TENDER NO: 374G/2022/23

TENDER DESCRIPTION: SUPPLY AND DELIVERY OF HV PROTECTION EQUIPMENT

CONTRACT PERIOD: NOT EXCEEDING THIRTY-THREE (33) MONTHS FROM DATE OF COMMENCEMENT OF CONTRACT

VOLUME 1: TENDERING PROCEDURES

CLOSING DATE: **15th June 2023**

CLOSING TIME: **10:00 a.m.**

TENDER BOX NUMBER: **152**

TENDER FEE: **R200** Non-refundable tender fee payable to 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	
TRADING AS (if different from above)	

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 CITY OFFICIALS AT TENDER OPENING
1
2
3

TABLE OF CONTENTS

VOLUME 1: THE TENDER
(1) GENERAL TENDER INFORMATION

TENDER ADVERTISED	**:**	**12th May 2023**
SITE VISIT/CLARIFICATION MEETING	:	**Not Applicable**
VENUE FOR SITE VISIT/CLARIFICATION MEETING	:	**Not Applicable**
TENDER BOX & ADDRESS	:	**Tender Box as per front cover** at the **Tender &Quotation Boxes Office**, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town.
	:	The Tender Document (which includes the Form of Offer and Acceptance) completed 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: 374G/2022/23: SUPPLY AND DELIVERY OF HV PROTECTION EQUIPMENT** the tender **Box No 152**. 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		[Name: Nathan Japhta Tel. No.: (021) 444 1789 Email:Nathan.Japhta@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"

(2) CONDITIONS OF TENDER

2.1 General

2.1.1 Actions

2.1.1.1 The City of Cape Town (CCT) and each tenderer submitting a tender offer shall comply with these Conditions of Tender. In their dealings with each other, they shall discharge their duties and obligations as set out in these Conditions of Tender, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations.

The parties agree that this tender, its evaluation and acceptance and any resulting contract shall also be subject to the Employer's Supply Chain Management Policy ('SCM Policy') that was applicable on the date the bid was advertised, save that if the Employer 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 that contract. Please refer to this document contained on the Employer's website.

Abuse of the supply chain management system is not permitted and may result in the tender being rejected, cancellation of the contract, restriction of the supplier, and/or the exercise by the City of any other remedies available to it as described in the SCM Policy.

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 the returnable documents are part of these Conditions of Tender.

2.1.2.2 These Conditions of Tender and returnable schedules which are required for tender evaluation purposes, shall form part of the contract arising from the 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 by its Director: Supply Chain Management or his nominee.

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 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

Unless otherwise stated in the tender conditions, a contract will be concluded with the tenderer who scores the highest number of tender adjudication points.

The CCT intends to appoint two tenderers, the highest ranked tenderer (“the winner”) and in addition an “Alternative tenderer”) for the allocation of work for each Section of this tender

The CCT reserves the right to utilise an Alternative contractor in the event that the Main contractor is unable to provide the goods/services required by this contract within the required timelines at any stage over the life of the contract.,

The Alternative contractor will be notified by the CCT representative to commence with services in terms of the specification and conditions of tender and contract.

If insufficient responsive bids are received, the CCT reserves the right to appoint fewer tenderers or not to appoint any tenderers at all for any of the sections

The contract period shall be for a period of **three (3) years** 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 Alternative Bidder

Alternative Bidder” means a supplier or more than one supplier identified at the time of the award that will be considered for award should the appointed supplier (the winner) refuse the allocation of work offered in terms of the appointment.

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 City of Cape Town 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 City, 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 City appeal authority must consider the 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, Corporate Services Directorate

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

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

Via fax at: 021 400 5963 or 021 400 5830

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

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

The City Manager - C/o the Manager: Access to Information Unit, Corporate Services Directorate

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

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

Via fax at: 086 202 9982

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

2.1.7 City of Cape Town 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 City of Cape Town'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 City of Cape Town'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. An 'acceptable tender must "COMPLY IN ALL' aspects with the tender conditions, specifications, pricing instructions and contract conditions.

2.2.1.1.1 Submit a tender offer
Only those tender submissions from which it can be established 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 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 (applicable schedule to be completed);
c) A copy of the partnership / joint venture / consortium agreement to be provided.
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 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 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 to be completed);
g) The tenderer (including any of its 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, involved with the bid specification committee;
k) A completed **Authorisation for the Deduction of Outstanding Amounts Owed to the City of Cape Town** to be provided and which does not indicate any details that renders the tender non-responsive based on the conditions contained thereon (applicable schedules to be completed);
l) The tenderer (including any of its 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 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

2.2.1.1.4 Minimum score for functionality

Not Applicable

2.2.1.1.7 Provision of samples

Not Applicable

2.2.1.1.8 Additional Responsiveness criteria

Only Tenderers who are submitting an offer for Section A must complete Schedule 13 A: Technical Schedules of Equipment Offered. Failing to do so **may** render the offer non responsive for Section A only.

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

Treat as 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

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

2.2.6 Acknowledge and comply with notices

Acknowledge receipt of notices to the tender documents, which the CCT may issue, fully comply with all instructions issued in the 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 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.

2.2.7 Clarification meeting

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.

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

2.2.8 Seek clarification

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, where possible.

2.2.9 Pricing the tender offer

2.2.9.1 Comply with all pricing instructions as stated on the Price Schedule.

2.2.10 Alterations to documents

Do 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 tender conditions 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 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 of 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.

2.2.11.2 Accept that an alternative tender offer may be based only on the criteria stated in the tender conditions or criteria otherwise acceptable to the CCT.

2.2.12 Submitting a tender offer

2.2.12.1 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 contract conditions and described in the specifications. Only those tenders submitted on the tender documents as issued by the CCT together with all Returnable Schedules duly completed and signed will be declared responsive.

2.2.12.2 Return the entire 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 Submit the parts of the tender offer communicated on paper as an original with an English translation for any part of the tender submission not made in English.

1 (One) copy(ies) of the following elements of the bid submission must be submitted separately bound in the same envelope where possible:

Part	Heading
5	Pricing Schedules
6	Supporting Schedules
	All other attachments submitted by bidder

2.2.12.4 Sign the original tender offer where required in terms of the tender conditions. The tender shall be signed by a person duly authorised to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation 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.

2.2.12.5 Where a two-envelope system is required in terms of the tender conditions, place and seal the returnable documents listed in the tender conditions 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, as well as the tenderer's name and contact address.

2.2.12.6 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.

2.2.12.7 Accept that 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.

2.2.12.8 Accept that tender offers submitted by facsimile or e-mail will be rejected by the CCT, unless stated otherwise in the tender conditions.

2.2.12.9 By signing the offer part of the Form of Offer (**Section 2, Part A**) the tenderer warrants that all information provided in the tender submission is true and correct.

2.2.12.10 Tenders must be properly received and deposited 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.

2.2.12.12 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

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

2.2.14 Closing time

2.2.14.1 Ensure that the CCT receives the tender offer at the address specified in the General Tender Information prior to the closing time stated on the front page of the tender document.

2.2.14.2 Accept that, 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 Accept that, 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 Warrants 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 above, bids shall remain valid for acceptance for a period of twelve (12) months after the expiry of the original validity period, unless the City 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 and administrative processes and upon approval by the City Manager.

2.2.15.3 A tenderer may request in writing, after the closing date, that the 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.

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

Provide clarification of a 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 Provide, on 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 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 party to a Consortium/Joint Venture shall submit separate certificates/statements in the above regard.

2.2.17.3 Tenderers 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

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

If the **Specification** 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. Broad-Based Black Economic Empowerment Status Level Documentation

In order to qualify for preference points for HDI and/or Specific Goals, it is the responsibility of the tenderer to submit documentary proof, as either certificates, sworn affidavits or any other requirement prescribed in terms of the B-BBEE Act or any other legislation relevant for the points claimed 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 Clearance Certificate 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 also provide 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 Clearance Certificate.

Before making an award the City 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 City, 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 City via CSD or e-Filing. The City 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

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 Tender Conditions, 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 representative for the purpose of this tender is stated on the General Tender Information page.

2.3.2 Issue Notices

If necessary, 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 Employer 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, open tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender conditions.

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 tender conditions that a two-envelope system is to be followed, 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 tender conditions and announce the name of each tenderer whose technical proposal is opened.

2.3.4.2 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. Open only the financial proposals of tenderers, who have submitted responsive technical proposals in accordance with the requirements as stated in the tender conditions, and announce the total price and any preferences claimed. Return unopened financial proposals to tenderers whose technical proposals were non responsive.

2.3.5 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers 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

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) detrimentally 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 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 tender conditions.

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 (Part 5)**:

- based on the sum of the prices/rates in relation to the estimated quantities.

Tenderers must submit prices for all items in a particular section that they are tendering for, as the total price for that section will be used in the evaluation. Failure to submit prices for all items in a particular section **may** render the tenderer non responsive for that particular section, as per Pricing Instruction 5.6

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 over 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:

HDI COMPLIANCE WITH SECTION 2(1)(d)(i) OF THE ACT

Table B1: Awards UP TO R100 mil (VAT Inclusive)

#	Specific goals allocated points	Preference Points (90/10) *Above R50 mil*	Evidence
	Persons, or categories of persons, historically disadvantaged- (HDI) by unfair dis crimination on the basis of		
1	***Gender are women (ownership)**** *More than 50% women ownership = 5/ 2.5 points* *Less than 50% women ownership = 2.5/ 1.25 points* *0% women ownership = 0 points*	2.5	• Company Registration Certification • Identification Documentation • CSD report
2	***Race are black persons (ownership)**** *More than 50% black ownership = 5/ 2.5 points* *Less than 50% black ownership = 2.5/ 1.25 points* *0% black ownership = 0 points*	2.5	• Proof of B-BBEE certificate; • Company Registration Certification • Identification Documentation. • CSD report
3	***Disability are disabled persons (ownership)**** *WHO disability guideline* *1-100% ownership = 5/ 2.5 points* *0% ownership = 0 points*	2.5	• Proof of disability • Company Registration Certification • Identification Documentation
	Reconstruction and Development Programme (RDP) as published in Government Gazette		
4	***Promotion of Micro and Small Enterprises*** *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* *SME partnership, sub-contracting, joint venture or consortiums*	2.5	• Proof of B-BBEE status level of contributor; • South African owned enterprises; • Financial Statement to determine annual turnover
	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 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 employer's procurement,
b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,

c) has the legal capacity to enter into the contract,
d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing, complies with the legal requirements, if any, stated in the tender data, and
e) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

If an award cannot be made in terms of anything contained herein, the Employer reserves the right to consider the next ranked tenderer(s).

2.3.12.4 Not to make an award, or revoke an award already made, where the implementation of the contract may result in reputational risk or harm to the City as a result of (inter alia):

a) reports of poor governance and/or unethical behaviour;
b) association with known family of notorious individuals;
c) poor performance issues, known to the City;
d) negative social media reports; and
e) adverse assurance (e.g. due diligence) report outcomes.

2.3.12.5 The CCT reserves the right to nominate an alternative bidder at the time when an award is made and 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 alternative bidder in terms of the procedures included its SCM Policy.

2.3.13 Prepare contract documents

2.3.13.1 If necessary, revise documents that shall form part of the contract and that were issued by the CCT as part of the tender documents to take account of:

a) notices issued during the tender period,
b) inclusion of some of the returnable documents, and
c) other revisions agreed between the CCT and the successful tenderer.

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

2.3.14 Notice to successful and unsuccessful tenderers

2.3.14.1 Before accepting the tender of the successful tenderer the CCT shall notify the successful tenderer in writing of the decision of the CCT's Bid Adjudication Committee to award the tender to the successful tenderer. No rights shall accrue to the successful tenderer in terms of this notice

2.3.14.2 The CCT shall, at the same time as notifying the successful tenderer of the Bid Adjudication Committee's decision to award the tender to the successful tenderer, also give written notice to the other tenderers informing them that they have been unsuccessful.

2.3.15 Provide written reasons for actions taken

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

TENDER NO: 374G/2022/23

TENDER DESCRIPTION: SUPPLY AND DELIVERY OF HV PROTECTION EQUIPMENT

CONTRACT PERIOD: NOT EXCEEDING THIRTY-THREE (33) MONTHS FROM DATE OF COMMENCEMENT OF CONTRACT

VOLUME 2: RETURNABLE DOCUMENTS

TENDERER	
NAME of Company/Close Corporation or Partnership / Joint Venture/ Consortium or Sole Proprietor /Individual	
TRADING AS (if different from above)	

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

VOLUME 2: RETURNABLE DOCUMENTS
(3) DETAILS OF TENDERER

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	
City of Cape Town 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	

(4) FORM OF OFFER AND ACCEPTANCE

TENDER 374G/2022/23, SUPPLY AND DELIVERY OF HV PROTECTION EQUIPMENT

OFFER: (TO BE FILLED IN BY TENDERER):

Required Details (Please provide applicable details in full):

Name of Tendering Entity* ("the tenderer")	
Trading as (if different from above)	

AND WHO IS represented herein by: (full names of signatory)

_____

duly authorised to act on behalf of the tenderer in his capacity as: (title/ designation)

_____

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.

_____
Signature(s)

INITIALS OF CITY OFFICIALS		
1	**2**	**3**

_____
Print name(s):
On behalf of the tenderer (duly authorised)

_____
Date

TENDER 374G/2022/23, SUPPLY AND DELIVERY OF HV PROTECTION EQUIPMENT

ACCEPTANCE (TO BE FILLED IN BY THE CITY OF CAPE TOWN)

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the supplier the amount due in accordance with the conditions of contract. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract are contained in:

(7) & (8): Special and General Conditions of Tender
(5) Price schedule
13: Specifications

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

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the returnable schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer 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 this schedule.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documents to be provided in terms of the conditions of contract identified in the special contract conditions. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the parties have signed the table below and confirms receipt from the employer of one fully completed original copy of this agreement, including the schedule of deviations (if any). The tenderer (now supplier**)** shall within five working days of the agreement coming into effect notify the employer in writing of any reason why he cannot accept the contents of this agreement as a complete and accurate memorandum thereof, failing which the agreement presented to the contractor shall constitute the binding contract between the parties.

The Parties	Employer	Supplier
Business Name		
Business Registration		
Tax number (VAT)		
Physical Address		
Accepted contract sum including tax		
Accepted contract duration		
Signed – who by signature hereto warrants authority		
Name of signatory		
Signed: Date		
Signed: Location		
Signed: Witness		
Name of Witness		

FORM OF OFFER AND ACCEPTANCE (continued)

(TO BE FILLED IN BY THE CITY OF CAPE TOWN)

Schedule of Deviations

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 becomes an obligation of the contract shall also be recorded here.
4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft 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 returnable schedules, 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 receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

(5) PRICE SCHEDULE

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 tender conditions.

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 and delivery of equipment to CCT offices, 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 Employer may also perform a risk analysis with regard to the reasonableness of such rates.**

5.7 Prices tendered below shall be subject to adjustment in accordance with Schedule 8. Firm prices will not be considered and the tender may be declared non-responsive. Please note ROE, as well as manufacturer price list will be applicable and CPI for the remainder of items listed.

5.8 Tenderers submitting an offer for any section in this tender, **must** submit prices for all items in that specific section. Failure to do so **may** render your tender submission non responsive for that specific section.

5.9 Sections A, B, C, D, E, F, G, H and I will be awarded to a main and alternative tenderer.

5.10 Delivery date of equipment ordered must not exceed the period specified in the pricing schedule from the date that the purchase order was generated. Delivery periods cannot exceed 16 weeks for Section: A or 8 weeks for Sections: B to I, tenderers must indicate delivery period on pricing schedule if shorter than the maximum period stated above. If the tenderer submits a delivery period shorter than the maximum period for that section, the delivery period declare/submitted by the tenderer will be used in the calculation of penalties

5.11 Tenderers to note that all items for which pricing is being provided must meet the requirements in the Specification (Section 13)
If alternative equipment is being offered it must be indicated in the Equipment offered column, provided on the pricing schedule.

