared by the CCT to be unacceptable to it because they are not priced, either excessively low or high, or not in proper balance with other rates or lump sums, the tenderer may be required to produce evidence and advance arguments in support of the tendered rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the CCT is still not satisfied with the tendered rates or lump sums objected to, it may request the tenderer to amend these rates and lump sums along the lines indicated by it.

The tenderer will then have the option to alter and/or amend the rates and lump sums objected to and

such other related amounts as are agreed on by the CCT, but this shall be done without altering the tender offer in accordance with this clause.

Should the tenderer fail to amend his tender in a manner acceptable to and within the time stated by the CCT, the CCT may declare the tender as non-responsive.

2.3.9 Clarification of a tender offer

The CCT may, after the closing date, request additional information or clarification from tenderers, in writing on any matter affecting the evaluation of the tender offer or that could give rise to ambiguity in a contract arising from the tender offer, which written request and related response shall not change or affect their competitive position or the substance of their offer. Such request may only be made in writing by the Director: Supply Chain Management using any means as appropriate.

2.3.10 Evaluation of tender offers

2.3.10.1 General

2.3.10.1.1 The CCT may reduce each responsive tender offer to a comparative price and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the Conditions of Tender.

2.3.10.1.2 For evaluation purposes only, the effects of the relevant contract price adjustment methods will be considered in the determination of comparative prices as follows:

- a) If the selected method is based on bidders supplying rates or percentages for outer years, comparative prices would be determined over the entire contract period based on such rates or percentages.
- b) If the selected method is based on a formula, indices, coefficients, etc. that is the same for all bidders during the contract period, comparative prices would be the prices as tendered for year one.
- c) If the selected method is based on a formula, indices, coefficients, etc. that varies between bidders, comparative prices would be determined over the entire contract period based on published indices relevant during the 12 months prior to the closing date of tenders.
- d) If the selected method includes an imported content requiring rate of exchange variation, comparative prices would be determined based on the exchange rates tendered for the prices as tendered for year one. The rand equivalent of the applicable currency 14 days prior to the closing date of tender will be used (the CCT will check all quoted rates against those supplied by its own bank).
- e) If the selected method is based on suppliers' price lists, comparative prices would be the prices as tendered for year one.
- f) If the selected method is based on suppliers' price lists and / or rate of exchange, comparative prices would be determined as tendered for year one whilst taking into account the tendered percentage subject to rate of exchange (see sub clause (d) for details on the calculation of the rate of exchange).

2.3.10.1.3 Where the scoring of functionality forms part of a bid process, each member of the Bid Evaluation Committee must individually score functionality. The individual scores must then be interrogated and calibrated if required where there are significant discrepancies. The individual scores must then be added together and averaged to determine the final score.

2.3.10.2 Decimal places

Score financial offers, preferences and functionality, as relevant, to two decimal places.

2.3.10.3 Scoring of tenders (price and preference)

2.3.10.3.1 Points for price will be allocated in accordance with the formula set out in this clause based on the price per item / rates as set out in the **Price Schedule (Section 7)**:

- Based on the sum of the prices/rates in relation to a typical project/job.

2.3.10.3.2 Points for preference will be allocated in accordance with the provisions of **Preference Schedule** and the table in this clause.

2.3.10.3.3 The terms and conditions of **Preference Schedule** as it relates to preference shall apply in all respects to the tender evaluation process and any subsequent contract.

2.3.10.3.4 Applicable formula:

The 90/10 price/preference points system will be applied to the evaluation of responsive tenders above a Rand value of R50'000'000 (all applicable taxes included), whereby the order(s) will be placed with the tenderer(s) scoring the highest total number of adjudication points.

Price shall be scored as follows:

$$Ps = 90 \times \left(1 - \frac{(Pt - Pmin)}{Pmin}\right)$$

Where: Ps is the number of points scored for price;
Pt is the price of the tender under consideration;
Pmin is the price of the lowest responsive tender.

Preference points shall be based on the Specific Goal as per below:

Table B2: Awards above R50 mil (VAT Inclusive)

#	Specific goals allocated points	Preference Points (90/10) <i>Above R50 mil</i>	Evidence	Additional Guidance
<i>Persons, or categories of persons, historically disadvantaged- (HDI) by unfair discrimination on the basis of</i>				
1	Gender are women (ownership)* >75% - 100% women ownership: 3 points >50% - 75% women ownership: 2 points >25% - 50% women ownership: 1 point >0% - 25% women ownership: 0.5 point 0% women ownership = 0 points	3	- Company Registration Certification - Central Supplier Database report	- Issued by the Companies and Intellectual Property Commission - Report name: CSD Registration report
2	Race are black persons (ownership)* >75% - 100% black ownership: 3 points >50% - 75% black ownership: 2 points >25% - 50% black ownership: 1 point >0% - 25% black ownership: 0.5 point 0% black ownership = 0 points	3	- B-BBEE certificate; - Company Registration Certification - Central Supplier Database report	- South African National Accreditation System approved certificate or commissioned sworn affidavit - Issued by the Companies and Intellectual Property Commission - Report name: CSD Registration report
3	Disability are disabled persons (ownership)* WHO disability guideline >2% ownership: 1 points >0% - 2% ownership: 0.5 point 0% ownership = 0 point	1	- Proof of disability - Company Registration Certification	- Medical certificate/ South African Revenue Services disability registration - Issued by the Companies and Intellectual Property Commission
<i>Reconstruction and Development Programme (RDP) as published in Government Gazette</i>				
4	Promotion of Micro and Small Enterprises <i>Micro with a turnover up to R20million and Small with a turnover up to R80 million as per National Small Enterprise Act, 1996 (Act No.102 of 1996)</i> <i>SME partnership, sub-contracting, joint venture or consortiums</i>	3	- B-BBEE status level of contributor; - South African owned enterprises;	- Specifically in line with the respective sector codes which the company operates, - South African National Accreditation System approved certificate or commissioned sworn affidavit - Certificate of incorporation or commissioned sworn affidavit

			Financial Statement to determine annual turnover	Latest financial statements (1 Year)
	Total points	10		

**Ownership: main tendering entity*

2.3.10.5 Risk Analysis

Notwithstanding compliance with regard to any requirements of the tender, the CCT will perform a risk analysis in respect of the following:

- a) reasonableness of the financial offer
- b) reasonableness of unit rates and prices
- c) the tenderer's ability to fulfil its obligations in terms of the tender document, that is, that the tenderer can demonstrate that he/she possesses the necessary professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, capacity, experience, reputation, personnel to perform the contract, etc.; the CCT reserves the right to consider a tenderer's existing contracts with the CCT in this regard
- d) any other matter relating to the submitted bid, the tendering entity, matters of compliance, verification of submitted information and documents, etc.

The conclusions drawn from this risk analysis will be used by the CCT in determining the acceptability of the tender offer.

No tenderer will be recommended for an award unless the tenderer has demonstrated to the satisfaction of the CCT that he/she has the resources and skills required.

2.3.11 Negotiations with preferred tenderers

The CCT may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderers provided that such negotiation:

- a) Does not allow any preferred tenderer a second or unfair opportunity;
- b) Is not to the detriment of any other tenderer; and
- c) Does not lead to a higher price than the tender as submitted.

If negotiations fail to result in acceptable contract terms, the City Manager (or his delegated authority) may terminate the negotiations and cancel the tender, or invite the next ranked tenderer for negotiations. The original preferred tenderer should be informed of the reasons for termination of the negotiations. If the decision is to invite the next highest ranked tenderer for negotiations, the failed earlier negotiations may not be reopened by the CCT.

Minutes of any such negotiations shall be kept for record purposes.

The provisions of this clause will be equally applicable to any invitation to negotiate with any other tenderers.

In terms of the CCT's SCM Policy, tenders must be cancelled in the event that negotiations fail to achieve a market related price with any of the three highest scoring tenderers.

2.3.12 Acceptance of tender offer

Notwithstanding any other provisions contained in the tender document, the CCT reserves the right to:

- 2.3.12.1 Accept a tender offer(s) which does not, in the CCT's opinion, materially and/or substantially deviate from the terms, conditions, and specifications of the tender document.
- 2.3.12.2 Accept the whole tender or part of a tender or any item or part of any item or items from multiple manufacturers, or to accept more than one tender (in the event of a number of items being offered), and the CCT is not obliged to accept the lowest or any tender.

2.3.12.3 Accept the tender offer(s), if in the opinion of the CCT, it does not present any material risk and only if the tenderer(s):

- a) is not under restrictions, has any principals who are under restrictions, or is not currently a supplier to whom notice has been served for abuse of the supply chain management system, preventing participation in the CCT's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she

TENDER DOCUMENT GOODS AND SERVICES		 CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD	
SUPPLY CHAIN MANAGEMENT			
SCM - 542	Approved by Branch Manager: February 2024	Version: 10	Page 23 of 163

TENDER NO: 37S/2024/25

TENDER DESCRIPTION: THE ACQUISITION, SERVICING, REPAIRS, MAINTENANCE AND INSTALLATION OF EMERGENCY GENERATORS AND INVERTER / SOLAR SYSTEMS

CONTRACT PERIOD: 36 MONTHS FROM THE COMMENCEMENT DATE OF CONTRACT

THE CONTRACT

THE CITY OF CAPE TOWN	
A metropolitan municipality, established in terms of the Local Government: Municipal Structures Act, 117 of 1998 read with the Province of the Western Cape: Provincial Gazette 5588 dated 22 September 2000, as amended ("the Purchaser") herein represented by	
AUTHORISED REPRESENTATIVE	

AND

SUPPLIER	
NAME of Company/Close Corporation or Partnership / Joint Venture/ Consortium or Sole Proprietor /Individual (The "Supplier" / "tenderer")	
TRADING AS (if different from above)	
REGISTRATION NUMBER	
PHYSICAL ADDRESS / CHOSEN DOMICILIUM CITANI ET EXECTUANDI OF THE SUPPLIER	
AUTHORISED REPRESENTATIVE	
CAPACITY OF AUTHORISED REPRESENTATIVE	

(HEREINAFTER COLLECTIVELY REFERRED TO AS "THE PARTIES" AND INDIVIDUALLY A "PARTY")

NATURE OF TENDER OFFER (please indicate below)	
Main Offer (see clause 2.2.11.1)	
Alternative Offer (see clause 2.2.11.1)	

C.1 DETAILS OF TENDERER/SUPPLIER

1.1 Type of Entity (Please tick one box)

- ☐ Individual / Sole Proprietor
 ☐ Close Corporation
 ☐ Company
☐ Partnership or Joint Venture or Consortium
 ☐ Trust
 ☐ Other:

1.2 Required Details (Please provide applicable details in full):

Name of Company / Close Corporation or Partnership / Joint Venture / Consortium or Individual /Sole Proprietor	
Trading as (if different from above)	
Company / Close Corporation registration number (if applicable)	
Postal address	Postal Code _____
Physical address (Chosen Domicilium Citandi Et Executandi)	Postal Code _____
Contact details of the person duly authorised to represent the tenderer	Name: Mr/Ms _____ (Name & Surname) Telephone : (____) _____ Fax : (____) _____ Cellular Telephone: _____ E-mail address: _____
Income tax number	
VAT registration number	
SARS Tax Compliance Status PIN	
CCT Supplier Database Registration Number (See Conditions of Tender)	
National Treasury Central Supplier Database registration number (See Conditions of Tender)	
Is tenderer the accredited representative in South Africa for the Goods / Services / Works offered?	☐ Yes ☐ No If yes, enclose proof
Is tenderer a foreign based supplier for the Goods / Services / Works offered?	☐ Yes ☐ No If yes, answer the Questionnaire to Bidding Foreign Suppliers (below)
Questionnaire to Bidding Foreign Suppliers	a) Is the tenderer a resident of the Republic of South Africa or an entity registered in South Africa? ☐ Yes ☐ No
	b) Does the tenderer have a permanent establishment in the Republic of South Africa? ☐ Yes ☐ No
	c) Does the tenderer have any source of income in the Republic of South Africa? ☐ Yes ☐ No
	d) Is the tenderer liable in the Republic of South Africa for any form of taxation? ☐ Yes ☐ No
Other Required registration numbers	

C.2 FORM OF OFFER AND ACCEPTANCE

TENDER 37S/2024/25 - THE ACQUISITION, SERVICING, REPAIRS, MAINTENANCE AND INSTALLATION OF EMERGENCY GENERATORS AND INVERTER / SOLAR SYSTEMS

C.2.1 Offer (To Be Completed by the Tenderer as Part of Tender Submission)

The tenderer, identified in the offer signature table below,

HEREBY AGREES THAT by signing the *Form of Offer and Acceptance*, the tenderer:

1. confirms that it has examined the documents listed in the Index (including Schedules and Annexures) and has accepted all the Conditions of Tender;
2. confirms that it has received and incorporated any and all notices issued to tenderers issued by the CCT;
3. confirms that it has satisfied itself as to the correctness and validity of the tender offer; that the price(s) and rate(s) offered cover all the goods and/or services specified in the tender documents; that the price(s) and rate(s) cover all its obligations and accepts that any mistakes regarding price(s), rate(s) and calculations will be at its own risk;
4. offers to supply all or any of the goods and/or render all or any of the services described in the tender document to the CCT in accordance with the:
 - 4.1 terms and conditions stipulated in this tender document;
 - 4.2 specifications stipulated in this tender document; and
 - 4.3 at the prices as set out in the **Price Schedule**.
5. accepts full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on it in terms of the Contract.

SIGNED AT _____ (PLACE) ON THE _____ (DAY) OF _____ (MONTH AND YEAR)

For and on behalf of the Supplier
(Duly Authorised)
Name and Surname:

Witness 1 Signature
Name and Surname:

Witness 2 Signature
Name and Surname:

INITIALS OF CCT OFFICIALS		
1	2	3

FORM OF OFFER AND ACCEPTANCE (continued)

TENDER 37S/2024/25 - THE ACQUISITION, SERVICING, REPAIRS, MAINTENANCE AND INSTALLATION OF EMERGENCY GENERATORS AND INVERTER / SOLAR SYSTEMS

C.2.2 Acceptance (To Be Completed by the CCT)

By signing this part of this *Form of Offer and Acceptance*, the CCT accepts the tenderer's (if awarded the Supplier's) offer. In consideration thereof, the CCT shall pay the Supplier the amount due in accordance with the conditions of contract. Acceptance of the Supplier's offer shall form an agreement between the CCT and the Supplier upon the terms and conditions contained in this document.

The terms of the agreement are contained in the Contract (as defined) including drawings and documents or parts thereof, which may be incorporated by reference.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the *Tender Returnable Documents* as well as any changes to the terms of the offer agreed by the tenderer and the CCT during this process of offer and acceptance, are contained in the *Schedule of Deviations* attached to and forming part of this *Form of Offer and Acceptance*. No amendments to or deviations from said documents are valid unless contained in the *Schedule of Deviations*.

The Supplier shall within 2 (two) weeks after receiving a complete, copy of the Contract, including the *Schedule of Deviations* (if any), contact the CCT to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documents to be provided in terms the *Special Conditions of Contract*. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation / breach of the agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the Commencement Date, being the date upon which the Supplier confirms receipt from the CCT of 1 (one) complete, signed copy of the Contract, including amendments or deviations contained in the *Schedule of Deviations* (if any).

For and on behalf of the City of Cape Town
(Duly Authorised)
Name and Surname:

Witness 1 Signature
Name and Surname:

Witness 2 Signature
Name and Surname:

FORM OF OFFER AND ACCEPTANCE (continued)

TENDER 37S/2024/25 - THE ACQUISITION, SERVICING, REPAIRS, MAINTENANCE AND INSTALLATION OF EMERGENCY GENERATORS AND INVERTER / SOLAR SYSTEMS

C.2.3 Schedule of Deviations (To be Completed by the CCT upon Acceptance)

Notes:

1. The extent of deviations from the tender documents issued by the CCT before the tender closing date, is limited to those permitted in terms of the conditions of tender.
2. A tenderer's covering letter shall not be included in the final Contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties to become an obligation of the Contract, shall be recorded here.
4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall form part of the Contract.

1 Subject	
Details	
.....	
.....	
.....	
2 Subject	
Details	
.....	
.....	
.....	
3 Subject	
Details	
.....	
.....	
.....	
4 Subject	
Details	
.....	
.....	
.....	

By the duly authorised representatives signing this agreement, the CCT and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to this tender document and addenda thereto as listed in the *Tender Returnable Documents*, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the CCT during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the Commencement Date, shall have any meaning or effect between the Parties arising from the agreement.

FORM OF OFFER AND ACCEPTANCE (continued)

TENDER 37S/2024/25 - THE ACQUISITION, SERVICING, REPAIRS, MAINTENANCE AND INSTALLATION OF EMERGENCY GENERATORS AND INVERTER / SOLAR SYSTEMS

C.2.4 Confirmation of Receipt (To be Completed by Supplier upon Acceptance)

The Supplier identified in the offer part of the Contract hereby confirms receipt from the CCT of 1 (one) complete, signed copy of the Contract, including the *Schedule of Deviations* (if any) on:

The..... (Day)

Of..... (Month)

20..... (year)

At..... (Place)

For the Supplier: Signature(s)

Name(s)

Capacity

Signature and name of witness:

Signature Name

C.3 OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

AGREEMENT MADE AND ENTERED INTO BETWEEN THE CCT (HEREINAFTER CALLED THE "CCT")
AND

.....,
(Supplier/Mandatar y/Company/CC Name)

IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 85 OF 1993 AS
AMENDED.

I,, representing

....., as an employer
in its own right in its own right, do hereby undertake to ensure, as far as is reasonably practicable, that all work
will be performed, and all equipment, machinery or plant used in such a manner as to comply with the
provisions of the Occupational Health and Safety Act (hereafter "OHSA") and the Regulations promulgated
thereunder.

I furthermore confirm that I am/we are registered with the Compensation Commissioner and that all registration
and assessment monies due to the Compensation Commissioner have been fully paid or that I/We are insured
with an approved licensed compensation insurer.

COID ACT Registration Number:

OR Compensation Insurer: Policy No.:

I undertake to appoint, where required, suitable competent persons, in writing, in terms of the requirements of
OHSA and the Regulations and to charge him/them with the duty of ensuring that the provisions of OHSA and
Regulations as well as the Council's Special Conditions of Contract, Way Leave, Lock-Out and Work Permit
Procedures are adhered to as far as reasonably practicable.

I further undertake to ensure that any subcontractors employed by me will enter into an occupational health
and safety agreement separately, and that such subcontractors comply with the conditions set.

I hereby declare that I have read and understand the Occupational Health and Safety Specifications contained
in this tender and undertake to comply therewith at all times.

I hereby also undertake to comply with the Occupational Health and Safety Specification and Plan submitted
and approved in terms thereof.

Signed aton the.....day of.....20....

Witness

Mandatar y

Signed at..... on the.....day of.....20

Witness

for and on behalf of
CCT

C.4 PRICE SCHEDULE

Bid specifications may not make any reference to any particular trade mark, name, patent, design, type, specific origin or producer, unless there is no other sufficiently precise or intelligible way of describing the characteristics of the work, in which case such reference must be accompanied by the words “or equivalent”.

TENDERERS MUST NOTE THAT WHEREVER THIS DOCUMENT REFERS TO ANY PARTICULAR TRADE MARK, NAME, PATENT, DESIGN, TYPE, SPECIFIC ORIGIN OR PRODUCER, SUCH REFERENCE SHALL BE DEEMED TO BE ACCOMPANIED BY THE WORDS ‘OR EQUIVALENT’

Pricing Instructions:

- 5.1 State the rates and prices in Rand unless instructed otherwise in the Conditions of Tender.
- 5.2 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the General Tender Information.
- 5.3 All prices tendered must **include all expenses, disbursements and costs** (e.g. transport, accommodation etc.) that may be required for the execution of the tenderer's obligations in terms of the Contract, and shall **cover the cost of all general risks, liabilities and obligations** set forth or implied in the Contract **as well as overhead charges and profit** (in the event that the tender is successful). **All prices tendered will be final and binding.**
- 5.4 All prices shall be tendered in accordance with the units specified in this schedule.
- 5.5 Where a value is given in the Quantity column, a Rate and Price (the product of the Quantity and Rate) is required to be inserted in the relevant columns.
- 5.6 The successful tenderer is required to perform all tasks listed against each item. The tenderer must therefore tender prices/rates on all items as per the section in the Price Schedule. **An item against which no rate is/are entered, or if anything other than a rate or a nil rate (for example, a zero, a dash or the word “included” or abbreviations thereof) is entered against an item, it will also be regarded as a nil rate having been entered against that item, i.e. that there is no charge for that item. The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the CCT may also perform a risk analysis with regard to the reasonableness of such rates.**
- 5.7 No quantities are set out in the Schedules of Rates and the Contractor will be required to undertake whatever quantities may be directed by the Principal Agent from time to time in the relevant Purchase Order / Works Project. The final Contract Price for each completed Purchase Order / Works Project shall be computed from the actual quantities of work done, valued at the relevant rates.
- 5.8 Rates inserted in the Schedules of Rates are deemed to be based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).
- 5.9 Rates submitted in the respective Schedules of Rates shall apply to Purchase Order / Works Projects executed anywhere within the City of Cape Town.
- 5.10 The Employer will only order those quantities of work items, which it actually requires for execution in a Purchase Order / Works Project from time to time. The Employer reserves the right not to order any quantities at all depending on circumstances and subject to operational requirements.
- 5.11 Tenderers are referred to Contract Data regarding contract price adjustment.

- 5.12 Pricing must allow for all (P&G's) Preliminary and General
- 5.13 Pricing must allow for all (HSE) Health and Safety Environmental consideration.

SCHEDULES OF RATES

Item	Description	Unit	Price (R)
1	DESIGN: Allow for all cost and expenses in connection with the following: Design, calculations and sign off on approved drawings relating to the agreed scope of work and the submission of all documentation relating to execution of the scope of work to completion. SSEG applications, wayleave applications, etc		
1.1	Certificated or Professional Electrical Engineer	hr	
1.2	Certificated or Professional Mechanical Engineer	hr	
Item	Description	Unit	Price
2	The supply and installation of a complete generator set.		
2.1	Allow for all cost and expenses in connection with the following: Supply and installation of stationery diesel engine (prime mover) and alternator. Exhaust and silencer as per site requirements. Deep sea controller or equivalent. Phase failure relay, and switchgear. Concrete plinth to site specifications. Fuel tank to suite generator fuel consumption of minimum of 8 hours, fuel line. Including but not limited to all cables, cowlings, louvres and other add on. Delivered to site. Complete with all the necessary on site commissioning. Inside a suitable container. A full tank of fuel must be supplied for on-site commissioning of the generator.		
		-	
2.1.1	generator rating 50KVA (Or Higher)	Unit	
2.1.2	generator rating 75KVA (Or Higher)	Unit	
2.1.3	generator rating 100KVA (Or Higher)	Unit	
2.1.4	generator rating 125KVA (Or Higher)	Unit	

2.1.5	generator rating 150KVA (Or Higher)	Unit	
2.1.6	generator rating 175KVA (Or Higher)	Unit	
2.1.7	generator rating 200KVA (Or Higher)	Unit	
2.1.8	generator rating 250KVA (Or Higher)	Unit	
2.1.9	generator rating 300KVA (Or Higher)	Unit	
2.1.10	generator rating 350KVA (Or Higher)	Unit	
2.1.11	generator rating 400KVA (Or Higher)	Unit	
2.1.12	generator rating 450KVA (Or Higher)	Unit	
2.1.13	generator rating 500KVA (Or Higher)	Unit	
2.1.14	generator rating 600KVA (Or Higher)	Unit	
2.1.15	generator rating 700KVA (Or Higher)	Unit	
2.1.16	generator rating 800KVA (Or Higher)	Unit	
2.1.17	generator rating 900KVA up to 1000KVA	Unit	
2.2	Allow for all cost and expenses in connection with the following: Supply and installation of stationery diesel engine (prime mover) and alternator. Exhaust and silencer as per site requirements. Deep sea controller or equivalent. Phase failure relay and switchgear. Concrete plinth to site specifications. Skid base fuel tank to suite generator fuel consumption, fuel line. Delivered to site. Complete with all the necessary on site commissioning. Inside a generator plant room. A full tank of fuel must be supplied for on-site commissioning of the generator.		
2.2.1	generator rating 50KVA (Or Higher)	Unit	
2.2.2	generator rating 75KVA (Or Higher)	Unit	
2.2.3	generator rating 100KVA (Or Higher)	Unit	
2.2.4	generator rating 125KVA (Or Higher)	Unit	
2.2.5	generator rating 150KVA (Or Higher)	Unit	
2.2.6	generator rating 175KVA (Or Higher)	Unit	
2.2.7	generator rating 200KVA (Or Higher)	Unit	
2.2.8	generator rating 250KVA (Or Higher)	Unit	
2.2.9	generator rating 300KVA (Or Higher)	Unit	
2.2.10	generator rating 350KVA (Or Higher)	Unit	
2.2.11	generator rating 400KVA (Or Higher)	Unit	
2.2.12	generator rating 450KVA (Or Higher)	Unit	
2.2.13	generator rating 500KVA (Or Higher)	Unit	
2.2.14	generator rating 600KVA (Or Higher)	Unit	

2.2.15	generator rating 700KVA (Or Higher)	Unit	
2.2.16	generator rating 800KVA (Or Higher)	Unit	
2.2.17	generator rating 900KVA up to 1000KVA	Unit	

	Electrical Bill of Quantities		
3	Allow for all cost and expenses in connection with the following: Supply and installation of generator distribution board and connector panels are to pre manufactured as per site specification. inclusive legend cards and complete distribution board labelling.		
3.1	Floor standing mains distribution board/panel manufactured as per specification (2-tier 600x1700x500 WxHxD). 15kA Fault Level Rating	ea	
3.2	Surfaced Mounted Distribution board 450mm(H) x 450mm(W) x 450mm(D). 15kA Fault Level Rating	ea	
3.3	Surfaced Mounted Distribution 750mm(H) x 750mm(W) x 450mm(D). 15kA Fault Level Rating	ea	
3.4	1 x 24 way surface mounted distribution board manufactured as per site specifications 15kA Fault Level Rating. 15kA Fault Level Rating	ea	
3.5	3 x 36 way surface mounted distribution board manufactured as per site specifications. 15kA Fault Level Rating	ea	
3.6	Floor standing mains distribution board/panel manufactured as per specification (2-tier 600x1700x500 WxHxD). 30kA Fault Level Rating	ea	
3.7	Surfaced Mounted Distribution board 450mm(H) x 450mm(W) x 450mm(D). 30kA Fault Level Rating	ea	
3.8	Surfaced Mounted Distribution 750mm(H) x 750mm(W) x 450mm(D). 30kA Fault Level Rating	ea	
3.9	1 x 24 way surface mounted distribution board manufactured as per site specifications 15kA Fault Level Rating. 30kA Fault Level Rating	ea	
3.10	3 x 36 way surface mounted distribution board manufactured as per site specifications. 30kA Fault Level Rating	ea	

3.11	Floor standing mains distribution board/panel manufactured as per specification (2-tier 600x1700x500 WxHxD). 45kA Fault Level Rating	ea	
3.12	Surfaced Mounted Distribution board 450mm(H) x 450mm(W) x 450mm(D). 45kA Fault Level Rating	ea	
3.13	Surfaced Mounted Distribution 750mm(H) x 750mm(W) x 450mm(D). 45kA Fault Level Rating	ea	
3.14	1 x 24 way surface mounted distribution board manufactured as per site specifications 15kA Fault Level Rating. 45kA Fault Level Rating	ea	
3.15	3 x 36 way surface mounted distribution board manufactured as per site specifications. 45kA Fault Level Rating	ea	
Item	Description	Unit	Price
	Electrical Bill of Quantities		
4	Allow for all cost and expenses in connection with the following: Supply and installation of Low Voltage Electrical Cables Supply, installation and termination of 600/1000V cables.		
4.1	4 – Core PVC SWA copper cable		
4.1.1	16mm ²	/m	
4.1.2	35mm ²	/m	
4.1.3	50mm ²	/m	
4.1.4	70mm ²	/m	
4.1.5	95mm ²	/m	
4.1.6	120mm ²	/m	
4.1.7	150mm ²	/m	
4.1.8	185mm ²	/m	
4.1.9	240mm ²	/m	
4.1.10	300mm ²	/m	
4.2	Flexible Single core Cables		
4.2.1	50mm ²	/m	
4.2.2	70mm ²	/m	
4.2.3	120 mm ²	/m	
4.2.4	150 mm ²	/m	
4.2.5	185 mm ²	/m	

4.2.6	240 mm ²	/m	
4.2.7	300 mm ²	/m	
4.3	Allow for all cost and expenses in connection with the following: Supply and installation of anti-theft stranded earth wire. Including termination as well as installation under the generator plinth. With a 150mm cover, trenching and backfilling.		
4.3.1	16mm ²	/m	
4.3.2	35mm ²	/m	
4.3.3	50mm ²	/m	
4.3.4	70mm ²	/m	
4.3.5	95mm ²	/m	
4.4	Allow for all cost and expenses in connection with the following: Low Voltage Cable Joints of 4 – Core PVC SWA copper cable		
4.4.1	16mm ²	ea	
4.4.2	35mm ²	ea	
4.4.3	50mm ²	ea	
4.4.4	70mm ²	ea	
4.4.5	95mm ²	ea	
4.4.6	120 mm ²	ea	
4.4.7	150 mm ²	ea	
4.4.8	185 mm ²	ea	
4.4.9	240 mm ²	ea	
4.4.10	300 mm ²	ea	
5	Allow for all cost and expenses in connection with the following: Low Voltage Cable Joints Flexible Single core Cables		
5.1.1	50mm ²	ea	
5.1.2	70mm ²	ea	
5.1.3	120 mm ²	ea	

5.1.4	150 mm ²	ea	
5.1.5	185 mm ²	ea	
5.1.6	240 mm ²	ea	
5.1.7	300 mm ²	ea	
Item	Description	Unit	Price
6	Trenching, excavation and reinstatement		
	Allow for all cost and expenses in connection with the following: Supply and Installation of cable ducts, barricading and shoring of trenches, backfilling material		
6.1	Trenching in soft soil	/m ³	
6.2	Trenching in intermediate soil	/m ³	
6.3	Trenching hard rock	/m ³	
6.4	Reinstatement of paving	/m ²	
6.5	Reinstatement of Asphalt	/m ²	

7	Cable ways and cable trays		
	Allow for all cost and expenses in connection with the following: Supply and installation of the conduit, cable ways and cable trays. Including all accessories necessary to ensure that all cable ways and cable trays are secure and electrically bonded. Where an entry is made through a wall, that entry shall be correctly repaired/insulated as is necessary to protect the cable and maintain the building and room integrity. Room penetrations shall be sealed with an approved intumescent sealer		
7.1	PVC Conduit surface or chased		
7.1.1	25 mm ²	/m	
7.1.2	40 mm ²	/m	
7.1.3	65 mm ²	/m	
7.1.4	110mm ²	/m	
7.2	Galvanized steel Conduit surface or chased		
7.2.1	25 mm ²	/m	
7.2.2	40 mm ²	/m	
7.2.3	65mm ²	/m	
7.2.4	100mm ²	/m	
7.3	Supply and installation of Hot dipped galvanised cable tray. All cost and expenses must be considered for the following: risers, dips, bends, fixtures, lids, cable clamps		
7.3.1	75mm (h) x 200mm (w)	/m	
7.3.2	75mm (h) x 300mm (w)	/m	
7.3.3	75mm (h) x 400mm (w)	/m	