5.12 For all equipment being offered, where the tenderer is not the manufacturer, a quotation from the manufacturer on an official letterhead, must be submitted with the offer. The date of the quotation must be prior to the closing of the tender. Failure to provide these quotations may result in the offer being declared non responsive

5.14 Tenderers are to note that the anticipated start date of this contract is the 1st March 2024

	(5) PRICE SCHEDULE				
Item	**Description**	**Unit**	**Delivery Period (weeks)**	**Unit Price-Delivered (Excl. VAT) (R)**	**Manufacturer**
	SECTION A				
A.1	Supply, factory test and delivery of a IDMT over-current and earth-fault protection relay, as specified.((13) Specifications - 1)	Each		R	
A.2	Supply, factory test and delivery of a Transformer protection scheme, as specified.((13) Specifications - 10)	Each		R	
A.3	Supply, factory test and delivery of a Transformer protection scheme with Bay Control relay, as specified.((13) Specifications - 10)	Each		R	
A.4	Supply, factory test and delivery of a Transformer Feeder protection scheme, as specified.((13) Specifications - 11)	Each		R	
A.5	Supply, factory test and delivery of a Transformer Feeder protection scheme with a matching Remote Cable Differential relay included, as specified.((13) Specifications - 11	Each		R	
A.6	Supply, factory test and delivery of a Feeder protection scheme, as specified.((13) Specifications - 12)	Each		R	
A.7	Supply, factory test and delivery of a Feeder protection scheme with Bay Control relay, as specified.((13) Specifications - 12)	Each		R	
A.8	Supply, factory test and delivery of a Bus Coupler protection scheme, as specified.((13) Specifications - 13)	Each		R	
A.9	Supply, factory test and delivery of a Busbar protection scheme (7 Bay), as specified.((13) Specifications - 14)	Each		R	
A.10	Supply, factory test and delivery of a Busbar) protection scheme (21 Bay, as specified.((13) Specifications - 15)	Each		R	
A.11	Supply, factory test and delivery of a transformer on-load tap-change control scheme, as specified.((13) Specifications - 16)	Each		R	
A.12	Basic Training (Two days).((13) Specifications - 17.1)	Per Session		R	
A.13	Advance Training (Five days).((13) Specifications - 17.2)	Per Session		R	

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
SECTION B						
B.1	SEL-387A	Each		R		
B.2	SEL-387E	Each		R		
B.3	SEL-487E	Each		R		
B.4	SEL-487B (103BI, 40BO)	Each		R		
B.5	SEL-487B (55BI, 24BO)	Each		R		
B.6	SEL-787	Each		R		
B.7	SEL-311L	Each		R		
B.8	SEL-411L	Each		R		
B.9	SEL-411LA	Each		R		
B.10	SEL-421	Each		R		
B.11	SEL-451	Each		R		
B.12	SEL-751A (MV ARC,24V,5A)	Each		R		
B.13	SEL-751A (MV ARC,24V,1A)	Each		R		
B.14	SEL-751A (MV ARC,110V,5A)	Each		R		
B.15	SEL-751A (MV ARC,110V,1A)	Each		R		
B.16	SEL-751A (HV B/U,110V,1A)	Each		R		
B.17	SEL-751 (MV ARC,24V,5A)	Each		R		
B.18	SEL-751 (MV ARC,24V,1A)	Each		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
B.19	SEL-751 (MV ARC,110V,5A)	Each		R		
B.20	SEL-751 (MV ARC,110V,1A)	Each		R		
B.21	SEL-751 (HV B/U,110V,1A)	Each		R		
B.22	SEL-751 (BCU)	Each		R		
B.23	SEL-751 (GIS)	Each		R		
B.24	SEL-851 (STD)	Each		R		
B.25	SEL-851 (ADV)	Each		R		
B.26	SEL-735	Each		R		
B.27	SEL-2505 (110V, 500m) with transceiver	Each		R		
B.28	SEL-2505 (110V, 4km) with transceiver	Each		R		
B.29	SEL-2505 (110V, 80km) with transceiver	Each		R		
B.30	SEL-2505 (24V, 500m) with transceiver	Each		R		
B.31	SEL-2800	Each		R		
B.32	SEL-2812	Each		R		
B.33	SEL-2815	Each		R		
B.34	SEL-2411 (24Vdc)	Each		R		
B.35	SEL-2411 (110Vdc,1A)	Each		R		
B.36	SEL-2411 (30Vdc,1A)	Each		R		
B.37	SEL-2440 (110V,32BI,16BO)	Each		R		
B.38	SEL-2440 (24V,32BI,16BO)	Each		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
B.39	SEL-2440 (110V,48DI)	Each		R		
B.40	SEL-751A 3ph AC Voltage & 4 ARC-Flash Detection Input Card + back-plate	Each		R		
B.41	SEL-751A 8 Digital Input Card	Each		R		
B.42	SEL-751A 4 Digital Input / 4 Digital Output Card	Each		R		
B.43	SEL-751A 4AC Current Input card (5A/5A)	Each		R		
B.44	SEL-751A 4AC Current Input card (5A/1A)	Each		R		
B.45	SEL-751 14 Digital Input Card	Each		R		
B.46	SEL-751 8 Digital Output Card	Each		R		
B.47	SEL ARC-Flash Sensor Kit	Each		R		
B.48	SEL-C814 Clear-Jacketed Fibre Spool (500m)	Each		R		
B.49	SEL-3350 (110Vdc)	Each		R		
B.50	SEL-3350 (24Vdc)	Each		R		
B.51	SEL-3530-4 (110Vdc)	Each		R		
B.52	SEL-3530-4 (24Vdc)	Each		R		
B.53	SEL-3555	Each		R		
B.54	SEL-3360 (WIN 10)	Each		R		
B.55	SEL-3360 (Server 22')	Each		R		
B.56	SEL HMI add-on	Each		R		
B.57	SEL GOOSE add-on	Each		R		
B.58	SEL FTP Synch add-on	Each		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
B.59	SEL-2401	Each		R		
B.60	SEL-2488 (IRIG-B)	Each		R		
B.61	SEL-2488 (PTP)	Each		R		
B.62	SEL-2725 (3CU,2FX)	Each		R		
B.63	SEL-2725 (4CU,1FX)	Each		R		
B.64	SEL-2730M (125Vdc,16FX)	Each		R		
B.65	SEL-2730M (125Vdc,16CU)	Each		R		
B.66	SEL-2730M (125Vdc,8CU,8FX)	Each		R		
B.67	SEL-2730M (24Vdc,16FX)	Each		R		
B.68	SEL-2740S (125Vdc,16 FX)	Each		R		
B.69	SEL-2740S (125Vdc, 8FX)	Each		R		
B.70	SEL-9330 (2730M-110V PS)	Each		R		
B.71	SEL-9330C (2730M-24V PS)	Each		R		
B.72	SEL 8131-01 SFP Transceiver	Each		R		
B.73	SEL C662 USB port to EIA-232, 9-pin, male, 15foot/5m	Each		R		
B.74	17” LCD Touch screen with 19” mounting bracket	Each		R		
B.75	19” LCD Touch screen with 19” mounting bracket	Each		R		
SECTION C						
C.1	RET670 (32BI,24BO)	Each		R		
C.2	RET670 (32BI,24BO, LDCM)			R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
C.3	RED670 (In Zone TX)	Each		R		
C.4	RED670 (In Zone TX, VT's, Sync check, Fuse fail)	Each		R		
C.5	REC670 BC	Each		R		
C.6	REC670 UF	Each		R		
C.7	REC670 FDR	Each		R		
C.8	REB670 (64BI,24BO)	Each		R		
C.9	REB670 (136BI,60BO)	Each		R		
C.10	REB500 Power Supply Module 500PSM03	Each		R		
C.11	REB500 Star Coupler 500SCM01	Each		R		
C.12	REB500 500BIO01 I/O Card	Each		R		
C.13	REB500 500CU03 Processor Unit	Each		R		
C.14	REB500 500CIM06 Coms Card	Each		R		
C.15	RTU 560 CMR01 R0001	Each		R		
C.16	RTU 560 Basic license (61850) open DP,SD	Each		R		
C.17	RTU 560 PLC/Archive license open DP,SD	Each		R		
C.18	RTU 560PSR00 R0001	Each		R		
C.19	RTU 560PSU02 R0001	Each		R		
C.20	RTU 560SFR02 R0001	Each		R		
C.21	RTU 560BCU05 R0001	Each		R		
C.22	RTU 560 23AIR01 R0001	Each		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
C.23	RTU 560 23BA23 R0001	Each		R		
C.24	RTU 560 23BIR01 R0001	Each		R		
C.25	RTU 560 MPR03 R0001	Each		R		
C.26	SACO 16DI	Each		R		
C.27	RED670 IO (mA card)	Each		R		
C.28	RED670 Power Supply Cards	Each		R		
C.29	RED670 Output Card	Each		R		
C.30	RED670 Input Card	Each		R		
C.31	RED670 Optical medium range LDCM, 1310 nm	Each		R		
C.32	RED670 Optical long range LDCM, 1550 nm	Each		R		
C.33	RED670 TRM 6I 1A + 6U 110/220V, with Synch Check, Impedance protection and Fuse Failure	Each		R		
C.34	SFP Transceiver	Each		R		
SECTION D						
D.1	RET 543-AM245AAAA	Each		R		
D.2	REF543KB127AAAA	Each		R		
D.3	REF543KB127AAAB	Each		R		
D.4	REF545KC133AAAA	Each		R		
D.5	REF545KB133AAAA	Each		R		
D.6	REF545KB133AAAB	Each		R		
D.7	REF545KM133AAAA	Each		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
D.8	REF545KM133AAAB	Each		R		
D.9	REF630 (32BI, 27BO)	Each		R		
D.10	REF630 (41BI, 36BO)	Each		R		
D.11	REF630 (50BI, 45BO)	Each		R		
D.12	REF630 LHMI Display	Each		R		
D.13	REF630 Power Supply Module	Each		R		
D.14	REX640	Each		R		
D.15	REX640 LHMI Display	Each		R		
D.16	REA 101	Each		R		
D.17	REA 105	Each		R		
D.18	REA 107	Each		R		
D.19	ABB ZEE600	Each		R		
D.20	ABB – AFS675	Each		R		
D.21	ABB – AFS655	Each		R		
D.22	ABB – LC Multimode SFP	Each		R		
D.23	SPA-ZC 400 EL	Each		R		
D.24	SPA-ZC 400 ELP	Each		R		
D.25	SPA-ZC 402 ELPA	Each		R		
D.26	SPA-ZC 21 BB-S	Each		R		
D.27	HMI-PC USB converter cable, 12foot/4m	Each		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
D.28	SPA-ZP 5A3 RS232 cable	Each		R		
D.29	3ph, 400V AC Phase Fail Relay	Each		R		
D.30	REX610	Each		R		
D.31	REF611	Each		R		
D.32	REF615E	Each		R		
D.33	Miniature Circuit Breaker - 2P - C – 2A	Each		R		
D.34	Miniature Circuit Breaker - 2P - C – 6A	Each		R		
D.35	Miniature Circuit Breaker - 2P - C – 10A	Each		R		
D.36	Miniature Circuit Breaker - 2P - C – 20A	Each		R		
D.37	Contactor ABB NF22E-13 2N/O 2N/C	Each		R		
D.38	Axillary Contacts for ABB NF22E-13 FRONT 2N/C 2N/O	Each		R		
D.39	LMR/S 4-Pole Rotary Rack-up Switch and Mounting Bracket	Each		R		
D.40	LMR/S Rotary Rack-up switch Housing	Each		R		
D.41	LMR/S Circuit Breaker Spring Loaded Rach-up Pin	Each		R		
D.42	HD4 Circuit Breaker Spring Loaded Rach-up Pin	Each		R		
D.43	LMR/S Limit Switch; NO+; NC;10A plus Mounting Bracket	Each		R		
SECTION E						
E.1	REG-DA	Each		R		
E.2	REG-SK1	Each		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
E.3	REG-DA 6 BI Card	Each		R		
E.4	REG-DA REG-PEcs	Each		R		
E.5	REG-DA 110Vdc power supply card	Each		R		
E.6	REG-DA 30Vdc power supply card	Each		R		
E.7	REG-DA Display screen	Each		R		
E.8	Electro DVW3 Phase Fail relay 110VAC	Each		R		
E.9	Electro DVW3 Phase Fail relay 400VAC	Each		R		
E.10	11 PIN 3 wiper RELAY & BASE – 24Vdc	Each		R		
E.11	11 PIN 3 wiper RELAY & BASE – 110Vdc	Each		R		
E.12	11 PIN 3 wiper RELAY & BASE – 230Vac	Each		R		
E.13	11 PIN 3 wiper RELAY & BASE – 110Vac	Each		R		
SECTION F						
F.1	Solkor R/RF (1A)	Each		R		
F.2	Solkor R/RF (5)	Each		R		
F.3	Solkor R/RF (6.67)	Each		R		
F.4	Solkor N (110Vdc)	Each		R		
F.5	Solkor N (30Vdc)	Each		R		
F.6	Siemens 7SR45 (MV Self Powered, 2 BI)	Each		R		
F.7	Siemens 7SR45 (MV 24V, 2BI, 2BO, 5A)	Each		R		
F.8	Siemens 7SR45 (MV 24V, 4BI, 4BO, 5A)	Each		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
F.9	WIP12-I1-E1	Each		R		
F.10	RUGGEDCOM RSG 2300	Each		R		
F.11	RUGGEDCOM RSG 2100	Each		R		
F.12	RUGGEDCOM RSG2100NC	Each		R		
F.13	RUGGEDCOM RSG2100NC	Each		R		
F.14	RUGGEDCOM RX1400(48V)	Each		R		
F.15	RUGGEDCOM RX1400(110V)	Each		R		
F.16	RUGGEDCOM - LC Multi-mode SFP	Each		R		
SECTION G						
G.1	Moxa NPort S8458-4S-SC-T	Each		R		
G.2	Meanwell 110VDC – 12VDC Converter	Each		R		
G.3	Meanwell SD-25C-12 DC48/DC12V Converter	Each		R		
G.4	Meanwell DDT-120A-24	Each		R		
G.5	Meanwell TS-400-248D	Each		R		
G.6	Meanwell TS-700-248D	Each		R		
G.7	Transition Networks RS232 to FX converter – SRS2F3111-100	Each		R		
G.8	Transition Networks RS232 to FX converter – SRS2F3114-100	Each		R		
G.9	Transition Networks RS232 to FX converter – CRS2F3111-100	Each		R		
G.10	Transition Networks RS232 to FX converter – CRS2F3114-100	Each		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
G.11	Moxa Nport S9450I-SS-SC-WV	Each		R		
G.12	Moxa Nport S9450I-SS-SC-HV	Each		R		
G.13	Moxa ICF-1150I-S-SC	Each		R		
G.14	Moxa ICF-1150I-M-ST	Each		R		
G.15	Moxa PTC-101-S-SC-LV	Each		R		
G.16	Moxa PTC-101-S-SC-HV	Each		R		
G.17	Moxa PTC-101-M-LC-LV	Each		R		
G.18	Moxa PTC-101-M-LC-HV	Each		R		
G.19	Moxa Nport 5110A-T	Each		R		
G.20	Moxa Nport IA-5150 T	Each		R		
SECTION H						
H.1	LC-LC M/M Patch lead (1m)	Each		R		
H.2	LC-LC M/M Patch lead (3m)	Each		R		
H.3	LC-LC M/M Patch lead (5m)	Each		R		
H.4	LC-LC M/M Patch lead (7m)	Each		R		
H.5	LC-LC M/M Patch lead (9m)	Each		R		
H.6	LC-LC M/M Patch lead (11m)	Each		R		
H.7	LC-LC M/M Patch lead (13m)	Each		R		
H.8	LC-LC M/M Patch lead (15m)	Each		R		
H.9	LC-LC M/M Patch lead (20m)	Each		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
H.10	LC-LC M/M Patch lead (25m)	Each		R		
H.11	LC-LC M/M Patch lead (30m)	Each		R		
H.12	LC-LC M/M Patch lead (35m)	Each		R		
H.13	LC-LC M/M Patch lead (40m)	Each		R		
H.14	LC-LC M/M Patch lead (50m)	Each		R		
H.15	LC-LC M/M Patch lead (60m)	Each		R		
H.16	ST-LC M/M Patch lead (1m)	Each		R		
H.17	ST-LC M/M Patch lead (10m)	Each		R		
H.18	ST-LC M/M Patch lead (15m)	Each		R		
H.19	ST-LC M/M Patch lead (20m)	Each		R		
H.20	ST-LC M/M Patch lead (30m)	Each		R		
H.21	ST-LC M/M Patch lead (40m)	Each		R		
H.22	ST-ST M/M Patch lead (10m)	Each		R		
H.23	ST-ST M/M Patch lead (15m)	Each		R		
H.24	ST-ST M/M Patch lead (20m)	Each		R		
H.25	ST-ST M/M Patch lead (30m)	Each		R		
H.26	ST-ST M/M Patch lead (40m)	Each		R		
H.27	MTRJ-ST M/M Patch lead (1m)	Each		R		
H.28	ST-ST S/M Patch lead (10m)	Each		R		
H.29	ST-ST S/M Patch lead (15m)	Each		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
H.30	ST-ST S/M Patch lead (20m)	Each		R		
H.31	ST-ST S/M Patch lead (30m)	Each		R		
H.32	ST-ST S/M Patch lead (40m)	Each		R		
H.33	ST-ST S/M Patch lead (50m)	Each		R		
H.34	ST-FC S/M Patch lead (10m)	Each		R		
H.35	ST-FC S/M Patch lead (15m)	Each		R		
H.36	ST-FC S/M Patch lead (20m)	Each		R		
H.37	ST-FC S/M Patch lead (30m)	Each		R		
H.38	ST-FC S/M Patch lead (40m)	Each		R		
H.39	ST-FC S/M Patch lead (50m)	Each		R		
H.40	ST-SC S/M Patch lead (10m)	Each		R		
H.41	ST-SC S/M Patch lead (15m)	Each		R		
H.42	ST-SC S/M Patch lead (20m)	Each		R		
H.43	ST-SC S/M Patch lead (30m)	Each		R		
H.44	ST-SC S/M Patch lead (40m)	Each		R		
H.45	ST-SC S/M Patch lead (50m)	Each		R		
H.46	ST – FC S/M Patch lead (1m)	Each		R		
H 47	1mm Plastic fibre Duplex	Per m		R		
H.48	CAT5e Ethernet cable	Per m		R		
H.49	RG 58 Coaxial Cable	Per m		R		

(5) PRICE SCHEDULE

Item	Description of equipment required	Unit	Delivery Period (weeks)	Unit Price-Delivered (Excl. VAT) (R)	Equipment offered	Supplier confirmation that equipment offered conforms to requirement (Y/N)
H.50	PK2 – 4 way Test blocks	Each		R		
H.51	PK2 – 4 way Test Handle	Each		R		
H.52	PK2 – 6 way Test blocks	Each		R		
H.53	PK2 – 6 way Test Handle	Each		R		
H.54	Entrelec M8/8.RS Terminal blocks	Each		R		
H.55	Entrelec M8 end plates	Each		R		
H.56	Entrelec M8 stop blocks	Each		R		
H.57	ST – ST mid-couplers	Each		R		
H.58	LC – LC mid-couplers	Each		R		
H.59	V-pin connector	Each		R		
H.60	V-pin mid-coupler	Each		R		
SECTION I						
I.1	Supply and delivery of a free standing relay panel, as specified.((13) Specifications - 7)	Each		R		
I:2	Supply and delivery of a free standing communication panel, as specified.((13) Specifications - 8)	Each		R		
I.3	Supply and delivery of a Wall mounted communication panel, as specified.((13) Specifications - 9)	Each		R		

TENDERERS MUST NOTE AND COMPLY WITH THE RESPONSIVENESS CRITERIA

INITIALS OF CITY OFFICIALS		
1	2	3

(6) SUPPORTING SCHEDULES

Schedule 1: 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 2: 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	

1.1 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	

3.1 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	

4.1 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 employer of any other remedies available to it.

_____ _____

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule 3:
PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

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).

FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 90/10 PREFERENCE POINT SYSTEMS

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

90/10

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

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

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

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

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

Table 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 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

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

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)
Gender (Women ownership)	2.5	
Race (Black persons ownership)	2.5	
Disability are (Disabled persons ownership)	2.5	
Promotion of Micro and Small Enterprises	2.5	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm……..

4.4. Company registration number: ……...

4.5. TYPE OF COMPANY/ FIRM

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

[Tick applicable box]

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

i) The information furnished is true and correct;

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

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

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

(a) disqualify the person from the tendering process;

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

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

(d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and

(e) forward the matter for criminal prosecution, if deemed necessary.

.....
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME: .....
DATE: .....

ADDRESS: .....

.....

.....
.....

For official use.		
SIGNATURE OF CITY OFFICIALS AT TENDER OPENING		
1.	2.	3.

Schedule 4: Declaration of Interest – State Employees (MBD 4 amended)

1. No bid will be accepted from:
   1.1 persons in the service of the state[1], 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 during the twelve months after the City employee has left the employ of the City, or
   1.4 from an entity who has employed a former City employee who was at a level of T14 of higher at the time of leaving the City's employ and involved in any of the City's bid committees for the bid submitted, if:
      1.4.1 the City employee left the City's employment voluntarily, during a period of 12 months after the City employee has left the employ of the City;
      1.4.2 the City employee left the City's employment whilst facing disciplinary action by the City, during a period of 24 months after the City employee has left the employ of the City, or any other period prescribed by applicable legislative provisions, after having left the City's employ.
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:……...
   .2 Identity Number:……

   3.3 Position occupied in the Company (director, trustee, shareholder[2])……

   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 City of Cape Town 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 City of Cape Town at a level of T14 or higher at the time they left the employ of the City, and who was involved in any of the City'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 employer of any other remedies available to it.

_____ _____

Signature
Print name: Date
On behalf of the tenderer (duly authorised)

[1]MSCM 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 5: 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 City of Cape Town, please contact the following:

the City'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 employer of any other remedies available to it.

_____ _____

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule 6: 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 0f 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 *audi alteram partem* rule was applied). **The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.**	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 ☐
2.7.1	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 employer of any other remedies available to it.

_____ _____

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule 7: Authorisation for the Deduction of Outstanding Amounts Owed to the City of Cape Town

To: THE CITY MANAGER, CITY OF CAPE TOWN

From: _____
(Name of tenderer)

RE: AUTHORISATION FOR THE DEDUCTION OF OUTSTANDING AMOUNTS OWED TO THE CITY OF CAPE TOWN

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;

d) 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 employer of any other remedies available to it.

Physical **Business** address(es) of the tenderer	Municipal Account number(s)

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)

_____ _____
Signature Date
Print name:
On behalf of the tenderer (duly authorised)

Schedule 8: Contract Price Adjustment and/or Rate of Exchange Variation

8.1 PRICING INSTRUCTIONS:

8.1.1 The Contract Price Adjustment mechanisms and/or provisions relating to Rate of Exchange Variation contained in this schedule are compulsory and binding on all tenderers.
8.1.2 Failure to complete this schedule or any part thereof **may** result in the tender offer being declared non-responsive.
8.1.3 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 non-responsive.
8.1.4 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.
8.1.5 The prices stipulated on the pricing schedule shall be subject to price adjustment as follows:

8.2 SUPPLIER / MANUFACTURER CONTRACT PRICE ADJUSTMENT

Tenderers are required to complete **either** Section 8.2.1 or Section 8.2.2 below. **(Refer to Clause 8.5.2 of Schedule 8)**.

Tenderers shall in addition complete Section 8.3 if Rate of Exchange Variations are applicable.

8.2.1 Tenderers that are Manufacturers of the Tendered Items:

Tenderers that are manufacturers of the tendered items are subject to contract price adjustment based on SEIFSA INDICES and/or MATERIALS SUPPLIER'S PRICE LISTS, and shall complete only the following options:

b) Increase using Material Supplier Price Lists

The tender price shall be subject to adjustment based on Supplier's Price Lists for the materials supplied for the manufacture of the tendered items.

Supplier: _____

Date of Price List/Quotation upon which tender is based _____

PriceList/QuotationReference number _____

N.B.

- The above information must be provided for each item supplied to the Tenderer.
- Copies of price lists on which tender prices are based shall be enclosed for all items.
- Tenderers will be entitled to claim only the difference between the cost of the product at the time of tendering and the new cost. Documentation to this effect must be submitted with each claim.

8.2.2 Tenderers that are not Manufacturers of the Tendered Items (If more than one manufacturer are used please supply the additional manufacturer's information after Schedule 13A of this document)

Tenderers that are NOT manufacturers of the tendered items are subject to contract price adjustment based on the SUPPLIER'S / MANUFACTURER'S PRICE LISTS from the supplier or manufacturer of the tendered items, as detailed in Clause 8.5.2 of Schedule 8, and shall complete the following:

Supplier: _____

Date of Price List/Quotation upon which tender is based _____

Price List/Quotation Reference Number_____

N.B.

- The above information must be provided for each item supplied to the Tenderer.
- Copies of price lists on which tender prices are based shall be enclosed for all items. The items referenced on the Pricing Schedule must be clearly identified on the Price List.
- Tenderers will be entitled to claim only the difference between the cost of the product at the time of tendering and the new cost. Documentation to this effect must be submitted with each claim.

8.3 RATE OF EXCHANGE VARIATIONS

Only tenderers who are the direct importer of the Goods may claim rate of exchange price variations. (Refer to Clause 9.4 below).

Exchange Rate on which tender is based: _____ 1 = S A Rand_____

Name of Bank: _____

Date of quoted rate of exchange:_____

The end date applicable for variation shall be the date of shipment received (ie. The date of the Bill of Lading / Waybill / Customs Invoice)

Tenderer to indicate applicable documentation (Bill of Lading / Waybill / Customs Invoice):

_____

If any other documentation other than those indicated above is applicable, the tenderer is to indicate this clearly and identify the applicable documentation in the space provided above.

Item No.	Amount and denomination of foreign currency	Rate of exchange as at **7 days prior** to date of tender	Value in Rand, of foreign currency content (columns AxB)	Customs Surcharge		Customs Duty		Amount of South African Content	Total in Rand of columns C+D+E+F (Total Tender Price) (Excl. VAT)
				%	R	%	R		
	(A)	(B)	(C)		(D)		(E)	(F)	(G)

Item No.	Amount and denomination of foreign currency	Rate of exchange as at **7 days prior** to date of tender	Value in Rand, of foreign currency content (columns AxB)	Customs Surcharge		Customs Duty		Amount of South African Content	Total in Rand of columns C+D+E+F (Total Tender Price) (Excl. VAT)
				%	R	%	R		
	(A)	(B)	(C)		(D)		(E)	(F)	(G)

8.4 Pricing Schedule

1st year: **12 months from date of commencement of contract -**
Firm – No request for price increases shall be entertained.

2nd year: Subject to adjustment in accordance with the average **Consumer Price Index. Base month** for the price adjustment shall be the month of commencement of the 1st year and **end date** shall be 12th month of the 1st year. (12 months totalled/12 to achieve the average CPI)

3rd year: Subject to adjustment in accordance with the **Consumer Price Index. Base month** for the price adjustment shall be the month of commencement of the 2nd year and **end date** shall be 12th month of the 2nd year. (12 months totalled/12 to achieve the average CPI)

Please Note: **Year on year increases.**

8.5 **PRICE VARIATION CLAIM**

8.5.2 Supplier / Manufacturer Price List Variations (Refer to 8.2.2 above)

This section is applicable to Tenderers that are NOT the manufacturer of the tendered Goods.

If the contract is subject to variation based on **SUPPLIER / MANUFACTURER PRICE LISTS**, the following will be applicable:

8.5.2.1 Contractors shall make the application for contract price adjustment prior to the date upon which the price adjustment would become effective.

8.5.2.2 The effective date of any price adjustment granted will be the first day of the month following the month during which the fully substantiated application for contract price adjustment is submitted and approved or, by agreement between the Contractor and the Employer, a subsequent date on which the price adjustment will become effective.

8.5.2.3 In instances where the Contractor's price adjustment claimed is less than entitled, the lesser price will be accepted.

8.5.2.4 Purchase orders placed prior to the effective date of any price increase shall be placed at the previously agreed price, not the claimed adjusted price.

8.5.2.5 Only the difference in cost may be adjusted and under no circumstances may the Contractor increase their profit margin.

8.5.2.6 The process to be followed by the Contractor for claims for contract price adjustment shall be as follows:

a) The Contractor shall submit all of the documentation indicated below a minimum of two weeks prior to the effective date of the contract price adjustment.

b) The Employer will consider the proposed contract price adjustment and based on the documentary evidence, the Employer may approve the adjustment.

c) A letter authorising the price adjustment will be issued to the Contractor.

d) All purchase orders issued subsequent to the effective date of the contract price adjustment will be issued at the approved adjusted contract price.

8.5.2.7 The Contractor shall supply the following documentation when applying for a contract price adjustment:

a) The price list that the tender was based upon clearly indicating the items numbered according to the tender pricing schedule.

b) The new price list from the same Supplier / Manufacturer as originally tendered and clearly indicating the items numbered according to the tender pricing schedule and the revised price applicable to each item.

c) Detailed calculations indicating how the new price has been established.

d) A covering letter on the Contractor's letterhead requesting the contract price adjustment.

e) All documentation is to be signed by the Supplier / Manufacturer and by the Contractor.

8.5.2.8 In the event of a Contractor changing their Supplier / Manufacturer during the tenure of the contract, no request for price variations will be considered unless the Contractor has obtained prior approval from the City for the change of Supplier / Manufacturer. Such approval shall include technical approval by the Engineer of the goods supplied by the replacement Supplier / Manufacturer. Technical approval by the Engineer shall be a prerequisite for any change of Supplier / Manufacturer.

8.5.3 Rate of Exchange Variations (Refer to 8.3 above)

8.5.3.1 The Tenderer shall note The Department: Trade and Industry Local Production and Content requirements included with and forming a part of this specification and shall comply fully therewith.

8.5.3.2 If the Contract price is subject to variations in RATES OF EXCHANGE the Tenderer SHALL complete the appropriate section in Schedule 8, failing which no claim for contract price adjustment on the basis of rate of exchange variations will be considered.

8.5.3.3 Only Contractors that are directly importing the tendered Goods or component parts of the tendered Goods may claim rate of exchange variations.

8.5.3.4 Contractors shall take out Forward Cover covering the foreign exchange component of the cost of any imported portion of the Goods ordered on each purchase order issued by the Employer.