8	Circuit Breakers		
	Allow for all cost and expenses in connection with the following: Supply and installation into a surface mount distribution board or a floor standing mains distribution board / panel. All circuit breakers for this purpose will be in the arrange of 15KA - 35KA		
8.1	16A - 63A, 15kA, 415V, 50Hz, 3 pole, Thermal Magnetic.	ea	
8.2	80A - 125A, 15kA, 415V, 50Hz, 3 pole, Thermal Magnetic.	ea	
8.3	150A - 160A, 15kA, 415V, 50Hz, 3 pole, Thermal Magnetic.	ea	
8.4	175A - 225A, 15kA, 415V, 50Hz, 3 pole, Thermal Magnetic.	ea	
8.5	250A, 15kA, 415V, 50Hz, 3 pole, Thermal Magnetic.	ea	
8.6	300A - 400A, 25kA, 415V, 50Hz, 3 pole, Thermal Magnetic.	ea	
8.7	500A - 630A, 35kA, 415V, 50Hz, 3 pole, Thermal Magnetic. (CBI K35D)	ea	
8.8	640A - 900A, 35kA, 415V, 50Hz, 3 pole, Thermal Magnetic. Rackable circuit breaker	ea	
8.9	900A -1200A, 35kA, 415V, 50Hz, 3 pole, Thermal Magnetic. Rackable circuit breaker	ea	
8.10	1500A - 2000A, 35kA, 415V, 50Hz, 3 pole, Thermal Magnetic. Rackable circuit breaker	ea	
8.11	2000A 2500A, 35kA, 415V, 50Hz, 3 pole, Thermal Magnetic. Rackable circuit breaker	ea	
8.12	16A - 63A, 15kA, 415V, 50Hz, 4 pole, Thermal Magnetic.	ea	
8.13	80A - 125A, 15kA, 415V, 50Hz, 4 pole, Thermal Magnetic.	ea	
8.14	150A - 160A, 15kA, 415V, 50Hz, 4 pole, Thermal Magnetic.	ea	
8.15	175A - 225A, 15kA, 415V, 50Hz, 4 pole, Thermal Magnetic.	ea	
8.16	250A, 15kA, 415V, 50Hz, 4 pole, Thermal Magnetic.	ea	
8.17	300A - 400A, 25kA, 415V, 50Hz, 4 pole, Thermal Magnetic.	ea	

8.18	500A - 630A, 35kA, 415V, 50Hz, 4 pole, Thermal Magnetic. (CBI K35D)	ea	
8.19	640A - 900A, 35kA, 415V, 50Hz, 4 pole, Thermal Magnetic. Rackable circuit breaker	ea	
8.20	900A -1200A, 35kA, 415V, 50Hz, 4 pole, Thermal Magnetic. Rackable circuit breaker	ea	
	MINIATURE CIRCUIT BREAKERS (MCB): MINI RAIL MOUNTED		
8.21	5A - 20A, 3kA, 240V, 50Hz, 1 pole, Curve 3.	ea	
8.22	25A - 60A, 3kA, 230V, 50Hz, 1 pole, Curve 3.	ea	
8.23	5A - 20A, 3kA, 415V, 50Hz, 3 pole, Curve 3.	ea	
8.24	25A - 50A, 3kA, 415V, 50Hz, 3 pole, Curve 3.	ea	
8.25	5A - 20A, 3kA, 240V, 50Hz, 1+N pole, Curve 3.	ea	
8.26	25A - 60A, 3kA, 240V, 50Hz, 1+N pole, Curve 3.	ea	
8.27	5A - 25A, 6kA, 240V, 50Hz, 1 pole, Curve 2.	ea	
8.28	10A - 25A, 6kA, 415V, 50Hz, 3 pole, Curve 2.	ea	
8.29	5A - 20A, 6kA, 240V, 50Hz, 1+N pole, Curve 2.	ea	
8.30	5A - 25A, 6kA, 240V, 50Hz, 1 pole, Curve 1.	ea	
8.31	5A - 25A, 6kA, 415V, 50Hz, 3 pole, Curve 1.	ea	
8.32	5A - 63A, 6kA, 240V, 50Hz, 1 pole, Curve 2.	ea	
8.33	80A - 100A, 6kA, 240V, 50Hz, 1 pole, Curve 2.	ea	
8.34	5A - 63A, 6kA, 415V, 50Hz, 3 pole, Curve 2.	ea	
8.35	80A - 100A, 6kA, 415V, 50Hz, 3 pole, Curve 2.	ea	
8.36	5A - 40A, 6kA, 240V, 50Hz, 1+N pole, Curve 2.	ea	
8.37	45A - 63A, 6kA, 240V, 50Hz, 1+N pole, Curve 2.	ea	
8.38	5A - 63A, 6kA, 240V, 50Hz, 1 pole, Curve 1.	ea	
8.39	80A - 100A, 6kA, 240V, 50Hz, 1 pole, Curve 1.	ea	

8.40	5A - 63A, 6kA, 415V, 50Hz, 3 pole, Curve 1.	ea	
8.41	80A - 100A, 6kA, 415V, 50Hz, 3 pole, Curve 1.	ea	
8.42	63A, 30mA, 3kA, 240V, 50Hz, 1+N pole, Earth Leakage Device without over load protection.	ea	
8.43	63A, 30mA, 3kA, 240V, 50Hz, 1+N pole, Earth Leakage Device with over load protection.	ea	
8.44	63A, 30mA, 6kA, 415V, 50Hz, 1+N pole, Earth Leakage Device without over load protection.	ea	
8.45	63A, 30mA, 3kA, 415V, 50Hz, 3+N pole, Earth Leakage Device without over load protection.	ea	
8.46	63A, 30mA, 6kA, 415V, 50Hz, 3+N pole, Earth Leakage Device with over load protection.	ea	
8.47	80A, 30mA, 6kA, 415V, 50Hz, 3+N pole, Earth Leakage Device without over load protection.	ea	
8.48	MINIATURE CIRCUIT BREAKERS (MCB): DIN RAIL MOUNTED	ea	
8.49	6A - 40A, 3kA, 230V, 50Hz, 1 pole, B Curve.	ea	
8.50	2A - 40A, 4.5kA, 230V, 50Hz, SP/N, C Curve.	ea	
8.51	1A - 3A, 2.5 - 6kA, 230V, 50Hz, 1 pole, C Curve.	ea	
8.52	6A - 40A, 2.5 - 6kA, 230V, 50Hz, 1 pole, C Curve.	ea	
8.53	50A - 63A, 2.5 - 6kA, 230V, 50Hz, 1 pole, C Curve.	ea	
8.54	2A - 3A, 2.5 - 6kA, 400V, 50Hz, 3 pole, C Curve.	ea	
8.55	6A - 40A, 2.5 - 6kA, 400V, 50Hz, 3 pole, C Curve.	ea	
8.56	50A - 63A, 2.5 - 6kA, 400V, 50Hz, 3 pole, C Curve.	ea	
8.57	6A - 40A, 2.5 - 6kA, 400V, 50Hz, 4 pole, C Curve.	ea	
8.58	50A - 63A, 2.5 - 6kA, 400V, 50Hz, 4 pole C Curve.	ea	
8.59	10A - 20A, 10kA, 230V, 50Hz, 1 pole, C Curve.	ea	
8.60	25A - 50A, 10kA, 230V, 50Hz, 1 pole, C Curve.	ea	
8.61	63A - 100A, 10kA, 230V, 50Hz, 1 pole, C Curve.	ea	
8.62	125A, 10kA, 230V, 50Hz, 1 pole, C Curve.	ea	

8.63	10A - 20A, 10kA, 400V, 50Hz, 3 pole, C Curve.	ea	
8.64	25A - 63A, 10kA, 400V, 50Hz, 3 pole, C Curve.	ea	
8.65	80A - 100A, 10kA, 400V, 50Hz, 3 pole, C Curve. (hager HLF380/390S)	ea	
8.66	125A, 10kA, 400V, 50Hz, 3 pole, C Curve.	ea	
8.67	10A - 25A, 10kA, 400V, 50Hz, 4 pole, C Curve.	ea	
8.68	32A - 40A, 10kA, 400V, 50Hz, 4 pole, C Curve.	ea	
8.69	50A - 63A, 10kA, 400V, 50Hz, 4 pole, C Curve.	ea	
8.70	80A - 100A, 10kA, 400V, 50Hz, 4 pole, C Curve.	ea	
8.71	125A, 10kA, 400V, 50Hz, 4 pole, C Curve.	ea	
8.72	6A - 40A, 10kA, 230V, 50Hz, 1 pole, D Curve.	ea	
8.73	50A - 63A, 10kA, 230V, 50Hz, 1 pole, D Curve.	ea	
8.74	80A - 100A, 10kA, 230V, 50Hz, 1 pole, D Curve.	ea	
8.75	125A, 10kA, 230V, 50Hz, 1 pole, D Curve.	ea	
8.76	6A to 40A, 10kA, 400V, 50Hz, 3 pole, D Curve.	ea	
8.77	50A to 63A, 10kA, 400V, 50Hz, 3 pole, D Curve.	ea	
8.78	80A to 100A, 10kA, 400V, 50Hz, 3 pole, D Curve.	ea	
8.79	125A, 10kA, 400V, 50Hz, 3 pole, D Curve.	ea	
8.80	63A, 30mA, 240V, 50Hz, 2 pole, Earth Leakage Device.	ea	
8.81	63A, 30mA, kA, 415V, 50Hz, 4 pole, Earth Leakage Device.	ea	
Item	Description	Unit	Price
9	Certificate of Compliance		
	Allow for all cost and expenses in connection with the following:		
9.1	Issue Certificate of Compliance	ea	
Item	Description	Unit	Price (R)

10	Labour		
	Allow for all cost and expenses in connection with the following (Normal working hours Mon - Fri 6am - 6pm): All specified items contained in this schedule already contains labour. The Labour rate shall typically be for free issuing of material or for time on site which is not linked to the scheduled items.		
10.1	Master Electrician	hr	
10.2	Installation Electrician	hr	
10.3	Electrician	hr	
10.4	Diesel Mechanic	hr	
10.5	Assistant worker	hr	
11	Labour		
	Allow for all cost and expenses in connection with the following (After hours, including Weekends):		
11.1	Master Electrician	hr	
11.2	Installation Electrician	hr	
11.3	Electrician	hr	
11.4	Diesel Mechanic	hr	
11.5	Assistant worker	hr	
11.6	CALLOUT: Callout fee is chargable for generator breakdown and emergency callouts. The fee must allow for transportation and labour for up to 4hrs within anywhere within boundries of City of Cape town municipality.		
11.7	Breakdown Callout	Per Callout	
11.8	Emergency Callout	Per Callout	
12	Servicing of Generators		
12.1	Allow for all cost and expenses in connection with the following: ANNUAL service for the range of generator KVA ratings listed below. as per manufacturers requirements and acceptable practices and standards		
12.1.1	up to 5KVA	ea	
12.1.2	5.1 KVA - 15KVA	ea	
12.1.3	16KVA - 50KVA	ea	
12.1.4	51KVA - 100KVA	ea	
12.1.5	101KVA - 200KVA	ea	
12.1.6	201KVA - 300KVA	ea	
12.1.7	301KVA - 400KVA	ea	
12.1.8	401KVA - 500KVA	ea	
12.1.9	501KVA - 700KVA	ea	

12.1.10	701KVA - 800KVA	ea	
12.1.11	801KVA - 900KVA	ea	
12.2	Allow for all cost and expenses in connection with the following: QUARTERLY inspection for the range of generator KVA ratings listed below. as per manufacturers requirements and acceptable practices and standards		
12.2.1	up to 5KVA	ea	
12.2.2	5.1 KVA - 15KVA	ea	
12.2.3	16KVA - 50KVA	ea	
12.2.4	51KVA - 100KVA	ea	
12.2.5	101KVA - 200KVA	ea	
12.2.6	201KVA - 300KVA	ea	
12.2.7	301KVA - 400KVA	ea	
12.2.8	401KVA - 500KVA	ea	
12.2.9	501KVA - 700KVA	ea	
12.2.10	701KVA - 800KVA	ea	
12.2.11	801KVA - 900KVA	ea	

	Training of City of Cape Town Staff		
13	Allow for all cost and expenses in connection with the following:		
13.1	Training of City of Cape Town Staff	hr	
Item	Description	Unit	Price
	Mobile Generators		
14	Allow for all cost and expenses in connection with the following: The supply, delivery and commissioning of rental generators to a building within the municipal boundaries of the City of Cape Town, in the following range. A full tank of fuel must be supplied for on-site commissioning of the generator.		
14.1	up to 5KVA	ea	
14.2	5.1 KVA - 15KVA	ea	
14.3	16KVA - 50KVA	ea	
14.4	51KVA - 100KVA	ea	
14.5	101KVA - 200KVA	ea	
14.6	201KVA - 300KVA	ea	
14.7	301KVA - 400KVA	ea	
14.8	401KVA - 500KVA	ea	
14.9	501KVA - 700KVA	ea	
14.10'	701KVA - 800KVA	ea	
14.11	801KVA - 900KVA	ea	

Item	Description	Unit	Price (R)
	<u>Solar PV</u>		
15	<u>Supply and install a solar PV system as per engineers reference design, specifications and drawings included in the Purchase Order / Works Project documentation. The design to be verified by the solar PV subcontractor in order to ensure compatibility and configuration of the system provides a complete working solution. The design is to be approved by the engineer.</u>		
	<u>Supply and Install Solar PV Modules</u>		
15.1	PV module 300W 60-cell polycrystalline (Tier 1)	ea	
15.2	PV module 320W 60-cell polycrystalline (Tier 1)	ea	
15.3	PV module 360W 144-cell polycrystalline (Tier 1)	ea	
15.4	PV module 380W 144-cell polycrystalline (Tier 1)	ea	
15.5	PV module 405W 144-cell polycrystalline (Tier 1)	ea	
15.6	PV module 420W 144-cell polycrystalline (Tier 1)	ea	
15.7	PV module 450W 144-cell polycrystalline (Tier 1)	ea	
15.8	PV module 540W 144-cell polycrystalline (Tier 1)	ea	
15.9	PV module 600W 144-cell polycrystalline (Tier 1)	ea	
16	<u>Supply and Install Racking, Rails and Structures</u>		
16.1	Racking: flat concrete roof (portrait)	Per meter	
16.2	Racking: flat concrete roof (landscape)	Per meter	
16.3	Ballast	Per meter	
16.4	Racking: Sheet metal roof (IBR-type with non-penetrating clamps)	Per meter	
16.5	Racking: Sheet metal roof (Corrugated-type with non-penetrating clamps)	Per meter	
16.6	Racking: Tile roof	Per meter	
16.7	Waterproofing: all penetrations on roof (per PV module)	Per meter	
16.8	Single pole mounting frames - adjustable from 10 degrees to 70+ (for ground mount systems)	ea	
17	<u>Supply and Install Invertors</u>		
17.1	3 kVA 1-phase inverter with WiFi	ea	
17.2	5 kVA 1-phase inverter with WiFi	ea	
17.3	8 kVA 1-phase inverter with WiFi	ea	
17.4	10 kVA 1-phase inverter with WiFi	ea	

Item	Description	Unit	Price (R)
17.5	15 kVA 1-phase inverter with WiFi	ea	
17.6	20 kVA 1-phase inverter with WiFi	ea	
17.7	3 kVA 3-phase inverter with WiFi	ea	
17.8	5 kVA 3-phase inverter with WiFi	ea	
17.9	8 kVA 3-phase inverter with WiFi	ea	
17.10	10 kVA 3-phase inverter with WiFi	ea	
17.11	15 kVA 3-phase inverter with WiFi	ea	
	50 kVA 3-phase inverter with WiFi	ea	
17.12	120kVA 3-phase inverter with WiFi	ea	
18	Supply and Install Charge Controllers and MPPT		
18.1	12/24 V 10 A MPPT	ea	
18.2	12/24 V 15 A MPPT	ea	
18.3	12/24 V 20 A MPPT	ea	
18.4	12/24 V 30 A MPPT	ea	
18.5	12/24 V 35 A MPPT	ea	
18.6	12/24 V 45 A MPPT	ea	
18.7	12/24 V 50 A MPPT	ea	
18.8	12/24 V 100 A MPPT	ea	
18.9	Power optimiser	ea	
19	Supply and Install Batteries		
19.1	Battery - modular Lead-acid 12 V 100 Ah	ea	
19.2	Battery - modular Lead-acid 12 V 200 Ah	ea	
19.3	Battery - modular Lead-acid 24 V 100 Ah	ea	
19.4	Battery - modular Lead-acid 24 V 200 Ah	ea	
19.5	Battery - modular Lead-acid box/rack 1.2 kWh	ea	
19.6	Battery - modular Lead-acid box/rack 2.4 kWh	ea	
19.7	Battery - modular Lead-acid box/rack 4,8 kWh	ea	
19.8	Battery - modular Lead-acid box/rack 9,6 kWh	ea	
19.9	Battery - modular Li-ion box/rack 2.5 kWh	ea	
19.10	Battery - modular Li-ion box/rack 5 kWh	ea	
19.11	Battery - modular Li-ion box/rack 10 kWh	ea	
19.12	Battery - modular Li-ion box/rack 15 kWh	ea	
19.13	Battery - modular Li-ion box/rack 20 kWh	ea	
19.14	Battery - modular Li-ion box/rack 30 kWh	ea	
19.15	Battery - modular Li-ion box/rack 40 kWh	ea	
19.16	Battery - modular Li-ion box/rack 60 kWh	ea	
19.17	Battery - modular Li-ion box/rack 80 kWh	ea	
19.18	BMS for battery (if not included with battery)	ea	
20	Supply and Install Dashboard Communication		
20.1	Signal cabling CAN Bus (BMS, batteries, inverters, MPPT, etc)	Per Meter	
20.2	Data cabling Cat 6 Ethernet (Internet)	Per Meter	
20.3	New surface-mount DB: inverter out (2x 63A 4p incl N+E bars/terminals)	Per Meter	

Item	Description	Unit	Price (R)
20.4	New surface-mount DB: inverter in (2x 63A 4p incl N+E bars/terminals)	ea	
20.5	Communication-centre with built-in WiFi (equivalent)	ea	
23.6	Monitoring system / Data Manager	ea	
20.6	Energy Meter 1 phase four quadrant Meter	ea	
20.7	Energy Meter 3 phase four quadrant Meter	ea	
21	Supply and Install Distribution Board and Fuse Boxes		
21.1	IP65 DC breaker box with 2x 2-pole 20 - 30A DC breakers	ea	
21.2	IP65 DC breaker box with 3x 2-pole 20 - 30A DC breakers	ea	
21.3	IP65 DC breaker box with 4x 2-pole 20 - 30A DC breakers	ea	
21.4	IP65 DC breaker box with 5x 2-pole 20 - 30A DC breakers	ea	
21.5	IP65 DC breaker box with 6x 2-pole 20 - 30A DC breakers	ea	
21.6	IP65 DC breaker box with 7x 2-pole 20 - 30A DC breakers	ea	
21.7	Main DC - two fuse box 100A	ea	
21.8	DC Circuit Breakers from MPPT 100A (thermal)	ea	
21.9	DC fuses to inverters (200 A)	ea	
21.10	DC main switch between battery bus & inverter 100A	ea	
21.11	Li DC distribution and fuse box (fuses/busbars measured elsewhere) 100A	ea	
21.12	Li battery pre main fuses (350 A)	ea	
21.13	Li battery positive busbar, capacity for 8x batt connections @ 350A each	ea	
21.14	Negative busbar (entire system) 8x batt connections @ 350A each	ea	
22	Supply and Install Cables and Conductors		
22.1	Earthing cable to neutral bar (from chassis, frames, earth terminals)	m	
22.2	DC solar cable UV resistant <1000V 6mm ²	m	
22.3	DC solar cable UV resistant <200V 6mm ²	m	
22.4	DC solar cable UV resistant <200V 10mm ²	m	
22.5	DC solar cable UV resistant <200V 16mm ²	m	
22.6	DC battery cable 48V (e.g. 2x or 4x 70mm ²)	m	
22.7	MC4 connector set - 6 mm ²	ea	
22.8	MC4 connector set - 10 mm ²	ea	
22.9	MC4 connector set - 16 mm ²	ea	

Item	Description	Unit	Price (R)
22.10	Pratley box to join 16 mm ² 4C SWA cable to 4x 16 mm ² single core wires IP65	ea	
22.11	Pratley box IP65 draw box to access 6 mm ² solar DC cable in conduit	ea	
22.12	Single-core 2.5 mm ² (230 V AC house wire)	m	
22.13	Single-core 4 mm ² (230 V AC house wire)	m	
22.14	Single-core 6 mm ² (230 V AC house wire)	m	
22.15	Single-core 10 mm ² (230 V AC house wire)	m	
22.16	Single-core 16 mm ² (230 V AC house wire)	m	
22.17	Bare copper earth 6 mm ²	m	
22.18	Bare copper earth 10 mm ²	m	
22.19	Cable - 10 mm ²	m	
22.20	Cable - 16 mm ²	m	
22.21	Cable - 25 mm ²	m	
22.22	Cable - 50 mm ²	m	
22.23	Cable - 70 mm ²	m	
22.24	Cable - 95 mm ²	m	
23	<u>Supply and Install Wireways</u>		
23.1	Trunking P1000	m	
23.2	Trunking P2000	m	
23.3	Trunking P8000	m	
23.4	Trunking P9000	m	
23.5	Cable Ladder or Tray 200 mm Medium Duty (vertical)	m	
23.6	Cable Ladder or Tray 300 mm Medium Duty (vertical)	m	
23.7	Conduit 20 mm ²	m	
23.8	Conduit 25 mm ²	m	
23.9	Conduit 32 mm ²	m	
23.10	Draw Boxes	ea	
24	<u>Supply and Install Sockets, Outlets and Switches</u>		
24.1	Isolator 63 A 2p IP 65	ea	
24.2	Isolator 63 A 4p IP 65	ea	
24.3	Isolator 125 A 4p IP 65	ea	
25	<u>Supply and Install Lightning and Surge Protection for Solar PV System</u>		
25.1	Surge protection priced as a rate per kWp	R/kWp	
25.2	Lightning protection (rooftop air terminals + down conductors + earth spikes) priced as a rate per kWp	R/kWp	

Item	Description	Unit	Price (R)
26	<u>Testing, Commissioning and Handover Electrical Installation and Solar PV System</u>		
26.1	Earthing and bonding, priced as a rate per kWp	R/kWp	
26.2	Testing, commissioning and handover, priced as a rate per kWp	R/kWp	
26.3	Certificate of compliance, priced as a rate per kWp	R/kWp	
27	<u>Miscellaneous for Solar PV</u>		
27.1	Allow for the detail design of the solar PV system by the specialist contractor/installer priced as a rate per kWp	R/kWp	
27.2	Serving and Maintenance Rate for PV Panels	R/kWp	
27.3	Serving and Maintenance Rate for inverters	R/kWp	
Item	Description	Unit	Mark-up (%)
	AD-Hoc supply of part and materials		
28	Allow for all cost and expenses in connection with the following:		
28.1	Allow for all cost and expenses in connection with the following: AD-Hoc supply of parts, materials and appurtenances. (mark-up %) related to the scope of work.	%	
28.2	Allow for all cost and expenses in connection with the following: Specialist services related to the scope of this tender (mark-up %) example: Rigging, trenching, core drilling, scaffolding, health and safety, security hardening, services detection surveys, reinstatement and making good, LV Breaker Servicing.	%	
28.3	Allow for all cost and expenses in connection with the following: ECSA Professional services related to the scope of this tender (mark-up %) example: structural Pr engineer, Electrical Pr engineer; Fire Specialist.	%	
28.4	Portable Inverter Systems (mark-up %)	%	
28.5	Portable Generator Systems (mark-up %)	%	
28.6	Portable Inverter Systems (mark-up %) Dedicated electrical circuitry fed from inverter systems (Not forming part of the inverter /PV installation), Example: Blue Socket outlets, isolators, switches, trunking etc	%	

C.5 SPECIFICATION(S)

EMPLOYER'S OBJECTIVES

The object is to acquire, install, repair and maintain emergency generators of various sizes in the City of Cape Town municipal area as and when required.

OVERVIEW OF THE WORKS

The need for this tender has risen out of the growing demand for the maintenance of existing equipment as well the manufacture, supply and installation of new standby electrical generators at City of Cape Town owned buildings of responsibility.

The successful vendor shall supply, install and commission a range of electrical standby generators from 50KVA – 900KVA up to 1000KVA (@ 0.8 PF or higher, 400V, 50HZ), tier 5 compliant, together with manual/automatic changeover equipment with mechanical interlocks and all ancillary equipment, generator connection panels, installed within sound attenuated weatherproof, ISO containers/enclosures, plant rooms with on-board fuel tanks, complete with all ancillary equipment.

The successful vendor shall supply, deliver and commission a range of mobile generators .1KVA – 900KVA up to 1000KVA (@ 0.8 PF or higher, 400V, 50HZ), to be rented for site specific requirements, together with manual/automatic changeover equipment with mechanical interlocks and all ancillary equipment, generator connection panels, installed within sound attenuated weatherproof, containers/enclosures, plant rooms with on-board fuel tanks, complete with all ancillary equipment.

In addition, the successful tenderer shall in the pricing schedule allow for the delivery of each standby generator and the comprehensive services and inspections of each newly supplied generators. The successful tenderer shall also service, inspect, maintain and repair existing generators for the duration of the contract from the time of award of the contract.

EXTENT OF THE WORKS

Work items under this term tender contract may include any one or more of the following:

General items

- Establishment on site by the Contractor
- The supply of labour, tools, equipment, materials and supervision to complete the work
- Setting out of the Works
- Accommodation of vehicular traffic and pedestrians during all construction work
- Maintenance of the works during and after construction.
- Installation / adjustment
- Removal and replacement
- Ancillary works
- Professional / Specialist services

The Works that are to be carried out will be specified in Purchase Order / Works Project contract documents as and when required and as provided for in the Bills of Quantities therein. However, if during the course of construction conditions are found to differ from those anticipated, the Principal Agent may modify the scope of the work to suit the prevailing conditions and circumstances.

LOCATION OF THE WORKS

Region	Work Areas
All Regions	Work Areas will be anywhere within a area(City of Cape Town Municipal Area). Refer to the drawings for the boundaries of each area(where ambiguity exists as to the exact location of the boundary, i.e. if the boundary is shown as being directly on a road, then the boundary shall always be either to the north or the east of the road in question).



PARTICULAR / PROJECT SPECIFIC SPECIFICATIONS

SANS Requirements:

1. Statutory requirement applicable to the electrical work
Except where otherwise specified or implied the contract work and equipment supplied shall comply with the latest revisions of the standard specifications listed, including generally:
 - SANS 10142-1:2021 (Edition 3.1) The wiring of Premises, Part 1: Low voltage installations
 - SANS 10400-A:2010 (Edition 3) The Application of the National Building Regulations, Part A: General principles and requirements
 - Local Fire Regulations
 - The Regulations of the Local Supply Authority (Including Noise and Pollution)
 - The Regulations of the Department of Posts and Telecommunications
 Where a SANS Standard does not exist or if not applicable, the relevant IEC or BS Standard shall be applicable.
 The equipment supplied and work carried out shall fully meet and comply with the requirements of the Occupational Health and Safety Act (Act 85 of 1993) and the Construction Regulations 2014 issued in terms of Section 43 of the Act, Standards South Africa (a Division of the South African Bureau of Standards {SABS}) and all other statutory regulations and laws insofar as they may apply to an electrical installation of the type contemplated.
 In the event of discrepancy between any of the specifications, regulations and codes of practice, the SANS 10142-1 Code of Practice for Wiring of Premises shall take precedence.
 All references to "SABS" specifications shall be read as "SANS" in light of the recent changes by the South African Bureau of Standards.

Additionally, the following specifications, whether specifically mentioned within the tender document or not, shall also apply:

- SANS 10111-1:2011 (Edition 3.2) Engineering Drawings, Part 1: General Principles
- SANS 1091:2012 (Edition 2.1) National colour standards
- SANS 156:2007 (Edition 3.3) & Moulded case circuit breakers and
- VC8036:06 Oct 2006 (Edition 3) compulsory specification for circuit breakers
- SANS 60269-1:2010 (Edition 3.1) Low-voltage fuses, Part 1: General requirements
- SANS 60269-4:2012 (Edition 3.1) Low-voltage fuses, Part 4: Supplementary requirements for fuse-link for the protection of semiconductor devices
- SANS 950:2014 (Edition 2.3) non-plasticised polyvinyl chloride rigid conduit and fittings for use in electrical installations
- SANS 1507-1:2007 (Edition 1.1) Electrical cables with extruded solid dielectric insulation for fixed installations (300/500V to 1900/3300V), Part 1: General
- SANS 1195:2010 (Edition 1.3) Cover plate
- SANS 60439-1:2004 (Edition 3.1) Low voltage switchgear and control gear assemblies, Part 1: Type-tested and partially type-tested assemblies
- SANS 60439-2:2006 (Edition 2.1) Low voltage switchgear and control gear assemblies, Part 2: Particular requirements for busbar trunking systems (busways)
- SANS 1973-1:2007 (Edition 1) Low voltage switchgear and control gear assemblies, Part 1: Type-tested assemblies with stated deviation and a short-circuit withstand strength above 10kA
- SANS 1973-3:2008 (Edition 1) Low voltage switchgear and control gear assemblies, Part 3: Safety of assemblies with a rated protective short-circuits up to and including 10kA
- BS 4070 Performance of A.C. control gear equipment rated up to 660 V for use on high prospective fault-current systems
- BS 587 Motor starters and controllers
- SANS 60947-1:2012 (Edition 5.1) Low voltage switchgear and control gear assemblies, Part 1: General rules
- SANS 60947-2:2014 (Edition 4.2) Low voltage switchgear and control gear assemblies, Part 2: Circuit-breakers
- SANS 60947-3:2012 (Edition 3.1) Low voltage switchgear and control gear assemblies, Part 3: Switches, dis-connectors, switch-dis-connectors and fuse-combination units
- SANS 60947-4-1:2013 (Edition 3.1) Low voltage switchgear and control gear assemblies, Part 4-1: Contactors and motor-starters – Electromechanical contactors and motor-starters
- SANS 60947-4-3:2012 (Edition 3) Low voltage switchgear and control gear assemblies, Part 4-1: Contactors and motor-starters – AC semiconductor motor controllers and starters
- VC8011: 9 July 1999 Compulsory specification of Lamp holders
- SANS 475:2013 (Edition 1.2) Luminaires for interior lighting, street lighting and floodlighting – Performance requirements
- SANS 10114-1:2005 (Edition 3 Interior lighting, Part 1: Artificial lighting of interiors
- SANS 10131:2004 (Edition 1) Above-ground storage tanks for petroleum products
- SANS 1084-1/2 :2014 Electric Motor Standards
- SANS 1200:2014 Painting Requirements
- SANS 10198:2014 Cable Trenching

General Specification:

All work performed by the Contractor shall be according to the City of Cape Town's design standards and guidelines. The vendor shall obtain the necessary work permits and wayleaves for each site and shall do the necessary SSEG (small scale embedded generation) application from the City of Cape Town regarding the installation of alternator sets.

2. Drawings

The vendor is required to submit all drawings and supporting documentation, including but not limited to, wayleaves and SSEG applications, for approval to the project manager before any work can be undertaken on the project. The drawings shall show all the details relating to the proposed installation of the stationery generator set such as: generator location, generator size, cable routes, cable sizes, control panels.

3. Material (General)

All materials used in the installation shall be of the best quality of their respective kinds and of the type most suited to the designated purpose. They shall comply fully with the quality requirements of this Detailed Specification and shall be new and unused.