8.5.3.5 The process to be followed by Contractors for claims for Rate of Exchange Variations shall be as follows:

a) On receipt of a purchase order the Contractor shall arrange for a quotation for Forward Cover from their banking institution.

b) This Forward Cover quotation shall be submitted to the Employer for approval of the Forward Cover rate within seven days from date of receipt of the purchase order.

c) Only once the Forward Cover rate is approved may the Contractor engage in a formalised contract with their banking institution and submit the Forward Cover contract to the Employer. This shall be done within two days from the City's approval.

d) The Forward Cover Contract shall refer to the purchase order number, shall be signed by both parties (the Contractor and the Banking Institution) and shall be valid until such time as the goods are delivered to the Employer.

8.5.3.6 On delivery of the goods to the City the Contractor shall submit the following documentation:

a) The Bill of Lading/Waybill/Customs Invoice (clearly indicating the items as identified on the purchase order).

b) Calculations detailing the difference in the rate of exchange at the time of entry and the date of tender. These shall be submitted on a covering letter.

8.5.4 Supplier Price List Variations for Contractors Supplying Goods Imported by Another Party (Refer to 8.2 above).

8.5.4.1 Tenderers that intend to purchase the goods from another supplier who in turn is importing the goods shall obtain Firm Prices from this supplier and shall submit the price list in accordance with the process outlined in Clause 8.5.2 above. The updated pricelist shall be submitted to the City within seven calendar days of the date of the purchase order date. (Tenderer are again referred to The Department: Trade and Industry Local Production and Content Requirements included with and forming a part of this specification).

8.5.5 Contract Price Adjustment – General

8.5.5.1 All requests for variation in the contract price shall be submitted in writing as follows:

- By letter to: Director Supply Chain Management, City of Cape Town, P O Box 655, Cape Town, 8000, or
- by email to: CPA.Request@capetown.gov.za.

prior to the date upon which the price adjustment would become effective.

8.5.5.2 When submitting an application for contract price adjustment the Contractor shall provide the applicable month's actual indices for the SEIFSA Table No's and Descriptions detailed in Annexure A of Schedule 8 or the supplier's actual published pricelists applicable to the particular month, and the actual revised rate proposed for each item. A mere notification of an application for contract price adjustment without stating the adjusted price claimed for each item shall, for the purpose of this clause, not be regarded as a valid claim.

8.5.5.3 The Employer reserves the right to request the Contractor to submit auditor's certificates or such other documentary proof as it may require in order to verify a claim for contract price adjustment. Should the supplier fail to submit such auditor's certificates or other documentary proof to the City of Cape Town within a period of 30 (thirty) days from the date of the request, it shall be presumed that the supplier has abandoned his claim.

Schedule 9: Certificate of Independent Tender Determination

I, the undersigned, in submitting this tender 374G/2022/23 - SUPPLY AND DELIVERY OF HV PROTECTION EQUIPMENT in response to the tender invitation made by THE CITY OF CAPE TOWN, 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 consortium[1] 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/or may be reported to the National Prosecuting Authority (NPA) for criminal investigation, and/or may be restricted from conducting business with the public sector for a period not exceeding 10 (ten) years in terms of the Prevention and Combating of Corrupt Activities Act, Act 12 of 2004, or any other applicable legislation.

_____ _____

Signature **Date**

_____

Name (PRINT)
(For and on behalf of the Tenderer (duly authorised))

([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 10: Price Basis for Imported Resources

VALUE OF IMPORTED RESOURCES TO BE ADJUSTED						Customs Surcharge		Customs Duty*		Total in Rand of (C) + (D) + (E) included in Price Schedule
Price Schedule Item No.	Description of Resources	Value in Foreign Currency (A)	Rate of Exchange as at BASE DATE (B)	Value in Rand (A) x (B) (C)		%	Rand (D)	%	Rand (E)	(F)

*** State Customs Duty Tariff Reference for each item**

Note:

Note that any Resources not inserted in this Returnable Schedule shall be deemed to be manufactured / supplied in South Africa for the purposes of Contract Price Adjustment. The BASE DATE referred to in column (B) will be7 calendar days before tender closing.

SIGNED ON BEHALF OF TENDERER: .....

Schedule 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 12: Record of Addenda to Tender Documents

We confirm that the following communications received from the Employer 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.

SIGNED ON BEHALF OF TENDERER: . . . . . .

Schedule 13: Information to be provided with the tender

The following information shall be provided with the Tender:

a. Schedule 13 A: Technical Schedule of Equipment Offered shall be completed fully, failure to do so may declare your tender submission non responsive for Section A only.

Only tenderers that are submitting an offer for Section A, are required to complete schedule 13 A

Note: All other supporting documents (certificates, manuals & type testing) must be provided in digital format (e.g. Flash Drive or CD)

SIGNED ON BEHALF OF TENDERER: . . . . . .

Schedule 13 A: Technical Schedules of Equipment Offered

SCHEDULES OF EQUIPMENT OFFERED

1 IDMT OVERCURRENT AND EARTH FAULT RELAYS WITH ARC PROTECTION

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
1	**Manufacturer**	-	-	
2	**Type**	-	-	
3	**Overcurrent highset elements (50P or PIOC)**	-	Minimum 3 elements	
3.1	Pickup	pu of CT input rating i.e. 1A or 5A	0.1 - 20	
3.2	Current step	pu	0.01	
3.3	Time delay	seconds	0 - 5	
3.4	Time step	seconds	0.01	
4	**Overcurrent IDMT elements (51P or PTOC)**	-	Minimum 2 elements	
4.1	Pickup	pu of CT input rating i.e. 1A or 5A	0.1 - 3	
4.2	Current step	pu	0.01	
4.3	Operating curve	-	IEC: NI; LTI; VI; EI	
4.4	Time multiplier step	-	0.01	
5	**Earth fault highset elements (50N or PIOC)**	-	Minimum 3 elements	
5.1	Pickup	pu of CT input rating i.e. 1A or 5A	0.1 - 20	
5.2	Current step	pu	0.01	
5.3	Time delay	seconds	0 - 5	
5.4	Time step	seconds	0.01	
6	**Earth fault IDMT elements (51N or PTOC)**	-	Minimum 2 elements	
6.1	Pickup	pu of CT input rating i.e. 1A or 5A	0.1 - 3	
6.2	Current step	pu	0.01	
6.3	Operating curve	-	IEC: NI; LTI; VI; EI	
6.4	Time multiplier step	-	0.01	
7	**Circuit Breaker Fail (50BF or RBRF)**	-	Yes	
7.1	Current detection	pu of CT input rating i.e. 1A or 5A	0.05	
7.2	Circuit breaker failure time delay	seconds	0.1 – 2	
8	**Arc-flash input sensors**	-	Yes	
8.1	Min 4 (Individually marshalled)	-	Yes	

1 IDMT OVERCURRENT AND EARTH FAULT RELAYS WITH ARC PROTECTION

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
8.2	Each sensor input configurable as point or loop sensor	-	Yes	
8.3	Pickup time	ms	≤ 5	
9	**Circuit Breaker Monitoring (SCBR)**	-	Yes	
10	**Trip Circuit Supervision**	-	Yes	
10.1	Number of trip circuits monitored	-	≥ 2	
10.2	Supervision in circuit breaker open & closed states	-	Yes	
11	**Time Synchronisation**	-	Yes	
11.1	NTP Time synchronisation	-	Yes	
11.2	IRIG-B Time synchronisation	-	Yes	
12	**Communication protocol - IEC 61850 (MMS & GOOSE)**	-	Yes	
12.1	MMS	-	Yes	
12.2	GOOSE	-	Type 1A: P1 or P2	
12.3	GOOSE Subscriptions: number of IEDs	-	≥ 16	
12.4	GOOSE Publish: number of GOOSE control blocks	-	≥ 6	
13	**Communication interfaces:**			
13.1	Front-face communication port	-	1	
13.2	100Mb100Mbps Ethernet communication port – Multimode fibre	-	1	
14	**Binary inputs and outputs:**			
14.1	Amount of binary inputs	-	≥ 14	
14.1.1	Current drain at 110V DC	mA	≤ 5	
14.1.2	Current drain at 24V DC	mA	≤ 10	
14.2	Amount of binary outputs	-	≥ 7	
14.2.1	Pickup / Dropout time	ms	≤ 10	
14.2.2	Continuous current rating	A	≥ 5	
14.2.3	Make and carry 0.5 s	A	≥ 15	
15	**Auxiliary power supply:**			
15.1	Option 1 - 110 V DC	-	Yes	
15.1.1	Burden	W	≤ 25	
15.2	Option 2 - 24 V DC	-	Yes	
15.2.1	Burden	W	≤ 25	
16	**CT Current rating**			
16.1	Number of current inputs	-	≥ 4	
16.2	Continuous current rating	pu of CT input rating i.e. 1A or 5A	Minimum 3 pu	

1 IDMT OVERCURRENT AND EARTH FAULT RELAYS WITH ARC PROTECTION

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
16.3	1 Second rating	pu of CT input rating i.e. 1A or 5A	Minimum 100 pu	
16.4	Option 1	1 Amp	Yes	
16.4.1	Burden	VA	≤ 0.1	
16.5	Option 2	5 Amp	Yes	
16.5.1	Burden	VA	≤ 0.5	
17	**VT Voltage Inputs**			
17.1	Number of voltage inputs	-	≥ 3	
17.2	Operating range	V	0 - 300	
17.3	Continuous voltage rating	V	280	
17.4	10 second voltage rating	V	350	
17.5	Burden @ 110V	VA	≤ 0.1	
18	**Sequential event recorder**	-	Yes	
18.1	Minimum 1000 event entries stored in non-volatile memory	-	Yes	
18.2	Time stamp resolution	ms	≤ 1	
19	**Disturbance recording / Oscillography (RDRE)**	-	Yes	
19.1	Minimum length	seconds	≥ 1	
19.2	Minimum sampling rate	samples per cycle	≥ 8	
19.3	Oscillography recordings stored in non-volatile memory	-	≥ 3	
19.4	Time stamp resolution	ms	1	
20	**Front Panel Control, Annunciation, LED's, HMI**			
20.1	Front panel LEDs	-	Minimum 6	
20.2	Customise front-panel pushbutton operation with control	-	Minimum 4 pushbuttons	
20.3	Customise HMI messages using event-driven data	-	Yes	
21	**Demand Metering**	-	Yes	
22	**Manufacturer's Warranty**	Year	10	

2 IDMT OVERCURRENT AND EARTH FAULT RELAYS WITHOUT ARC PROTECTION

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
1	**Manufacturer**	-	-	
2	**Type**	-	-	
3	**Overcurrent highset elements (50P or PIOC)**	-	Minimum 3 elements	

2 IDMT OVERCURRENT AND EARTH FAULT RELAYS WITHOUT ARC PROTECTION

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
3.1	Pickup	pu of CT input rating i.e. 1A or 5A	0.1 - 20	
3.2	Current step	pu	0.01	
3.3	Time delay	seconds	0 - 5	
3.4	Time step	seconds	0.01	
4	**Overcurrent IDMT elements (51P or PTOC)**	-	Minimum 2 elements	
4.1	Pickup	pu of CT input rating i.e. 1A or 5A	0.1 - 3	
4.2	Current step	pu	0.01	
4.3	Operating curve	-	IEC: NI; LTI; VI; EI	
4.4	Time multiplier step	-	0.01	
5	**Earth fault highset elements (50N or PIOC)**	-	Minimum 3 elements	
5.1	Pickup	pu of CT input rating i.e. 1A or 5A	0.1 - 20	
5.2	Current step	pu	0.01	
5.3	Time delay	seconds	0 - 5	
5.4	Time step	seconds	0.01	
6	**Earth fault IDMT elements (51N or PTOC)**	-	Minimum 2 elements	
6.1	Pickup	pu of CT input rating i.e. 1A or 5A	0.1 - 3	
6.2	Current step	pu	0.01	
6.3	Operating curve	-	IEC: NI; LTI; VI; EI	
6.4	Time multiplier step	-	0.01	
7	**Circuit Breaker Fail (50BF or RBRF)**	-	Yes	
7.1	Current detection	pu of CT input rating i.e. 1A or 5A	0.05	
7.2	Circuit breaker failure time delay	seconds	0.1 – 2	
8	**Circuit Breaker Monitoring (SCBR)**	-	Yes	
9	**Trip Circuit Supervision**	-	Yes	
9.1	Number of trip circuits monitored	-	≥ 2	
9.2	Supervision in circuit breaker open & closed states	-	Yes	
10	**Time Synchronisation**	-	Yes	
10.1	NTP Time synchronisation	-	Yes	
10.2	IRIG-B Time synchronisation	-	Yes	
11	**Communication protocol - IEC 61850 (MMS & GOOSE)**	-	Yes	

2 IDMT OVERCURRENT AND EARTH FAULT RELAYS WITHOUT ARC PROTECTION

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
11.1	MMS	-	Yes	
11.2	GOOSE	-	Type 1A: P1 or P2	
11.3	GOOSE Subscriptions: number of IEDs	-	≥ 16	
11.4	GOOSE Publish: number of GOOSE control blocks	-	≥ 6	
12	**Communication interfaces:**			
12.1	Front-face communication port	-	1	
12.2	100Mb100Mbps Ethernet communication port – Multimode fibre	-	1	
13	**Binary inputs and outputs:**			
13.1	Amount of binary inputs	-	≥ 14	
13.1.1	Current drain at 110V DC	mA	≤ 5	
13.1.2	Current drain at 24V DC	mA	≤ 10	
13.2	Amount of binary outputs	-	≥ 7	
13.2.1	Pickup / Dropout time	ms	≤ 10	
13.2.2	Continuous current rating	A	≥ 5	
13.2.3	Make and carry 0.5 s	A	≥ 15	
14	**Auxiliary power supply:**			
14.1	Option 1 - 110 V DC	-	Yes	
14.1.1	Burden	W	≤ 25	
14.2	Option 2 - 24 V DC	-	Yes	
14.2.1	Burden	W	≤ 25	
15	**CT Current rating**			
15.1	Number of current inputs	-	≥ 4	
15.2	Continuous current rating	pu of CT input rating i.e. 1A or 5A	Minimum 3 pu	
15.3	1 Second rating	pu of CT input rating i.e. 1A or 5A	Minimum 100 pu	
15.4	Option 1	1 Amp	Yes	
15.4.1	Burden	VA	≤ 0.1	
15.5	Option 2	5 Amp	Yes	
15.5.1	Burden	VA	≤ 0.5	
16	**VT Voltage Inputs**			
16.1	Number of voltage inputs	-	≥ 3	
16.2	Operating range	V	0 - 300	
16.3	Continuous voltage rating	V	280	
16.4	10 second voltage rating	V	350	
16.5	Burden @ 110V	VA	≤ 0.1	
17	**Sequential event recorder**	-	Yes	
17.1	Minimum 1000 event entries stored in non-volatile memory	-	Yes	

2 IDMT OVERCURRENT AND EARTH FAULT RELAYS WITHOUT ARC PROTECTION

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
17.2	Time stamp resolution	ms	≤ 1	
18	**Disturbance recording / Oscillography (RDRE)**	-	Yes	
18.1	Minimum length	seconds	≥ 1	
18.2	Minimum sampling rate	samples per cycle	≥ 8	
18.3	Oscillography recordings stored in non-volatile memory	-	≥ 3	
18.4	Time stamp resolution	ms	1	
19	**Front Panel Control, Annunciation, LED's, HMI**			
19.1	Front panel LEDs	-	Minimum 6	
19.2	Customise front-panel pushbutton operation with control	-	Minimum 4 pushbuttons	
19.3	Customise HMI messages using event-driven data	-	Yes	
20	**Demand Metering**	-	Yes	
21	**Manufacturer's Warranty**	Year	10	

3 TRANSFORMER DIFFERENTIAL RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
1	**Manufacturer**	-	-	
2	**Type**	-	-	
3	**Current Differential Protection (87T or PDIF)**			
3.1	Two winding transformer current differential	-	Yes	
3.2	Auto transformer current differential	-	Yes	
3.3	Dual slope phase restrained differential	-	Yes	
3.4	Negative sequence restrained differential	-	Yes	
3.5	Unrestrained phase differential	-	Yes	
3.6	Sensitive differential protection for winding inter-turn faults	-	Yes	
3.7	Internal / External fault discriminator	-	Yes	
3.8	Open CT detection	-	Yes	
3.9	Vector group compensation	-	Yes	
3.10	CT Saturation compensation	-	Yes	
3.11	CT Ratio compensation	-	Yes	
3.12	CT connection - Wye or Delta	-	Yes	
3.13	2nd and 5th Harmonic blocking (PHAR)	-	Yes	
3.14	Over excitation protection (24 or PVPH)	-	Yes	
3.15	HV and MV Winding low impedance restricted earth fault i.e. two independent elements (87N or PDIF)	-	Yes	
4	**Maximum current differential operating times:**			

3 TRANSFORMER DIFFERENTIAL RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
4.1	Phase biased differential	ms	≤ 30	
4.2	Unrestrained phase differential	ms	≤ 25	
4.3	Low impedance restricted earth fault	ms	≤ 35	
5	**Current differential settings:**			
5.1	Minimum differential operate current (Id)	pu	0.1 - 0.6	
5.2	Dual slope setting - Restrained current differential	%	10% - 50% in 1% steps (slope 1)	
		%	30% - 90%in 1% steps (slope 2)	
5.3	Unrestrained Differential: (87T or PTDF)	pu	1 - 20	
5.4	2nd and 5th Harmonic blocking	%	5 – 100% of Fundamental in 1% steps	
5.5	Vector group compensation	degrees	0 - 330	
5.6	Low impedance Restricted Earth Fault	pu	0.05 – 1	
6	**Directional and non-directional overcurrent highset elements (50P or PIOC)**			
6.1	Three highset overcurrent elements per winding i.e. HV & MV	-	Yes	-
6.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 20	
6.3	Step	pu	0.01	
6.4	Time delay	seconds	0 - 5	
7	**Directional and non-directional overcurrent IDMT elements (51P or PTOC)**			
7.1	Two overcurrent IDMT elements per winding i.e. HV & MV	-	Yes	
7.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 3	
7.3	Step	pu	0.01	
7.4	Operating curve	-	IEC: NI; LTI; VI; EI	
7.5	Time multiplier step	-	0.01	
8	**Directional and non-directional earth fault highset elements (50N or PIOC)**			
8.1	Three highset earth fault elements per winding i.e. HV & MV	-	Yes	-
8.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 20	
8.3	Step	pu	0.01	
8.4	Time delay	seconds	0 - 5	
9	**Directional and non-directional earth Fault IDMT elements (51N or PTOC)**			
9.1	Two earth fault IDMT elements per winding i.e. HV & MV	-	Yes	

3 TRANSFORMER DIFFERENTIAL RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
9.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 3	
9.3	Step	pu	0.01	
9.4	Operating Curve	-	IEC: NI; LTI; VI; EI	
9.5	Time multiplier step	-	0.01	
10	**Circuit Breaker Fail (50BF or RBRF)**	-	Yes	-
10.1	Current detection	pu of CT input rating i.e. 1A or 5A	0.05	
10.2	Circuit breaker failure time delay	seconds	0.1 – 2	
11	**Time Synchronisation**	-	Yes	
11.1	NTP Time synchronisation	-	Yes	
11.2	IRIG-B Time synchronisation	-	Yes	
11.3	IEEE 1588 PTP Time synchronisation	-	Yes	
12	**Communication protocol - IEC 61850 (MMS & GOOSE)**	-	Yes	
12.1	MMS	-	Yes	
12.2	GOOSE	-	Type 1A: P1 or P2	
12.3	GOOSE Subscriptions: number of IEDs	-	≥ 32	
12.4	GOOSE Publish: number of GOOSE control blocks	-	≥ 6	
13	**Communication interfaces:**			
13.1	Front-face communication port	-	1	
13.2	100Mb Ethernet communication port – Multimode fibre	-	2	
14	**Binary inputs and outputs:**			
14.1	Amount of binary inputs	-	≥ 30	
14.1.1	Current drain at 110V DC	mA	≤ 8	
14.2	Amount of binary outputs	-	≥ 16	
14.2.1	Pickup / Dropout time	ms	≤ 6	
14.2.2	Continuous current rating	A	≥ 5	
14.2.3	Make and carry 0.5 s	A	≥ 15	
15	**110 V DC Auxiliary power supply:**			
15.1	Operating voltage range	V DC	90 - 140 V	
15.2	Burden	W	≤ 50	
16	**CT Current Inputs**			
15.1	Number of current inputs	-	≥ 8	
16.1	Continuous current rating	pu of CT input rating i.e. 1A or 5A	Minimum 3 pu	
16.2	1 Second rating	pu of CT input rating i.e. 1A or 5A	Minimum 100 pu	

3 TRANSFORMER DIFFERENTIAL RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
16.3	Option 1	1 Amp	Yes	
16.3.1	Burden	VA	≤ 0.1	
16.4	Option 2	5 Amp	Yes	
16.3.2	Burden	VA	≤ 0.5	
17	**VT Voltage Inputs**			
16.1	Number of voltage inputs	-	≥ 3	
16.2	Operating range	V	0 - 300	
16.3	Continuous voltage rating	V	420	
16.4	10 second voltage rating	V	450	
16.5	Burden @ 110V	VA	≤ 0.1	
18	**Sequential event recorder**	-	Yes	
18.1	Minimum 1000 event entries stored in non-volatile memory	-	Yes	
18.2	Time stamp resolution	ms	≤ 1	
19	**Disturbance recording / Oscillography (RDRE)**	-	Yes	
19.1	Minimum length	seconds	≥ 3	
19.2	Minimum sampling rate	samples per cycle	≥ 8	
19.3	Oscillography recordings stored in non-volatile memory	-	≥ 3	
19.4	Time stamp resolution	ms	1	
20	**Front Panel Control, Annunciation, LED's, HMI**			
20.1	Front panel LEDs	-	min 36 fixed or min 3 pages of 12 or more LEDs	
20.2	Tricolour LEDs - Red, Amber, Green	-	Yes	
20.3	Customise front-panel pushbutton operation with control	-	Minimum 4 pushbuttons	
20.4	Customise HMI messages using event-driven data	-	Yes	
20.5	HMI Screen resolution	-	≥ 300 x 200	
21	**Demand Metering**	-	Yes	
22	**Manufacturer's Warranty**	Year	10	

4 BAY CONTROL RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
1	**Manufacturer**	-	-	
2	**Type**	-	-	
3	**Directional and non-directional overcurrent highset elements (67 and 50P or PIOC)**			

4 BAY CONTROL RELAY

3.1	Three highset overcurrent elements per winding i.e. HV & MV	-	Yes	
3.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 20	
3.3	Step	pu	0.01	
3.4	Time delay	seconds	0 - 5	
4	**Directional and non-directional Overcurrent IDMT elements (51P or PTOC)**			
4.1	Two overcurrent IDMT elements per winding i.e. HV & MV	-	Yes	
4.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 3	
4.3	Step	pu	0.01	
4.4	Operating curve	-	IEC: NI; LTI; VI; EI	
4.5	Time multiplier step	-	0.01	
5	**Directional and non-directional Earth fault highset elements (50N or PIOC)**			
5.1	Three highset earth fault elements per winding i.e. HV & MV	-	Yes	
5.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 20	
5.3	Step	pu	0.01	
5.4	Time delay	seconds	0 - 5	
6	**Directional and non-directional Earth Fault IDMT elements (51N or PTOC)**			
6.1	Two earth fault IDMT elements per winding i.e. HV & MV	-	Yes	
6.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 3	
6.3	Step	pu	0.01	
6.4	Operating curve	-	IEC: NI; LTI; VI; EI	
6.5	Time multiplier step	-	0.01	
7	**Circuit Breaker Fail (50BF or RBRF)**	-	Yes	
7.1	Current detection	pu of CT input rating i.e. 1A or 5A	0.05	
7.2	Circuit breaker failure time delay	seconds	0.1 – 2	
8	**Circuit Breaker Monitoring (SCBR)**	-	Yes	
9	**Trip Circuit Supervision**	-	Yes	
9.1	Number of trip circuits monitored	-	≥ 2	
9.2	Supervision in circuit breaker open & closed states	-	Yes	
10	**Synchronism-Check Elements (25 or RSYN)**	-	Yes	
10.1	Energising check:			

4 BAY CONTROL RELAY

10.1.1	Live line & live bus	-	Yes	
10.1.2	Live line & dead bus	-	Yes	
10.1.3	Dead line & live bus	-	Yes	
10.1.4	Dead line & dead bus	-	Yes	
10.2	Frequency difference (slip frequency)	Hz	0.005 - 0.1	
10.3	Angle difference	degrees	5 - 80	
10.4	Voltage difference	pu	0.05 - 0.5	
11	**VT Fuse failure supervision**	-	Yes	
11.1	Zero sequence current based voltage failure detection	-	Yes	
12	**Time Synchronisation**	-	Yes	
12.1	NTP Time synchronisation	-	Yes	
12.2	IRIG-B Time synchronisation	-	Yes	
12.3	IEEE 1588 PTP Time synchronisation	-	Yes	
13	**Communication protocol - IEC 61850 (MMS & GOOSE)**	-	Yes	
13.1	MMS	-	Yes	
13.2	GOOSE	-	Type 1A: P1 or P2	
13.3	GOOSE Subscriptions: number of IEDs	-	≥ 32	
13.4	GOOSE Publish: number of GOOSE control blocks	-	≥ 6	
14	**Communication interfaces:**			
14.1	Front-face communication port	-	1	
14.2	100Mb100Mbps Ethernet communication port – Multimode fibre	-	2	
15	**Binary inputs and outputs:**			
15.1	Amount of binary inputs	-	≥ 50	
15.1.1	Current drain at 110V DC	mA	≤ 8	
15.2	Amount of binary outputs	-	≥ 30	
15.2.1	Pickup / Dropout time	ms	≤ 6	
15.2.2	Continuous current rating	A	≥ 5	
15.2.3	Make and carry 0.5 s	A	≥ 15	
16	**110 V DC Auxiliary power supply:**			
16.1	Operating voltage range	V DC	90 - 140 V	
16.2	Burden	W	≤ 50W	
17	**CT Current Inputs**			
17.1	Number of current inputs	-	≥ 4	
17.2	Continuous current rating	pu of CT input rating i.e. 1A or 5A	Minimum 3 pu	
17.3	1 Second rating	pu of CT input rating i.e. 1A or 5A	Minimum 100 pu	
17.4	Option 1	1 Amp	Yes	
17.4.1	Burden	VA	≤ 0.1	

4 BAY CONTROL RELAY

17.5	Option 2	5 Amp	Yes	
17.5.1	Burden	VA	≤ 0.5	
18	**VT Voltage Inputs**			
18.1	Number of voltage inputs	-	≥ 6	
18.2	Operating range	V	0 - 300	
18.3	Continuous voltage rating	V	420	
18.4	10 second voltage rating	V	450	
18.5	Burden @ 110V	VA	≤ 0.1	
19	**Sequential event recorder**	-	Yes	
19.1	Minimum 1000 event entries stored in non-volatile memory	-	Yes	
19.2	Time stamp resolution	ms	≤ 1	
20	**Disturbance recording / Oscillography (RDRE)**	-	Yes	
20.1	Minimum length	seconds	≥ 3	
20.2	Minimum sampling rate	samples per cycle	≥ 8	
20.3	Oscillography recordings stored in non-volatile memory	-	≥ 3	
20.4	Time stamp resolution	ms	1	
21	**Front Panel Control, Annunciation, LED's, HMI**			
21.1	Single line representation of all plant statuses and analogues	-	Yes	
21.2	Customized front-panel pushbutton operation for control of HV equipment (circuit breakers; disconnectors; earth switches)	-	Yes	
21.3	Number of controllable circuit breakers	-	≥ 2	
21.4	Number of controllable disconnectors	-	≥ 4	
21.5	Number of controllable earth switches	-	≥ 4	
21.6	Front panel LEDs	-	min 36 fixed or min 3 pages of 12 or more LEDs	
21.7	Tricolour LEDs - Red, Amber, Green	-	Yes	
21.8	Customise front-panel pushbutton operation with control	-	Minimum 4 pushbuttons	
21.9	Customise HMI messages using event-driven data	-	Yes	
21.10	HMI Screen resolution	-	≥ 300 x 200	
22	**Demand Metering**	-	Yes	
23	**Manufacturer's Warranty**	Year	10	

5 CABLE DIFFERENTIAL RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
1	**Manufacturer**	-	-	

5 CABLE DIFFERENTIAL RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
2	**Type**	-	-	
3	**Current Differential Protection (87L or PDIF)**			
3.1	Characteristic e.g. Dual restrained slope, Alpha plane, etc	-	-	
3.2	Three terminal current differential	-	Yes	
3.3	Phase segregated restrained differential	-	Yes	
3.4	Negative sequence restrained differential	-	Yes	
3.5	Unrestrained phase differential	-	Yes	
3.6	Line charging current compensation	-	Yes	
3.7	Internal / External fault discriminator	-	Yes	
3.8	Open CT detection	-	Yes	
3.9	CT Saturation compensation	-	Yes	
3.10	CT Ratio compensation	-	Yes	
3.11	1310nm Single mode IEEE C37.94 Serial communication	-	Yes	
3.12	In-zone transformer compensation	-	Yes	
3.13	Transformer vector group compensation	-	Yes	
3.14	2^{nd} and 5^{th} Harmonic blocking (PHAR)	-	Yes	
4	**Maximum current differential operating times:**			
4.1	Phase biased differential	ms	≤ 35	
4.2	Unrestrained phase differential	ms	≤ 30	
5	**Current differential settings:**			
5.1	Minimum differential operate current (Id)	pu	0.1 - 0.6	
5.3	Unrestrained Differential: (87T or PTDF)	pu	1 - 20	
6	**Step Distance Protection (21 or PDIS)**	-	Yes	
6.1	Phase distance elements - Forward direction	-	3 zones	
6.2	Phase distance elements - Reverse direction	-	1 zones	
6.3	Ground distance elements - Forward direction	-	3 zones	
6.4	Ground distance elements - Reverse direction	-	1 zones	
6.5	Phase distance maximum operating time at SIR = 1	ms	≤ 16	
6.6	Ground distance maximum operating time at SIR = 1	ms	≤ 20	
7	**Broken Conductor**	-	Yes	
7.1	Broken conductor alarm	-	Yes	
7.2	Broken conductor trip	-	Yes	
8	**Overcurrent highset elements (50P or PIOC)**			
8.1	Three highset overcurrent elements	-	Yes	

5 CABLE DIFFERENTIAL RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
8.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 20	
8.3	Step	pu	0.01	
8.4	Time delay	seconds	0 - 5	
9	**Overcurrent IDMT elements (51P or PTOC)**			
9.1	Two overcurrent IDMT elements	-	Yes	
9.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 3	
9.3	Step	pu	0.01	
9.4	Operating curve	-	IEC: NI; LTI; VI; EI	
9.5	Time multiplier step	-	0.01	
10	**Earth fault highset elements (50N or PIOC)**			
10.1	Three highset earth fault elements	-	Yes	
10.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 20	
10.3	Step	pu	0.01	
10.4	Time delay	seconds	0 - 5	
11	**Earth Fault IDMT elements (51N or PTOC)**			
11.1	Two earth fault IDMT elements	-	Yes	
11.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 3	
11.3	Step	pu	0.01	
11.4	Operating curve	-	IEC: NI; LTI; VI; EI	
11.5	Time multiplier step	-	0.01	
12	**Circuit Breaker Fail (50BF or RBRF)**	-	Yes	
12.1	Current detection	pu of CT input rating i.e. 1A or 5A	0.05	
12.2	Circuit breaker failure time delay	seconds	0.1 – 2	
13	**Trip Circuit Supervision**	-	Yes	
13.1	Number of trip circuits monitored	-	≥ 2	
13.2	Supervision in circuit breaker open & closed states	-	Yes	
14	**VT Fuse failure supervision**	-	Yes	
14.1	Zero sequence current based voltage failure detection	-	Yes	
15	**Time Synchronisation**	-	Yes	
15.1	NTP Time synchronisation	-	Yes	