4. Generator switchboards and connector panels

4.1 General – Stationary generators

Each Generator Switchboard is required to accommodate the necessary manual/automatic change-over equipment, controllers, together with interlocks and the sub-circuit breakers serving each installation, shall be free standing, designed for floor mounting complete within each generator container/enclosure.

5. Switchboard and connector panel standards (refers to item 3 on the pricing schedule)

5.1 General

The manufacture of LV Switchgear and Control gear ASSEMBLIES also referred to as Switchboards/Distribution Boards (DB's) (both collectively referred to in this specification as "ASSEMBLIES"), shall be "Type Tested modular type distribution boards and shall strictly comply with the latest revisions of the following standards:

- SANS 60439-1 LV Switchgear and Control gear ASSEMBLIES Part One: Type-tested, Partially Type-tested ASSEMBLIES
- SANS 60439-2 LV Switchgear and Control Gear Part Two: Bus bar Trunking.
- SANS 1973-1 LV Switchgear and Control gear ASSEMBLIES Part 1: Type-tested, ASSEMBLIES with stated deviations and rated short-circuit withstand strength above 10kA.
- SANS 1973-3 LV Switchgear and Control Gear Part 3: Safety of ASSEMBLIES with a rated prospective short-circuit current of up to and including 10kA.

For ASSEMBLIES equal to or greater than a 10kA rating, switchboard manufacturers shall be in possession of a minimum of the test reports required as defined in SANS 1973-1.

Only authorized holders of these test reports may design and construct the ASSEMBLIES.

Copies of relevant test reports shall be made available to the Engineer immediately upon request.

Should this information not be presented to the Engineer upon request, Engineer reserves the right to call for another manufacturer to supply equipment that complies with this requirement and no compensation in any form shall be granted to the non-compliant party.

Notwithstanding any requirements of SANS 1973-1, the manufacturer of the ASSEMBLY (including the busbar assembly and mounting), shall re-torque the busbars onsite once fully populated and connected-up, prior to switch-on, and shall issue a certificate to the Engineer detailing that the bus-bar arrangement is still to the same standards as at the time of initial construction and is safe for operation.

Suppliers/Manufacturers of switchboards shall be in possession of a Permit to Apply the Certification Mark, issued by the South African Bureau of Standards, in terms of the Specific Permit Conditions of SANS 1973-1 and SANS 1973-3.

ASSEMBLIES shall be fitted with a metal label, clearly displayed, detailing the information required by SANS 1973-1 or SANS 1973-3 as applicable.

5.2 Preferred design requirements

- The following switchboard requirements shall be assumed as correct unless altered in this Detailed Electrical Specification:
- Mounting: Floor standing
- Access: Front, side and top access
- Sectioning: Multi-section, Form 3b or Form 4 to SANS IEC 60439
- Manufacture: 2.0 mm and 1.6 mm 3CR12 mild steel (see Fabrication below)
- Finish: Painted Signal Red A11 (SANS 1091:2012) external, White arc-free internal (see Painting and Finishing below) – Colour Coding
- Cable Entry: Incoming & Outgoing – bottom ASSEMBLIES gland plates shall be 3CR12 sheet steel, unpainted or aluminium (see Glanding Section below)
- Base: Single 100 x 50 x 6mm thick channel iron base with mitred corners and cross-bracing between every 2nd tier, hot-dipped galvanised.
- Doors: Lockable (see Doors and Covers below)
- Protection: IP44 (panels fixed); IP12 (panels removed)
- Functional Units: Removable but not fully withdrawable
- Electrical Details: 400V, 50Hz, 3 Phase with full Neutral see Busbars and Wiring below).
- Earthing Details: Full length, rear of switchboard (see Earthing below). All earthing bars to be tinned copper.
- Electrical Ratings: ASSEMBLIES Fault level to be to Transformer Secondary
- Output: Symmetrical fault level, 3 second rating, applicable to Main and Distribution busbars.

5.3 Fabrication

All electrical switchboards, distribution boards (DB's), sub-distribution boards (SDB's), boxes, trays, covers or any other enclosure housing electrical apparatus supplied, shall be fabricated from AISI SX 3CR12 sheet steel only unless stated to the contrary.

The tenderer/contractor/manufacturer shall take cognisance that ASSEMBLIES shall in their entirety be manufactured from 3CR12 sheet steel. This shall include all framework used to form the structure of the panel. Angle iron or tubular structures shall not be permissible.

Outer panels, doors, covers, rails, distribution board framework etc. shall be manufactured from 2mm thick 3CR12 sheet metal and 1.6mm thick 3CR12 sheet metal for internal partitions.

The sheet steel shall be suitably bent, braced and welded where necessary to form a rigid structure (this sheet metal shall be 3CR12 mild steel only). Holes, doors, covers, rails, framework, etc. shall be accurately formed to present a true to line and plumb structure when completed. Where welding is necessary the inevitable excess material shall be ground down to the parent surfaces to present a blemish free surface for painting.

All screws employed in the manufacture of the electrical cubicles shall be in AISI 316 material with machine threads. No self-threading screws or self-setting rivets (pop rivets) will be permitted. Where the thickness of material for screw tapping is less than 5 x screw pitch, an externally knurled, threaded insert shall be installed to accept the machine screw. The insert shall be fitted with a hydraulically operated tool, and properly clinched, to ensure it will not rotate in

the sheet steel, even when subjected to a torque of 200% of the torque required to shear the fitted screw. The inserts shall also be manufactured from AISI 316 stainless steel.

Alternative methods of providing suitable screw anchorages in sheet steel may be considered, such as captured or welded nuts, but the detailed alternatives shall be submitted for consideration at the time of tendering.

Each tier shall be divided into compartments to accommodate equipment for motor drives, instrumentation, and switch gear for main and sub-main feeder switches.

Each compartment of Switchboard's or larger DB's shall be totally separated from adjacent compartments with 1.6mm sheet steel (3CR12) barriers welded or bolted into position and where wiring is required to pass through these barriers, brass brushed holed shall be provided.

Panel tiers to be bolted together and not welded.

Accessible PVC wire ways shall be provided to afford routes for conductors between the various compartments of each switchboard. Internal wiring shall be kept separated from external wiring and as far as possible the internal serving of PVC SWA PVC cables entering the Switchboard shall be left around the conductors until the cable enters the compartment to which it is to be connected.

5.4 Busbars and Busbar Chambers

Totally enclosed busbar chambers shall be provided though out the length of the Switchboard or DB's. The busbar chamber shall have front, back, top and end covers.

The front and back covers shall be secured with square hatch keys, with one catch per cover lockable by padlock. The top and end covers shall be bolted.

The busbar chambers shall be so positioned in the Switchboard or DB's at the top that each and every connection is easily accessible and sufficient space is provided to easily operate a torque wrench on each and every bolt/nut.

Dielectric barriers shall be provided in the busbar chamber at surface mounted 2 x tier module. The dielectric may not be split and offered into position as separate parts but shall instead be slotted to allow the busbars to pass through.

The slotted holes shall be fitted with U-shaped rubber gaskets to ensure the busbar is snugly fitted to the dielectric. These dielectric barriers may not be employed to support the busbars. The dielectric shall be bolted to the sheet metal at the periphery of the busbar chamber.

The penetrations for circuit into or out of the busbar chamber shall also be provided with dielectric material at the point of penetration, as for the busbar chamber barriers.

Busbar supports shall comprise moulded epoxy insulators mounted on robust steel brackets arranged in stepped formation with the red-phase busbar at the top rear of the chamber and the neutral busbar at lower front position.

All busbars shall be tinned over the full length using only resin-based flux and fitted with phase colour co-ordinated identification markings.

Joints in busbars shall be avoided as far as possible, but where they are necessary the joint shall be formed by offsetting one of the bars, by an amount equal to its own thickness, to overlap the other. The length shall be equal to twice the width of the bar, and the joint shall be secured with a minimum of 4 Hexagon headed set screws nuts and washers (plain and spring).

At least 2 and not more than 3 threads shall be visible beyond the nut once the final torque has been applied to each fastener. Where copper is punched or drilled the inevitable burr shall be removed and the copper shall be lightly chamfered at each hole.

All busbar joints shall be torque tightened before the switchboard (Switchboard or larger DB's) is delivered, and torque checked (and tightened if necessary) just prior to commissioning.

Each joint or point of connection shall be properly tinned. Only resin based fluxes shall be employed during the tinning process.

The busbar riser sections, onto which cables terminate, shall be considered as part of busbar system as a whole and shall be equally subject to all the specifications detailed.

Busbars shall be capable of carrying the full rated current along their entire lengths. Reduced section busbars will not be permitted. Busbars shall be designed for a maximum temperature of 700C (i.e. a 400C temperature rise in an ambient of 300C). Where a transformer feeds directly to the busbar (via a main circuit breaker), the copper busbar shall be designed for 125% of the transformer output (in kVA) and shall be rated to withstand an internal or external fault for 3 seconds without incurring any damage.

The neutral busbar in the ASSEMBLIES shall be equal in size to the busbars and shall be considered as part of the busbar system.

Busbars shall be manufactured from 99% electrolytic copper that has been hard drawn to the finished sizes. The copper shall be rectangular in cross section, shall be solid, and the cross section shall be maintained throughout the busbar system. Where the copper bars are delivered with rounded corners the copper shall be suitably de-rated for thermal emissivity. The copper shall be supported on SANS approved insulators at centres which are commensurate with the fault level to which the busbar system has been designed, but in no instance shall they be greater than 500mm apart. Where it becomes necessary to employ more than 1 copper bar per phase the copper bars shall be of equal cross section and shall be properly spaced by an equal thickness spacer between the copper bars. Only copper having a cross section of 100mm x 6mm, or greater, may be employed in parallel, per phase.

The spacers shall be bolted into position at points of attachment for lugged conductors or droppers.

The busbars shall be provided with holes at either end of the switchboard to allow for an extension to the copper bar at some future time, together with centrally located holes in the copper bars, between the insulting supports to allow for future loads to be added where required. At least two such sets of holes shall be provided, between consecutive

supports along the busbar length. If more than one copper bar per phase is being employed, then a copper spacer shall be provided between the copper bars and a bolt shall be provided to secure the spacer at each of the "spare hole" positions. All copper shall be tinned with S6 solder using resin based flux, after all the drilling, bending and cutting has been completed. The finished, tinned copper, shall be free of solder lumps and shall be as smooth as the copper under the solder.

5.5 Wiring, Cable Terminations and Glanding

All wiring within panels may be enclosed in PVC slotted ducting. The exception is signal and instrumentation cabling passing through power compartments or cubicles, which shall be in galvanised screwed conduit. Wiring outside of panels and switchboards shall be run within galvanised ducting or conduit.

Alternatively, signal and instrumentation wiring may be run in a channel at either the front or the rear of the busbar chamber, accessible from that respective side of the switchboard within the busbar chamber. The channel shall be manufactured of 3CR12 and shall be welded into position. The channel shall contain a cover that is screwed into position.

All wiring and terminations shall be labelled with identification tags corresponding to the wiring diagrams. Cable terminations shall be marked with an identification label externally to the switchboard indicating the source of supply as well as the equipment being fed for feeder cables. For example: "FED FROM SWITCHBOARDS 1" etc.

All glands for cable shall be nickel-plated brass, and fitted with waterproof neoprene shrouds.

5.6 Earth Bars

The earth bar shall be mounted at the rear of the Switchboard or DB and shall be accessible along its length from all tiers (where applicable). The earth bar cross-section shall be as specified, or, where not specified, shall be installed as per the minimum specified in SANS 10142-1 or SANS IEC 60439. Notwithstanding these requirements, the earth bar shall be not less than 70mm x 8mm in cross-section

A one-piece copper earthing bar shall be installed from one end of the board to the other and shall be provided with earthing studs (nuts, bolts and washers) in each tier.

The copper bar shall be bolted to the framework of the board in at least 10 positions with 10mm bolts. The copper bar shall be mounted 100mm above the top edge of the channel iron base and approximately 100mm from the back-plate. Holes shall be provided in the copper bar in each cubicle along the length, for the termination of the earthing conductors associated with the circuits deriving a supply from the respective cubicles. Spare studs amounting to 10% of the Contractors requirements, shall also be provided. Bunching of earthing conductors on a single stud will not be permitted.

5.7 Bases

The floor mounted ASSEMBLIES, shall be mounted to a hot dipped galvanised channel iron base. The base shall be fabricated from 100 mm x 50 mm x 6 mm (10,57 kg/m) channel iron. The corners of the base shall be mitred and welded whilst cross bracing shall be provided on centres coincident with the cubicle modules along the length of the base.

Each cubicle shall be secured to the base with at least four 10 mm diameter bolts, washers and nuts whilst the base shall be anchored to the concrete with a bolt in each corner and two bolts at every even numbered cubicle module. (One at the front of the base and one at the rear). The anchor bolts shall be 12 mm diameter and shall be entered at least 80 mm into the concrete.

The widths shall be uniform throughout their heights and the plan view of the switchboard shall be uniformly rectangular in shape.

5.8 Paint and Finishing

All metalwork in excess of 5 mm thick shall be sandblasted to a profile of 40- 80 microns, prior to painting. This finish shall be carried out carefully to provide the necessary "key" for the paint coats.

Where the material is less than 5 mm thick, it shall be, lightly sanded, de-greased, washed and forced air dried prior to painting.

The paint coat shall be a high quality polyurethane based powder coat to the acceptance of the Engineer. The sprayed powder coat shall be baked in an oven at a temperature of approximately 200oC for a period of 10 min or as specified by the paint manufacturers.

The dry film coat shall be as uniform as possible but shall not be less than 40 microns nor more than 90 microns. The finish shall be high gloss with a minimum of surface defects.

Switchboards, DB's, boxes, trays, covers, ducts, or any other enclosure housing electrical apparatus shall be coloured white internally, externally the colour shall be electric orange to SANS 1091:2012 or to the approval of the Engineer.

Switchboards connected for dedicated emergency supplies shall be coloured red externally.

5.9 Glanding Sections and Cable Gland Plates

Gland plates shall be fitted in cubicles for termination of cables and shall be mounted 400mm above the final floor level. The cables shall be fitted with glands anchored to the respective gland plates. The glands shall be adequately spaced to permit the locknuts to be tightened with normal tools.

The gland plates shall be at least 2mm thick, 3CR12 sheet steel or aluminium and shall be bolted to robust brackets welded to the framework of the board.

At positions where single core cables are employed the cable gland plate shall be fabricated from non-magnetic material of adequate thickness to support the cables i.e. 15mm thick TUFNOL, 5mm 316 stainless steel, or 8mm aluminium or the gland plate shall be slotted between the holes. This will prevent eddy currents in the plate and excessive heating of the material.

5.10 Doors and Covers

A door shall enclose the front of each compartment, unless stated otherwise in this Detailed Electrical Specification. Enclosures for outdoor or moist environments shall be provided with a weather lip angled at 45° to the face of the enclosure framework, together with a door enclosing the cubicle and enveloping the weather lip. The top of the outdoor enclosure shall be fitted with a full width canopy projecting at least 100 mm from the enclosure face.

All doors shall be arranged to stand off from the face/rear of the board, cubicle, compartment or enclosure. Each door shall be properly stiffened and shall be twice returned at the periphery. The second return shall be gusseted in the corners to further brace the door.

Large doors (e.g. those fitted to the rear of individual switchboard/ Switchboard tiers) shall be further stiffened with "top hat" section channels welded to the inside of the door.

Each door shall be mounted on pin type hinges and shall be secured by means of a lever operated tapered tongue catch or catches (Hinges and catches shall be Barker Nelson or equal to approval). The lever shall be provided with an external stop to prevent rotation in excess of 360° and to provide a padlocking facility. (A hole in the stop and a hole in the lever).

A minimum of two square hatch key catches are required per door or rear panel, installed in conjunction with the tapered tongue catch at the top and bottom edges of the door on the opposite side of the hinges. For rear panels, one or both of these square hatch key catches shall be pad-lockable by having an extended section that encloses the latching mechanism and will allow a standard lock to prevent operation of the catch while in place.

For covers over busbar chambers, four square hatch key catches are required, with a minimum of one catch required to be lockable.

Where doors are mounted adjacent to one another the spacing shall be arranged to permit each door to open through at least 150, without fouling the adjacent door. A stop shall be provided which shall prevent the door from opening further to obviate damage to paintwork.

Doors fitted with flush mounted equipment shall be properly braced and stiffened to support the equipment. The hinges shall be easily able to support the mass added to the door when the flush fitted equipment is installed.

The space between the back of the door and the face of the cover plate shall be nominally 80mm.

All hinged cubicle doors shall be sufficiently earthed.

Where cover plates are provided behind the doors, the cover plates shall be adequately recessed into the cubicle to permit the spindle on the lever to drive the tapered tongue catch into a slot in the framework of the board without fouling the cover plate.

Cover plates shall be fabricated as for the doors and shall be further stiffened to compensate for the machine punches circuit breaker slots. The cover plates shall be secured at the top edge with at least two square key driven catches, whilst at the lower edge they shall be located with two 6mm diameter tapered dowel pins located in holes drilled in the architrave. Each pin shall be fitted with a 1.2mm thick spacer washer. Both the pins and the washers shall be welded to the cover.

The end, rear and top cover plates shall be removable to permit access to the equipment. The cover plates shall be lockable in the closed positions.

5.11 Space Requirements

In arranging the chassis layouts, a minimum clearance of 80mm between equipment and framework, side panels or internal divisions is required. This minimum space is required on the top, bottom and sides of equipment.

A minimum of 50mm is required between equipment and wire trunkings. The spacing between equipment shall be sufficient to allow for the installation of conductors (taking in account the minimum permitted bending radii of conductors and cables).

A minimum of 80mm is required between power equipment (circuit breakers, contactors, etc.) and any auxiliary control devices.

5.12 General Mounting Requirements

No special tools shall be required to remove and re-install any equipment.

5.13 Standard Colours

The following colours shall be utilised for ASSEMBLIES:

Switchboard EXTERNAL: A11 (Signal Red) to SANS 1091:2012

Switchboard INTERNAL: White Arc-Free to SANS 1091:2012

Uninterruptable Power supply – EXTERNAL: Blue to SANS 1091:2012

5.14 ASSEMBLY Construction Drawings – Standard Requirements

All Construction Drawings for ASSEMBLIES (SWITCHBOARDS, DB's, and Instrumentation Panels, etc.) shall contain the following information:

- Project Name and Contract Number
- Manufacturer/Supplier
- Consulting Engineer and contact person
- Client details
- Drawing Number and Revision
- Drawing to be Signed
- Source of Supply – SWITCHBOARDS or transformer name etc.
- Switchboard General Description
- Fault level (kA and time rating)
- Form factor/Sectioning
- Busbar Details (cross-section, material type, tinned etc.)

- Busbar Support Details – type, manufacturer
- Required VFC cooling fan – type, manufacturer
- Earth bar details (cross-section, full-length, front or rear etc.)
- Switchboard Material type, grade, thickness etc.
- Gland Plate details – material type, thickness, mounting etc.
- Colour – internal and external
- Switchboard Dimensions
- Base Dimensions and bolting arrangements
- Front door details – hinge and padlock requirements
- Rear door details – hinge and padlock requirements
- End panel details – removable cover details
- Door details - Stiffeners and restrains installed etc.
- Hinge Details
- Locking Details
- Handle Details
- Cable Entry Details
- All bolts, nuts, screws material type (i.e. 316 Stainless Steel)
- Equipment details – CB ratings, fault levels, type, manufacturer etc.
- Equipment Layout details – Cubicle name, function, equipment function etc.
- Section to be provided through switchboard

5.15 ASSEMBLY Schematic drawings– Standard Requirements

- All Schematic Drawings for ASSEMBLIES shall contain the following information:
- Project Name and Contract Number
- Manufacturer/Supplier
- Consulting Engineer and contact person
- Client details
- Drawing Number and Revision
- Revision details to be listed
- Drawing Page Number
- Drawing to be Signed
- Reference Grid required on each schematic page
- Source of Supply – Switchboard or transformer name etc.
- Fault level (kA and time rating)
- Voltages for all circuit to be clearly indicated
- All devices to have reference number i.e. relays
- Equipment ratings to be given i.e. motor ratings
- All indication lamps to be labelled including required lamp colour
- Legend to be provided
- Equipment Tag Numbers

6. LOW VOLTAGE CONTROL AND SIGNAL CABLES

6.1 General

All cables indicated on the drawings and schematics shall be designed and selected according to the loadings, generally as detailed in this Detailed Electrical Specification.

All conductors used in the electrical installation shall be high conductivity, annealed copper with PVC insulation and shall comply with SANS 1507.

No joints will be permitted in any low voltage cable run, except where cable lengths exceed the drum length, without prior written acceptance by the Engineer. Any damaged cable shall be replaced by the Contractor at his own cost.

All cables shall be suitably rated.

6.2 Cable Routes

Control and instrument cables for the project may be run on the same cable tray as the power cables but where electromagnetic interference may upset the control signals the necessary precautions regarding screening and physical separation shall be applied.

6.3 Power and Indication Cables (1000/600 Volt)

All PVC SWA PVC power and indication cables shall be of the multi-core stranded soft drawn copper wire PVC insulated PVC bedded, steel wire armoured type with an overall PVC sheath (preferably black) and shall be manufactured and tested in accordance with SANS 1507:2014 for general purpose duty.

All flexible feeder cables shall be H07RN-F copper cables.

The colour of the cores shall be as follows:

Single core: red, white, blue, black or green.

Twin core: one red, and one black.

Three core: one red, one white and one blue.

Four core: one red, one white, one blue and one black.

6.4 Instrumentation Cables (24V / 220V)

Instrumentation cable shall be constructed of multiple twisted pairs of insulated stranded copper wire, PVC insulated with an overall aluminium shield, extruded PVC inner jacket, served with steel wire armour with an extruded PVC outer jacket.

The nominal conductor resistance shall not exceed 3,5 ohms per 100 m at 20°C.

The complete cable shall withstand a dielectric test conductor to conductor and conductor to shield of 1 000 V dc for one minute.

The insulation resistance of each conductor shall be not less than 8 800 meg ohms/km for 1 minute at 500 V and 20°C, measured with the remaining conductors in the cable connected to the armouring.

The minimum core size shall be 1,5 mm².

All instrumentation and signal cables (excluding optical fibre cables) shall be installed separate from power cables.

6.5 Panel Wiring (24V / 220V)

Further to the abovementioned Clause, all panel wiring shall be of the silicone-insulated type with stranded tinned copper conductors, with a minimum conductor size of 1mm².

The colour of the conductors shall be as follows:

220V AC control Line => Brown

220V AC Neutral => Black

+24V DC => Orange

-24V DC => Violet or Purple

6.6 Cable Identification

A suitable tag, onto which the appropriate cable identification number in accordance with the Contractor's detailed cable schedule shall be stamped, shall be adequately secured just below the gland at the ends of each cable.

Where cables deviate from one route to another (e.g. at tee's and on cable trays) additional identification tags with numbers shall be fitted to each cable, within 500 mm of the point of deviation.

Each flexible generator feeder cable supplied within this Contract shall be clearly marked with its designed rating clearly identifiable.

7. Earthing

Earthing of the mechanical and electrical, which includes all exposed conductive parts shall be carried out in accordance and shall comply with the requirements set out in the SANS 10142 – 1 wiring code.

The requirements refer to the latest version of the SANS wiring code. As well as the requirement of the local supply authority. Refer to the SSEG application.

8. Cable Trays and Cable Ways

All lengths of the cable trays including joints shall be manufactured of 2mm thick 304 stainless steel.

The cable trays shall be fixed in such a way that they are at all times 40mm away from the surface of any face of any obstruction.

Anchor bolts shall be stainless of a threaded bolt not less than 8mm in diameter.

The entire length of the cable tray installation shall be installed plumb and true to line.

Where a cable way or cable tray enters or exits through a structure such as a wall. The integrity of the room through which the cable ways passes shall be return to its previous status before the cable way was installed.

Where cables are installed onto the cable trays. They shall be fixed using PVC cable ties at distance not exceeding 400mm.

Where multiply cables are installed on the cable tray. The cables must be secured and fixed individually.

The entire length of the cable tray and or cable way shall be electrical bonded to the earthing system as per the requirements of SANS 10142 – 1 wiring code.

9. Cable Trenching

Cable trenching shall only occur once the necessary permits and wayleaves have been issued as per local municipality requirements.

The installation of cable shall be done in accordance with the relevant SANS standard, together with the requirements of the local municipality, at the correct depths with the sufficient amount of mechanical protection, necessary for the environment in which it installed.

10. Isolators

Isolators shall not be provided in this project. Circuit breakers shall be used instead.

11. Circuit Breakers

11.1 Moulded Case Circuit – Breakers (Switchboards)

Switchboards shall be suitable for use in power distribution systems up to 660V – 50Hz and for panel mounting. They shall comply with SANS 156:2007.

Switchboards of the same frame size and the same fault level shall be of the same manufacturer.

An adjustable release shall be provided where deemed necessary.

Switchboards employed for motor starting circuits shall be rated in such a way that the expected transient currents will not cause any “nuisance tripping”.

Feeder breakers to motor control centres shall be equipped with a thermal release and a time and value adjustable magnetic release. These Switchboards shall be selective towards the upstream and downstream circuit breakers.

Switchboards of the same frame size, where in one application an instantaneous magnetic release is used and in another application a time lagged release is used, shall have plug-in type trip units.

The operating handles of Switchboards shall give a positive indication of the ON/TRIP/OFF status.

Switchboards shall be installed vertically. Horizontally mounting is not acceptable.

Minimum distances from enclosure to arc chutes as required by the manufacturer shall be strictly observed.

Circuit breakers will be fitted with rated extended tinned copper terminals where necessary, to accommodate multi single core terminations.

Where cascading of circuit breakers is allowed, all equipment shall be coordinated and discrimination shall be taken into account.

All equipment shall be of sizes, ratings, and specification as detailed in on the single line diagrams. All equipment shall be approved by the Employer in writing and shall bear the SANS mark.

Circuit breakers shall be from the same supplier in one application.

Circuit breakers shall be equipped with an instantaneous magnetic release and a thermal release.

Circuit breakers for motor circuits shall be suitably rated.

Circuit breakers handles shall provide a clear indication of “ON”, “OFF” and “TRIP” status.

Circuit breakers shall be installed vertically with the upstream terminal on top. Minimum clearances shall be maintained.

All circuit breakers shall be lockable, with the use of a padlock, in the “off” position or be supplied with means that will enable pad locking.

The Contractor shall supply and install all necessary circuit breakers and equipment required to form a complete functional protection system within each Switchboard complete.

12. Generator Set

12.1 Alternators

Alternators shall have rated Prime Power outputs, 1500rpm, at 0,8 lagging power factor. The machines shall deliver a three-phase, four-wire 50Hz supply at 400 Volt.

The alternator output voltage shall not drop by more than 15% under worst-case step loading.

The Contractor shall supply to the City of Cape Town, Centralised Facilities Management and Maintenance Branch, all original software licenses for any equipment installed and used for the control of each alternator.

Alternators shall each have one suitably rated main circuit breaker for alternator main output circuit protection. This main circuit breaker shall be mounted within 300mm (max) of the alternators output terminals and shall supply the new alternator change over switches installed within each new switchboard within each ISO container, enclosure or plant room.

Each alternator main circuit breaker shall be of such a design so as to allow for shunt tripping from any emergency stop switches, or the emergency stop situated in the alternator control panel.

Alternators shall meet the following requirements:

- Synchronous.
- Operating at a speed of 1500 rpm.
- Each alternator shall be capable of delivering 115% of its continuously rated power output, on the site, for a minimum of 15 minutes at the rated voltage, without damaging the alternator or shortening the life span.
- Seals shall be provided to prevent the lubricating grease from migrating along the shaft to the rotor windings.
- Grease cups shall be provided for each bearing in readily accessible positions, even if this means remotely mounting the cups.
- The shaft-mounted fan shall be fitted at the air intake end of the machine and preferably this shall be the non-drive end.
- The exciter shall be of the brushless construction, inboard of the bearings, of three-phase full wave rectification design with silicon rectifying diodes.
- Insulation shall be non-hygroscopic, non-nutrient Class B on the exciter, Class F on the stator and Class H on the rotating pole pieces.
- Each alternator shaft shall be rolled steel. The rotating field pole shall be bolted to the shaft with all other rotating electrical components. This means that the shaft shall be free from electrical grounds on the shaft.
- Each alternator shall be 4-wire Y connected with all cable ends brought out to the terminal blocks in the alternator cable end box.
- The feet shall have machined surfaces at the mounting rail positions for good axial parallelism and shall be designed to minimise noise and vibration transmitted to the bedplate.
- Each alternator shaft with its rotating equipment shall be dynamically balanced up to 25% over speed condition.
- A heater shall be provided in the alternator, which shall be arranged to keep the machine warm, to prevent the ingress of moisture. The heater shall be energised whilst the machine is stationary and de-energised when the machine is operating.

- Measures shall be taken to limit noise emission to an absolute minimum and to achieve this, use of a high efficiency-cooling fan may be necessary.
- Each alternator shall have a suitably rated circuit breaker installed in a 3CR12 sheet steel enclosure situated within 300 mm of the alternator output terminals.
- The components of the voltage regulator shall consist of semi-conductors, completely static and containing no electro mechanical relays or fuses. The regulator shall be of the solid-state electronic type. A circuit breaker for protection of the power circuit shall be provided with the voltage regulator.
- Each alternator windings shall incorporate temperature sensors for temperature monitoring.
- Response time to changes in load shall be less than 10 milliseconds and shall maintain voltage regulation at 1% R.M.S., when:
 - ☐ Load varies between no load and full load
 - ☐ The power factor varies between 0,8 and unity
 - ☐ A speed change of up to 5% occurs
- Each alternator shall be designed without the use of “dummy loads” to operate supplying load/s that are less than 40% of the alternator’s rated kVA rating, without any long term damage to the alternator.

Any trip conditions shall be indicated on the alternator/generator controller to allow easy visual identification of fault conditions and those alarms, which are annotated with the word TRIP shall incorporate facilities, which shall be arranged to stop the diesel engine driven alternator set.

The conditions shall include a minimum of the following: -

- High engine temperature. [TRIP]
- Low oil pressure. [TRIP]
- Low cooling water level.
- Low fuel level. [TRIP]
- Excess electrical load on alternator. [TRIP]
- Battery voltage low at starter motor cranking speed.
- Failure of supply to engine immersion element.
- Failure of supply to battery charger.
- Start system inhibited (excessive start attempts).
- Alternator output under voltage. [TRIP]
- Alternator output over voltage. [TRIP]
- Alternator output under frequency.
- Alternator output over frequency. [TRIP]
- Alternator temperature (with temperature display on control panel)
- Alternator trip on over-temperature
- All trip conditions shall not be resettable unless the fault has been cleared

12.2 Monitoring Systems

Monitoring shall be done by MOD bus PLC remote monitoring. The unit should be easy to install (e.g. din rail mounted). Prevention of equipment failure; meaning that early problem detections need to be made available or communicated to us. We would require the unit to manage our equipment in a way that it would make our fault finding on a unit simple and straight forward. The system should provide us with historic performance information for technical staff to analyse.

Communication should be done by Global System for Mobile Communication (GSM).

Monthly performance reports to be submitted.

The following parameters shall be made available through the GSM.

- Low battery voltage
- Engine failure
- Fuel level (%)

The data shall be in a spreadsheet format.

Unit capability

- User to be able to select items to be monitored
- Send stored data to a local server
- Be able to export data into common file types
- Large on board memory
- Hardware package should be reliable

Unit Specifications

- RS 232 or RS485 MODBUS communication with Deep Sea Electronics controller
- Remote GSM communications to server for data delivery to off-site database
- Internal SIM card
- Internal storage memory for buffering of measured data during communication outages.
- Live monitoring of relevant generator set controller registers and report error / alarm conditions via GSM if detected.
- Ability to add software-based business rules to determine error / alarm conditions.