5 CABLE DIFFERENTIAL RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
15.2	IRIG-B Time synchronisation	-	Yes	
15.3	IEEE 1588 PTP Time synchronisation	-	Yes	
16	**Communication protocol - IEC 61850 (MMS & GOOSE)**	-	Yes	
16.1	MMS	-	Yes	
16.2	GOOSE	-	Type 1A: P1 or P2	
16.3	GOOSE Subscriptions: number of IEDs	-	≥ 32	
16.4	GOOSE Publish: number of GOOSE control blocks	-	≥ 6	
17	**Communication interfaces:**			
17.1	Front-face communication port	-	1	
17.2	100Mb100Mbps Ethernet communication port – Multimode fibre	-	2	
18	**Binary inputs and outputs:**			
18.1	Amount of binary inputs	-	≥ 30	
18.1.1	Current drain at 110V DC	mA	≤ 8	
18.2	Amount of binary outputs	-	≥ 16	
18.2.1	Pickup / Dropout time	ms	≤ 6	
18.2.2	Continuous current rating	A	≥ 5	
18.2.3	Make and carry 0.5 s	A	≥ 15	
19	**110 V DC Auxiliary power supply:**			
19.1	Operating voltage range	V DC	90 - 140 V	
19.2	Burden	W	≤ 50W	
20	**CT Current rating**			
20.1	Continuous current rating	pu of CT input rating i.e. 1A or 5A	Minimum 3 pu	
20.2	1 Second rating	pu of CT input rating i.e. 1A or 5A	Minimum 100 pu	
20.3	Option 1	1 Amp	Yes	
20.3.1	Burden	-	≤ 0.1 VA	
20.4	Option 2	5 Amp	Yes	
20.4.1	Burden	-	≤ 0.5 VA	
21	**Sequential event recorder**	-	Yes	
21.1	Minimum 1000 event entries stored in non-volatile memory	-	Yes	
21.2	Time stamp resolution	ms	≤ 1	
22	**Disturbance recording / Oscillography (RDRE)**	-	Yes	
22.1	Minimum length	seconds	≥ 3	
22.2	Minimum sampling rate	samples per cycle	≥ 8	

5 CABLE DIFFERENTIAL RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
22.3	Oscillography recordings stored in non-volatile memory	-	≥ 3	
22.4	Time stamp resolution	ms	1	
23	**Front Panel Control, Annunciation, LED's, HMI**			
23.1	Single line representation of all plant statuses and analogues	-	Yes	
23.2	Customized front-panel pushbutton operation for control of HV equipment (circuit breakers; disconnectors; earth switches)	-	Yes	
23.3	Number of controllable circuit breakers	-	≥ 2	
23.4	Front panel LEDs	-	min 36 fixed or min 3 pages of 12 or more LEDs	
23.5	Tricolour LEDs - Red, Amber, Green	-	Yes	
23.6	Customise front-panel pushbutton operation with control	-	Minimum 4 pushbuttons	
23.7	Customise HMI messages using event-driven data	-	Yes	
23.8	HMI Screen resolution	-	≥ 300 x 200	
24	**Demand Metering**	-	Yes	
25	**Manufacturer's Warranty**	Year	10	

6 BUS-COUPLER RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
1	**Manufacturer**	-	-	
2	**Type**	-	-	
3	**Directional and non-directional overcurrent highset elements (67 and 50P or PIOC)**			
3.1	Three highset overcurrent elements per winding i.e. HV & MV	-	Yes	
3.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 20	
3.3	Step	pu	0.01	
3.4	Time delay	seconds	0 - 5	
4	**Directional and non-directional Overcurrent IDMT elements (51P or PTOC)**			
4.1	Two overcurrent IDMT elements per winding i.e. HV & MV	-	Yes	
4.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 3	
4.3	Step	pu	0.01	
4.4	Operating curve	-	IEC: NI; LTI; VI; EI	
4.5	Time multiplier step	-	0.01	

6 BUS-COUPLER RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
5	**Directional and non-directional Earth fault highset elements (50N or PIOC)**			
5.1	Three highset earth fault elements per winding i.e. HV & MV	-	Yes	
5.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 20	
5.3	Step	pu	0.01	
5.4	Time delay	seconds	0 - 5	
6	**Directional and non-directional Earth Fault IDMT elements (51N or PTOC)**			
6.1	Two earth fault IDMT elements per winding i.e. HV & MV	-	Yes	
6.2	Pickup	pu of CT input rating i.e. 1A or 5A	0.05 - 3	
6.3	Step	pu	0.01	
6.4	Operating curve	-	IEC: NI; LTI; VI; EI	
6.5	Time multiplier step	-	0.01	
7	**Circuit Breaker Fail (50BF or RBRF)**	-	Yes	
7.1	Current detection	pu of CT input rating i.e. 1A or 5A	0.05	
7.2	Circuit breaker failure time delay	seconds	0.1 – 2	
8	**Circuit Breaker Monitoring (SCBR)**	-	Yes	
9	**Trip Circuit Supervision**	-	Yes	
9.1	Number of trip circuits monitored	-	≥ 2	
9.2	Supervision in circuit breaker open & closed states	-	Yes	
10	**Synchronism-Check Elements (25 or RSYN)**	-	Yes	
10.1	Energising check:			
10.1.1	Live line & live bus	-	Yes	
10.1.2	Live line & dead bus	-	Yes	
10.1.3	Dead line & live bus	-	Yes	
10.1.4	Dead line & dead bus	-	Yes	
10.2	Frequency difference (slip frequency)	Hz	0.005 - 0.1	
10.3	Angle difference	degrees	5 - 80	
10.4	Voltage difference	pu	0.05 - 0.5	
11	**VT Fuse failure supervision**	-	Yes	
11.1	Zero sequence current based voltage failure detection	-	Yes	
12	**Time Synchronisation**	-	Yes	
12.1	NTP Time synchronisation	-	Yes	

6 BUS-COUPLER RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
12.2	IRIG-B Time synchronisation	-	Yes	
12.3	IEEE 1588 PTP Time synchronisation	-	Yes	
13	**Communication protocol - IEC 61850 (MMS & GOOSE)**	-	Yes	
13.1	MMS	-	Yes	
13.2	GOOSE	-	Type 1A: P1 or P2	
13.3	GOOSE Subscriptions: number of IEDs	-	≥ 32	
13.4	GOOSE Publish: number of GOOSE control blocks	-	≥ 6	
14	**Communication interfaces:**			
14.1	Front-face communication port	-	1	
14.2	100Mbps Ethernet communication port – Multimode fibre	-	2	
15	**Binary inputs and outputs:**			
15.1	Amount of binary inputs	-	≥ 50	
15.1.1	Current drain at 110V DC	mA	≤ 8	
15.2	Amount of binary outputs	-	≥ 30	
15.2.1	Pickup / Dropout time	ms	≤ 6	
15.2.2	Continuous current rating	A	≥ 5	
15.2.3	Make and carry 0.5 s	A	≥ 15	
16	**110 V DC Auxiliary power supply:**			
16.1	Operating voltage range	V DC	90 - 140 V	
16.2	Burden	W	≤ 50W	
17	**CT Current Inputs**			
17.1	Number of current inputs	-	≥ 4	
17.2	Continuous current rating	pu of CT input rating i.e. 1A or 5A	Minimum 3 pu	
17.3	1 Second rating	pu of CT input rating i.e. 1A or 5A	Minimum 100 pu	
17.4	Option 1	1 Amp	Yes	
17.4.1	Burden	VA	≤ 0.1	
17.5	Option 2	5 Amp	Yes	
17.5.1	Burden	VA	≤ 0.5	
18	**VT Voltage Inputs**			
18.1	Number of voltage inputs	-	≥ 6	
18.2	Operating range	V	0 - 300	
18.3	Continuous voltage rating	V	420	
18.4	10 second voltage rating	V	450	
18.5	Burden @ 110V	VA	≤ 0.1	
19	**Sequential event recorder**	-	Yes	

6 BUS-COUPLER RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
19.1	Minimum 1000 event entries stored in non-volatile memory	-	Yes	
19.2	Time stamp resolution	ms	≤ 1	
20	**Disturbance recording / Oscillography (RDRE)**	-	Yes	
20.1	Minimum length	seconds	≥ 3	
20.2	Minimum sampling rate	samples per cycle	≥ 8	
20.3	Oscillography recordings stored in non-volatile memory	-	≥ 3	
20.4	Time stamp resolution	ms	1	
21	**Front Panel Control, Annunciation, LED's, HMI**			
21.1	Single line representation of all plant statuses and analogues	-	Yes	
21.2	Customized front-panel pushbutton operation for control of HV equipment (circuit breakers; disconnectors; earth switches)	-	Yes	
21.3	Number of controllable circuit breakers	-	≥ 2	
21.4	Number of controllable disconnectors	-	≥ 4	
21.5	Number of controllable earth switches	-	≥ 4	
21.6	Front panel LEDs	-	min 36 fixed or min 3 pages of 12 or more LEDs	
21.7	Tricolour LEDs - Red, Amber, Green	-	Yes	
21.8	Customise front-panel pushbutton operation with control	-	Minimum 4 pushbuttons	
21.9	Customise HMI messages using event-driven data	-	Yes	
21.10	HMI Screen resolution	-	≥ 300 x 200	
22	**Demand Metering**	-	Yes	
23	**Manufacturer's Warranty**	Year	10	

7 UNDER-FREQUENCY RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
1	**Manufacturer**	-	-	
2	**Type**	-	-	
3	**Under-frequency (81 or PTUF)**			
3.1	Under-frequency elements	-	≥ 4	
3.2	Voltage supervision of the frequency elements	-	Yes	
3.3	Pickup frequency	Hz	40 - 55	
3.3.1	Step	Hz	0.01	
3.4	Time delay	seconds	0 - 60	
3.4.1	Time step	seconds	0.01	

7 UNDER-FREQUENCY RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
3.5	Pickup frequency accuracy	mHz	±2	
3.6	Voltage supervision range	pu	0.2 - 1 in 0.01 steps	
3.7	Maximum pickup time	ms	100	
4	**Rate-of-change of frequency (7 or PFRC)**			
4.1	Rate-of-change of frequency elements	-	≥ 2	
4.2	Voltage supervision of the frequency elements	-	Yes	
4.3	Pickup frequency gradient	Hz/sec	-10 to 10	
4.3.1	Step	Hz/sec	0.01	
4.4	Time delay	seconds	0 - 60	
4.4.1	Time step	seconds	0.01	
4.5	Pickup frequency accuracy	Hz/sec	±0.1	
4.6	Voltage supervision range	pu	0.2 - 1 in 0.01 steps	
4.7	Maximum pickup time	ms	300	
5	**VT Fuse failure supervision**	-	Yes	
6	**Time Synchronisation**	-	Yes	
6.1	NTP Time synchronisation	-	Yes	
6.2	IRIG-B Time synchronisation	-	Yes	
7	**Communication protocol - IEC 61850 (MMS & GOOSE)**	-	Yes	
7.1	MMS	-	Yes	
7.2	GOOSE	-	Type 1A: P1 or P2	
7.3	GOOSE Subscriptions: number of IEDs	-	≥ 16	
7.4	GOOSE Publish: number of GOOSE control blocks	-	≥ 6	
8	**Communication interfaces:**			
8.1	Front-face communication port	-	1	
8.2	100Mb100Mbps Ethernet communication port – Multimode fibre	-	1	
9	**Binary inputs and outputs:**			
9.1	Amount of binary inputs	-	≥ 14	
9.1.1	Current drain at 110V DC	mA	≤ 8	
9.2	Amount of binary outputs	-	≥ 7	
9.2.1	Pickup / Dropout time	ms	≤ 6	
9.2.2	Continuous current rating	A	≥ 5	
9.2.4	Make and carry 0.5 s	A	≥ 15	
10	**110 V DC Auxiliary power supply:**			
10.1	Operating voltage range	V DC	90 - 140 V	
10.2	Burden	W	≤ 50W	
11	**VT Voltage Inputs**			
11.1	Number of voltage inputs	-	≥ 3	

7 UNDER-FREQUENCY RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
11.2	Operating range	V	0 - 300	
11.3	Continuous voltage rating	V	420	
11.4	10 second voltage rating	V	450	
11.5	Burden @ 110V	VA	≤ 0.1	
12	**Sequential event recorder**	-	Yes	
12.1	Minimum 1000 event entries stored in non-volatile memory	-	Yes	
12.2	Time stamp resolution	ms	≤ 1	
13	**Disturbance recording / Oscillography (RDRE)**	-	Yes	
13.1	Minimum length	seconds	≥ 3	
13.2	Minimum sampling rate	samples per cycle	≥ 8	
13.3	Oscillography recordings stored in non-volatile memory	-	≥ 3	
13.4	Time stamp resolution	ms	1	
14	**Front Panel Control, Annunciation, LED's, HMI**			
14.1	Front panel LEDs	-	Minimum 6	
14.2	Customise front-panel pushbutton operation with control	-	Minimum 4 pushbuttons	
14.3	Customise HMI messages using event-driven data	-	Yes	
15	**Manufacturer's Warranty**	Year	10	

8 7 BAY - BUSBAR RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
1	**Manufacturer**	-	-	
2	**Type**	-	-	
3	**Current Differential Protection (87B or PDIF)**			
3.1	Current differential - Two zone current differential for 7 bay configuration	-	Yes	
3.2	Phase restrained differential	-	Yes	
3.3	Sensitive differential	-	Yes	
3.4	Internal / External fault discriminator	-	Yes	
3.5	Zone supervision	-	Yes	
3.6	Disconnector imaging for zone selection	-	Yes	
3.7	Disconnector supervision	-	Yes	
3.8	Open CT detection	-	Yes	
3.9	CT Saturation compensation	-	Yes	
3.10	CT Ratio compensation	-	Yes	
3.11	Assign CT to zone before disconnector main contacts make	-	Yes	
3.12	Combine zones for live busbar transfer	-	Yes	

8 7 BAY - BUSBAR RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
3.13	End fault protection on feeder bays	-	Yes	
3.14	Integrated independent check zone	-	Yes	
3.15	Blind Spot protection in Bus-section and Bus-coupler bays	-	Yes	
3.16	Circuit breaker failure protection with internal or external delay timing	-	Yes	
3.17	Reduce breaker fail time when a bay trip is disabled (e.g. circuit breaker SF6 Lockout)	-	Yes	
3.18	Application with single set of CTs on one side of Bus-coupler or Bus-section	-	Yes	
4	**Maximum current differential operating times:**			
4.1	Biased differential at 2 x Idiff pickup	ms	≤ 30	
4.2	Biased differential at 10 x Idiff pickup	ms	≤ 15	
5	**Current differential settings:**			
5.1	Minimum differential operate current (Id)	pu	0.1 - 3	
6	**Time Synchronisation**	-	Yes	
6.1	NTP Time synchronisation	-	Yes	
6.2	IRIG-B Time synchronisation	-	Yes	
6.3	IEEE 1588 PTP Time synchronisation	-	Yes	
7	**Communication protocol - IEC 61850 (MMS & GOOSE)**	-	Yes	
7.1	MMS	-	Yes	
7.2	GOOSE	-	Type 1A: P1 or P2	
7.3	GOOSE Subscriptions: number of IEDs	-	≥ 32	
7.4	GOOSE Publish: number of GOOSE control blocks	-	≥ 6	
8	**Communication interfaces:**			
8.1	Front-face communication port	-	1	
8.2	100Mb100Mbps Ethernet communication port – Multimode fibre	-	2	
9	**Binary inputs and outputs:**			
9.1	Amount of binary inputs	-	≥ 48	
9.1.1	Current drain at 110V DC	mA	≤ 8	
9.2	Amount of binary outputs	-	≥ 24	
9.2.1	Pickup / Dropout time	ms	≤ 6	
9.2.2	Continuous current rating	A	≥ 5	
9.2.3	Make and carry 0.5 s	A	≥ 15	
10	**110 V DC Auxiliary power supply:**			
10.1	Operating voltage range	V DC	90 - 140 V	
10.2	Burden	W	≤ 50W	
11	**Sequential event recorder**	-	Yes	

8 7 BAY - BUSBAR RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
11.1	Minimum 1000 event entries stored in non-volatile memory	-	Yes	
11.2	Time stamp resolution	ms	≤ 1	
12	**Disturbance recording / Oscillography (RDRE)**	-	Yes	
12.1	Minimum length	seconds	≥ 3	
12.2	Minimum sampling rate	samples per cycle	≥ 8	
12.3	Oscillography recordings stored in non-volatile memory	-	≥ 3	
12.4	Time stamp resolution	ms	1	
13	**Front Panel Control, Annunciation, LED's, HMI**			
13.1	Single line representation of all plant statuses and analogues	-	Yes	
13.2	Customized front-panel pushbutton operation	-	Yes	
13.3	Front panel LEDs	-	min 36 fixed or min 3 pages of 12 or more LEDs	
13.4	Tricolour LEDs - Red, Amber, Green	-	Yes	
13.5	Customise HMI messages using event-driven data	-	Yes	
13.6	HMI Screen resolution	-	≥ 300 x 200	
14	**Manufacturer's Warranty**	Year	10	

9 21 BAY - BUSBAR RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
1	**Manufacturer**	-	-	
2	**Type**	-	-	
3	**Current Differential Protection (87B or PDIF)**			
3.1	Current differential - Four zone current differential for 21 bay configuration	-	Yes	
3.2	Phase restrained differential	-	Yes	
3.3	Sensitive differential	-	Yes	
3.4	Internal / External fault discriminator	-	Yes	
3.5	Zone supervision	-	Yes	
3.6	Disconnector imaging for zone selection	-	Yes	
3.7	Disconnector supervision	-	Yes	
3.8	Open CT detection	-	Yes	
3.9	CT Saturation compensation	-	Yes	
3.10	CT Ratio compensation	-	Yes	
3.11	Assign CT to zone before disconnector main contacts make	-	Yes	
3.12	Combine zones for live busbar transfer	-	Yes	
3.13	End fault protection on feeder bays	-	Yes	

9 21 BAY - BUSBAR RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
3.14	Integrated independent check zone	-	Yes	
3.15	Blind Spot protection in Bus-section and Bus-coupler bays	-	Yes	
3.16	Circuit breaker failure protection with internal or external delay timing	-	Yes	
3.17	Reduce breaker fail time when a bay trip is disabled (e.g. circuit breaker SF6 Lockout)	-	Yes	
3.18	Application with single set of CTs on one side of Bus-coupler or Bus-section	-	Yes	
4	**Maximum current differential operating times:**			
4.1	Biased differential at 2 x Idiff pickup	ms	≤ 30	
4.2	Biased differential at 10 x Idiff pickup	ms	≤ 15	
5	**Current differential settings:**			
5.1	Minimum differential operate current (Id)	pu	0.1 - 3	
6	**Time Synchronisation**	-	Yes	
6.1	NTP Time synchronisation	-	Yes	
6.2	IRIG-B Time synchronisation	-	Yes	
6.3	IEEE 1588 PTP Time synchronisation	-	Yes	
7	**Communication protocol - IEC 61850 (MMS & GOOSE)**	-	Yes	
7.1	MMS	-	Yes	
7.2	GOOSE	-	Type 1A: P1 or P2	
7.3	GOOSE Subscriptions: number of IEDs	-	≥ 32	
7.4	GOOSE Publish: number of GOOSE control blocks	-	≥ 6	
8	**Communication interfaces:**			
8.1	Front-face communication port	-	1	
8.2	100Mb Ethernet communication port – Multimode fibre	-	2	
9	**Binary inputs and outputs:**			
9.1	Amount of binary inputs	-	≥ 80	
9.1.1	Current drain at 110V DC	mA	≤ 8	
9.2	Amount of binary outputs	-	≥ 40	
9.2.1	Pickup / Dropout time	ms	≤ 6	
9.2.2	Continuous current rating	A	≥ 5	
9.2.3	Make and carry 0.5 s	A	≥ 15	
10	**110 V DC Auxiliary power supply:**			
10.1	Operating voltage range	V DC	90 - 140 V	
10.2	Burden	W	≤ 50W	
11	**Sequential event recorder**	-	Yes	

9 21 BAY - BUSBAR RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
11.1	Minimum 1000 event entries stored in non-volatile memory	-	Yes	
11.2	Time stamp resolution	ms	≤ 1	
12	**Disturbance recording / Oscillography (RDRE)**	-	Yes	
12.1	Minimum length	seconds	≥ 3	
12.2	Minimum sampling rate	samples per cycle	≥ 8	
12.3	Oscillography recordings stored in non-volatile memory	-	≥ 3	
12.4	Time stamp resolution	ms	1	
13	**Front Panel Control, Annunciation, LED's, HMI**			
13.1	Single line representation of all plant statuses and analogues	-	Yes	
13.2	Customized front-panel pushbutton operation	-	Yes	
13.3	Front panel LEDs	-	min 36 fixed or min 3 pages of 12 or more LEDs	
13.4	Tricolour LEDs - Red, Amber, Green	-	Yes	
13.5	Customise HMI messages using event-driven data	-	Yes	
13.6	HMI Screen resolution	-	≥ 300 x 200	
14	**Manufacturer's Warranty**	Year	10	

10 ON LOAD TAP CHANGER RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
1	**Manufacturer**	-	-	
2	**Type**	-	-	
3	**Voltage Regulation (ATCC)**			
3.1	Voltage regulation based on voltage only (bandwidth)	-	Yes	
3.2	Voltage regulation based on voltage and circulating reactive current	-	Yes	
3.3	Voltage regulation based on voltage and load current	-	Yes	
3.4	Selectable tap change initiation time	-	Yes	
3.4.1	Fixed	-	Yes	
3.4.2	Linear	-	Yes	
3.4.3	Integral	-	Yes	
3.5	Parallel transformer recognition for up to 4 transformers	-	Yes	
3.6	High speed tap change switching for over and under-voltage	-	Yes	
3.7	Over and under-voltage tap change block	-	Yes	
3.8	Over-current tap change block	-	Yes	

10 ON LOAD TAP CHANGER RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
4	**On Load Tap Changer**			
4.1	Tap position detection using resistor measurement	-	Yes	
4.2	Tap position detection using BCD encoder	-	Yes	
4.3	Tap change operation failure detection	-	Yes	
4.3.1	Tap changer running time exceeded	-	Yes	
4.3.2	Incorrect tap position reported after tap initiated	-	Yes	
4.4	Block tap change operation beyond max & min tap positions	-	Yes	
5	**Power Transformer Supervision (SPTR):**			
5.1	Hot spot temperature model based on IEC 60076	-	Yes	
5.2	Record individual tap position operation statistics	-	Yes	
5.3	Record total tap operation statistics	-	Yes	
5.4	Record total tap operation statistics under load	-	Yes	
6	**Time Synchronisation**	-	Yes	
6.1	NTP Time synchronisation	-	Yes	
7	**Communication protocol - IEC 61850 (MMS & GOOSE)**	-	Yes	
7.1	MMS	-	Yes	
7.2	GOOSE	-	Type 2: P4	
7.3	GOOSE Subscriptions: number of IEDs	-	≥ 8	
7.4	GOOSE Publish: number of GOOSE control blocks	-	≥ 4	
8	**Communication interfaces:**			
8.1	100Mb100Mbps Ethernet communication port – RJ45 Copper	-	1	
8.2	100Mb100Mbps Ethernet communication port – LC Multimode fibre	-	1	
9	**Binary inputs and outputs:**			
9.1	Amount of binary inputs	-	≥ 22	
9.1.1	Current drain at 110V DC	mA	≤ 5	
9.1.2	Current drain at 24V DC	mA	≤ 5	
9.2	Amount of binary outputs	-	≥ 10	
10	**Auxiliary power supply:**			
10.1	Option 1 - 110 V DC	-	Yes	
10.1.1	Burden	W	≤ 25	
10.2	Option 2 - 24 V DC	-	Yes	
10.2.1	Burden	W	≤ 25	
11	**CT Current rating**			
11.1	Number of current inputs	-	≥ 2	

10 ON LOAD TAP CHANGER RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
11.2	Continuous current rating	pu of CT input rating i.e. 1A or 5A	Minimum 2 pu	
11.3	1 Second rating	pu of CT input rating i.e. 1A or 5A	Minimum 20 pu	
11.4	Option 1	1 Amp	Yes	
11.5	Option 2	5 Amp	Yes	
11.6	Burden	VA	≤ 0.5	
12	**Analogue inputs (mA)**			
12.1	Number of analogue inputs	-	≥ 2	
12.2	Range	mA	-20 … 0 ... +20	
12.3	Voltage drop	V	≤ 1.5	
12.4	Error limit	%	≤ 1.0	
12.5	Galvanic isolation	-	Yes	
12.6	Short circuit protection	-	Yes	
12.7	Open circuit protection	-	Yes	
13	**VT Voltage Inputs**			
13.1	Number of voltage inputs	-	≥ 2	
13.2	Operating range	V	0 - 150	
13.3	Continuous voltage rating	V	230	
13.4	10 second voltage rating	V	285	
13.5	Burden @ 110V	VA	≤ 0.125	
14	**Sequential event recorder**	-	Yes	
14.1	Minimum 500 event entries stored in non-volatile memory	-	Yes	
14.2	Time stamp resolution	ms	≤ 100	
15	**Recording / Oscillography (RDRE)**	-	Yes	
15.1	Minimum length	weeks	≥ 6	
15.2	Minimum sampling rate	seconds	≥ 1	
16	**Front Panel Control, Annunciation, LED's, HMI**			
16.1	Front panel Tricolour LEDs - Red, Amber, Green	-	Minimum 12	
16.2	Front-panel pushbutton operation with integrated LED for indication i.e. Raise, Lower, Auto, Manual, Local, Remote	-	Minimum 6 pushbuttons	
16.3	HMI - Primary voltage and tap position display	-	Yes	
16.4	HMI - Primary Apparent, Real and Reactive power display	-	Yes	
16.5	HMI - Primary circulating current display	-	Yes	
16.6	Customise HMI messages using event-driven data	-	Yes	
16.7	HMI Screen resolution	-	≥ 128x128	
16.8	HMI single line diagram to represent group of transformers	-	Yes	

10 ON LOAD TAP CHANGER RELAY

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
17	**Manufacturer's Warranty**	Year	10	

11 PROTECTION SCHEMES DOCUMENTATION

ITEM	DESCRIPTION	UNIT	PROJECT REQUIREMENTS	GUARANTEED BY SUPPLIER
1	**Documentation**			
1.1	Type Test Certificates	Sets	3	
1.2	Routine Test Certificates for each unit	Sets	3	
1.3	General arrangements of as built drawings	Sets	3	
1.4	Schematics and wiring diagrams	Sets	3	
1.5	Operational and maintenance manuals	Sets	3	

SIGNED ON BEHALF OF TENDERER: . . . . . .

TENDER NO: 374G/2022/23

TENDER DESCRIPTION: SUPPLY AND DELIVERY OF HV PROTECTION EQUIPMENT

CONTRACT PERIOD: FROM DATE OF COMMENCEMENT OF CONTRACT NOT EXCEEDING THIRTY-THREE (33) MONTHS

VOLUME 3: DRAFT CONTRACT

TENDERER	
NAME of Company/Close Corporation or Partnership / Joint Venture/ Consortium or Sole Proprietor /Individual	
TRADING AS (if different from above)	

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

VOLUME 3: DRAFT CONTRACT
(7) 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 Contract:

1. Definitions

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 contract. 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**.

Add the following after Clause 1.25:

1.26 'Supplier' means any provider of goods and / or services with whom the contract is concluded

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

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 All parties in a joint venture or consortium shall be jointly and severally liable to the purchaser in terms of this 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 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**, save that if the Employer 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 that 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 cancellation of the contract, restriction of the supplier, and/or the exercise by the City of any other remedies available to it as described in the SCM Policy.

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 order:

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
d) Other requirements as detailed in the tender documents

3.5.2 Only when notified of the acceptance of the bid by the issuing of the order, the supplier shall commence with and carry out the delivery of the goods 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 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 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 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 orders for the goods required under this Contract. No liability for payment will ensue for any work done if an official purchase order has not been issued to the supplier.

3.6.2 Make payment to the **supplier** for the goods as set out herein.

3.6.3 Take possession of the goods 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 documents.

3.6.6 Grant or refuse any extension of time requested by the supplier to the period stated in clause 10.

3.6.7 Inspect the goods 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 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 contract and need not obtain the supplier's permission to copy 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 for the contract and the purchaser hereby indemnifies the supplier against any claim which may be made against him by any party 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 contract within two (2) years of completion of the services 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 contract 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 Employer.

5.8.2 The supplier hereby assigns to the Employer, all Intellectual Property created, developed or otherwise brought into existence by it for the purposes of the contract, 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 Employer's Intellectual Property for any purpose other than as contemplated in this contract;

5.8.3.2 not modify, add to, change or alter the Employer'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 Employer;

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 Employer;

5.8.3.4 comply with all reasonable directions or instructions given to it by the Employer in relation to the form and manner of use of the Employer Intellectual Property, including without limitation, any brand guidelines which the Employer may provide to the supplier from time to time;

5.8.3.5 procure that its employees, directors, members and contractors comply strictly with the provisions of clauses 5.8.3.1 to 5.8.3.3 above;

unless the Employer expressly agrees thereto in writing after obtaining due internal authority.

5.8.4 The supplier represents and warrants to the Employer that, in providing goods, services or both, as the case may be, for the duration of the contract, it will not infringe or make unauthorised use of the Intellectual Property rights of any third party and hereby indemnifies the Employer 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 In the event that the contract is cancelled, terminated, ended or is declared void, any and all of the Employer's Intellectual Property, and any and all information and data related thereto, shall be immediately handed over to the Employer by the supplier and no copies thereof shall be retained by the supplier unless the Employer expressly and in writing, after obtaining due internal authority, agrees

otherwise.

7. Performance Security

Not Applicable.

8. Inspections, tests and analyses

Delete Clause 8.2 and substitute with the following:

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 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 order. Orders for the supply and delivery of goods may be raised up until the expiry of a framework agreement bid, provided that the goods can be delivered within 30 days of expiry of the framework contract. All orders, other than for the supply and delivery of goods, must be completed prior to the expiry of the contract period.

10.2 The purchaser shall determine, in its sole discretion, whether the goods 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 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 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:

a) 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**;**

b) 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;

c) 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 bidder's broker or the insurance company itself (see **Proof of Insurance / Insurance Broker's Warranty** section in document for a pro forma version).

d) 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.