GSM Modem specifications

- The modem should be of dual band type 900Mhz /1800Mhz.

- The modem should conform to the GSM standard with GPRS class 10 capabilities.
 - The Maximum Radio Frequency output power will be 2 watts for GSM 900 and 1 watt for GSM 1800. The data connection should be via RS232. The modem should be configurable using the AT command set. The operating temperatures should be between –20 o C and + 55 o C.
The following shall be monitored and transmitted via the GSM modem:
 - Low battery voltage
 - Generator fail
 - Low fuel level.
- The Contractor shall supply RICA processed sim cards for the modems. The Contractor shall ensure completely operational systems, able to transmit all the alarm conditions as listed above, to the relevant City of Cape Town operational staff.

12.3 Prime mover

- The prime-mover shall be a diesel engine specifically designed for the purpose of driving an alternator at a class AO governed speed of 1500 revolutions per minute.
- The engine shall be freely available in the Republic of South Africa, including spares, servicing and workshop facilities.
- The engine of the standby generator set as supplied and installed shall be suitably rated to meet the requirements of this specification.
- The exhaust gas temperature, measured in or on the manifold, shall not exceed the manufacturer's stated limit, and in any case shall not exceed 500°C at 100% of the specified generator rating.
- Turbo-charged engines will only be accepted provided the engine is designed and manufactured as such. The turbo-charger shall be fitted with a heat shield if near any combustible material. Turbo-charged engines shall be suitably sized to meet the step load performance specified. Reaction time of the turbo-charger shall not exceed the time specified in BS 5514, for class AO governing.
- The Contractor shall ensure that the manufacturer of the prime-mover shall provide the prime-mover intake and exhaust silencing, to ensure compliance with standards and specifications pertaining to the prime-mover considered. Should 'add on' silencing equipment be necessary for sound attenuation, then the 'add on' shall be to the approval of the manufacturer of the prime-mover.

The engine shall be provided with the following:

- An enclosed flow, force feed lubrication system by a positive displacement type oil pump fed from engine oil sump.
- A low oil pressure protection alarm.
- Fuel and lubricating oil filters with replaceable elements and pressure by-pass.
- An air-inlet manifold filter of the dry element type.
- A fuel injection pump with a suitable governor, capable of controlling the engine speed in accordance with BS 5514 class AO.
- A continuously rated fuel solenoid required for engine cut out. The control arm shall have only one knuckle joint and should an external spring be required it shall be anchored to a purpose made bracket.
- A heavy-duty 26-volt charging alternator, regulator and batteries for engine starting. Batteries shall be capable of at least 6 consecutive start attempts, each attempt at cranking calculate for duration of 10 seconds.
- Provision shall be made to adequately protect the engine against failure of the cooling system (i.e. high temperature protection and alarm).
- "EMERGENCY STOP" push button shall be fitted within the alternator/generator control panel, affording maximum safety to the operators of the standby generator set.
- A rotary pump, with pipe, for the removal of the crankcase oil where oil is difficult to drain.
- An acceptable over speed sensing device.
- The engine shall be supported at the front by mounting brackets. An acceptable method of supporting the back of the engine in the event of alternator removal shall be supplied, such as loose mounting brackets.
- The engine shall be fitted with the necessary devices to automatically protect the engine against low oil pressure, excessive temperature rise, etc. Further, suitable gauges shall be mounted on a suitable purpose made bracket, mounted within the prime-mover area, to afford visual inspection of the state of the standby generator set, operating parameters.

Exhaust and Silencing System

All piping required for the exhaust system, silencers and all pipe support brackets shall be grade 3CR12, 316 304/ similar stainless steel.

The exhaust system, including silencers, shall be acoustically insulated with a preformed mineral wool inner layer sealed with asbestos free finishing plaster in order to satisfy the OHS act requirements.

The silencer will be mounted within the ISO container / plant room and the exhaust outlet shall exit the ISO container / plant room on the side and shall be fully protected against the ingress of rain.

The silencing system shall include a reactive silencer and an absorptive type silencer and all support brackets and a flexible connection of the bellows type shall be installed as close to the manifold(s) as possible to limit vibration transfer and to allow expansion under heating. The standard reactive (i.e. pulsation damper type) silencer shall be installed downstream of the flexible connection. The distance between the engine and the reactive silencer shall be designed to avoid resonance and additional absorptive silencer, burgess or equivalent, shall be installed downstream

of the reactive silencer. The tail pipe shall have a length of at least 15 times the pipe diameter, measured downstream of the absorptive silencer.

Starting and Stopping

The engines shall be easily started from cold, without the use of any special ignition devices, under summer as well as winter conditions, against full load. To ensure easy starting in cold weather the engines shall each be provided with a thermostatically controlled 230-250 Volt AC. electric immersion heater fitted to the water jacket. The electric circuits for these heaters shall be taken from the respective battery charger control board and shall be de-energised once the alternator has reached a 'steady state' output.

Circuit-breaker protection (with earth-leakage) is required for each immersion heater circuit.

The starting control for the prime-mover shall make provision for three consecutive start attempts of 10 seconds duration, each with 10 seconds rest periods in between. After, 3 minute, rest period provision shall be made for a further three start attempts also of 10 seconds duration. If the prime-mover fails to start after these six attempts, the control circuit shall inhibit further start attempts until the reason for the failure to start has been traced and rectified, whereupon it shall be possible to reset the inhibiting device. When the set fails to start a visual alarm shall indicate the fault.

Prime-Mover Batteries

The prime-mover batteries shall be deep charging lead acid semi sealed maintenance free type batteries. The Contractor shall ensure that the batteries are rated for the application intended in this specification.

The battery stand shall incorporate a protective cover to prevent accidental contact with the battery terminals.

Battery Charger

Automatic battery charging equipment of the constant current, voltage, monitoring type, shall be provided in a compartment, within the control panel. The battery charging equipment shall be isolated, with sheet steel barriers, from the remainder of the equipment in the control board. When the battery voltage reaches a pre-determined high level, the charger shall be switched off, thus enabling the battery to discharge to a pre-determined lower point, whereupon the charger shall again be switched on.

The battery charger circuit shall incorporate a "boost charge" with a lock out key switch, thus ensuring only authorised persons have access to the "boost" facility.

In the event of a mains failure, the supply to the battery charger shall be arranged to change over to the standby power output when the diesel engine driven alternator set is switched to its load, thus obviating the necessity for a separate charging device mounted on the engine.

Cooling Systems

The prime-mover shall be of the water cooled type and shall incorporate a built-on, heavy duty pattern, pressurised radiator, suitable for ambient temperatures up to 450°C. The cooling system shall be arranged to draw the air over the prime-mover and to force the cooling air through the radiator and into the duct which shall direct the air to the outside of the container. Temperature sensing devices shall be provided which shall monitor temperatures in both the engine cooling and exhaust systems. The temperature monitors shall be provided with alarm and "shut down" features. The temperatures at which the alarms are set shall be adjustable within the range 85% to 98% of the value set for the temperature at which "shut down" occurs. The temperature at which "shut down" occurs shall be similarly adjustable but shall be set and sealed by the manufacturer. When a high temperature be detected, an alarm shall be sent to the controller. If the temperature continues to rise the alternator set shall automatically shut down when the "shut down" temperature setting is attained. Audible and visual alarms shall be indicated and enunciated when "shut down" occurs. The audible alarms, at all levels, shall be provided with accept facilities but the visual alarms shall remain displayed until the cause is removed. All alarms and settings shall be provided on the control board. (The visual and audible alarm will be transmitted to a central control as described elsewhere)

Lubrication

Each lubrication system shall comprise: -

- a self-lubricated, positive displacement gear driven oil pump with a pressure relief valve
- full flow engine mounted oil filter of the replaceable element type equipped with a manual by-pass valve (direct engine mounted no exposed oil lines)
- full flow oil cooler with an automatic by-pass valve
- pressure lubricated main, connecting rod, gudgeon pin, camshaft and rocker arm bearings
- spray oil cooled piston under crowns
- positive crankcase ventilation.
- low engine oil level sensor

Protection shall be provided against low oil system pressure. This protective device shall shut down the engine and give a visual and audible indication on the control board. The detection system shall be manually reset before the engine may be re-started.

The Contractor shall provide details of the recommended lubricants specified by the manufacturer in the installation, operation and maintenance manual.

Fuel System

The fuel system shall comprise:

- One base tank consisting of a 3CR12,316,304 or similar stainless steel inner fuel tank and a 3CR12,316, 304/ similar stainless steel bund. The safety tank shall have a stop-cock for draining any diesel or oil leakages.
- Manual, self-lubricated, positive displacement, gear driven fuel transfer pump requiring no adjustment where applicable.
- One primary and one secondary fuel filter of the replacement element type, and a water trap of the "Automatic" type or equivalent.

- An approved water trap/traps.
- An indicating fuel level gauge.
- A low fuel level alarm giving an audible and visual signal on the MCB. A cancel device for the audible alarm is required.
- A drain cock shall be provided on the fuel tank to permit the tank to be drained and cleaned. The drain cock shall be fitted with a padlocking facility.
- A visual fuel level indication (non- electric or electronic).

Base Fuel Tank

The fuel tank requirement is:

- Tank capacity as per the table below:

Generator size, KVA	General estimated consumption at full load	Tank capacity for an 8-hour operation at full load.
	Continuous operation of generator at rated full load of the alternator in hour (H) or litres (l)	
50 – 100	25 litres / hour	200l 8 hours
101 – 200	47 litres / hour	400l 8 hours
201 – 300	67 litres / hour	540l 8 hours
301 – 400	93 litres / hour	744l 8 hours
401 – 500	106 litres / hour	850l 8 hours
501 – 600	133 litres / hour	1100l 8 hours
601 – 700	159 litres / hour	1300l 8 hours
701 – 800	185 litres / hour	1500l 8 hours
801 - 900	198 litres / hour	1600l 8 hours

- The fuel tank shall be designed, constructed and installed in accordance with SANS 10131:2004. "The Storage and Handling of liquid Fuel, Part II – 1979 Large Consumer Installations".
- Manufactured from 3CR12,316,304/ Similar stainless steel plate.
- Exterior of the tank to be painted with a suitable diesel resistant paint.
- Tank will be a "self banded fuel tank" manufactured from 3CR12,316,304/ Similar stainless steel plate (complete with drain plug).
- Pad lockable arrangement for fuel cap (Contractor to furnish details for approval).
- All fuel lines to be mechanically protected to prevent damage and breakage.
- An analogue fuel level indication transducer shall be installed in the proposed fuel tank, and shall be compatible for use with the proposed controller. It is preferable that actual fuel in litres be indicated and not as percentage of the tank volume.
- The capacity of the fuel tanks shall be stencilled on the outside of the tanks.
- The fuel tank shall be supplied with fuel for two hours of commissioning.

Spare Parts

The Contractor shall ensure that the supplier of the prime-mover considered for the alternator shall be able to supply any spare parts within 24 hours of placing an order for spare parts should the need arise at a later date after the defects notification period has expired.

E- Fuel

The Contractor shall provide, within the alternator/generator control panel, a cubicle for housing E-Fuel equipment. The Cubicle shall measure minimum, W 200mm x H 200mm x D 200mm. A 5A double pole CB shall be mounted in the top left hand side of the cubicle on suitable top- hat rail. Suitable sized galvanized steel conduit shall be installed from the cubicle to a position in close proximity of the fuel inlet feeder pipe. The conduit shall be installed in position to prevent any tripping or snagging on clothing of any operational/maintenance staff.

Water Heater

The Contractor shall manufacture a heater reservoir from 304L stainless steel. The water heater reservoir shall have a 3kW dry element installed into a suitable heater pocket within or under the water volume to be heated. The water heater reservoir shall have all hose connecting attachments match the existing water cooling system hoses. The water inlet must be at the lowest point of the reservoir and the outlet at the highest point, ensuring proper heat transfer. The design must ensure that no air is captured inside the reservoir.

12.4 Control of the generator

Control Panel within the Generator Switchboard

A "Deep Sea Electronics" 7410 MK II or equivalent controller shall be installed for generator supervision and control, within each generator set. The control equipment shall be so designed as to protect the standby generator set against damage due to failure of any of the sub-systems comprising the set. The control system shall allow for automatic starting and stopping.

Each distribution panel shall be suitably divided into two sections, one for the "Deep Sea Electronics" 7410 MK II or equivalent controller, selector switches and indication and the other section for the distribution equipment and load circuit breakers.

The Alternator Control Panel shall include the following:

- A "Deep Sea Electronics 7410 or equivalent controller for the supervision and control, accessed and operated from the interior of the container.

- Emergency stop.
 - Power and lighting distribution board with a suitable earth leakage unit.
 - Battery charger.
 - Monitoring System
 - Spare cubicle.
 - Immersion heater control equipment
 - Alternator temperature display
 - Change over switch that is to be used to select between two sources of electrical power, namely power from an external source, or electrical power from the alternator. The change-over switch shall operate automatically.
- Where it is required to synchronise sets Deep Sea Electronic 8610 MK II or equivalent controllers shall be used to facilitate load sharing.

12.5 Generator Enclosures

General for each ISO Container/ Canopy /Plant room

A standard modified ISO containers/Enclosure or similar robust steel enclosures will be manufactured, with sound attenuation and suitable doors for ease of maintenance purposes, as is required, complete for this Project. The doors are to be so positioned as to avoid the necessity for removal of major items of equipment in order to affect maintenance.

The IP rating of the Container/enclosure shall be suitable for the environment for which it will be installed.

The generator plant room shall be completely sealed from the ingress of water. It shall have a steel reinforced lockable access door. It shall open outwards.

The doors shall be provided to open outward of the container. These doors shall be lockable doors with a suitable door catch arrangement including a padlock cover for anti-vandalism.

A 9kg fire extinguishers shall be mounted at the entrance doors, within each container/enclosure/Plant room. The fire extinguishers shall be easily accessible from the entrance doors.

Two emergency stop push button stations shall be placed in such a position to allow for easy access from any position within each generator ISO container/plantroom.

There shall be suitable rodent and vermin barriers. It shall be possible to remove any debris from the louvers where it is likely to accumulate over a period of time.

Sound Attenuation for each Container/Enclosure/plant room

The prime-mover and alternator-combined noise level, when installed within the container/enclosure/plant room shall not exceed 70 dBA measured at a distance of 7m from the container in open field, at full load.

The Tenderer shall submit detailed drawings with his Tender Offer.

The sound attenuation louvers will be manufactured from 3CR12,316,304/ Similar stainless steel and shall be painted with suitable paint that will bond onto the 3CR12,316,304/ Similar stainless steel.

The Engineer shall approve each ISO container/Enclosure prior to the Contractor delivering it to site.

Signage for each /Enclosure/Plant Room

The Contractor shall fix the following notices (signage) to the inside wall of the Generator Enclosure in four of the official languages, viz English, Afrikaans, Xhosa and Zulu:

- Fire extinguisher location (red and white).
- Danger of electrical shock (yellow and black).
- Hearing protection (blue and white).
- In the event of electrical shock – first aid steps for resuscitation of electrical shock victim.
- First aid steps for burn victims.

The contractor shall fix the following sign to the outside of the ISO container/enclosure/generator plant room in four of the official languages, viz English, Afrikaans, Xhosa and Zulu:

- Electrical danger sign
- Contact information for the for the City of Cape Town emergency call centre number 0860 103 089
- No unauthorised entry

Operating signs that are not safety related need only be in English.

Painting for each Container/Enclosure/Plant room

Surface preparation for container/enclosure:

Once all cutting and welding work is fully completed, the Contractor shall shot-blast the entire container. The Contractor shall notify the Engineer to inspect the shot blasting results, prior to starting any of the following applications:

Stripe coat all edges, welds, edges and crevices with Opti Mastic AL Red Toned (or equivalent).

Coatings need to be washed down between coats with clean potable running water, allow drying and then painting.

All surface preparation and application shall be in accordance with the relevant product data bulletin, this specification, and the general painting specification of Optima Coatings and SANS 1200:2014. If a conflict exists between the above items, the most restrictive shall be considered the control.

Ensure surfaces are not left overnight to prevent contamination from resettling on the surface and all bare exposed metal surfaces to be coated within the 4-hour window period.

Only Optima thinners and reducers (or equivalent) as identified in the appropriate product data sheet shall be used.

The generator plant room shall be suitably painted interior and exterior from the floor to the ceiling with a durable and robust paint that is suitable for the environment for which it is installed. It shall be able to with stand the possible heating and fumes that may be produced by the generator.

Power and Lighting Circuit Arrangements for each Container /Plant Room

a bulkhead lighting fittings, to be supplied by 24VDC shall be wired to a 1-way switch, which is to be positioned at the entrance door of each enclosure. The circuit shall be supplied from the batteries.

Two fluorescent lighting fittings to be supplied by 230VAC shall be wired to a 1- way switch, which is to be positioned at the entrance door of each enclosure. This circuit shall be supplied from the load side of the changeover switch.
1 x 16A Single phase double socket outlet.

12.6 Plinth installation

Appropriately sized concrete plinth slabs required for each Stationery Generator Set shall be constructed as per site requirements. However, it shall be of a suitable for ISO container / enclosure including the size to suit the skid base self-bunded fuel tank Soil testing.

Excavations for the plinth slabs shall be carried out to a depth of 150mm below natural ground level or as otherwise indicated on site specific layout drawings. A 150mm compacted thickness gravel base layer shall be constructed using G5 quality processed crushed stone and compacted to 95% Mod AASHTO. A Damp Proof Membrane (DPM), 250 microns thick, is to be laid on the gravel base layer prior to casting of concrete. All seams in the DPM shall be sealed with pressure sensitive tape that is suitable for this type of application.

The concrete plinth slab shall be constructed with 30MPa concrete and mild steel mesh reinforcing.

Excavations may only commence once the contractor is in possession of a wayleave document and the necessary works permit.

13. Testing, commissioning and inspections

The Contractor shall carry out any tests, which, in the opinion of the Engineer, are necessary to determine that the electrical work complies with the Drawings, the Specification and SANS 10142-1.

Wherever possible before dispatch from the factory, all plant and equipment shall be tested for performance and materials quality and such tests shall include those necessary to satisfy the Engineer that the specified and guaranteed results will be obtained after erection of the plant on site.

The Contractor shall notify the Engineer at least 2 weeks in advance, should his presence be required for inspections or witnessing of tests.

Continuity, phase rotation and pressure testing shall be undertaken by the Contractor, to the Engineer's specifications, prior to energising any equipment.

Works acceptance (function) tests shall be performed, which shall be witnessed by the Engineer and the Client or the Engineer's assistant/inspector.

In the event that tests fail, the Contractor shall be required to perform such tests again. Should these tests require the Engineer to be present again, the Engineer's cost for time and travel shall be recovered from the Contractor at rates as set out by the Engineering Council of South Africa (ECSA).

The fact that the plant and equipment has satisfactorily passed any test made at the Contractor's works shall in no way lessen the responsibility of the Contractor to obtain the same results after it has been delivered and erected permanently on site.

All test certificates required in terms of the current SANS regulations shall be furnished before the project can be completed. These shall also be bound into the installation, operating and maintenance manuals.

14. Equipment Approval

Tenderers are required to provide full details of the electrical and mechanical equipment proposed for installation in the project.

Tenderers shall also state the names of suppliers and manufacturers of switchboard, instrumentation equipment, etc.

The Engineer reserves the right to accept or reject any equipment offer made and, if equipment is rejected, to call upon the Tenderer to submit further details of similar or more suitable equipment, without affecting the tender price.

Furthermore, as the work proceeds the Contractor shall submit samples or technical literature, of all equipment, for approval, prior to purchase and installation.

The Contractor shall submit detailed working drawings of all cubicles, boxes, boards, panels, brackets, trays, etc. to the Engineer for approval prior to manufacture. The drawings shall be not less than A2 in format and shall clearly indicate the principal dimensions. At least two cross sections shall be provided on the drawings. Door and cover plate details shall be given, together with hinges and catches.

The work may not proceed until the drawings have been properly scrutinised and approved.

The lead-time for approval of drawings shall not be more than 21 (twenty-one) days from the date of receipt. The Contractor shall make the necessary allowance for this in his work program.

15. Schedule of Equipment

A complete list of fittings and other equipment intended for use on this Contract is to be submitted with the Tender (Refer to Returnable Schedules numbers 20 in Volume 2). This list shall contain manufacturers' names, catalogue numbers, etc. Where any item offered is not to specification, prior approval shall be obtained in writing from the Engineer prior to acceptance.

Should any item supplied after acceptance of this tender not comply with the specification, an alternative which meets the specification is to be approved by the Engineer and provided at no additional cost to the Client.

Samples of equipment to be supplied and installed

The Engineer reserves the right to call for samples of the equipment offered, to inspect the workmanship as the work proceeds and to either accept or reject the equipment, or workmanship. The Engineer's approval of the design, materials and workmanship shall in no way reduce the Contractor's liability to provide a complete and proper working plant which is abreast with modern technology.

Such samples may be retained until issue of the Taking-Over Certificate. All such samples shall have securely attached thereto labels designating the Contract by name and number (if any), the name of the Contractor and any further relevant information.

Unless where specified and agreed to IN WRITING, all equipment supplied by all parties shall be new and unused.

Uniformity

All items of the same type of equipment shall where at all possible, be of the same make and type for each item throughout the installation, to ensure interchange ability and ease of maintenance.

16. Installation, operation and maintenance manuals

The Manual shall comply with the following:

- (a) A Manual for the complete Works (covered by this specification) is required.
- (b) Three draft copies of the Installation, Operation and Maintenance Manual shall be provided prior to commissioning of the Works. Two copies shall be submitted for acceptance by the Engineer and will be returned to the Contractor. The third copy will be used by the operational staff on Site during commissioning. Unless otherwise specified, six copies of the final version of the Installation, Operation and Maintenance Manuals shall be provided prior to the issuing of the Taking-Over Certificate and the commencement of the Defects Notification Period. All information shall also be recorded on USB flash disk of which two copies shall be provided.
- (c) The Manuals shall be of a standard acceptable to the Engineer. At least one set shall contain original copies and this set shall be marked "Original". The other sets shall be marked "Copies 2 to 6".
- (d) Binders shall have hard, plastic protected covers utilizing four- ring, spring- clip holders. Sufficient binders shall be used to make each volume easy to use. One spare, empty binder shall be provided for every three used. A title label shall be affixed to the spine of all binders. This shall indicate contract number, title and location, Contractor's name and, where required, plant description, volume number and contents.
- (e) Labelled separator sheets shall be provided between each section and sub-section and also wherever volume or complexity makes this advisable.
- (f) The Manual shall be in English, shall be easy to use, practically and neatly presented, clearly sectionalised and titled, provided with a Contents List and shall be specifically applicable to the system as installed.
- (g) Where standard equipment manuals are used in any sections, these shall be marked up to be unambiguously applicable to the equipment installed and marking up shall be done in a manner which will be transmitted to photocopies.
- (h) All sections and sub-sections shall be numbered. Numbering of the Contents List shall be sequenced so that no two sections have the same number.
- (i) Drawings shall be to a scale, which makes all details clear. Drawings shall be held in plastic envelopes in the Manual. Drawings shall also be provided on USB flash disk in AutoCAD format.
- (j) Where practical, each section shall form a separate volume.

The Manual shall be divided into sections and shall include the information described below.

Section 1 – General

The following shall be provided:

- (a) Contents List for the complete Manual. This shall consist of:

- an overall contents list.
- detailed contents list in front of each section and/or sub-section.
- a comprehensive list of all drawings, including line diagrams and wiring diagrams.
- The Contents Lists shall be structured so as not to be affected if volumes are added or subtracted from the Manual.

- (b) Equipment List for all individual items of mechanical, electrical, instrumentation and control equipment.

The Equipment list shall include the description, make, model, serial number, batch number, size, range, performance data, motor and drive details, supplier's name, address and phone numbers, all as applicable.

The design duty, the position of the unit's installation and its design purpose in the system shall be given. A schedule of corrosion protection systems used shall be provided for fabrications such as tanks, supporting structures, clarifier bridges, etc.

- (c) Drawing list of all Contractor's and Tender drawings.

- (d) Cable schedule for power and instrumentation cables. This shall include the cable type, start and finish points, route length, duty, load, size, voltage drop, number of cores, number of cores used and gland size. For cable voltages above 400 Volts, the schedule shall also include the purchase details, specification and date of manufacture.

- (e) Drawings:

- cable routes.

Section 2 – Process, Operation and Control The following shall be provided:

- (a) Description of plant and process design and including all design parameters.

- (b) A description of each system supported by drawings, process flow or circuit diagrams and explanatory sketches to assist operating staff.

- (c) Description of control system, including control panels, as applicable and including controls, instruments, settings, indications, alarms, trips, etc. Functional Specification. List of protections, including description, sensor, operating limits, settings, etc.

- (d) Straight forward, step by step, initial start-up instructions for commissioning. These shall include operating steps, precautions, settings, adjustments, observations, etc.

- (e) Normal start up, adjustment, operating and shut down procedures for the system as installed and including settings, adjustments, observations, etc. The procedures shall highlight any safety precautions to be observed.

- (f) An Instrument List giving a description of the duty as well as the serial number, normal operating reading, maximum or minimum permissible readings, set-points (activation, warning and trip), etc.

- (g) Trouble-shooting guide, including symptoms, causes and solutions.

- (h) Drawings:

- as-built system, layout and GA drawings.
- plant circuit or flow diagrams and P&IDs.
- control panel layouts.

- system control diagram and logic sequence chart, as applicable.

Section 3 - Maintenance Schedules

The following shall be provided for all mechanical, electrical, instrumentation and control equipment:

(a) A comprehensive lubrication schedule of recommended and initial lubricants, capacity, lubrication periods, etc., for all items.

(b) A comprehensive maintenance schedule of routine maintenance by time period for the new installation and including information for individual items.

These schedules may cross-refer to supplier's standard Manual

Section 4 - Mechanical Equipment

The following shall be provided for each item of mechanical equipment:

(a) A copy of the information applicable to the item and appearing in the Equipment List.

(b) A separate table containing the unit's nameplate information; or, a photograph of the nameplate.

(c) Technical and descriptive literature, including principle of operation and construction.

(d) Installation instructions.

(e) Detailed operating instructions.

(f) Control and electrical details, including logic sequence, circuit diagrams and software, as applicable.

(g) Full technical and maintenance information including instructions for assembly, disassembly, lubrication, adjustment, calibration, reconditioning, repair, etc.

(h) A spares list giving the item number, part number, description, quantity and materials. A list of recommended spares.

(i) Factory and Site test results.

(j) Corrosion protection systems used, coating supplier's data sheets and coating repair procedures.

(k) Drawings:

- performance curves.
- layout drawings.
- large scale, dimensioned, cross sectional and arrangement drawings of the item for assembly and spares recognition purposes, cross-referenced to the spares list.
- dimensioned drawings of fabricated equipment.
- circuit layout of any auxiliary systems.

Section 5 - Electrical Equipment

The following shall be provided for each item of electrical equipment:

(a) A copy of the information applicable to the item and appearing in the Equipment List.

(b) A separate table containing the unit's nameplate information; or, a photograph of the nameplate.

(c) Technical and descriptive literature, including principle of operation and construction.

(d) Control and electrical details, including logic sequence, circuit diagrams and software, as applicable.

(e) Installation instructions.

(f) Detailed operating instructions.

(g) Full technical and maintenance information including instructions for assembly, disassembly, lubrication, adjustment, calibration, reconditioning, repair, etc.

(h) A spares list giving the item number, part number, description, quantity and materials. A list of recommended spares.

(i) Factory and Site test results.

(j) Drawings:

- equipment overall dimensions.
- circuit diagrams.
- switchboard layout drawings and SLDs.
- electrical panel construction drawings.

Section 6 - Instrumentation Equipment

The following information shall be provided for each item of instrumentation equipment:

(a) A copy of the information applicable to the item and appearing in the Equipment List.

(b) A copy of the relevant information in the table of instrumentation in the sub-clause "Operation Section" and including all settings.

(c) Installation instructions.

(d) Descriptive and technical literature giving full details of performance, operation, calibration, setting, service, maintenance and spares including suitable assembly drawings

(e) Technical and descriptive literature, including principle of operation and construction.

(f) Control and electrical details, including logic sequence, circuit diagrams and software, as applicable.

(g) Factory test results.

(h) Full technical and maintenance information including instructions for assembly, disassembly, lubrication, adjustment, calibration, reconditioning, repair, etc.

(i) Drawings:

- circuit diagrams of both instrumentation systems and individual instruments.
- overall dimension and installation drawings.

Section 7 - Control Equipment, Network and Software

The following shall be provided:

(a) A copy of the information applicable to the item and appearing in the Equipment List.

(b) Cross-referenced listing of all I/O used.

(c) An annotated program listing.

(d) Loop drawings showing field terminal numbers, marshalling terminal numbers and PLC rack/slot/terminal numbers.

Section 8 - Drawings

All drawings not filed elsewhere shall be filed in this section.

19. Rental of Generators

The rental of generator for the purpose of this tender is to provide a support to existing generator sites in the event of a complete failure of the standby system. As well as providing support to those buildings where the need for a permanently installed generator is not practical and not economically viable whereas the use of a mobile generator for specific periods of time depending on the requirements is more practical and economically viable.

It will be required of the tenderer to provide a range of generators as per the pricing schedule.

The tenderer shall consider all costs in connection with the mobile generators and including but not limited to the following:

The generator conforms to tier 5 emission requirements and fuel efficiency requirements.

The generator conforms to the noise level requirements as per the relevant SANS standards and the municipal by-laws

The delivery and the collection of the generator

The installation, connection and commissioning of the generator with the existing installation.

Providing the client with a full tank of fuel and additional refuelling (before the engine cuts out due to low fuel level) or any additional tanks of fuel (provisions shall be made for fuel transfer pumps/spill kits etc. to ensure safe handling of the fuel at all times) that will ensure that the generator will be able to run for at least 8 hours at full load.

Where there are no prewired connection points of a mobile generator. It shall be required of the tenderer to ensure that the alternator cables are long enough to be connected to the existing electrical installation and suitably protected for the environment in which they will be installed. The termination of the alternator cables to the existing electrical installation shall be done with suitably insulated and suitably rated lugs together with nuts and bolts for terminating the cable ends to the busbar.

Where there exists a predetermined connection point for the connection of a mobile generator to the existing electrical installation. The termination of the alternator cables shall be by means of suitably insulated and suitably rated lugs together with nuts and bolts for terminating the cable ends to the busbar provided.

The tenderer will be available at a reasonable notice period to ensure that all the necessary arrangements can be made that will allow for the safe and correct installation of the mobile generator to the existing electrical installation. A SEVEN-DAY notice period will be considered reasonable from the time the City of Cape Town project manager contacts the tenderer.

A 15% contingency, which equals 15% of the total value of the project, as per pricing schedule line item 14.12 shall be included in all quotation. This allows for any unforeseen variables that may be detected during the execution of the project

17. Servicing of Generators

The tenderer will be required to service newly installed generators and existing generators. For new and existing generators, the maintenance procedures shall not differ.

The tenderer will be furnished with a list of all the generators that exist within the boundaries of the City of Cape Town.

The tenderer will be issued with a maintenance schedule for the existing generators, containing dates. It shall be the tender's responsibility to ensure that the generators are serviced and inspected at least no later 2 weeks of the given date and at least one week from the given date.

It shall be required of the tenderer to attend to annual services, quarterly inspections, as well as ad-hoc inspections and faults.

The Tenderer shall maintain the supplied range of standby generator sets for a period of three years after delivery. The required maintenance shall include the following:

18 Annual Service

The annual service shall occur on the date agreed to by the project manager at an interval of 250 hours or 1 year, whichever occurs first.

The annual service will include a mains failure test to ensure the correct operation of all ancillary equipment.

Only genuine recommended manufacturers spare/replacement parts, components and liquids are to be used for the annual maintenance and repairs of the generating sets in question.

The annual maintenance of the standby generators must be done in accordance with the operation and maintenance procedures below.

Additional items may be added to the task list, where it is deemed to be necessary or critical to the sustainability and life cycle of the generating set.

However, NONE of the items may be excluded when performing the maintenance and inspection operations.

All items pertaining to the maintenance and inspection of the generating set must be noted and recorded on the inspection sheet and reported to the CCT project manager.

All of this documentation including inspection task lists, fault reports and invoices must be handed-over to the CCT project manager within 7 working Days after completion of the work.

The load bank tested must be scheduled at least 4 weeks in advance. This is to allow sufficient time to notify the relevant stakeholders and make the necessary logistical arrangements.

19 Quarterly Inspection

The quarterly inspections of the standby generators must be done in accordance with the operation and task below. The maintenance schedule includes 3 inspections, the 4th inspection is included in the annual service.

Additional items may be added to the task list, where it is deemed to be necessary or critical to the sustainability and life cycle of the generating set.

However, NONE of the items may be excluded when performing the maintenance and inspection operations.

All items pertaining to the maintenance and inspection of the generating set must be noted and recorded on the inspection sheet and reported to the CCT project manager.

All of this documentation including inspection task lists, fault reports and invoices must be handed-over to the CCT project manager within 7 working Days after completion of the work.

20. Training of City of Cape Town Staff.

The purpose of the training of the City of Cape Town staff is to ensure that the staff are constantly upskilled regarding the equipment that exists in their departments or sections. This will ensure that their response time to dealing with faults, maintenance, inspections and service request can be dealt with accurately and timeously. It will also ensure that the new equipment installed at the City of Cape Town facilities and existing equipment will be well serviced ensuring that the equipment will operate as and when it should and with excellent efficiency.

As per the pricing schedule the vendor shall include an hourly rate for the training of City of Cape Town staff all items relating the service, maintenance, fault finding, inspection of the generator and its ancillary equipment, such as the deep sea controllers, auto – changeover switches, etc.

The internal project manager will devise a scope of work for the training which will highlight the objectives of the training requirements.

21. Ad-Hoc Repairs

the procedure for repairs and maintenance to the existing generators shall be the following:

the vendor will receive a call from the project manager detailing a possible fault. An email must follow, giving the name and location of the generator.

A detailed description of the possible fault and the date and time of when the fault was reported.

An email must be sent to the vendor and the following persons cc'd: SPO maintenance, facility officer, SCM practitioner and admin clerk who will process the quotation.

The vendor shall immediately submit a quote for a call out.

Once the vendor has ascertained the extent of the fault a full quotation together with a report listing the findings must be sent to the project manager. The tenderers quote will include a 15% mark-up on the suppliers quote for parts and spares. The tenderers quote as well as the suppliers' quote must be sent to the project manager.

22. Training and Development of SOPs

the tenderer shall be responsible for the training and assessing of City of Cape Town in relating to the service, maintenance and operation of the existing and newly installed generators and all of its ancillary equipment as per the original equipment manufacturers requirements.

In addition, the tenderer shall be responsible for the development of safe work procedures relating to the operation, servicing and maintenance of existing and newly installed generators and all of its ancillary equipment as per the original equipment manufacturers requirements.

The training sessions shall be scheduled to align with actual servicing and inspections dates.

The will include a brief theory session but will mostly consist of on-site training. The tenderer will be responsible for producing all the necessary training material needed to complete the training.

23. Network Switching

Network switching will include switching operations on the switchgear contained within the premises of facilities management up to 11KV.

The person authorised by the tenderer shall be suitable trained and qualified and have the necessary relevant experience to perform such operations unsupervised.

The appointed person shall be trade tested and have a minimum level of NQF 3 in electrical engineering and be appointed as an authorised operator in terms of the Operating Regulations for High Voltage Systems from a recognised training institution. The person shall have a minimum of 5 years' relevant experience in medium voltage switchgear maintenance and operations.

Proof of the above requirements shall be submitted as a returnable schedule. In addition, a log book of all the switchgear operations must be submitted as a returnable schedule.

24. Travel

All cost and expenses shall be considered for the travel line item in the pricing schedule. As stated in the pricing schedule it is a per kilometre rate.

25. Labour

The labour component of this tender consist of a rate per hour. It shall be used by the successful tenderer as and when required depending on the scope of work and project requirements. All costs relating to the labour rate must be considered when completing the pricing schedule.

SOLAR PV SPECIFICATIONS

SOLAR PV TECHNICAL SPECIFICATIONS

GENERAL NOTE

These specifications and all appendices attached thereto shall form part of the contract documentation, including drawings and bills of quantities where applicable.

In the event of a discrepancy between these specifications, the drawings and/or the bill of quantities, the discrepancy shall be resolved by the Employer or the Employer's representative in accordance with the contract before the execution of the work under the relevant item.

CONTENTS

Project Description and Scope of Contract

Standard Specifications

Performance Specifications

General Project Specifications

Commissioning and Handover

PROJECT DESCRIPTION AND SCOPE OF CONTRACT

1.1 Employer's Objectives

The Employer's objectives are to:

- Install an alternative source of energy if and when required dependant on final scope of works issued along with Purchase Order / Works Project documentation during the validity period of this term tender.

1.2 Terms And Abbreviations

TERM	EXPLANATION
CAD	Computer aided design
kVA	Kilovolt-ampere, a measurement of apparent electrical power (1000 VA).
kW	Kilowatt, a measurement of electrical power (1,000 Watt).
kWp	Kilowatt-peak, normally used in the context of solar PV systems.
MW	Megawatt, a measurement of electrical power (1,000,000 Watt).
MWp	Megawatt-peak, normally used in the context of solar PV systems.
NERSA	National Energy Regulator of South Africa.
PV	Photovoltaic (with reference to photovoltaic solar panels).
SANS	South African National Standards.
SCADA	Supervisory Control and Data Acquisition, an industrial control computer system.
SLA	Service level agreement
Utilizable Area	A portion of rooftop area(s) that are minimally or unaffected by shading and have thus been identified to be suitable for the installation of solar photovoltaic modules.
VA	Volt-ampere, a measurement of apparent electrical power.
W	Watt, a measurement of electrical power (1,000 Watt).
Wp	Watt-peak, normally used in the context of solar PV systems.

1.3 Description of Works

This contract comprises the planning, detailed design, supply, installation, commissioning and 2-year operation and maintenance of solar PV systems plus all electrical, control and instrumentation equipment if and when installed, and includes the works described below.

Regulatory approvals

- Assist the employer in obtaining regulatory approvals from City of Cape Town Electricity or Eskom for rooftop and carport PV installations.

Installation of the new equipment:

- Solar PV modules
- Inverters

- New cabling, trenching and cable ladders between PV modules and inverter / main LV panel
- Roof safety harness systems where required
- Lightning protection system where required
- Weather station

Provision of design documentation:

Due to the nature of this term tender and given the exact scope of works for solar PV requirements cannot be determined at this stage of the contract, these specifications do not include detailed drawings, PV module layouts, mounting structure designs, wiring schematics, hook-up drawings, cable schedules or termination schedules. The successful contractor will be required to create this design documentation for approval by the Employer or their representative.

1.4 Phasing of the Works

The works will not be phased.

1.5 Extent of the Works

The Contractor is responsible for the surveying, planning, detailed design, procurement and supply of all materials and labour, manufacture, delivery to site, offloading, construction, erection, installation, factory acceptance testing (FAT), on-site testing, commissioning, performance testing, provision of samples, preparation of all detail design drawings, shop drawings, as-built record drawings, maintenance manuals, instructions for the works and end-user training, in accordance with the general requirements and performance requirements as detailed in this document.

The following items comprise the extent of the works for this project:

- Detailed design of the new solar PV system, based on the performance specifications as well as the bills of quantities.
- Submission of design documents and samples to the employer or the employer's representative for approval prior to commencement of equipment procurement.
- Liaison with all relevant regulatory and municipal bodies, including all applications that may be relevant to this installation. See exclusions below.
- Procurement of all equipment required for a successful installation, including PV modules, inverters, cables, wireways, trenching, fixing structures, switchgear, enclosures, lightning and surge protection equipment, data acquisition equipment, monitoring and control system, safety harness systems, new carport structures and associated civil works, and all other peripheral equipment required for the successful installation and integration of the PV plant.
- Transportation of all equipment to site.
- Establishment of the contractor's office on site.
- Storage of materials on site
- Provision of private security to protect the materials on site, if deemed necessary by the contractor.
- All signage as may be required in terms of the OHS Act.
- All civil work that may be required by the installation.
- Installation of all equipment as per scope of works and specifications.
- Installation of new wireways (existing wireways to be reused wherever possible).

- Integration of the PV system with existing electrical network, in accordance with all applicable standards and the national grid code.
- Commissioning and start-up of PV plant.
- Waterproofing, including all penetration points of the solar PV system, and repair of all waterproofing that was damaged because of the installation. See exclusions below.
- Preparation of acceptance test procedures.
- Submission of test procedure to the engineer for approval prior to commencement of acceptance tests.
- Conducting acceptance tests (to be witnessed by the engineer).
- Submission of documentation as prescribed in employer's requirements.
- Training of the employer's staff relating to the operation and maintenance of the PV installations.
- Delivery of spares and special test equipment.
- Finishing the site (removal of all hoarding, unused installation material, building rubble).

The following items comprise the extent of the 24-month Operations and Maintenance portion of this contract:

- Preventive maintenance in accordance with the predefined schedule and SLA.
- Corrective maintenance in accordance with the SLA.

The following items are excluded from the works:

- The employer shall ensure that all rooftop areas are adequately cleaned, waterproofed and prepared before the installation commences.
- All fees relating to municipal or regulatory applications are the responsibility of the employer. However, the contractor shall advise the employer on the approval requirements, and shall assist the employer by facilitating those approvals.
- The employer shall provide clean 230 V power at all points of installation.
- The employer shall provide SIM cards and data contracts for remote GSM/3G access to the inverters.

1.6 Description Of Site

The site is to be identified in the Purchase Order / Works Project documentation.

1.7 Documentation To Be Provided

The successful contractor will be required to provide the following documentation based on their proposed models for the PV models and inverters to be used.

Design drawings

- To be submitted based on the proposed system within the works documentation to be issued during the validity period of this term tender.

Datasheets

- PV modules, power optimisers (if applicable), roof attachment clamp systems for the various roof structures as indicated in the schedule of rates
- Inverters and any additional modules (e.g. TCP/IP, GSM, data loggers, etc)
- Weather monitoring stations

Shop drawings

- To be submitted based on the proposed system within the works documentation to be issued during the validity period of this term tender.

Schedules

- To be submitted based on the proposed system within the works documentation to be issued during the validity period of this term tender.

Test procedures

- Site acceptance test procedures for all equipment to be submitted based on the proposed system within the works documentation to be issued during the validity period of this term tender.

Handover documentation

- All documentation and files specified elsewhere in these specifications, including as-built drawings, manuals, training material, license keys, usernames and passwords, equipment lists, vendor lists, etc. upon completion of each installation.

2. STANDARD SPECIFICATIONS

2.1 National and International Standards

The whole of the installation shall comply with the latest edition of the following South African standards: • Occupational Health and Safety Act, 1993 (Act No 85 of 1993) and the regulations promulgated in terms of the Act.

- SANS 10142-1: The wiring of premises Part 1: Low voltage installations
- NRS 097-2-1: Grid interconnection of embedded generation
- SANS 10400: The application of the National Building Regulations
- SANS 62305-1: Protection against lightning Part 1: General principles
- SANS 10104: Handrailing and balustrading (safety aspects)
- SANS 10021: The waterproofing of buildings (including damp-proofing and vapour barrier installation)
- NERSA: Grid connection code for renewable power plants (RPPs) connected to the electricity transmission system (TS) or the distribution system (DS) in South Africa
- NERSA: The South African Grid Code
- The local Fire Department Regulations.
- The relevant SANS, NRS, BS and IEC and ISO supporting specifications referred to in the standard specifications.
- Municipal, supply authority and regulatory standards and bylaws.

3. PERFORMANCE SPECIFICATIONS

These performance specifications define the minimum requirements for the various systems and equipment forming part of this project. The contractor's detailed design shall comply with every aspect of these specifications.

3.1 General

3.1.1 Climatic Information

All equipment shall conform to the following common requirements:

Indoor:	Temperature	0 °C to 40 °C
	Relative humidity	0 % to 100 %

Outdoor:	Temperature	-5 °C to 45 °C
	Relative humidity	0 % to 100 %

Altitude:	Between 0 and 300 metres above sea level.
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All equipment shall be rated for a 25-year lifespan, including PV modules, enclosures, fasteners, racks, wireways and switchgear. Inverters shall have an OEM-backed warranty of at least 10 years.

All enclosures, wireways, fasteners, brackets, locks, handles and covers shall be corrosion resistant. Materials shall be selected to prevent galvanic corrosion between different metals.

3.1.2 Defective equipment

Defective equipment will not be accepted under any circumstances. Any equipment or components found to be defective must be replaced at the expense of the contractor. The defect liability period is defined by the contract governing the installation.

3.1.3 Vandal resistance

The installation will be subject to a high risk of theft and vandalism. The contractor shall ensure that all equipment is installed such that vandalism is reduced. No cables or bare copper earth conductors shall be visible or accessible externally from the ground level of the buildings. For carports, all cables and conductors should be installed in galvanised conduit as far as practically possible.

Solar PV modules shall be fastened in a manner that they are difficult to remove, particularly on carports.

3.2 SYSTEM CAPACITY

The system capacity is to be confirmed based on the proposed system within the works documentation to be issued during the validity period of this term tender.

3.3 INTEGRATION WITH EXISTING ELECTRICAL INFRASTRUCTURE

The contractor will be responsible for all integration with existing electrical infrastructure. If the need arises to appoint a certified electrical subcontractor or specialist to assist with the integration, the costs for this specialist will be borne by the main contractor unless otherwise agreed with the employer.

3.4 PHOTOVOLTAIC MODULES

Polycrystalline Grade A modules must be installed. The modules must be certified to conform to the following standards:

- ISO 9001
- IEC/EN 61215 and IEC/EN 61730.

It is preferable that the PV module manufacturer is well established and has a large balance sheet with sufficient warranty insurance.

If the bidder believes an alternative module type may be better suited for the installation, this may be provided as an alternative solution if the original tender document is also fully priced. PV Modules to be Tier 1 with module efficiency not less than 21%

3.4.1 Fixing method (PV Modules)

To minimise loading on the various buildings and structures, the mass of the entire installation may not exceed 20 kg/m² for each building.

The contractor shall ensure that the all-new roof penetration points are adequately waterproofed. If the contractor proposes a non-penetrating mounting structure, it must be certified to withstand the prevailing wind forces at each building. Manufacturer datasheets must be provided by the contractor and approved by the employer in this regard.

All fasteners, frames and mounting structures shall be rated for a 25-year lifespan. All components shall be selected such that galvanic corrosion is minimized.

3.4.2 Inverters

The size, quantity, configuration or exact location of the grid-tie inverters is not prescribed. However, the inverters must conform to the following minimum specifications:

- Certified conformance to NRS 097-2-1:2010

- Surge protection (DEHNguard or equal/better, preferably built-in)
- Overcurrent and fault current protection
- String inverters
- Minimum efficiency 97%
- DC input range 500-1000V
- To comply with South African Nominal Low Voltage Specifications

Power optimisers are permitted but not compulsory.

To minimize voltage drop losses, it is recommended that the inverters be installed as close as possible to the connection point to the local LV grid.

If the inverters are installed outdoors, they must be installed in such a way that the performance or lifetime of the inverters is not compromised through exposure to the elements. Therefore, inverters should be protected from direct sunlight, rain and lightning strikes.

If the bidder believes an alternative inverter type may be better suited for this installation (e.g. micro inverters), this may be provided as an alternative solution if the original tender is fully priced.

3.4.3 Cable Management System

Once appointed, the contractor shall provide detail design drawings of all cable management systems, including fixing and attachment methods. Although it is likely that the cable management system will require drilling into some rooftops, the contractor will be encouraged to find alternative fixing methods that do not require any drilling. This will further reduce waterproofing issues.

Existing wireways and cable ladders should be used wherever possible.

3.4.4 Cables and Connectors

DC cabling should be specifically rated for outdoor solar PV installations and should be double insulated, UV resistant and weather resistant. Positive and negative cables shall be laid separately to prevent short circuit faults. All connectors must have an ingress protection rating of IP 67.

DC cabling to comply with SANS 1507 and TÜV 2 Pfg 1169; Class II insulation rating.

3.4.5 Earthing

All equipment and cabling shall be earthed in accordance with all relevant codes and regulations and shall be suitably protected against lightning strikes and surges.

3.4.6 Monitoring and Control

A monitoring and control system shall be built into the inverters and shall be accessible via a GSM/3G module that is either built into the inverter, or enabled through an add-on module. The SIM cards and data contracts will be provided by the employer.

The system should have the following functionality. This is a generic list of specifications and may not be possible to achieve by all manufacturers. Solutions proposed by bidders must meet the majority of the following specifications and any specification that cannot be met must be highlighted by bidders in their proposal.

Monitoring and Control Requirements:

Monitoring and Control Requirements:

- Data acquisition
 - o Individual string performance
 - o Inverter performance
 - o AC panel status
 - o Load (four-quadrant energy meter)
 - o AC grid status
 - o Generator status (if applicable).
- Trends
 - o Historical
 - o Real-time.
- Alarm Manager
 - o String performance
 - o Device failure
 - o Visual diagrams to indicate location of alarm or fault
 - o Email/SMS notification.
- Protection
 - Automatic disconnection when common faults are detected (e.g. over/under voltage, frequency, temperature)
- Energy export
 - o Ability to implement energy export limitation in future by monitoring power flow through fourquadrant meters and reducing the amount of PV such that no energy is exported to the municipal grid.
- Control
 - o Remote isolation of fault-affected components.
- Reporting
 - o Yield Reports
 - o Financial Reports.
- Architecture
 - o Scalable, support for future expansion.
- Licensing
 - o A once-off license is preferable to recurring license fees.
- Maintenance Calendars
 - o Support for maintenance activity calendar and alerts
 - o Lifecycle status of all elements in PV plant.
- User access rights (administrator plus at least one operator level).
- Import/export functionality of data and configuration settings.
- Web interface for remote access.

The control and monitoring system must be scalable to accommodate future expansion, including PV installations on other surrounding buildings. Its architecture must be open and modular to accommodate data acquisition equipment from several manufacturers.

3.4.7 Energy metering

A four-quadrant, three-phase net metering system shall be installed, by the contractor, at all points where the PV system connects to the local grid and will be integrated with the aforementioned monitoring and control system.

3.4.8 Active Islanding Detection

An active islanding detection must be incorporated into the system in accordance with applicable standards and regulations.

3.4.9 Lightning protection

The solar PV plant shall be equipped with a lightning protection system in the form of air terminals/lightning rods. As part of their submissions, bidders must include information about the type of lightning protection system that will be installed. Once appointed, the contractor shall then provide a detail design and specifications for the proposed lightning protection system.

Surge arrestors shall be installed to protect the installation from transient voltage spikes.

3.4.10 Waterproofing

The contractor will take full responsibility for the waterproofing of each building upon completion of the project. All points where the solar PV plant penetrates the roof shall be waterproofed in accordance with SANS 10021. The employer shall ensure that all rooftop areas are adequately cleaned, waterproofed and prepared before installation commences.

3.4.11 Safety harness system

Currently there is no significant barrier, balustrading or safety harness system installed on any of the roofs. To improve safety for maintenance staff working on the roof, the contractor shall install a new safety harness system on all rooftops that are to receive PV modules.

3.4.12 Structural alterations and modifications

No alterations to the roof structures of any buildings are required. Existing carports must be replaced with new structures before any PV modules can be installed on those carports. None of the existing carports at the six depots have been verified to have suitable foundations and structural load bearing capacity for PV installations.

3.4.13 Maintenance

The contractor shall be required to provide maintenance schedules and requirements, including ancillary works to facilitate maintenance activities. This could include the provision of one or more water taps to the rooftop to facilitate cleaning of the PV modules (if the employer chooses to install taps on the rooftops, this will be done by others under a separate contract).

The panel positioning should also be determined with maintenance requirements in mind. For example, it must be possible to access every panel for cleaning purposes. Access to existing equipment on the rooftop must be maintained.

As part of their tender submission, tenderers shall include information about their standard SLA offerings, including options, terms and costs.

3.4.14 Weather stations

No weather stations will be required under this contract. However, the contractor shall provide a rate for a weather station display should the employer choose to add this to the project at a later stage for performance benchmarking purposes. The weather station shall be suitable for rooftop installation and shall have the following sensors as a minimum:

- Ambient Air Temperature
- PV Panel Temperature
- Pyranometer
- Anemometer (speed and direction).

The weather station output data shall be logged at 1-minute intervals. Logging intervals shall be configurable. Pricing shall include all hardware, software, cabling, network interfaces, mounting brackets and electrical connections required for a complete and functional system.

Battery Energy Storage System (BESS)

Accommodation of batteries shall comply with the requirements of SANS 10400 parts O and T.

Monitoring

The monitoring system must be designed and implemented for a 20-year lifetime. The monitoring system must continuously log data, operational parameters and the status of the BESS components. Updated conglomerated data is to be available in realtime.

The monitoring system shall have 24-hour capacity to continue monitoring in times of grid outage.

The monitoring system shall be compliant with all applicable standards.

Housing

It shall have ventilation as per OEM requirements and must adequate for the environment that it will be operating in. It shall be either floor standing or wall mounted as per site requirements.

Support Structure

The supporting structure of the BESS shall be designed and installed in line with the latest versions of the relevant South African standards more in particular applicable for PV and BESS installations:

- SANS 10160 Part 1 - Basis of structural design
- SANS 10160 Part 2 - Self weight and imposed loads
- SANS 10160 Part 3 - Wind actions
- SANS 1200(all relevant parts)

Protection and Control Devices

The protection and switching methodology shall be determined by the Contractor's proposed design and technology, but the degree of protection shall comply with the applicable standards associated with PV, BESS and electrical works in general. Overcurrent and overvoltage devices shall be required on the DC and AC sides. Switchgear used in any switchboards shall comply with SANS (IEC) 60947 and SANS (IEC) 62271

Cabling

All cabling shall be installed in accordance with the manufacturers' requirements and all applicable safety standards.

3.5 OPERATION AND MAINTENANCE

It shall be expressly noted that the award of the operations and maintenance portion of the contract is at the sole discretion of the Employer. The Employer reserves the right to omit the Operations and Maintenance portion from the contract.

3.5.1 General

The Contractor, in general, shall be responsible for the followings during O&M periods:

- a) The Contractor shall maintain the PV plant and operate the PV plant (including the complete solar PV plant, the Switchgear, Interconnection, and the Support Facilities), in good condition and perform the agreed O&M services in good faith, in accordance with the best industry practice.
- b) The Contractor shall perform periodic inspection and testing of PV plant and each component and report on the status of modules, cablings, structures, inverters, monitoring system, etc.
- c) The Contractor shall maintain and repair (if necessary) the civil construction of the PV Facility.
- d) The Contractor shall repair any defect or replace any item, equipment and component.
- e) The Contractor shall perform maintenance activities as minimum as defined under preventive maintenance and corrective maintenance.
- f) The Contractor shall supply all required tools, equipment and facilities (including water for module cleaning) which are necessary for carrying out the operation and maintenance of the PV plant.
- g) The Contractor shall guarantee at all times the on-site availability of minimum spare parts.
- h) The Contractor shall guarantee the plant performance and operate the plant accordingly to meet the guaranteed level.
- i) The Contractor shall maintain and ensure the compliance of the plant in respect to safety laws and regulations in respect of the safety of the workers and performing the services.
- j) The Contractor shall follow the maintenance manuals provided by the Contractor under the Design Build Contract, for entire plant monitoring including the operational manual of specific components and safety instructions.
- k) The Contractor shall protect any plant warranties and support Employer on negotiation of any warranty or the claims available to Employer for material or equipment supply and for the performance work associated with the plant.
- l) The Contractor shall respond in the shortest possible of time to any alarm generated in PV plant and take the necessary actions (repair or replacement) and shall report to Employer.
- m) The Contractor shall operate and provide the maintenance of surveillance and control system, communications, security and meteorological stations.
- n) The Contractor shall report periodically regarding the status of the plant, maintenance work and the performance evaluation of the plant according to the reporting schedule defined in this document.
- o) The Contractor must provide O&M training to Employer and Employer's representative along with all required material in hard copy and in electronic copy.
- p) The Contractor shall co-operate and co-ordinate with the Employer, Employer's representatives and Building Facility Managers in a best way to ensure the operation and maintenance activities are performed respecting all Employers' requirement and not effecting the regular Building Facility's (site) normal operation and maintenance.
- q) The Contractor shall commence Operation and Maintenance activities respecting all legal, environmental and administrative requirements.
- r) The Contractor shall co-operate with third parties (upon request from the Employer) and with the respective municipality (electricity provider to the building) for verification of their requirement during project installation, commissioning and operation.

3.5.2 Preventative maintenance

- a) Preventive maintenance of the plant shall include all necessary measures to be done by the Operator as indicated in the maintenance manuals provided by the Contractor under the Design Build Contract, and in the preliminary maintenance plans provided in the table below to avoid or anticipate possible or future malfunctions of the plant.

b) The Contractor shall define the preventive maintenance plan for the PV system including the frequency and scheduling of each maintenance activity. The frequency of preventive maintenance depends upon the level of impact on energy production that it would produce if the component stops functioning. In this regard, the preventive maintenance of the inverter shall receive the greatest focus among all. The Contractor shall pay high level of attention to such components in its O&M plan. Preventive inverter maintenance shall include at least:

- 1) the inspection and tightening connections
- 2) ensuring water and dust tightness
- 3) cleaning and replacing filters, lubricating moving parts like fan, handles and disconnects 4) running electronic diagnostics.

c) Preventive maintenance also involves module cleaning, inverter servicing, mounting structure maintenance and balance of system inspection. The inspection on balance of system includes but is not limited to the inspection of junction box, conduit runs, combiner box, communication equipment, monitoring equipment, etc.

d) The following table provides the general overview as guidelines of preventive maintenance of main components. The maintenance type and frequency of maintenance may depend upon the specific component type and local grid requirements. Therefore, the Contractor shall provide the detailed preventive maintenance plan of each equipment, configuration, and systems considered in the plant.

e) It is expected that the Contractor propose a suitable cleaning method as well as frequency for the PV plant design proposed, but at least according to the requirements as mentioned below.

3.5.3 Corrective maintenance

a) Corrective maintenance shall include at all times and in all cases attending to and repairing breakdowns and failures of the components of the plant caused by wear and tear and/or breakage under normal operating conditions to ensure that the plant operates normally throughout the duration of the O&M Period.

b) Corrective maintenance shall be carried out during the preventive maintenance visits (if the faults/failures do not effect on energy production) or when the remote monitoring system registers an operational problem. In case of corrective maintenance, the Contractor shall perform:

- 1) A problem diagnosis, performance notification and which parts needs to be replaced
- 2) Supplying the component parts needed to replace in the event of breakdown or anomaly
- 3) Repairing or Replacing, when necessary, the affected component/equipment from inventory and
brining the plant back in working condition
- 4) Purchasing and transporting the replaced component and keeping the inventory always in the same level as defined by the contractor during the installation.

c) Where market conditions prevent the supply of parts identical to those already installed, the Contractor shall purchase the available parts of similar technical specifications and equal or higher warranty periods and terms, which do not result in a reduction below the rated output, or efficiency of the plant.

d) The Contractor shall repair or replace the affected item immediately or, under all circumstances, within 48 hours following the identification of failure (alarms) where this occurs on a working day or within 72 hours following the failure (alarms) where this occurs on a non-working day. The Contractor shall be responsible for maintaining the plant in accordance with the laws in force at any given time.

e) In case an immediate repair/replacement is not possible (due to the lack of sufficient availability of components in inventory), the Contractor shall be entitled to put in place a temporary technical solution allowing partial if not complete resumption of production and/or minimize production losses to a maximum. If beforehand unavailable component has been received, the Contractor shall repair or replace the affected item within 48 hours.

3.5.4 Operations and maintenance training

- a) O&M Training shall be provided to the Employer and Employers' representatives within three months after the issuance of substantial completion certificate. The Training shall be both, based on Classroom and Onsite Training. The Contractor shall provide formal classroom training of the operations, maintenance prior to final hand-over of the plant (Final Acceptance Test) to ensure Employer's representatives have a sound understanding of the plant layout and functionality.
- a) Training material for classroom training shall be based on O&M manual content (O&M Manual requirement is presented in in this document) and contain evaluation criteria on each section of the plant covered in order to establish the level of Employer's representatives' understanding.
- b) The Contractor shall provide formal on-site training of the operations, maintenance prior to final handover (Final Acceptance Test) of the plant is essential to ensure Employer's representatives' have a sound understanding of the plant functionality and O&M requirements.
- c) Training material for on-site training shall be based on O&M manual (requirement of O&M Manual is presented in this document) in addition to detailed operating and maintenance plans and procedures. d) Training shall be focused on following area
- 1) Operation and Maintenance of the Facility
 - 2) Inverter Technician Training: specification, functioning and safe operation following Manufacturers O&M Manual (troubleshooting for error codes, repair, software for inverter, Fault finding on the DC Plant) and
 - 3) Data Acquisition System and PLC Training.
- e) The Contractor shall provide all training materials of in hard copy and electronic copy to the trainees prior to the actual commencement of O&M training.

3.5.5 Spare parts

The Contractor shall provide and ensure that such minimum levels are always available in inventory during the plant operation according to the recommended spare parts list to be supplied by the Contractor upon appointment.

4. GENERAL PROJECT SPECIFICATIONS

4.1 Approvals

Datasheets and/or shop drawings for the following equipment must be submitted to the Engineer for formal, written approval before it may be procured by the contractor:

- PV Modules
- Inverters (approved inverters)
- DC Cables
- AC Cables
- Distribution boards, enclosures and combiner boxes
- Mounting frames and support structures
- Carports
- Roof-penetrating attachments
- Monitoring software
- DC fuses
- AC switchgear

4.2 MATERIALS AND HANDLING

All materials must be new, complete, in good condition, and unused. Materials are to be visually inspected for damage on site and before use.

Additionally, all installations must conform to the vendors' instructions, best-practices and standards for the product(s) used.

Cable must not be pulled under excessive load, and all cables must be free of kinks, snags, and twists during and after installation. Wherever possible, cables should be placed in pathways rather than pulled under tension. Cables must not be installed in areas exposed to direct sunlight or temperatures that might exceed the manufacturer's specifications, unless those cables are specifically rated and certified for such conditions.

4.3 USE OF REASONABLE SKILL AND CARE

In executing this project, the Contractor shall exercise all the reasonable skill, care and diligence to be expected of an appropriately qualified and competent contractor experienced in carrying out equivalent installations for projects of a similar size, scope, complexity, value and purpose to the Development.

4.4 CONSTRUCTION IN CONFINED AREAS

The contractor shall note that construction in confined areas may be required.