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

11.3 The supplier shall be obliged to furnish the CCT with proof of such insurance as the CCT 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 **Proof of Insurance / Insurance Broker's Warranty** section of the document or copies of the insurance policies.

15. Warranty

Add to Clause 15.2:

15.2 This warranty for this contract shall remain valid for **twelve (12) months** after the goods have been delivered.

16. Payment

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

16.1 A monthly payment cycle will be the norm. All invoices which are dated on or before the 20th of a particular month will typically be paid between the 23rd and 26th of the following month. The supplier may submit a fully motivated application regarding more frequent payment to the Employer's Director: Expenditure for consideration. Requests for more frequent payments will be considered at the sole discretion of the Employer and is not a right in terms of this contract.

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 order, the supplier shall only be entitled to payment for goods actually delivered in terms of the Project Specification and Drawings, or any variations in accordance with clause 18. Any contingency sum included shall be for the sole use, and at the discretion, of the purchaser.

The CCT is not liable for payment of any invoice that pre-dates the date of delivery of the goods.

16.6 The purchaser will only make advanced payments to the supplier in strict compliance with the terms and details as contained on **Proforma Advanced Payment Guarantee** and only once the authenticity of such guarantee has been verified by the City's Treasury Department.

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 Director: Supply Chain Management 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 delivered and services performed shall be subject to contract price adjustment and the following conditions will be applicable:

a) ROE
b) Manufacturer Price List
c) CPI

17.5 If price adjustment for variations in the cost of plant and materials imported from outside of South Africa is provided for in the contract, such adjustment shall be based on the information contained on the schedule titled "**Price Basis for Imported Resources"** and as below. For the purposes of this clause the Rand value of imported Plant and Materials inserted on the schedule titled "**Price Basis for Imported Resources"** (column (F)) shall be the value in foreign currency (column (A)) converted to South African Rand (column (C)) by using the closing spot selling rate quoted by **CCT's** main banker, NEDBANK, on the Base Date (seven calendar days before tender closing date) rounded to the second decimal place (column(B)), to which shall be added any Customs Surcharge and Customs Duty applicable at that date (columns (D) and (E)).

17.5.1 Adjustment for variations in rates of exchange:

(a) The value in foreign currency inserted in column (A) shall be subject to clause (h) below when recalculating the Rand value.

(b) The rate of exchange inserted in column (B) shall be the closing spot selling rate quoted by Council's main banker, NEDBANK, on the Base Date, rounded to the second decimal place, subject to sub-paragraph (c) below.

(c) If the rate of exchange inserted by the Tenderer differs from the NEDBANK rate referred to above, then the NEDBANK rate shall apply and the Rand value in columns (C) and (F) shall be recalculated accordingly, without altering the price in the Price Schedule for the relevant items.

(d) If a tender from a supplier or sub-contractor provides for variations in rates of exchange, the Supplier may **only** claim for variations in rates of exchange if he binds the supplier or sub-contractor to the same provision to take out forward cover as described in sub-paragraph (e) below.

(e) The Supplier (or sub-contractor) shall within five working days from the date of placing a firm order on an overseas supplier, cover or recover forward by way of a contract with a bank which is an authorised foreign exchange dealer, the foreign exchange component of the cost of any imported Plant and Materials inserted by the Tenderer on the scheduled titled "**Price Basis for Imported Resources"**.

(f) When the Supplier (or sub-contractor) so obtains forward cover, the Supplier shall immediately notify the CCT of the rate obtained and furnish the CCT with a copy of the foreign exchange contract note.

(g) Based on the evidence provided in sub-paragraph (f) above, the value in Rand inserted in column (C) of on the schedule titled "**Price Basis for Imported Resources** "shall be recalculated using the forward cover rate obtained, and any increase or decrease in the Rand value defined in this clause shall be adjusted accordingly, subject to sub-paragraph (h) below.

(h) The adjustments shall be calculated upon the value in foreign currency in the Supplier's (or sub-contractor's) **forward cover contract**, provided that, should this value exceed the value in foreign currency inserted in column (A) of on the schedule titled "**Price Basis for Imported Resources"**, then the value in column (A) shall be used.

17.53.2 Adjustment for variations in customs surcharge and customs duty

(a) Any increase or decrease in the Rand value between the amounts of Customs Surcharge and Customs Duty inserted in on the schedule titled "**Price Basis for Imported Resources"** and those amounts actually paid to the Customs and Excise Authorities, which are due to changes in the percentage rates applicable or to the foreign exchange rate used by the authorities, shall be adjusted accordingly.

(b) The Tenderer shall state the Customs Duty Tariff Reference applicable to each item and the Supplier shall advise the CCT's Agent of any changes which occur.

17.5.3 Adjustment for variation in labour and material Costs

If the prices for imported Plant and Materials are not fixed, the Supplier shall in his Tender specify the formula for calculating Contract Price Adjustments normally used in the country of manufacture and the indices and relative proportions of labour and material on which his Tender prices are based. Evidence of the indices applicable shall be provided with each claim. The indices applicable 42 days before contractual dispatch date from the factory will be used for the purposes of Contract Price Adjustment.

Failure to specify a formula in the Tender shall mean that the prices are fixed or shall be deemed to be 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, extension of the duration or expansion of the value of the contract that the purchaser issues to the supplier as instructions in writing, 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, such work will not become due and payable until amended order has been issued by 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 the were the acts, defaults or negligence of the supplier.

20.3 Any appointment of a subcontractor shall not amount to a contract between the CCT and the subcontractor, or a responsibility or liability on the part of the CCT to the subcontractor and shall not relive 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 the contract the supplier or its sub-contractors should encounter conditions beyond their reasonable control which impede the timely delivery of the goods, the supplier shall notify the purchaser in writing, within 7 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 a contract shall be deemed to prohibit the obtaining of goods 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 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 as stated herein for each day of the delay until actual delivery or performance.

The penalty for this contract shall be 1% per day of late delivery to the CCT exceeding 16 weeks for Section: A or 8 weeks for Sections: B to I, up to a maximum of 5% per order. Delivery period starts once order is generated.
If the tenderer submits a delivery period in the pricing schedule that is shorter than the period for that section, the delivery period declare/submitted by the tenderer will be used in the calculation of penalties

22.2 The purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, financial penalties as contained on the **Preference Schedule** relaying to 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 The parties by mutual agreement terminate the contract.

23.8.3 If an Order has been issued incorrectly, or to the incorrect recipient, the resulting contract may be terminated by the purchaser by written notice

23.8.4 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, provided the City Manager follows the processes as described in the purchasers SCM Policy.

23.8.5 After providing notice to the supplier, if the implementation of the contract may result in reputational risk or harm to the City as a result of (inter alia):

23.8.5.1 reports of poor governance and/or unethical behaviour;
23.8.5.2 association with known family of notorious individuals;
23.8.5.3 poor performance issues, known to the Employer;
23.8.5.4 negative social media reports; or
23.8.5.5 adverse assurance (e.g. due diligence) report outcomes..

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 The purchaser may make either of the following elections to ensure its rights are protected and any negative impact on service delivery is mitigated:

26.1.1 accept a supplier proposal (via the liquidator) to render delivery utilising the appropriate contractual mechanisms; or

26.1.2 terminate the contract, as the liquidator proposed supplier is deemed unacceptable to the purchaser, at any time by giving written notice to the supplier (via the liquidator).

26.2 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

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 23.1(c), 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 (b) and replace with the following:

(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 working day of delivery
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 supplier to submit documentary evidence in the form of a valid Tax Clearance Certificate 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).

Add the following after clause 32.3:

32.4 The **VAT registration** number of the City of Cape Town 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. Any failure in this regard may result in a delay in the processing of any payments.

36. Protection of personal information

36.1 The supplier acknowledges that it will be processing personal information as defined in the Protection of Personal Information Act No. 4 of 2013 relating to City customers, on behalf of the City. Accordingly, it undertakes to ensure compliance with the Act in respect of its processing activities. In particular, it undertakes to keep such information confidential and not to disclose it unless required by law or in the course of the proper performance of its duties. Furthermore, it undertakes to maintain security measures as envisaged in Sections 19 and 21 of the Act. The requirements of this apply to all agents and subcontractors acting on behalf of tenderers and must be included in all contracts between tenderers and their agents or subcontractors.

(8) GENERAL CONDITIONS OF CONTRACT

(National Treasury - General Conditions of Contract (revised July 2010))

TABLE OF CLAUSES

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 so 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.

7.2 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.

(9) FORM OF GUARANTEE / PERFORMANCE SECURITY

NOT APPLICABLE

ANNEXURE

LIST OF APPROVED FINANCIAL INSTITUTIONS

The following financial institutions are currently (as at 12 October 2021) approved for issue of contract guarantees to the City:

National Banks:
ABSA Bank Ltd.
FirstRand Bank Ltd.
Investec Bank Ltd.
Nedbank Ltd.
Standard Bank of SA Ltd.

International Banks (with branches in SA):
Barclays Bank plc.
Citibank n.a.
Credit Agricole Corporate and Investment Bank
HSBC Bank plc.
JP Morgan Chase Bank
Societe Generale
Standard Chartered Bank

Insurance companies:
American International Group Inc (AIG)
Bryte Insurance Company Ltd.
Coface s.a.
Compass Insurance Company Ltd.
Credit Guarantee Insurance Corporation of Africa.
Limited Guardrisk Insurance Company Ltd.
Hollard Insurance Company Ltd.
Infiniti Insurance Limited
Lombard Insurance Company Ltd.
New National Assurance Company Ltd.
PSG Konsult Ltd.
Regent Insurance Company Ltd.
Renasa Insurance Company Ltd.
Santam Limited

(10) FORM OF ADVANCE PAYMENT GUARANTEE

NOT APPLICABLE

(10.1) ADVANCE PAYMENT SCHEDULE

NOT APPLICABLE

(11) OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

AGREEMENT MADE AND ENTERED INTO BETWEEN THE CITY OF CAPE TOWN (HEREINAFTER CALLED THE "CCT") AND

……..……. ,
(Supplier/Mandatary/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, 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 (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 at .....on the.....day of.....20….

_____ _____
Witness **Mandatary**

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

_____ _____
Witness for and on behalf of
City of Cape Town

(12) INSURANCE BROKER'S WARRANTY (PRO FORMA)

Logo

Letterhead of supplier's Insurance Broker

Date _____

CITY OF CAPE TOWN
City Manager
Civic Centre
12 Hertzog Boulevard
Cape Town
8000

Dear Sir

TENDER NO.: **374G/2022/23**

TENDER DESCRIPTION: SUPPLY AND DELIVERY OF HV PROTECTION EQUIPMENT

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 CITY OF CAPE TOWN 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)

(13) SPECIFICATION(S)

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"

SECTION A: PROTECTION RELAY, SWING-FRAME PANELS and PROTECTION SCHEME SPECIFICATIONS

1. OVERCURRENT AND EARTH-FAULT RELAYS

1.1 Overcurrent and earth-fault relay functionality:

- The O/C (over-current) and E/F (earth-fault) protection shall consist of a current measuring element per phase and a measuring element for residual/neutral current. When SEF (sensitive earth-fault) protection is required a fifth measuring element may be provided.
- All protection functions, i.e. overcurrent, earth fault and sensitive earth fault shall have elements with characteristics that comply with IEC 60255 and ANSI/IEEE C37.112-1996.
- Resetting of a picked-up IDMTL (inverse definite minimum time) or DTL (definite time lag) protection function shall be done by simulating the reset time of an electromechanical protection relay. This is in order to prevent notching of an upstream electromechanical relay which picked-up for the same fault as the downstream re-closer. The ratio of drop-off current to pick-up current shall be at least 95% for all protection functions.
- At least two delayed elements shall be provided for both phase and earth faults. It shall be possible to select between DTL and IDMTL. At least three high-set elements shall be provided.
- Where DTL and IDMTL characteristics are combined in order to provide a composite characteristic, there shall be a smooth transition between the two curves, with no overshoot.
- The relay shall have a minimum of fourteen (14) binary inputs and a minimum of seven (7) fully programmable binary outputs.
- All relay elements shall be insensitive to the magnetizing inrush currents of power transformers.
- Negative sequence over current protection shall be provided to protect the system against unbalanced conditions.

1.2 Over-current Functionality:

- Delayed protection operation shall be possible by selecting an IDMTL protection element with a LTI (long time inverse), NI (normal inverse), VI (very inverse) or EI (extreme inverse) or a DTL protection element in accordance with IEC 60255 and ANSI/IEEE C37.112-1996.
- The current plug setting range shall cover at least the range 10 - 300% of relay rated current.
- Preference shall be given to relays providing faulted phase indication, digital readout of settings, service and fault currents, disturbance recording and fault-recording.

- Binary outputs shall be user programmable to not only facilitate marshalling of required functions, but also to allow for additional timers and trip circuit logic manipulation. Flexibility should be allowed to ensure that unused relay functionality do not limit the use of available relay outputs.

- The high set setting range shall be at least 10 – 2000% of relay rated current and the transient over-reach shall be less than 20%. It must be possible to introduce a delay in these relays of 0 - 5 seconds to cater for special applications. Each time delayed element and each instantaneous element shall be provided with a hand-reset operation indicator.

- At least one dedicated operation indicator for each of the Overcurrent and Earth-fault time delayed elements and one for the instantaneous elements shall be provided.

- The relay current circuit thermal rating shall be at least three times the nominal current rating continuously, and 100 x the nominal current for 1 second.

- Alternative groups of settings shall be provided for the overcurrent elements and shall be selected by energizing an opto-isolated binary input assigned to this function or by a suitable command.

1.3 Earth-Fault functionality:

- Delayed protection operation shall be possible by selecting an IDMT protection element with an NI, VI or EI or a DTL protection element in accordance with IEC 60255 and ANSI/IEEE C37.112-1996. The current plug setting range shall cover at least the range 10 - 300% of relay rated current.

- Preference shall be given to relays providing faulted phase indication, digital readout of settings, service and fault currents, disturbance recording and fault-recording.

- All relay elements shall be insensitive to the magnetizing inrush currents of power transformers. Negative sequence over current protection shall be provided to protect the system against unbalanced conditions.

- The high set setting range shall be at least 10 – 2000% of relay rated current and the transient over-reach shall be less than 20%. It must be possible to introduce a delay in these relays of 0 - 5 seconds to cater for special applications.

- Each time delayed element and each instantaneous element shall be provided with a hand-reset operation indicator. At least one operation indicator for the time delayed elements and one for the instantaneous elements shall be provided.

- The relay current circuit thermal rating shall be at least three times the nominal current rating continuously, and 100 x the nominal current for 1 second.

- Alternative groups of settings shall be provided for the overcurrent elements and shall be selected by energizing an opto-isolated binary input assigned to this function or by a suitable command via the serial communication port of the relay.

1.4 Real time clock and time synchronization:

- The correct function of the protection relay for event reports and oscillo-graphs requires that the relay have a real time clock for correct information capturing and ease of incident investigation.

- The protection relay shall have a real time clock that will not “drift” by more than 15s in 30 days and have a built in calendar, accurate for a minimum of thirty years. When the time of the relay is being rectified it shall be possible to do so without resetting any other parameters in the relay.

- During any loss of supply the time of the clock shall be maintained by a back-up battery.

- The relay shall have an IRIG-B input to be synchronised from an external GPS device.

1.5 Communications Protocol:

- The relay shall have the IEC-61850 protocol as a standard communication and control protocol. The relay will comply with the IEC-61850-5 section 12.7.1.1 standard. “Type 1A Trip”, *“For Performance Class P1, the total transmission time shall be below the order of a quarter cycle. Therefore, 10ms are defined*”.

- The relay will also comply with the IEC-61850-5 section 12.7.