4.5 OWNERSHIP OF RECOVERED MATERIALS

No materials recovered during the execution of the contract shall be removed from the site without written authorisation from the employer, and the contractor shall be liable for the replacement value of any recovered materials removed without such approval.

All materials recovered during the construction operations shall be delivered to the employer at designated areas, which will be within the boundaries of each site.

4.6 Insurance

The Contractor shall be required to take out adequate insurance to cover their obligations in terms of the Contract and to keep them current for the duration of the Contract.

4.7 Labour-intensive works

No requirements for labour intensive construction methods are specified.

4.8 Regulatory authority approval

The contractor will be required comply with all local and national regulations regarding regulatory approval, including an application to City Power or NERSA for a generating licence. The employer will be liable for all costs associated with the application, but the contractor will be required to advise the employer on the application process and assist the employer by facilitating the application process.

5. COMMISSIONING AND HANDOVER

5.1 Testing and availability

All live testing for the purposes of handover shall be based on the Acceptance Test Criteria described below.

5.1.1 Acceptance test criteria

Acceptance test procedures are to be prepared by the contractor and must be approved by the engineer before any acceptance tests are conducted.

5.1.2 Availability

Availability of the system shall be **99.5 %**.

5.1.3 System up-time

Downtime caused by external power failures, data connectivity problems due to unpaid SIM card contracts by the employer, incorrect usage of the equipment, preventative maintenance, routine maintenance, etc. shall not be part of the equation to calculate system up time. However, downtime caused by system failure and unresponsiveness will form part of the equation, including failure of GSM/3G communication modules through incorrect configuration by the contractor.

5.1.4 Confidence trials

These trials shall last for a minimum period of five calendar days starting on the day that the system is in full operational use. A day is defined as 24 hours. Confidence trials shall be completed once the following accumulative system up time has been measured by the contractor over a period of five consecutive days and is proven to the engineer:

- Solar photovoltaic plant and associated systems: 99.5% collectively.

5.2 Software application for programming

Microsoft Project, ProjectLibre or equivalent project programming software shall be used by the contractor for the compilation of all programmes.

5.3 DRAWINGS AND DOCUMENTATION

5.3.1 Drawings

Drawings shall be produced according to ISO standards. All drawings shall be made available via auditable cloud-based file transfer system. As a minimum, the following drawings must be submitted for approval:

- Design drawings
- As-built drawings
- Documentation drawings for maintenance manuals.

Drawings shall be prepared specifically for this contract using CAD software and shall not be marked-up drawings.

5.3.2 Documentation

Upon completion of the project, the contractor shall hand over the following documentation:

- Set of installation drawings (for approval)
- Layout drawings showing numbering of every PV module, string and inverter
- Electrical single line diagrams (AC and DC)
- Block diagram (communication network, data logging modules, etc).
- Equipment documentation
- Datasheets
- User manuals
- Factory test reports
- Warranty/guarantee certificates.
- Manuals (for approval)
- Operator Manual
- Maintenance Manual, including
- Spares lists
- Scheduled and unscheduled maintenance tasks
- Maintenance procedures and instructions
- Training documentation, including training aids and course notes
- Software
- If applicable, full source code for any system that was custom-developed for this project. **Note:** custom-developed systems are not recommended.
- Full system backups, including configuration settings, from all inverters and other equipment that is able to produce backups of configuration settings.
- Software installation files and discs
- Licence keys or dongles.
- Certificate of Compliance for electrical installation work
- Acceptance test procedures and acceptance test result sheets (for approval)
- Final certificate of completion (for approval).

5.4 Operating and Maintenance Manuals

These manuals shall provide sufficient information for the operation of the system and shall include the following as a minimum:

- Description of all parts and operations
- Description of all software and control functions
- Emergency and/or alternate procedures in the case of power failures, etc.
- Fault finding.

Maintenance manuals shall have all the information to ensure that the system will be properly maintained. It shall be comprehensive to the extent that a technician can service the system. Fault diagnostics shall also be included so that faults can be traced, and components are exchanged with a minimum of difficulty. Sections covering the following aspects shall be included as a minimum:

- Troubleshooting and fault finding
- A list of all components and non-standard tools required
- A recommended list of spare components that must be kept in stock as well as minimum spare stock levels.

5.5 SPARE PARTS

The Employer will determine the final list of spare parts to be supplied for each site in consultation with the Contractor and Engineer. These spare parts will be held by the Employer and shall be used during the defect liability period.

In addition, the Contractor shall stock spare parts for the duration of the defect liability period to ensure a 48-hour turnaround time to replenish any Employer spare parts used during the defect liability period. A detailed list of spare parts as well as prices must accompany the Tender submission proprietary equipment and components to be flagged accordingly. This parts list must be upgraded to form part of the final documentation and must then include a full inventory of replacement parts, parts descriptions, identification, quantities, name of suppliers and part numbers. Please note that spare parts required for commissioning and testing purposes shall not be a measurable item. Spare parts to be priced separately.

5.6 Progress meetings

The progress meeting schedule will be agreed and finalised with the contractor upon contract award.

[] TRADE NAMES OR PROPRIETARY PRODUCTS

Tenderers/Suppliers must note that wherever this document refers to any particular trade mark, name, patent, design, type, specific origin or producer, such reference shall be deemed to be accompanied by the words “or equivalent”.

[] EMPLOYMENT OF SECURITY PERSONNEL – Not Applicable

All security staff employed by the Supplier on behalf of the CCT or at any CCT property must be registered with Private Security Industry Regulatory Authority (PSiRA). Proof of such registration must be made available to the CCT or its agent, upon request.

[] FORMS FOR CONTRACT ADMINISTRATION – Not Applicable

The Supplier shall complete, sign and submit with each invoice, the following:

- a) Monthly Project Labour Report (described below)

The Monthly Project Labour Report must include details of all labour (including that of sub-contractors) that are South African citizens earning less than **[R0.00]** per day, as adjusted from time to time (excluding any benefits), who are employed on a temporary or contract basis on this contract in the month in question.

In addition to the Monthly Project Labour Report the Supplier shall simultaneously furnish the CCT's Agent with copies of the employment contracts entered into with such labour, together with certified copies of identification documents, proof of attendance in the form of attendance register or timesheets as well as evidence of payments to such labour in the form of copies of payslips or payroll runs. If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it and proof of such acknowledgement shall be furnished to the CCT's Agent.

C.6 SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract, referring to the National Treasury – Conditions of Contract (revised July 2010), are applicable to this agreement.

1. Definitions

Insert new clause 1.1A with the following:

- 1.1A “Commencement Date” means the date the Supplier confirms receipt from the Purchaser of 1 (one) complete, signed copy of the Contract, the *Schedule of Deviations* (if any).
- 1.1B “Conditions of Contract” means the general conditions of contract and special conditions of contract including all other contract data incorporated by reference.

Delete Clause 1.15 and substitute with the following

- 1.15 The word ‘Goods’ is to be replaced everywhere it occurs in the GCC with the phrase ‘Goods and / or Services’ which means all of the equipment, machinery, materials, services, products, consumables, etc. that the Supplier is required to deliver to the Purchaser under the agreement. This definition shall also be applicable, as the context requires, anywhere where the words “supplies” and “services” occurs in the GCC.

Delete Clause 1.19 and substitute with the following

- 1.19 The word ‘Order’ is to be replaced everywhere it occurs in the GCC with the words ‘Purchase Order’ which means the official purchase order authorised and released on the Purchaser’s SAP System.

Delete Clause 1.21 and substitute with the following:

- 1.21 ‘Purchaser’ means the City of Cape Town. The address of the Purchaser is 12 Hertzog Boulevard, Cape Town, 8001 (chosen domicilium citandi et executandi).

Add the following after Clause 1.25:

- 1.26 ‘Supplier’ means the provider of Goods and / or Services with whom the Contract is concluded also referred to as “contractor” in the GCC.
- 1.27 "Intellectual Property" means any and all intellectual property rights of any nature anywhere in the world whether registered, registerable or otherwise, including patents, trademarks, registered designs and domain names, applications for any of the foregoing, trade or business names, copyright and rights in the nature of copyright, design rights, rights in databases, know-how, trade secrets and any other intellectual property rights which subsist in computer software, computer programs, websites, documents, information, techniques, business methods, drawings, logos, instruction manuals, lists and procedures and particulars of customers, marketing methods and procedures and advertising literature, including the "look and feel" of any websites
- 1.28 “Working Day” means Monday to Friday excluding weekends and Public Holidays (in the Republic of Sotuh Africa).

3. General Obligations

Delete Clause 3.2 in its entirety and replace with the following clauses.

- 3.2 The Parties will be liable to each other arising out of or in connection with any breach of the obligations detailed or implied in this contract, subject to clause 28.
- 3.3 If the Supplier is a joint venture, all parties in a joint venture or consortium shall be jointly and severally liable to the Purchaser in terms of the Contract and shall carry individually the minimum levels of insurance stated in the Contract, if any.

- 3.4 The Parties shall comply with all laws, regulations and bylaws of local or other authorities having jurisdiction regarding the Delivery of the Goods and/or Services and give all notices and pay all charges required by such authorities.
- 3.4.1 The Parties agree that this Contract shall also be subject to the CCT's Supply Chain Management Policy ("SCM Policy") that was applicable on the date the bid was advertised as amended from time to time. If the Purchaser adopts a new SCM Policy which contemplates that any clause therein would apply to the Contract emanating from this tender, such clause shall also be applicable to the Contract. Please refer to this document contained on the CCT's website.
- 3.4.2 Abuse of the supply chain management system is not permitted and may result in termination of the Contract, restriction of the Supplier, and/or the exercise by the CCT of any other remedies available to it as described in the SCM Policy or in law.
- 3.5 The Supplier shall:
- 3.5.1 Arrange for the documents listed below to be provided to the Purchaser prior to the issuing of the Purchase Order by the Purchaser and no later than the periods as set out in the Contract:
- a) Proof of Insurance (Refer to Clause 11) or Insurance Broker's Warrantee,
 - b) Letter of good standing from the Compensation Commissioner, or a licensed compensation insurer (Refer to Clause 11),
 - c) Initial delivery programme, and
 - d) Other requirements as detailed in the Contract.
- 3.5.2 Only when notified of the acceptance of the bid on the Date of Commencement of Contract, the Supplier shall commence with and carry out the Delivery of the Goods and/or Services in accordance with the Contract, to the satisfaction, of the Purchaser.
- 3.5.3 Provide all of the necessary materials, labour, plant and equipment required for the delivery of the Goods and/or Services including any temporary services that may be required.
- 3.5.4 Insure his workmen and employees against death or injury arising out of the delivery of the Goods.
- 3.5.5 Be continuously represented during the Delivery of the Goods and/or Services by a competent representative duly authorised to execute instructions.
- 3.5.6 In the event of a loss resulting in a claim against the insurance policies stated in clause 11, pay the first amount (excess) as required by the insurance policy.
- 3.5.7 Comply with all written instructions from the Purchaser subject to clause 18.
- 3.5.8 Complete and Deliver the goods within the period stated in clause 10, or any extensions thereof in terms of clause 21.
- 3.5.9 Make good at his own expense, all incomplete and defective Goods during the warranty period.
- 3.5.10 Pay to the Purchaser any penalty for delay as due on demand by the Purchaser. The Supplier hereby consents to such amounts being deducted from any payment due to the Supplier.
- 3.5.11 Comply with the provisions of the OHAS Act & all relevant regulations.
- 3.5.12 Comply with all laws relating to wages and conditions generally governing the employment of labour in the Cape Town area and any applicable Bargaining Council agreements.
- 3.5.13 Deliver the Goods in accordance with the Contract and with all reasonable care, diligence and skill in accordance with generally accepted professional techniques and standards.
- 3.6 The Purchaser shall:
- 3.6.1 Issue Purchaser Orders for the Goods and/or Services required under this Contract. No liability for payment will ensue for arising out of the Delivery of the Goods and/or Services, unless a Purchase Order

has been issued to the Supplier.

- 3.6.2 Make payment to the Supplier for the Goods and/or Services as set out herein.
- 3.6.3 Take possession of the Goods and /or Services upon Delivery by the Supplier.
- 3.6.4 Regularly inspect the Goods to establish that it is being delivered in compliance with the Contract.
- 3.6.5 Give any instructions and/or explanations and/or variations to the Supplier including any relevant advice to assist the Supplier to understand the Contract.
- 3.6.6 Grant or refuse any extension of time requested by the Supplier of the period stated in clause 10.
- 3.6.7 Inspect the Goods and/or Services to determine if, in the opinion of the Purchaser, it has been delivered in compliance with the Contract, alternatively in such a state that it can be properly used for the purpose for which it was intended.
- 3.6.8 Brief the Supplier and issue all documents, information, etc. in accordance with the contract.

5. Use of contract documents and information; inspection, copyright, confidentiality, etc.

Add the following after clause 5.4:

- 5.5 Copyright of all documents prepared by the Supplier in accordance with the relevant provisions of the Copyright Act (Act 98 of 1978) relating to the Contract shall be vested in the Purchaser. Where copyright is vested in the Supplier, the Purchaser shall be entitled to use the documents or copy them only for the purposes for which they are intended in regard to the agreement and need not obtain the Supplier's permission to copy it for such use. Where copyright is vested in the Purchaser, the Supplier shall not be liable in any way for the use of any of the information other than as originally intended in terms of the agreement and the Purchaser hereby indemnifies the Supplier against any claim which may be made against it by any person / entity, arising from the use of such documentation for other purposes.

The ownership of data and factual information collected by the Supplier and paid for by the Purchaser shall, after payment, vest with the Purchaser.

- 5.6 **Publicity and publication**
The Supplier shall not release public or media statements or publish material related to the services or agreement within two (2) years of Delivery of the Goods, without the written approval of the Purchaser, which approval shall not be unreasonably withheld.
- 5.7 **Confidentiality**
Both Parties shall keep all information obtained by them in the context of the agreement, confidential and shall not divulge it without the written approval of the other Party.
- 5.8 **Intellectual Property**
 - 5.8.1 The Supplier acknowledges that it shall not acquire any right, title or interest in or to the Intellectual Property of the Purchaser.
 - 5.8.2 The Supplier hereby assigns to the Purchaser, all Intellectual Property created, developed or otherwise brought into existence by it for the purposes of the agreement, unless the Parties expressly agree otherwise in writing.
 - 5.8.3 The Supplier shall, and warrants that it shall:
 - 5.8.3.1 Not be entitled to use the Purchaser's Intellectual Property for any purpose other than as contemplated in the agreement;
 - 5.8.3.2 not modify, add to, change or alter the Purchaser's Intellectual Property, or any information or data related thereto, nor may the Supplier produce any product as a result of, including and/or arising from any such information, data and Intellectual Property, and in the event that it does produce any such product, the product shall be, and be deemed in law to be, owned by the Purchaser;

- 5.8.3.3 Not apply for or obtain registration of any domain name, trademark or design which is similar to any Intellectual Property of the Purchaser;
- 5.8.3.4 Comply with all reasonable directions or instructions given to it by the Purchaser in relation to the form and manner of use of the CCT Intellectual Property, including without limitation, any brand guidelines which the Purchaser may provide to the Supplier from time to time;
- 5.8.3.5 Ensure that its employees, directors, members and contractors comply strictly with the provisions of this Clause 5.8.4 above unless the Purchaser expressly agrees to the contrary, in writing and only after obtaining due internal authority for such agreement.
- 5.8.4 The Supplier represents and warrants to the Purchaser that, in providing Goods and/or Services for the duration of the agreement it will not infringe or make unauthorised use of the Intellectual Property rights of any third party and hereby indemnifies the Purchaser from any claims, liability, loss, damages, costs, and expenses arising from the infringement or unauthorised use by the Supplier of any third party's Intellectual Property rights.
- 5.8.5 Upon expiry of the contract period and in the event that the Contract is terminated, ended or is declared void, any and all of the Purchaser's Intellectual Property, and any and all information and data related thereto, shall be immediately handed over to the Purchaser by the Supplier and no copies thereof shall be retained by the Supplier unless the Purchaser expressly and in writing, after obtaining due internal authority, agrees otherwise.

Add the following after clause 5.8:

5.9 Protection of Personal Information Act of 2013

By submitting a tender to the Purchaser, (and by concluding any ensuing related agreement with the City of Cape Town, if applicable), the Tenderer thereby acknowledges and unconditionally agrees:

- 5.9.1 that the tenderer has been informed of the purpose of the collection and processing of its personal information as defined in the Protection of Personal Information Act of 2013 ("POPIA"), which, for the avoidance of doubt is for, and in relation to, the tender process and the negotiation, conclusion, performance and enforcement of the ensuing agreement, if applicable, as well as for the City of Cape Town's reporting purposes;
- 5.9.2 to the collection and processing of the tenderer's personal information by the City of Cape Town and agrees to make available to the City of Cape Town, all information reasonably required by the City of Cape Town for the above purposes;
- 5.9.3 that the personal information the City of Cape Town collects from the tenderer or about the tenderer may be further processed for other activities and/or purposes which are lawful, reasonable, relevant and not excessive in relation to the purposes set out above, for which it was originally collected;
- 5.9.4 that, the tenderer indemnifies the City of Cape Town and its officials, employees, and directors and undertakes to keep the City of Cape Town and its officials, employees, and directors indemnified in respect of any claim, loss, demands, liability, costs and expenses of whatsoever nature which may be made against the City of Cape Town (including the costs incurred in defending or contesting any such claim) in relation to the tenderer or the tenderer's employees', representatives' and/or sub-Suppliers' non-compliance with POPIA and/or the City of Cape Town's failure to obtain the tenderer's consent or to notify the tenderer of the reason for the processing of the tenderer's personal information;
- 5.9.5 to the disclosure of the tenderer's personal information by the City of Cape Town to any third party, where the City of Cape Town has a legal or contractual obligation to disclose such personal information to the third party (or a legitimate interest exists therein);
- 5.9.6 that, under POPIA, the tenderer may request to access, confirm, request the correction, destruction, or deletion of, or request a description of, personal information held by the City of Cape Town in relation to you, subject to applicable law; and

that under POPIA, subject to applicable law, the tenderer also has the right to be notified of a personal information breach and the right to object to, or restrict, the City of Cape Town's processing of its personal information.

5.10 PERFORMANCE MONITORING

- 5.10.1 As required by section 116(2)(b) of the Local Government: Municipal Financial Management Act 56 of 2003, the CCT shall monitor the performance of the Supplier on at least a monthly basis, and the Supplier agrees to provide the CCT with its full cooperation in this regard.

7. Performance Security

Delete clause 7.1 and replace with the following:

- 7.1 Within 14 (fourteen) days of Commencement Date the Supplier shall furnish to the Purchaser the performance security:
- 7.1.1 For the Guarantee Sum equal to R 300 000.00 (Three Hundred Thousand Rand being **5%** percent of the Contract price or such other applicable amount.
- 7.1.2 The Performance Security/Guarantee furnished shall be issued by an Approved Financial Institution listed in the Pro Forma Performance Security/Guarantee as at [commencement date /insert date] (being institutions approved for issue of contract guarantees by the Purchaser).

Delete clause 7.3 and replace with the following:

- 7.3 The performance security shall be furnished strictly in accordance with the terms and conditions set out in Form of Performance Security/ Guarantee.

Delete clause 7.4 and replace with the following:

- 7.4 The performance security will be discharged by the Purchaser and returned to the Supplier strictly in accordance with the terms and conditions set out in the Performance Security/ Guarantee.

8. Inspections, tests and analyses

Delete Clause 8.2 and substitute with the following:

- 8.2 If it is a bid condition that Goods and/or Services to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or Supplier shall be open, at all reasonable hours, for inspection by a representative of the Purchaser or an organisation acting on behalf of the Purchaser.

10. Delivery and documents

Delete clauses 10.1 and 10.2 and replace with the following:

- 10.1 Delivery of the goods shall be made by the Supplier in accordance with the terms specified in the contract. The time for Delivery of the goods shall be the date as stated on the Purchase Order. In the case of agreements for Delivery of goods in terms of framework or panel agreements, Purchase Orders for the supply and delivery of goods may be raised up until the expiry of a framework or panel agreement, provided that the goods can be delivered within 30 (thirty) days of expiry of the framework or panel agreement. In this context, the "goods" does not include services and carries its ordinary meaning. All Purchase Orders other than for the supply and Delivery of goods (i.e. supply of services, professional services or constructions works), must be completed prior to the expiry of the contract period.
- 10.2 The Purchaser shall determine, in its sole discretion, whether the Goods and/or Services have been delivered in compliance with the Contract, alternatively in such a state that it can be properly used for the purpose for which it was intended. When the Purchaser determines that the Goods and/or Services have been satisfactorily delivered, the Purchaser must issue an appropriate certification, or written approval, to that effect. Invoicing may only occur, and must be dated, on or after the date of such written acceptance of the Goods.

11. Insurance

Add the following after clause 11.1:

11.2 Without limiting the obligations of the Supplier in terms of this Contract, the Supplier shall effect and maintain the following additional insurances:

11.2.1 Public liability insurances, in the name of the Supplier, covering the Supplier and the Purchaser against liability for the death of or injury to any person, or loss of or damage to any property, arising out of or in the course of this Contract, in an amount not less than **[R20 million]** for any single claim;

11.2.2 Motor Vehicle Liability Insurance, in respect of all vehicles owned and / or leased by the Supplier, comprising (as a minimum) "Balance of Third Party" Risks including Passenger Liability Indemnity;

11.2.3 Registration / insurance in terms of the Compensation for Occupational Injuries and Disease Act, Act 130 of 1993. This can either take the form of a certified copy of a valid Letter of Good Standing issued by the Compensation Commissioner, or proof of insurance with a licenced compensation insurer, from either the Supplier's broker or the insurance company itself (see the Pro Forma Insurance Broker's Warranty).

[11.2.4 In the case of Contracts for delivery of professional services, Professional indemnity insurance providing cover in an amount of not less than **[R5 million]** in respect of each and every claim during the contract period.]

11.2.5 In the event of under insurance or the insurer's repudiation of any claim for whatever reason, the Purchaser will retain its right of recourse against the Supplier.

11.3 The Supplier shall be obliged to furnish the Purchaser with proof of such insurance as the Purchaser may require from time to time for the duration of this Contract. Evidence that the insurances have been effected in terms of this clause, shall be either in the form of an insurance broker's warranty worded precisely as per the pro forma version contained in the Pro forma Insurance Broker's Warranty or copies of the insurance policies.

15. Warranty

Add to Clause 15.2:

15.2 The warranty for this Contract shall remain valid for six (6) months from date of Delivery of the Goods and/or Services.

16. Payment

Delete Clause 16.1 in its entirety and replace with the following:

16.1 Payment of invoices will be made:

16.1.1 Within 30 (thirty) days of receiving the relevant invoice or statement from the Supplier, unless otherwise prescribed for certain categories of expenditure or specific contractual requirements in accordance with any other applicable policies of the Purchaser.

16.1.2 Notwithstanding anything contained above, the Purchaser shall not be liable for payment of any invoice that pre-dates the date of delivery of any Goods and/or Services.

Delete Clause 16.2 in its entirety and replace with the following:

16.2 The Supplier shall furnish the purchaser's Accounts Payable Department with an original tax invoice, clearly showing the amount due in respect of each and every claim for payment.

Add the following after clause 16.4

16.5 Notwithstanding any amount stated on the Purchase Order, the Supplier shall only be entitled to payment for Goods and/or Services actually delivered in terms of the Specification and Drawings, or any variations thereof made in accordance with clause 18. Any contingency sum included shall be for the sole use, and at the discretion, of the Purchaser.

16.6 The Purchaser will only make advanced payments to the Supplier in strict compliance with the terms and conditions as contained in the Pro forma Advanced Payment Guarantee and only once the authenticity of such guarantee has been verified by the Purchaser's Treasury Department.

16.6.1 The Advance Payment Schedule applicable to this Contract is set out below. The items of plant and materials which have been identified by the Purchaser as being suitable for advance payment in terms of this Contract are listed in the table below, and for which the Purchaser is prepared to make advance payment to the Supplier, subject to the conditions below. Should an item or items be added to the list at tender stage by a tenderer, no obligation to advance payment shall be incurred by the Purchaser, for such items added by the tenderer except as provided for herein.

Plant and materials which have been manufactured and are stored by the supplier	Plant and materials yet to be manufactured and for which a deposit with order is required from the supplier by a third party manufacturer/supplier, and which may be stored by the supplier:
NA	

16.6.2 The Supplier can only rely on advance payment being permitted by the Purchaser in respect of the plant and materials listed in the table above. The Purchaser may, however, permit advance payment for other plant and materials in exceptional circumstances and at its sole discretion, during the course of the Contract, and upon reasonable request from the Supplier.

16.6.3 Advance payment for the purposes of deposits will only be provided up to a limit of [0: %] of the value of any one item being claimed.

16.6.4 The Supplier shall provide the Purchaser with documentary evidence of the terms and conditions for which a deposit with order is required by a third party manufacturer/supplier, together with the advance payment guarantee.

16.6.5 The Supplier will also be permitted to obtain advance payment for the balance of the value of the plant and materials in respect of which he has paid a deposit, for an item which after manufacture is stored by the Supplier. The Supplier shall, in respect of such payment, provide an advance payment guarantee, either for such balance or, if the advance payment guarantee in respect of the deposit is to be returned by the Purchaser upon request, for the whole value of the item.

17. Prices

Add the following after clause 17.1

17.2 If as a result of an award of a contract beyond the original tender validity period, the contract execution will be completed beyond a period of twelve (12) months from the expiry of the original tender validity period, then the contract may be subject to contract price adjustment for that period beyond such twelve (12) months. An appropriate contract price adjustment formula will be determined by the Purchaser delegated authority if such was not included in the bid documents.

17.3 If as a result of any extension of time granted, the contract execution will be completed beyond a period of twelve (12) months from the expiry of the original tender validity period, then contract price adjustment may apply to that period beyond such twelve (12) months. An appropriate contract price adjustment formula will be determined by the Director: Supply Chain Management if such was not included in the bid documents.

17.4 The prices for the goods and/or Services delivered and services performed shall be subject to contract price adjustment in terms of Schedule F.1 Contract Price Adjustment and/or Rate of Exchange Variations and the following conditions will be applicable:

Pricing Instructions:

The Contract Price Adjustment mechanism contained in this schedule is

compulsory and binding on all tenderers.

Failure to complete this schedule or any part thereof may result in the tender offer being declared non-responsive.

Tenderers are not permitted to amend, vary, alter or delete this schedule or any part thereof unless otherwise stated in this schedule, failing which the tender offer shall be declared nonresponsive.

Tenderers are not permitted to offer firm prices except as provided for in the Price Schedule, and if the tenderer offers firm prices in contravention of this clause the tender offer shall be declared non-responsive.

CONTRACT PRICE ADJUSTMENT MECHANISM:

The Contract Price as per Conditions of Tender shall remain Firm for the first 12 months (from date of closing of tender) and no claims for contract price adjustment will be considered for the first 12 months of the contract period subject to the provisions in the price schedule.

Contract Price Adjustment will be applicable as from commencement of the 13 month of the contract period. Tenderers shall be entitled to claim contract price adjustment as follows:

90% of the tendered price will be subject to adjustment annually based on the average Consumer Price Index (CPI) as follows:

From start of 13th month to the end of the 24th month: Subject to contract price adjustment in accordance with the Consumer Price Index (P0141–Table B). Base month for the price adjustment shall be two (2) calendar months prior to contract commencement. The current month shall be the 10th month after contract commencement.

From start of 25th month to end of the contract: Subject to the contract price adjustment in accordance with the Consumer Price Index (P0141–Table B). Base month for the price adjustment shall be two (2) calendar months prior to contract commencement. The current month shall be the 22nd month after contract commencement.

The average CPI calculated, the base month to the end month (both included) divided by the number of months.

The claim will be based on the average between the “base month” and the “current month” e.g.: $7+6+9+6 = 28$ $(28/4) = 7$ therefore the claim will be 7%.

10% of the rate will remain fixed.

18. Contract Amendments

Delete the heading of clause 18 and replace with the following:

18. Contract Amendments and Variations

Add the following to clause 18.1:

Variations means changes to the Goods and/or Services, extension of the contract period or increases in the value of the Contract as a result of written instructions issued by the Purchaser to the Supplier. Such changes are subject to prior approval by the Purchaser's delegated authority. Should the Supplier deliver any Goods not described in a written instruction from the Purchaser, the Purchaser's liability for payment shall no arise until such time as the change has been duly approved and such approval communicated to the Purchaser.

20. Subcontracts

Add the following after clause 20.1:

- 20.2 The Supplier shall be liable for the acts, defaults and negligence of any subcontractor, his agents or employees as fully as if they were the acts, defaults or negligence of the Supplier.
- 20.3 Any appointment of a subcontractor shall not amount to a contract between the Purchaser and the subcontractor, or a responsibility or liability on the part of the Purchaser to the subcontractor and shall not relieve the Supplier from any liability or obligation under the Contract.

21. Delays in the supplier's performance

Delete Clause 21.2 in its entirety and replace with the following:

- 21.2 If at any time during the performance of obligations contained in the Contract the Supplier or its subcontractors should encounter conditions beyond their reasonable control which impede the timely delivery of the Goods and/or Services, the Supplier shall notify the Purchaser in writing, within 7 (seven) days of first having become aware of these conditions, of the facts of the delay, its cause(s) and its probable duration. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation, and may at his discretion extend the time for Delivery.

Where additional time is granted, the Purchaser shall also determine whether or not the Supplier is entitled to payment for additional costs in respect thereof. The principle to be applied in this regard is that where the Purchaser or any of its agents are responsible for the delay, reasonable costs shall be paid. In respect of delays that were beyond the reasonable control of both the Supplier and the Purchaser, additional time only (no costs) will be granted.

The Purchaser shall notify the Supplier in writing of his decision(s) in the above regard.

- 21.3 No provision in this Contract shall be deemed to prohibit the obtaining of Goods and/or Services from a national department, provincial department, or a local authority.

22. Penalties

Delete clause 22.1 and replace with the following:

- 22.1 Subject to GCC Clause 25, if the Supplier fails to deliver any or all of the Goods and/or Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from amounts payable, as a penalty, a sum as stated herein for each day of the delay until actual Delivery or performance to a maximum of 50% of the Purchase Order .

The penalty for this contract shall be **[5%]of the Purchase Order**

- 22.2 The Purchaser shall, without prejudice to its other remedies under the contract, deduct from amounts payable, financial penalties as contained on the Preference Schedule for breaches of the conditions upon which preference points were awarded.

23. Termination for default

Delete the heading of clause 23 and replace with the following:

23. Termination

Add the following to the end of clause 23.1:

If the Supplier fails to remedy the breach in terms of such notice.

Add the following after clause 23.7:

- 23.8 In addition to the grounds for termination due to default by the Supplier, the Contract may also be terminated:

23.8.1 Upon the death of the Supplier who was a Sole Proprietor, or a sole member of a Close Corporation, in which case the contract will terminate forthwith.

23.8.2 If the Parties, by mutual agreement, terminate the Contract.

23.8.3 If a material irregularity vitiates the procurement process leading to the conclusion of the Contract, rendering the procurement process and the conclusion of the resulting Contract unfair, inequitable, non-transparent, uncompetitive or not cost-effective the Contract may be terminated by the Purchaser (upon conclusion of applicable processes by the City Manager as described in the Purchaser's SCM Policy).

23.8.4 Reputational risk or harm to the Purchaser

The Purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, may terminate the contract if the implementation of the contract may result in reputational risk or harm to the Purchaser as a result of (inter alia):

- a) reports of poor governance and/or unethical behaviour;
- b) association with known notorious individuals and family of notorious individuals;
- c) poor performance issues, known to the Purchaser
- d) negative social media reports;
- e) adverse assurance (e.g. due diligence) report outcomes; or
- f) circumstances where the relevant vendor has employed, or is directed by, anyone who was previously employed in the service of the state (as defined in clause 1.53), where the person is or was negatively implicated in any SCM irregularity.

By or in relation to the Supplier, the Contract may be terminated by the Purchaser after providing notice to the Supplier.

23.9 If the Contract is terminated in terms of clause 23.8, all obligations that were due and enforceable prior to the date of the termination, must be performed by the relevant Party.

26. Termination for insolvency

Delete clause 26.1 and replace with the following:

- 26.1 In the event of the Supplier becoming bankrupt or otherwise insolvent the Purchaser may elect to:
- 26.1.1 At any time, terminate the Contract by giving written notice to the Supplier; or
- 26.1.2 Accept a Supplier's proposal (via the liquidator) to render delivery utilising the appropriate contractual mechanisms or takes steps to ensure its rights are protected and any negative impact on service delivery is mitigated.
- 26.2 In the event of the Purchaser electing to cancel the Contract in accordance with clause 26.1.1 above, the Purchaser shall make payment of all verified and signed off invoices. In the event of there being any dispute in respect of any outstanding invoices such dispute shall be dealt with in accordance with the dispute resolution mechanism in the Contract.

27. Settlement of Disputes

Amend clause 27.1 as follows:

- 27.1 If any dispute or difference of any kind whatsoever, with the exception of termination in terms of clause 23 arises between the Purchaser and the Supplier in connection with or arising out of the Contract, the Parties shall make every effort to resolve such dispute or difference amicably, by mutual consultation.

Delete Clause 27.2 in its entirety and replace with the following:

- 27.2 Should the Parties fail to resolve any dispute by way of mutual consultation, either party shall be entitled to refer the matter for mediation before an independent and impartial person appointed by the City Manager in accordance with Regulation 50(1) of the Local Government: Municipal Finance Management Act, 56 of 2003 – Municipal Supply Chain Management Regulations (Notice 868 of 2005). Such referral shall be done by either party giving written notice to the other of its intention to commence with mediation. No mediation may be commenced unless such notice is given to the other party.

Irrespective whether the mediation resolves the dispute, the Parties shall bear their own costs concerning the mediation and share the costs of the mediator and related costs equally.

The mediator shall agree the procedures, representation and dates for the mediation process with the Parties. The mediator may meet the Parties together or individually to enable a settlement.

Where the Parties reach settlement of the dispute or any part thereof, the mediator shall record such agreement and on signing thereof by the Parties the agreement shall be final and binding.

Save for reference to any portion of any settlement or decision which has been agreed to be final and binding on the Parties, no reference shall be made by or on behalf of either party in any subsequent court proceedings, to any outcome of an amicable settlement by mutual consultation, or the fact that any particular evidence was given, or to any submission, statement or admission made in the course of amicable settlement by mutual consultation or mediation.

28. Limitation of Liability

Delete clause 28.1 (a) and (b) and replace with the following:

- (a) notwithstanding any provision to the contrary contained in this contract, neither the supplier nor any of its officers, directors, employees, agents contractors, consultants or other representatives shall be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect, incidental, special or consequential loss or damage of any kind, including without limitation the loss of use, loss of production, or loss of profits or interest costs, loss of goodwill, lost or damaged data or software, costs of substitute products/services and/or loss of business or business opportunities (whether foreseeable or unforeseeable), provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser;
- (b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the sums insured in terms of clause 11 in respect of insurable events,

or where no such amounts are stated, to an amount equal to twice the Contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

Add the following after clause 28.1:

28.2 Without detracting from, and in addition to, any of the other indemnities in this Contract, the Supplier shall be solely liable for and hereby indemnifies and holds harmless the Purchaser against all claims, charges, damages, costs, actions, liability, demands and/or proceedings and expense in connection with:

- a) personal injury or loss of life to any individual;
- b) loss of or damage to property;

arising from, out of, or in connection with the performance by the Supplier in terms of this Contract, save to the extent caused by the gross negligence or wilful misconduct of the Purchaser.

28.3 The Supplier and/or its employees, agents, concessionaires, suppliers, sub-contractors or customers shall not have any claim of any nature against the purchaser for any loss, damage, injury or death which any of them may directly or indirectly suffer, whether or not such loss, damages, injury or death is caused through negligence of the Purchaser or its agents or employees.

28.4 Notwithstanding anything to the contrary contained in this Contract, under no circumstances whatsoever, including as a result of its negligent (including grossly negligent) acts or omissions or those of its servants, agents or contractors or other persons for whom in law it may be liable, shall any party or its servants (in whose favour this constitutes a *stipulatio alteri*) be liable for any indirect, extrinsic, special, penal, punitive, exemplary or consequential loss or damage of any kind whatsoever, whether or not the loss was actually foreseen or reasonably foreseeable), sustained by the other party, its directors and/or servants, including but not limited to any loss of profits, loss of operation time, corruption or loss of information and/or loss of contracts.

28.5 Each party agrees to waive all claims against the other insofar as the aggregate of compensation which might otherwise be payable exceeds the aforesaid maximum amounts payable.

31. Notices

Delete clauses 31.1 and 31.2 and replace with the following:

31.1 Any notice, request, consent, approvals or other communications made between the Parties pursuant to the Contract shall be in writing and forwarded to the addresses specified in the Contract and may be given as set out hereunder and shall be deemed to have been received when:

- a) hand delivered – on the day delivery of delivery or the next Working Day,
- b) sent by registered mail – five (5) Working Days after mailing,
- c) sent by email or telefax – one (1) Working Day after transmission.

32. Taxes and Duties

Delete the final sentence of 32.3 and replace with the following:

. In this regard, it is the responsibility of the Tenderer to submit evidence in the form of a valid Tax Compliance Status PIN issued by SARS to the CCT at the Supplier Management Unit located within the Supplier Management / Registration Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5), or included with this tender.

Add the following after clause 32.3:

32.4 The VAT registration number of the CCT is 4500193497.

ADDITIONAL CONDITIONS OF CONTRACT

Add the following Clause after Clause 34:

35. Reporting Obligations

35.1 The Supplier shall complete, sign and submit with each delivery note, all the documents as required in the

Specifications including Monthly Project Labour Reports (Annexure B). Any failure in this regard may result in a delay in the processing of payments.

C.7 GENERAL CONDITIONS OF CONTRACT

(National Treasury - General Conditions of Contract (revised July 2010))

TABLE OF CLAUSES

1. Definitions
2. Application
3. General
4. Standards
5. Use of contract documents and information; inspection
6. Patent rights
7. Performance security
8. Inspections, tests and analysis
9. Packing
10. Delivery and documents
11. Insurance
12. Transportation
13. Incidental services
14. Spare parts
15. Warranty
16. Payment
17. Prices
18. Contract amendments
19. Assignment
20. Subcontracts
21. Delays in the supplier's performance
22. Penalties
23. Termination for default
24. Dumping and countervailing duties
25. Force majeure
26. Termination for insolvency
27. Settlement of disputes
28. Limitation of liability
29. Governing language
30. Applicable law
31. Notices
32. Taxes and duties
33. National Industrial Participation Programme (NIPP)
34. Prohibition of restrictive practices

1. Definitions

1. The following terms shall be interpreted as indicated:

1.1 'Closing time' means the date and hour specified in the bidding documents for the receipt of bids.

1.2 'Contract' means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the Parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

1.3 'Contract price' means the price payable to the supplier under the contract for the full and proper performance of his or her contractual obligations.

1.4 'Corrupt practice' means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

1.5 'Countervailing duties' are imposed in cases in which an enterprise abroad is subsidised by its government and encouraged to market its products internationally.

- 1.6 'Country of origin' means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognised new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 1.7 'Day' means calendar day.
- 1.8 'Delivery' means delivery in compliance with the conditions of the contract or order.
- 1.9 'Delivery ex stock' means immediate delivery directly from stock actually on hand.
- 1.10 'Delivery into consignee's store or to his site' means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
- 1.11 'Dumping' occurs when a private enterprise abroad markets its goods on its own initiative in the RSA at lower prices than that of the country of origin, and which action has the potential to harm the local industries in the RSA.
- 1.12 'Force majeure' means an event beyond the control of the supplier, not involving the supplier's fault or negligence, and not foreseeable. Such events may include, but are not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.13 'Fraudulent practice' means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.14 'GCC' means the General Conditions of Contract.
- 1.15 'Goods' means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.16 'Imported content' means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- 1.17 'Local content' means that portion of the bidding price which is not included in the imported content, provided that local manufacture does take place.
- 1.18 'Manufacture' means the production of products in a factory using labour, materials, components and machinery, and includes other, related value-adding activities.
- 1.19 'Order' means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 'Project site', where applicable, means the place indicated in bidding documents.
- 1.21 'Purchaser' means the organisation purchasing the goods.
- 1.22 'Republic' means the Republic of South Africa.
- 1.23 'SCC' means the Special Conditions of Contract.

1.24 'Services' means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance, and other such obligations of the supplier covered under the contract.

1.25 'Written' or 'in writing' means handwritten in ink or any form of electronic or mechanical writing.

2. Application

2.1 These general conditions are applicable to all bids, contracts and orders, including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.

2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.

2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General

3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable, a non-refundable fee for documents may be charged.

3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za.

4. Standards

4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

5. Use of contract documents and information; inspection.

5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for the purposes of such performance.

5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1, except for purposes of performing the contract.

5.3 Any document, other than the contract itself, mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.

5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent rights

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

7. Performance Security

7.1 Within 30 (thirty) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in the SCC.

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

8. Inspections, tests and analyses

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

9. Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

- 9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in the SCC, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

- 10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in the SCC.

- 10.2 Documents to be submitted by the supplier are specified in the SCC.

11. Insurance

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

12. Transportation

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

13. Incidental Services

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

14. Spare parts

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

15. Warranty

- 15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications), or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2 This warranty shall remain valid for 12 (twelve) months after the goods, or any portion thereof, as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for 18 (eighteen) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in the SCC.

15.3 The purchaser shall notify the supplier promptly, in writing, of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, within the period specified in the SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in the SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16. Payment

16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in the SCC.

16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of any other obligations stipulated in the contract.

16.3 Payments shall be made promptly by the purchaser, but in no case later than 30 (thirty) days after submission of an invoice or claim by the supplier.

16.4 Payment will be made in Rand unless otherwise stipulated in the SCC.

17. Prices

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

18. Contract Amendments

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

19. Assignment

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

20. Subcontracts

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

21. Delays in the supplier's performance

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

21.2 If at any time during the performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his or her discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the Parties by amendment of contract.

- 21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.
- 21.4 The right is reserved to procure, outside of the contract, small quantities of supplies; or to have minor essential services executed if an emergency arises, or the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.
- 21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.
- 21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and, without prejudice to his other rights, be entitled to claim damages from the supplier.

22. Penalties

- 22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services, using the current prime interest rate, calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23. Termination for default

- 23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
- (a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
 - (b) if the supplier fails to perform any other obligation(s) under the contract; or
 - (c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than 14 (fourteen) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated 14 (fourteen) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.
- 23.5 Any restriction imposed on any person by the Accounting Officer/Authority will, at the discretion of the Accounting Officer/Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person is or was, in the opinion of the Accounting Officer/Authority, actively associated.

23.6 If a restriction is imposed, the purchaser must, within 5 (five) working days of such imposition, furnish the National Treasury with the following information:

- (i) the name and address of the supplier and/or person restricted by the purchaser;
- (ii) the date of commencement of the restriction;
- (iii) the period of restriction; and
- (iv) the reasons for the restriction.

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

23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, Act 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period of not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction, and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

24. Anti-dumping and countervailing duties and rights

24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidised import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall, on demand, be paid forthwith by the contractor to the State, or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he or she delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him or her.

25. Force majeure

25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if, and to the extent that, his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

25.2 If a force majeure situation arises, the supplier shall notify the purchaser promptly, in writing, of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

26. Termination for insolvency

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

27. Settlement of Disputes

27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the Parties shall make every effort to resolve such dispute or difference amicably, by mutual consultation.

27.2 If, after 30 (thirty) days, the Parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.

27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.

27.4 Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

27.5 Notwithstanding any reference to mediation and/or court proceedings herein,

- (a) the Parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
- (b) the purchaser shall pay the supplier any monies due to the supplier.

28. Limitation of Liability

28.1 Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6:

- (a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
- (b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language

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

30. Applicable Law

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

31. Notices

31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail, and any other notice to him shall be posted by ordinary mail, to the address furnished in his bid or to the address notified later by him in writing; and such posting shall be deemed to be proper service of such notice.

31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

32. Taxes and Duties

32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, licence fees, and other such levies imposed outside the purchaser's country.

32.2 A local supplier shall be entirely responsible for all taxes, duties, licence fees, etc., incurred until delivery of the contracted goods to the purchaser.

32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

33. National Industrial Participation (NIP) Programme

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

34 Prohibition of Restrictive practices

34.1 In terms of section 4 (1) (b) (iii) of the Competition Act, Act 89 of 1998, as amended, an agreement between or concerted practice by firms, or a decision by an association of firms, is prohibited if it is between Parties in a horizontal relationship and if a bidder(s) is/are or a contractor(s) was/were involved in collusive bidding (or bid rigging).

- 34.2 If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has/have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act, Act 89 of 1998.
- 34.3 If a bidder(s) or contractor(s) has/have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and/or terminate the contract in whole or part, and/or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding 10 (ten) years and/or claim damages from the bidder(s) or contractor(s) concerned.

C.8 ANNEXURES

Annexure A – Pro Forma Insurance Broker's Warranty

Broker Logo

Letterhead of supplier's Insurance Broker

Date _____

CCT
City Manager
Civic Centre
12 Hertzog Boulevard
Cape Town
8000

Dear Sir

TENDER NO.: 37S/2024/24

TENDER DESCRIPTION:

NAME OF SUPPLIER: _____

I, the undersigned, do hereby confirm and warrant that all the insurances required in terms of the abovementioned contract have been issued and/or in the case of blanket/umbrella policies, have been endorsed to reflect the interests of the CCT with regard to the abovementioned contract, and that all the insurances and endorsements, etc., are all in accordance with the requirements of the contract.

I furthermore confirm that all premiums in the above regard have been paid.

Yours faithfully

Signed: _____

For: _____ (Supplier's Insurance Broker)

ANNEX 1

**CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD**

General

- 1 The Monthly Project Labour Reports must be completed in full, using typed, proper case characters; alternatively, should a computer not be available, handwritten in black ink.
- 2 Incomplete / incorrect / illegible forms will not be accepted.
- 3 Any conditions relating to targeted labour stipulated in the Contract (in the case of contracted out services or works) shall apply to the completion and submission of these forms.
- 4 This document is available in Microsoft Excel format upon request from the City's EPWP office, tel 021 400 9406, email EPWPLR@capetown.gov.za.

Project Details

- 5 If a field is not applicable insert the letters: NA
- 6 Only the Project Number supplied by the Corporate EPWP Office must be inserted.
The Project Number can be obtained from the Coordinator or Project Manager or from the
e-mail address in point 4 above.
- 7 On completion of the contract or works project the anticipated end date must be updated to
reflect the actual end date.

Beneficiary Details and Work Information

- 8 Care must be taken to ensure that beneficiary details correspond accurately with the beneficiary's ID document.

- 9 A new beneficiary is one in respect of which a new employment contract is signed in the
current month. A certified ID copy must accompany this labour report on submission.
- 10 Was the beneficiary sourced from the City's job seeker database?
- 11 The contract end date as stated in the beneficiary's employment contract.
- 12 Where a beneficiary has not worked in a particular month, the beneficiary's name shall not be
reflected on this form at all for the month in question.
- 13 Training will be recorded separately from normal working days and together shall not
exceed the maximum of 23 days per month
- 14 Workers earning more than the maximum daily rate (currently R450 excluding any benefits)
shall not be reflected on this form at all.

Submission of Forms

- 15 Signed hardcopy forms must be scanned and submitted to the City's project manager in electronic (.pdf) format, together with the completed form in Microsoft Excel format.
- 16 Scanned copies of all applicable supporting documentation must be submitted along with each monthly project labour report. Copies of employment contracts and ID documents are only required in respect of new beneficiaries.
- 17 If a computer is not available hardcopy forms and supporting documentation will be accepted.

Numbers in cells below e.g (6) refer to the relevant instruction above for completing and submitting forms

[illegible][illegible]

MONTHLY PROJECT LABOUR REPORT



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

BENEFICIARY DETAILS AND WORK INFORMATION

CONTRACT OR WORKS PROJECT NUMBER:	
--------------------------------------	--

Year	Month

Sheet		
1	of	

	(8)	(8)	(8)	(9)			(10)		(11)	(12)	(13)	(14)
No.	First name	Surname	ID number	New Beneficiary (Y/N)	Gender (M/F)	Disabled (Y/N)	Job seeker database (Y/N)	Contract start date (DDMMYY)	Contract end date (DDMMYY)	No. days worked this month (excl. training)	Training days	Rate of pay per day (R – c)
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

0 0 R -

Declared by Contractor or Vendor to be true and correct:	Name		Signature	
	Date			

Received by Employer's Agent / Representative:	Name		Signature	
	Date			

Annexure C - Pro Forma Performance Security/ Guarantee

GUARANTEE PERFORMANCE SECURITY

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:

Physical address of Guarantor:

"Supplier" means:

"Contract Sum" means: The accepted tender amount (INCLUSIVE OF VAT) of R

Amount in words:

"Guaranteed Sum" means: The maximum amount of **R 300 000.00**

Amount in words: **Three Hundred Thousand Rand**

"Contract" means: The agreement made in terms of the Form of Offer and Acceptance for tender no ...and such amendments or additions to the contract as may be agreed in writing between the Parties.

PERFORMANCE GUARANTEE

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
2. The Guarantor's period of liability shall be from and including the date of issue of this Guarantee/Performance Security up to and including the termination of the Contract or the date of payment in full of the Guaranteed Sum, whichever occurs first.
3. The Guarantor hereby acknowledges that:
 - 3.1 any reference in this Guarantee/Performance to "Contract" is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 3.2 Its obligation under this Guarantee/Performance Security is restricted to the payment of money.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the CCT the sum due and payable upon receipt of the documents identified in 4.1 to 4.2:
 - 4.1 A copy of a first written demand issued by the CCT to the Supplier stating that payment of a sum which is due and payable has not been made by the Supplier in terms of the Contract and failing such payment within seven (7) calendar days, the CCT intends to call upon the Guarantor to make payment in terms of 4.2;
 - 4.2 A first written demand issued by the CCT to the Guarantor at the Guarantor's physical address with a copy to the Supplier stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum has still not been paid.
5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the CCT the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the CCT to the Guarantor at the Guarantor's physical address calling up this Guarantee / Performance Security, such demand stating that:
 - 5.1 The Contract has been terminated due to the Supplier's default and that this Guarantee/Performance Security is called up in terms of 5; or
 - 5.2 a provisional or final sequestration or liquidation court order has been granted against the Supplier and that the Guarantee/Performance Guarantee is called up in terms of 5; and

- 5.3 *The aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.*
6. *It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.*
7. *Where the Guarantor has made payment in terms of 5, the CCT shall upon the termination date of the Contract, submit an expense account to the Guarantor showing how all monies received in terms of this Guarantee/Performance Security have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Guarantee/Performance Security shall bear interest at the prime overdraft rate of the CCT's bank compounded monthly and calculated from the date payment was made by the Guarantor to the CCT until the date of refund.*
8. *Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.*
9. *The CCT shall have the absolute right to arrange its affairs with the Supplier in any manner which the CCT may deem fit and the Guarantor shall not have the right to claim his release from this Guarantee /Performance Security on account of any conduct alleged to be prejudicial to the Guarantor.*
10. *The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.*
11. *This Guarantee/Performance Security is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee / Performance Security shall be returned to the Guarantor after it has expired.*
12. *This Guarantee/Performance Security, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.*
13. *Where this Guarantee/Performance Security is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.*

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

Approved Financial Institution

Approved Financial Institution as at 28 February 2023:

1.1 National Banks

ABSA Bank Limited
Firststrand Bank Limited
Investec Bank Limited
Nedbank Limited
Standard Bank of South Africa Limited

1.2 International Banks (with branches in South Africa)

Barclays Bank PLC
Citibank NA
Credit Agricole Corporate and Investment Bank
HSBC Bank PLC
JPMorgan Chase Bank
Societe Generale
Standard Chartered Bank

1.3 Insurance Companies

American International Group Inc (AIG)
Bryte Insurance Company Limited
Coface SA
Compass Insurance Company Limited
Credit Guarantee Insurance Corporation of Africa Limited
Guardrisk Insurance Company Limited
Hollard Insurance Company Limited
Infiniti Insurance Limited
Lombard Insurance Company Limited
Mutual and Federal Risk Financing Limited
New National Assurance Company Limited
PSG Konsult Ltd (previously Absa Insurance)
Regent Insurance Company Limited
Renasia Insurance Company Limited
Santam Limited...]

**Annexure D - Pro Forma Advance Payment Guarantee – NOT
APPLICABLE**

Annexure F - Tender Returnable Documents

Schedule F.1: Contract Price Adjustment

1. TENDER CONDITIONS

- 1.1 The Contract Price Adjustment (CPA) mechanism and/or provisions relating to Rate of Exchange (RoE) Variation, contained in this schedule is compulsory and binding on all Tenderers/Suppliers and this schedule (the parts relevant to the particular tender) must be completed by all Tenderers / Suppliers.
- 1.2 Tenderers/Suppliers are not permitted to amend, vary, alter or delete this schedule or any part thereof unless otherwise stated in this schedule.
- 1.3 Tenderers are not permitted to offer fixed and firm prices except as provided for in the Price Schedule.

2. CPA PROVISIONS SELECTION

- 2.1 The prices stipulated on the Price Schedule are subject to adjustment as set out below.
- 2.2 Tenderer to indicate the specific CPA and/or RoE provisions applicable to their bid by marking the relevant checkboxes below. Tenderers to note that the CPA and/or RoE provisions are not exclusive and multiple CPA Types can exist if the bid contains both local and foreign exchange based pricing. In such cases the CPA and/or ROE provision applies only to that particular portion of the tendered price.
- 2.3 The CPA and/or RoE provisions applicable to this tender and resulting contract are to be indicated below by checking the relevant boxes (with multiple selections only where indicated permissible):

	<u>Indicate option</u>	<u>CPA Type</u>	<u>Period</u>	<u>Refer to Section</u>
A	NA	FIRM PRICES as per Pricing Schedule	Annual	<i>Pricing Schedule C.4 and Schedule F.1 (A)</i>
<u>LOCAL (RSA) TENDER CONTENT:</u>				
EITHER				
B	NA	SEIFSA Index based CPA	Monthly / Quarterly	<i>Schedule F.1 (B)</i>
OR				
C	NA	Pricelist / Quotation Based CPA	Ad-Hoc	<i>Schedule F.1 (C)</i>
OR				
D		STATS SA CPI Index Based CPA	Annually	<i>Schedule F.1 (D)</i>
OR/AND				
E	NA	Sectorial Determination 1:Contract Cleaning Sector	Annually	<i>Schedule F.1 (E)</i>
OR				
E	NA	Sectorial Determination 6: Private Security Sector	Annually	<i>Schedule F.1 (E)</i>
<u>IMPORTED GOODS AND / OR COMPONENTS (IF APPLICABLE)</u>				
F	NA	ROE based CPA	Ad-Hoc	<i>Schedule F.1 (F)</i>
AND (IF REQUIRED), EITHER				
G	NA	Pricelist / Quotation based CPA	Ad-Hoc / Periodic	<i>Schedule F.1 (G)</i>

		OR		
H	NA	Overseas CPI / PPI index based CPA	Ad-Hoc / Periodic	Schedule F.1 (H)

- 2.4 CPA and/or RoE provisions marked as **not applicable** is not relevant and will not apply to this tender and resulting contract.

3. CONTRACT CPA APPLICATIONS AND ADMINISTRATION

- 3.1 Any claim for variation in the contract price (either CPA or RoE adjustments) must be submitted in writing:

- i. By letter to: Director (**Corporate Services, Facilities Management**), City of Cape Town,
P O Box 655, Cape Town, 8000 or
- ii. By email to: **FM.Contracts@capetown.gov.za**

at least 14 days prior to the month upon which the adjustment would become effective in the case of prices being set in advance, and as soon as relevant indices are available and no later than 60 days after the date of delivery of goods or the completion of the project (i.e. date of issue of the Taking-Over Certificate, if applicable) in the case of adjustments being claimed retrospectively for Goods or Services. The latter case is only applicable where specifically provided for in the CPA provisions.

- 3.2 When submitting a request for CPA and/or RoE adjustment the Supplier shall indicate the Rand Value claimed for each item listed on C.4 - Price Schedule, clearly indicating the item number as per C.4 - Price Schedule. Percentage increases will not be considered. A mere notification of a request for CPA without stating the new price claimed for each item shall, for the purpose of this clause, not be regarded as a valid request.
- 3.3 The CCT reserves the right to request the Supplier to submit auditor's certificates or such other documentary proof as it may require in order to verify a claim for CPA or RoE adjustments. Price adjustments will not be processed until such time as the Supplier submits such auditor's certificates or other documentary proof to the CCT. Should the Supplier fail to submit the auditor's certificates or other documentary proof to the CCT within 30 days from the written request, it shall be presumed that the Supplier has abandoned his request.
- 3.4 The CCT reserves the right to withhold payment of any claim for adjustment while only provisional figures are available and until such time as the final (revised) figures are issued by the relevant authority.
- 3.5 The CCT will confirm in writing once processing of the CPA or RoE adjustments have been completed including the effective date of the adjustments.
- 3.6 Where pricelist-based and other non-index based CPA requests are investigated and found to be not reasonable and market related, the CCT reserves the right to reject such requests. Where disputes arise with respect to such rejected requests the CCT reserves the right to procure the Goods from other available Suppliers until such time as the dispute is resolved.
- 3.7 Unless indicated otherwise in the relevant schedule below, all Purchase Orders issued on or after the effective date of the adjustment shall be issued at, and the Goods or Services supplied, invoiced and paid for at the adjusted prices. The relevant adjustment will not be applied to Purchase Orders issued prior to the effective date.

Pricing Instructions:

The Contract Price Adjustment mechanism contained in this schedule is compulsory and binding on all tenderers.

Failure to complete this schedule or any part thereof may result in the tender offer being declared non-responsive.

Tenderers are not permitted to amend, vary, alter or delete this schedule or any part thereof unless otherwise stated in this schedule, failing which the tender offer shall be declared nonresponsive.

Tenderers are not permitted to offer firm prices except as provided for in the Price Schedule, and if the tenderer offers firm prices in contravention of this clause the tender offer shall be declared non-responsive.

CONTRACT PRICE ADJUSTMENT MECHANISM:

The Contract Price as per Conditions of Tender shall remain Firm for the first 12 months (from date of closing of tender) and no claims for contract price adjustment will be considered for the first 12 months of the contract period subject to the provisions in the price schedule.

Contract Price Adjustment will be applicable as from commencement of the 13 month of the contract period. Tenderers shall be entitled to claim contract price adjustment as follows:

90% of the tendered price will be subject to adjustment annually based on the average Consumer Price Index (CPI) as follows:

From start of 13th month to the end of the 24th month: Subject to contract price adjustment in accordance with the Consumer Price Index (P0141-Table B). Base month for the price adjustment shall be two (2) calendar months prior to contract commencement. The current month shall be the 10th month after contract commencement.

From start of 25th month to end of the contract: Subject to the contract price adjustment in accordance with the Consumer Price Index (P0141-Table B). Base month for the price adjustment shall be two (2) calendar months prior to contract commencement. The current month shall be the 22nd month after contract commencement.

The average CPI calculated, the base month to the end month (both included) divided by the number of months.

The claim will be based on the average between the “base month” and the “current month” e.g.: $7+6+9+6 = 28$ $(28/4) = 7$ therefore the claim will be 7%.

10% of the rate will remain fixed.

It is noted that the Fixed Mark-up %'s applicable itself will remain fixed for the full period.

Schedule F.2: Certificate of Authority for Partnerships/ Joint Ventures/ Consortiums

This schedule is to be completed if the tender is submitted by a partnership/joint venture/ consortium.

1. We, the undersigned, are submitting this tender offer as a partnership/ joint venture/ consortium and hereby authorize Mr/Ms _____, of the authorised entity _____, acting in the capacity of Lead Partner, to sign all documents in connection with the tender offer and any contract resulting from it on the partnership/joint venture/ consortium's behalf.
2. By signing this schedule the partners to the partnership/joint venture/ consortium:
 - 2.1 warrant that the tender submitted is in accordance with the main business and objectives of the partnership/joint venture/ consortium;
 - 2.2 agree that the CCT shall make all payments in terms of this Contract into the following bank account of the Lead Partner:
 Account Holder: _____
 Financial Institution: _____
 Branch Code: _____
 Account No.: _____
 - 2.3 agree that in the event that there is a change in the partnership/ joint venture/ consortium and/or should a dispute arise between the partnership/joint venture/ consortium partners, that the CCT shall continue to make any/all payments due and payable in terms of the Contract into the aforesaid bank account until such time as the CCT is presented with a Court Order or an original agreement (signed by each and every partner of the partnership/joint venture/ consortium) notifying the CCT of the details of the new bank account into which it is required to make payment.
 - 2.4 agree that they shall be jointly and severally liable to the CCT for the due and proper fulfilment by the successful tenderer/supplier of its obligations in terms of the Contract as well as any damages suffered by the CCT as a result of breach by the successful tenderer/supplier. The partnership/joint venture/ consortium partners hereby renounce the benefits of excussion and division.

SIGNED BY THE PARTNERS OF THE PARTNERSHIP/ JOINT VENTURE/ CONSORTIUM		
NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....

Note: A copy of the Joint Venture Agreement shall be appended to *List of Other Documents Attached by Tenderer Schedule*.

Schedule F.3: Declaration for Procurement above R10 million

If the value of the transaction is expected to exceed R10 million (VAT included) the tenderer shall complete the following questionnaire, attach the necessary documents and sign this schedule:

1. Are you by law required to prepare annual financial statements for auditing? **(Please mark with X)**

YES		NO	
-----	--	----	--

If YES, submit audited annual financial statements:

- (i) For the past three years, or
(ii) Since the date of establishment of the tenderer (if established during the past three years)

By attaching such audited financial statements to **List of Other Documents Attached by Tenderer Schedule**.

2. Do you have any outstanding undisputed commitments for municipal services towards the CCT or other municipality in respect of which payment is overdue for more than 30 (thirty) days? **(Please mark with X)**

YES		NO	
-----	--	----	--

- 2.1 If NO, this serves to certify that the tenderer has no undisputed commitments for municipal services towards any municipality for more than three (3) (three) months in respect of which payment is overdue for more than 30 (thirty) days.

- 2.2 If YES, provide particulars:

3. Has any contract been awarded to you by an organ of state during the past five (5) years? **(Please mark with X)**

YES		NO	
-----	--	----	--

If YES, insert particulars in the table below including particulars of any material non-compliance or dispute concerning the execution of such contract. Alternatively attach the particulars to **List of Other Documents Attached by Tenderer** schedule in the same format as the table below:

Organ of State	Contract Description	Contract Period	Non-compliance/dispute (if any)

4. Will any portion of the goods or services be sourced from outside the Republic, and if so, what portion and whether any portion of payment from the CCT is expected to be transferred out of the Republic? **(Please mark with X)**

YES		NO	
-----	--	----	--

If YES, furnish particulars below

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the CCT of any other remedies available to it.

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule F.4: Preference Points Claim Form In Terms Of the Preferential Procurement Regulations 2022

1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to invitations to tender:
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

- 1.2 **To be completed by the organ of state**
[Delete whichever is not applicable for this tender]

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

- 1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:
- (a) Price; and
 - (b) Specific Goals.

- 1.4 **To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	90
SPECIFIC GOALS	10
Total points for Price and SPECIFIC GOALS	100

- 1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.
- 1.6 The organ of state reserves the right to require of a 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

The following definitions shall apply to this schedule:

- (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

POINTS AWARDED FOR PRICE

THE 90/10 PREFERENCE POINT SYSTEMS

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

90/10

Or

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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

Not applicable

5. POINTS AWARDED FOR SPECIFIC GOALS

5.1 In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

5.2 In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 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 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 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 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 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	To be Completed by the Organ of State	To be Completed by the Tenderer
	Number of points Allocated (90/10 system)	Number of points claimed (90/10 system)
Gender	3	
Race	3	
Disability	1	
Promotion of Micro and Small Enterprises	3	

DECLARATION WITH REGARD TO COMPANY/FIRM

5.3 Name of company/firm.....

5.4 Company registration number:

5.5 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]

5.6 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 4.1 and 4.2, the Supplier 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 Supplier, 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.

<i>Signature of Tenderer</i>	<i>Date</i>	<i>Name and Surname</i>	<i>Address</i>

For official use.		
SIGNATURE OF CCT OFFICIALS AT TENDER OPENING		
1.	2.	3.

Schedule F.5: Declaration of Interest – State Employees (MBD 4 amended)

1. No bid will be accepted from:
 - 1.1 persons in the service of the state¹, or
 - 1.2 if the person is not a natural person, of which any director, manager or principal shareholder or stakeholder is in the service of the state, or
 - 1.3 from persons, or entities of which any director, manager or principal shareholder or stakeholder, has been in the service of the City of Cape Town (CCT) during the previous twelve (12) months, or
 - 1.4 from an entity who has employed a former CCT employee who was at a level of T14 or higher at the time of leaving the CCT's employ and involved in any of the CCT's bid committees for the bid submitted, if:
 - 1.4.1 the CCT employee left the CCT's employment voluntarily, during the previous twelve (12) months;
 - 1.5 a person who was a CCT employee, or an entity that employs a CCT employee, if
 - 1.5.1 the CCT employee left the CCT's employment whilst under investigation for alleged misconduct, or
 - 1.5.2 was facing disciplinary action or potential disciplinary action by the CCT, or
 - 1.5.3 was involved in a dispute against the CCT during the previous thirty six (36) months.

2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the tenderer or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.
 - 3.1 Full Name of tenderer or his or her representative: _____
 - 3.2 Identity Number: _____
 - 3.3 Position occupied in the Company (director, trustee, shareholder²): _____
 - 3.4 Company or Close Corporation Registration Number: _____
 - 3.5 Tax Reference Number: _____
 - 3.6 VAT Registration Number: _____
 - 3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.
 - 3.8 Are you presently in the service of the state? **YES / NO**
 - 3.8.1 If yes, furnish particulars: _____
 - 3.9 Have you been in the service of the state for the past twelve months? **YES / NO**
 - 3.9.1 If yes, furnish particulars: _____
 - 3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**
 - 3.10.1 If yes, furnish particulars: _____
 - 3.11 Are you, aware of any relationship (family, friend, other) between any other tenderer and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**
 - 3.11.1 If yes, furnish particulars: _____
 - 3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**
 - 3.12.1 If yes, furnish particulars: _____

- 3.13 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**
 3.13.1 If yes, furnish particulars: _____
- 3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract? **YES / NO**
 3.14.1 If yes, furnish particulars: _____
- 3.15 Have you, or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company been in the service of the CCT in the past twelve months? **YES / NO**
 3.15.1 If yes, furnish particulars: _____
- 3.16 Do you have any employees who was in the service of the CCT at a level of T14 or higher at the time they left the employ of the CCT, and who was involved in any of the CCT's bid committees for this bid? **YES / NO**
 3.16.1 If yes, furnish particulars: _____

4. Full details of directors / trustees / members / shareholders

Full Name	Identity Number	State Employee Number

If the above table does not sufficient to provide the details of all directors / trustees / shareholders, please append full details to the tender submission.

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the CCT of any other remedies available to it.

 Signature
 Print name:
 On behalf of the tenderer (duly authorised)

 Date

¹MSCM Regulations: "in the service of the state" means to be –

- (a) a member of –
 (i) any municipal council;
 (ii) any provincial legislature; or
 (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
 (c) an official of any municipality or municipal entity;
 (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
 (e) an executive member of the accounting authority of any national or provincial public entity; or
 (f) an employee of Parliament or a provincial legislature.

² Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

Schedule F.6: Conflict of Interest Declaration

1. The tenderer shall declare whether it has any conflict of interest in the transaction for which the tender is submitted. **(Please mark with X)**

YES		NO	
-----	--	----	--

1.1 If yes, the tenderer is required to set out the particulars in the table below:

2. The tenderer shall declare whether it has directly or through a representative or intermediary promised, offered or granted:

2.1 Any inducement or reward to the CCT for or in connection with the award of this contract; or

2.2 Any reward, gift, favour or hospitality to any official or any other role player involved in the implementation of the supply chain management policy. **(Please mark with X)**

YES		NO	
-----	--	----	--

If yes, the tenderer is required to set out the particulars in the table below:

Should the tenderer be aware of any corrupt or fraudulent transactions relating to the procurement process of the CCT, please contact the following:

The CCT's anti-corruption hotline at 0800 32 31 30 (toll free)

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the CCT of any other remedies available to it.

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule F.7: Declaration of Tenderer's Past Supply Chain Management Practices (MBD 8)

Where the entity tendering is a partnership/joint venture/consortium, each party to the partnership/joint venture/consortium must sign a declaration in terms of the Municipal Finance Management Act, Act 56 of 2003, and attach it to this schedule.

- 1 The tender offer of any tenderer may be rejected if that tenderer or any of its directors/members have:
 - a) abused the municipality's / municipal entity's supply chain management system or committed any fraudulent conduct in relation to such system;
 - b) been convicted for fraud or corruption during the past five years;
 - c) willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d) been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or Database of Restricted Suppliers.

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

Item	Question	Yes	No
2.1	Is the tenderer or any of its directors/members listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied). The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.	Yes ☐	No ☐
2.1.1	If so, furnish particulars:		
2.2	Is the tenderer or any of its directors/members listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or Database of Restricted Suppliers? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	Yes ☐	No ☐
2.2.1	If so, furnish particulars:		
2.3	Was the tenderer or any of its directors/members convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes ☐	No ☐
2.3.1	If so, furnish particulars:		

Item	Question	Yes	No
2.4	Does the tenderer or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes ☐	No ☐
2.4.1	If so, furnish particulars:		
2.5	Was any contract between the tenderer and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes ☐	No ☐
2.5.1	If so, furnish particulars:		

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract,, restriction of the tenderer or the exercise by the CCT of any other remedies available to it.

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule F.8: Authorisation for the Deduction of Outstanding Amounts Owed to the CCT

To: THE CITY MANAGER, City of Cape Town

From: _____
(Name of tenderer)

RE: AUTHORISATION FOR THE DEDUCTION OF OUTSTANDING AMOUNTS OWED TO THE CCT

The tenderer:

- a) hereby acknowledges that according to SCM Regulation 38(1)(d)(i) the City Manager may reject the tender of the tenderer if any municipal rates and taxes or municipal service charges owed by the tenderer (or any of its directors/members/partners) to the CCT, or to any other municipality or municipal entity, are in arrears for more than 3 (three) months; and
- b) therefore hereby agrees and authorises the CCT to deduct the full amount outstanding by the Tenderer or any of its directors/members/partners from any payment due to the tenderer; and
- c) confirms the information as set out in the tables below for the purpose of giving effect to b) above;

Physical Business address(es) of the tenderer	Municipal Account number(s)	Inside the CCT municipal boundary (Yes/No)

If there is not enough space for all the names, please attach the information to **List of other documents attached by tenderer** schedule in the same format:

Name of Director / Member / Partner	Identity Number	Physical residential address of Director / Member / Partner	Municipal Account number(s)	Inside the CCT municipal boundary (Yes/No)

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the CCT of any other remedies available to it.

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule F.9: Certificate of Independent Tender Determination

I, the undersigned, in submitting this tender number **DP8389S/2023/24** and tender description: **THE ACQUISITION, SERVICING, REPAIRS, MAINTENANCE AND INSTALLATION OF EMERGENCY GENERATORS AND INVERTER / SOLAR SYSTEMS** in response to the tender invitation made by THE CCT, do hereby make the following statements, which I certify to be true and complete in every respect:

I certify, on behalf of: _____ (Name of tenderer) that:

1. I have read and I understand the contents of this Certificate;
2. I understand that this tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorised by the tenderer to sign this Certificate, and to submit this tender, on behalf of the tenderer;
4. Each person whose signature appears on this tender has been authorised by the tenderer to determine the terms of, and to sign, the tender on behalf of the tenderer;
5. For the purposes of this Certificate and this tender, I understand that the word 'competitor' shall include any individual or organisation other than the tenderer, whether or not affiliated with the tenderer, who:
 - (a) has been requested to submit a tender in response to this tender invitation;
 - (b) could potentially submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the tenderer and/or is in the same line of business as the tenderer.
6. The tenderer has arrived at this tender independently from and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium¹ will not be construed as collusive price quoting.
7. In particular, without limiting the generality of paragraphs 5 and 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation);
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit a tender;
 - (e) the submission of a tender which does not meet the specifications and conditions of the tender; or
 - (f) tendering with the intention not to win the contract.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this tender invitation relates.
9. The terms of this tender have not been and will not be disclosed by the tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders 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, Act 89 of 1998, and/o/r 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 10 (ten) years in terms of the Prevention and Combating of Corrupt Activities Act, Act 12 of 2004, or any other applicable legislation.

Signature

Print name:

On behalf of the tenderer (duly authorised)

Date

(¹ Consortium: 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.)

Schedule F.10: Proposed Deviations And Qualifications By Tenderer

The Tenderer should record any **proposed** deviations or qualifications they may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such proposed deviations and qualifications in a covering letter attached to his tender and reference such letter in this schedule. Any proposed deviations or qualifications contained in a covering letter which is not referenced in this schedule will not be considered.

The Tenderer's attention is drawn to clause 2.3.7.2 of the Standard Conditions of Tender referenced in the Tender Data regarding the CCT's handling of material deviations and qualifications.

If no deviations or qualifications are proposed, the schedule hereunder is to be marked NIL and signed by the Tenderer.

PAGE	CLAUSE OR ITEM	PROPOSED DEVIATION OR QUALIFICATION

List relevant documentation attached in Schedule F.10 below.

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule F.11: List of Other Documents Attached By Tenderer

The tenderer has attached to this schedule, the following additional documentation:

	Date of Document	Title of Document or Description (refer to clauses / schedules of this tender document where applicable)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		

Attach additional pages if more space is required.

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule F.12: Record of Addenda to Tender Documents

We confirm that the following communications received from the CCT before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

 Signature
 Print name:
 On behalf of the tenderer (duly authorised)

 Date

Schedule F.13: Information to Be Provided With the Tender

The following information shall be provided with the Tender:

1. Provide all information required in the Returnable Schedules F.15 – F.20.
 - **Key Personnel:** CV's, certificates, qualifications
 - **Tenderer Relevant Experience:** employer reference letter (this should include size of the generators/inverters, description of work and the date completed) ; completion certificates; invoices/delivery notes
2. Various technical details and data required by the Technical Data Sheets

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule F.14: Appeal Application

annexure 'B'

OFFICIAL RECEIPT
(Valid only if printed
by official cash
receipting machine)

IRISITI ESESIKWENI
(Isemthethweni kuphela
xa ishicilelwe
ngumatshini wokukhupa
irisiti osesikweni.)

AMPTELIKE KWITANSIE
(Geldig alleenlik indien deur
amptelike kontantvangs
masjien gedruk.)

**GL DATA CAPTURE RECEIPT
(CASHIERTO RETAIN A COPY)**

RECEIPT NO: _____

DATE: _____

SAP GL:

8	1	0	1	0	0
---	---	---	---	---	---

PROFIT CENTRE:

1	3	0	5	0	0	0	1
---	---	---	---	---	---	---	---

NAME/COMPANY NAME:

AMOUNT:

						R	3	0	0	-	0	0
--	--	--	--	--	--	---	---	---	---	---	---	---

SERVICE DEPARTMENT DETAILS-

DEPARTMENT: LEGAL SERVICES: APPEALS UNIT

CONTACT PERSON: CHARLENE CEBEKHULU / MELANIE CLOETE

PHONE NO: 021 400 2503 / 021 400 3788

OFFICIAL RECEIPT
(Valid only if printed
by official cash
receipting machine)

IRISITI ESESIKWENI
(Isemthethweni kuphela
xa ishicilelwe
ngumatshini wokukhupa
irisiti osesikweni.)

AMPTELIKE KWITANSIE
(Geldig alleenlik indien deur
amptelike kontantvangs
masjien gedruk.)

**GL DATA CAPTURE RECEIPT
(CASHIERTO RETAIN A COPY)**

RECEIPT NO: _____

DATE: _____

SAP GL:

8	1	0	1	0	0
---	---	---	---	---	---

PROFIT CENTRE:

1	3	0	5	0	0	0	1
---	---	---	---	---	---	---	---

NAME/COMPANY NAME:

AMOUNT:

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SERVICE DEPARTMENT DETAILS-

DEPARTMENT: LEGAL SERVICES: APPEALS UNIT

CONTACT PERSON: CHARLENE CEBEKHULU / MELANIE CLOETE

PHONE NO: 021 400 2503 / 021 400 3788

CIVIC CENTRE IZIKO LOLUNGU BURGERSENTRUM
12 HERTZOG BOULEVARD CAPE TOWN 8001 P O BOX 298 CAPE TOWN 8000
www.capetown.gov.za

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Schedule F.15: GENERATORS - WORK EXPERIENCE RELATING TO NEW INSTALLATIONS

- 1 point will be allocated for each New Generator 100kVA – 500kVA.
- 2 points will be allocated for each New Generator above 500kVA.
- Points will only be allocated should verifiable documentary evidence be submitted with the schedule, which may include:
 - employer reference letter (this should include size of the generators/ inverters, description of work and the date completed)
 - completion certificates
 - invoices/delivery notes

	EMPLOYER (NAME, CONTACT DETAILS)	SIZE OF THE GENERATOR INSTALLED (kVA)	DESCRIPTION OF WORK	DATE COMPLETED
1.				
2.				
3.				
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Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL).

SIGNED ON BEHALF OF TENDERER:

Schedule F.16 INVERTERS - WORK EXPERIENCE RELATING TO NEW INSTALLATIONS

- 1 points will be allocated for each New Inverter 10kVA – 100kVA.
- 2 points will be allocated for each New Inverter above 100kVA.
- Example: 10kVA inverter can comprise of two (2) 5kVA inverters installed in parallel as part of one (1) installation.
- Points will only be allocated should verifiable documentary evidence be submitted with the schedule, which may include:
 - employer reference letter (this should include size of the generators/inverters, description of work and the date completed)
 - completion certificates
 - invoices/delivery notes

	EMPLOYER (NAME, CONTACT DETAILS)	SIZE OF THE INVERTER INSTALLED (kVA)	DESCRIPTION OF WORK	DATE COMPLETED
1.				
2.				
3.				
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Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL).

SIGNED ON BEHALF OF TENDERER: . .

Schedule F.17 GENERATORS - WORK EXPERIENCE RELATING TO SERVICING AND MAINTENANCE

1 Point will be allocated for Servicing and Maintenance of Generator 100kVA – 500kVA.

2 Points will be allocated for each Servicing and Maintenance of Generator above 500kVA.

Points will only be allocated should verifiable documentary evidence be submitted with the schedule, which may include:

- employer reference letter (this should include size of the generators/inverters, description of work and the date completed)
- completion certificates
- invoices/delivery notes

	EMPLOYER (NAME, CONTACT DETAILS)	SIZE OF THE GENERATOR SERVICED AND MAINTAINED (kVA)	DESCRIPTION OF WORK	DATE COMPLETED
1.				
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Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL).

SIGNED ON BEHALF OF TENDERER:

Schedule F.18 INVERTERS - WORK EXPERIENCE RELATING TO SERVICING AND MAINTENANCE.

1 point will be allocated for each Servicing and Maintenance of Inverter 10kVA – 100kVA.

2 points will be allocated for each Servicing and Maintenance of Inverter above 100kVA.

Points will only be allocated should verifiable documentary evidence be submitted with the schedule, which may include:

- employer reference letter (this should include size of the generators/inverters, description of work and the date completed)
- completion certificates
- invoices/delivery notes

	EMPLOYER (NAME, CONTACT DETAILS)	SIZE OF THE INVERTER SERVICES AND MAINTAINED (kVA)	DESCRIPTION OF WORK	DATE COMPLETED
1.				
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Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL).

SIGNED ON BEHALF OF TENDERER:

Schedule F.19 DETAILS OF QUALIFICATIONS AND EXPERIENCE OF STAFF

Tenderers shall set out in the Schedule hereunder details of the listed staff's experience in work of a similar nature to that for which their Tender is submitted.

1 x Project Manager (No duplication of staff will be allowed),

- At least 3 years work experience in the management of similar projects relating to the scope of the tender. CV to be submitted, with verifiable references.

1 x Health and Safety Officer (No duplication of staff will be allowed),

- At least 3 years work experience as a health and safety officer in the construction environment. CV to be submitted, with verifiable references and certificates of health and safety related courses.

Eg: Samtrac, HIRA, (SETA accredited training) etc

1 x Master Electrician (No duplication of staff will be allowed),

- It means a person who has been registered as a master installation electrician in terms of regulation 11 (2) regulation 11 (2) for the verification and certification of the construction, testing and inspection of any electrical installation

- At least 3 years work experience as a Master Installation Electrician in the hazardous locations and construction environment. CV to be submitted with verifiable references and Qualification certificate / Registration Card.

1 x Installation Electrician (No duplications of staff will be allowed),

- Means a person who has been registered as an installation electrician in terms of regulation 11 (2) for the verification and certification of the construction, testing and inspection of any electrical installation excluding specialised installations.

- At least 3 years work experience as an Installation electrician in the similar projects as related to the scope of this tender. CV to be submitted with verifiable references and Qualification certificate / Registration Card.

1 x Diesel Mechanic (No duplications of staff will be allowed)

- A Diesel mechanics is a skilled technician that has obtained at least a grade 10 or a matric certificate together with a 4-year apprenticeship and therefore would possess substantial knowledge of mechanics and diesel engines. Together with perfect understanding of electrical installation as they relate, in particular, to generators.

- At least 3 years work experience as Diesel mechanic in similar projects, such as the installation of generators and the servicing, maintenance, inspections and repairs of diesel generators, relating to the scope of this tender. CV to be submitted with verifiable references and Qualification Trade Test certificate.

1 x Project Manager.....	6 points
1 x Health and Safety Officer....	6 points
1 x Master Electrician....	7 points
1 x Installation Electrician	7 points
1 x Diesel Mechanic.....	6 points

Project Manager			
Name:			
CONTRACT & CLIENT or EMPLOYER	NATURE OF WORK	POSITION HELD	YEARS OF EXPERIENCE

Health and Safety Officer				
Name:				
CONTRACT & CLIENT or EMPLOYER	NATURE OF WORK	POSITION HELD	YEARS OF EXPERIENCE	QUALIFICATION

Master Electrician				
Name:				
CONTRACT & CLIENT or EMPLOYER	NATURE OF WORK	POSITION HELD	YEARS OF EXPERIENCE	QUALIFICATION

Installation Electrician				
Name:				
CONTRACT & CLIENT or EMPLOYER	NATURE OF WORK	POSITION HELD	YEARS OF EXPERIENCE	QUALIFICATION

Diesel Mechanic				
Name:				
CONTRACT & CLIENT or EMPLOYER	NATURE OF WORK	POSITION HELD	YEARS OF EXPERIENCE	QUALIFICATION

Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL).

SIGNED ON BEHALF OF TENDERER:

Schedule F.20 SCHEDULE OF EQUIPMENT

The tenderer shall insert in the spaces provided below a list of similar completed contracts and those currently being undertaken where the equipment offered has been supplied. Attach additional pages if more space is required.

Schedule no. 1 Electrical Distribution Equipment

Technical Data Sheet electrical distribution equipment		
Types of equipment	Names of equipment vendors or service agents	Equipment vendors or service agents contact details
Control and instrument cables		
600/1000V cables		
Generator switchboard and generator connection panel		
Control Board Manufacturer		
Time Relays		
Current Transformers		
Miniature Circuit Breakers		
Cable Trays/ladders		
Cable Terminations		
Moulded Case Circuit Breakers		
Circuit breakers		
Generator sets		
Change over equipment		
Other (specify)		

Schedule No. 2Generator Set Equipment

Technical Data Sheet Generator Set			
No.	Item description	Specified	Offered
1	Prime Mover	50KVA – 100KVA	
	Manufacturer	Unspecified	
	No. of Cylinders	Unspecified	
	Max power output	KW @ rpm	
	Torque	Nm @ rpm	
2	Fuel Tank capacity in hours or litres At least 8 hours uninterrupted run time at full load as per specification	8 hours run time	
	Fuel tank Material	Mild steel	
	Fuel tank type	Double bunted wall	
3	Starter motor Voltage	24V / 12V	
4	Alternator Manufacturer name	Unspecified	
	Alternator rated output	KW @ RPM	
	Alternator rated prime output (@ 0.8 lagging)	KVA	
	Speed		
	Voltage	Rpm	
	Manual voltage adjusting	V	
		Yes / No	
5	Generator Controller Deep Sea Electronics 7410 MK2 or equivalent	Yes / No	
	Can all trip conditions be monitored?	Yes / No	
6	Starter Battery		
	Type	SMF	
	Voltage	24V	
	AH Rating	Heavy duty oversize battery	
7	Battery Charger unit		
	Voltage	24V / 12V	
	Ampere Capacity	45A	
8	Other Equipment Offered by tenderer		
Technical Data Sheet Generator Set			
No.	Item description	Specified	Offered
1	Prime Mover	101KVA – 200KVA	
	Manufacturer	Unspecified	

	No. of Cylinders	Unspecified	
	Max power output	KW @ rpm	
	Torque	Nm @ rpm	
2	Fuel Tank capacity in hours or litres At least 8 hours uninterrupted run time at full load as per specification	8 hours run time	
	Fuel tank Material	Mild steel	
	Fuel tank type	Double bunted wall	
3	Starter motor Voltage	24V / 12V	
4	Alternator Manufacturer name	Unspecified	
	Alternator rated output	KW @ RPM	
	Alternator rated prime output (@ 0.8 lagging)	KVA	
	Speed		
	Voltage	Rpm	
	Manual voltage adjusting	V	
5	Generator Controller Deep Sea Electronics 7410 MK2 or equivalent	Yes / No	
	Can all trip conditions be monitored?	Yes / No	
6	Starter Battery Type		
	Voltage	SMF	
		24V	
	AH Rating	Heavy duty oversize battery	
7	Battery Charger unit		
	Voltage	24V / 12V	
	Ampere Capacity	45A	
8	Other Equipment Offered by tenderer		

Technical Data Sheet Generator Set or Equally approved by the CCT official during the contract			
No.	Item description	Specified	Offered
1	Prime Mover	201KVA – 300KVA	
	Manufacturer	Unspecified	
	No. of Cylinders	Unspecified	
	Max power output	KW @ rpm	
	Torque	Nm @ rpm	
2	Fuel Tank capacity in hours or litres At least 8 hours uninterrupted run time at full load as per specification	8 hours run time	
	Fuel tank Material	Mild steel	
	Fuel tank type	Double bunted wall	
3	Starter motor Voltage	24V / 12V	
4	Alternator Manufacturer name	Unspecified	
	Alternator rated output	KW @ RPM	
	Alternator rated prime output (@ 0.8 lagging)	KVA	
	Speed		
	Voltage	Rpm	
	Manual voltage adjusting	V	
5	Generator Controller Deep Sea Electronics 7410 MK2 or equivalent	Yes / No	
	Can all trip conditions be monitored?	Yes / No	
6	Starter Battery		
	Type	SMF	
	Voltage	24V	
	AH Rating	Heavy duty oversize battery	
7	Battery Charger unit		
	Voltage	24V / 12V	
	Ampere Capacity	45A	
8	Other Equipment Offered by tenderer		

Technical Data Sheet Generator Set			
No.	Item description	Specified	Offered
1	Prime Mover	301KVA – 400KVA	
	Manufacturer	Unspecified	
	No. of Cylinders	Unspecified	
	Max power output	KW @ rpm	
	Torque	Nm @ rpm	
2	Fuel Tank capacity in hours or litres At least 8 hours uninterrupted run time at full load as per specification	8 hours run time	
	Fuel tank Material	Mild steel	
	Fuel tank type	Double bunted wall	
3	Starter motor Voltage	24V / 12V	
4	Alternator Manufacturer name	Unspecified	
	Alternator rated output	KW @ RPM	
	Alternator rated prime output (@ 0.8 lagging)	KVA	
	Speed		
	Voltage	Rpm	
	Manual voltage adjusting	V	
5	Generator Controller Deep Sea Electronics 7410 MK2 or equivalent	Yes / No	
	Can all trip conditions be monitored?	Yes / No	
6	Starter Battery		
	Type	SMF	
	Voltage	24V	
	AH Rating	Heavy duty oversize battery	
7	Battery Charger unit		
	Voltage	24V / 12V	
	Ampere Capacity	45A	
8	Other Equipment Offered by tenderer		

Technical Data Sheet Generator Set			
No.	Item description	Specified	Offered
1	Prime Mover	401KVA – 500KVA	
	Manufacturer	Unspecified	
	No. of Cylinders	Unspecified	
	Max power output	KW @ rpm	
	Torque	Nm @ rpm	
2	Fuel Tank capacity in hours or litres At least 8 hours uninterrupted run time at full load as per specification	8 hours run time	
	Fuel tank Material	Mild steel	
	Fuel tank type	Double bunted wall	
3	Starter motor Voltage	24V / 12V	
4	Alternator Manufacturer name	Unspecified	
	Alternator rated output	KW @ RPM	
	Alternator rated prime output (@ 0.8 lagging)	KVA	
	Speed		
	Voltage	Rpm	
	Manual voltage adjusting	V	
5	Generator Controller Deep Sea Electronics 7410 MK2 or equivalent	Yes / No	
	Can all trip conditions be monitored?	Yes / No	
6	Starter Battery		
	Type	SMF	
	Voltage	24V	
	AH Rating	Heavy duty oversize battery	
7	Battery Charger unit		
	Voltage	24V / 12V	
	Ampere Capacity	45A	
8	Other Equipment Offered by tenderer		

Technical Data Sheet Generator Set			
No.	Item description	Specified	Offered
1	Prime Mover	501KVA – 600KVA	
	Manufacturer	Unspecified	
	No. of Cylinders	Unspecified	
	Max power output	KW @ rpm	
	Torque	Nm @ rpm	
2	Fuel Tank capacity in hours or litres At least 8 hours uninterrupted run time at full load as per specification	8 hours run time	
	Fuel tank Material	Mild steel	
	Fuel tank type	Double bunted wall	
3	Starter motor Voltage	24V / 12V	
4	Alternator Manufacturer name	Unspecified	
	Alternator rated output	KW @ RPM	
	Alternator rated prime output (@ 0.8 lagging)	KVA	
	Speed		
	Voltage	Rpm	
	Manual voltage adjusting	V	
		Yes / No	
5	Generator Controller Deep Sea Electronics 7410 MK2 or equivalent	Yes / No	
	Can all trip conditions be monitored?		
		Yes / No	
6	Starter Battery		
	Type	SMF	
	Voltage	24V	
	AH Rating	Heavy duty oversize battery	
7	Battery Charger unit		
	Voltage	24V / 12V	
	Ampere Capacity	45A	
8	Other Equipment Offered by tenderer		

Technical Data Sheet Generator Set			
No.	Item description	Specified	Offered
1	Prime Mover	601KVA – 700KVA	
	Manufacturer	Unspecified	
	No. of Cylinders	Unspecified	
	Max power output	KW @ rpm	
	Torque	Nm @ rpm	
2	Fuel Tank capacity in hours or litres At least 8 hours uninterrupted run time at full load as per specification	8 hours run time	
	Fuel tank Material	Mild steel	
	Fuel tank type	Double bunted wall	
3	Starter motor Voltage	24V / 12V	
4	Alternator Manufacturer name	Unspecified	
	Alternator rated output	KW @ RPM	
	Alternator rated prime output (@ 0.8 lagging)	KVA	
	Speed		
	Voltage	Rpm	
	Manual voltage adjusting	V	
		Yes / No	
5	Generator Controller Deep Sea Electronics 7410 MK2 or equivalent	Yes / No	
	Can all trip conditions be monitored?		
		Yes / No	
6	Starter Battery		
	Type	SMF	
	Voltage	24V	
	AH Rating	Heavy duty oversize battery	
7	Battery Charger unit		
	Voltage	24V / 12V	
	Ampere Capacity	45A	
8	Other Equipment Offered by tenderer		

Technical Data Sheet Generator Set			
No.	Item description	Specified	Offered
1	Prime Mover	701KVA – 800KVA	
	Manufacturer	Unspecified	
	No. of Cylinders	Unspecified	
	Max power output	KW @ rpm	
	Torque	Nm @ rpm	
2	Fuel Tank capacity in hours or litres At least 8 hours uninterrupted run time at full load as per specification	8 hours run time	
	Fuel tank Material	Mild steel	
	Fuel tank type	Double bunted wall	
3	Starter motor Voltage	24V / 12V	
4	Alternator Manufacturer name	Unspecified	
	Alternator rated output	KW @ RPM	
	Alternator rated prime output (@ 0.8 lagging)	KVA	
	Speed		
	Voltage	Rpm	
	Manual voltage adjusting	V	
5	Generator Controller Deep Sea Electronics 7410 MK2 or equivalent	Yes / No	
	Can all trip conditions be monitored?	Yes / No	
6	Starter Battery		
	Type	SMF	
	Voltage	24V	
	AH Rating	Heavy duty oversize battery	
7	Battery Charger unit		
	Voltage	24V / 12V	
	Ampere Capacity	45A	
8	Other Equipment Offered by tenderer		

Technical Data Sheet Generator Set			
No.	Item description	Specified	Offered
1	Prime Mover	801KVA – 900KVA	
	Manufacturer	Unspecified	
	No. of Cylinders	Unspecified	
	Max power output	KW @ rpm	
	Torque	Nm @ rpm	
2	Fuel Tank capacity in hours or litres At least 8 hours uninterrupted run time at full load as per specification	8 hours run time	
	Fuel tank Material	Mild steel	
	Fuel tank type	Double bunted wall	
3	Starter motor Voltage	24V / 12V	
4	Alternator Manufacturer name	Unspecified	
	Alternator rated output	KW @ RPM	
	Alternator rated prime output (@ 0.8 lagging)	KVA	
	Speed		
	Voltage	Rpm	
	Manual voltage adjusting	V	
5	Generator Controller Deep Sea Electronics 7410 MK2 or equivalent	Yes / No	
	Can all trip conditions be monitored?	Yes / No	
6	Starter Battery		
	Type	SMF	
	Voltage	24V	
	AH Rating	Heavy duty oversize battery	
7	Battery Charger unit		
	Voltage	24V / 12V	
	Ampere Capacity	45A	
8	Other Equipment Offered by tenderer		

SIGNED ON BEHALF OF TENDERER: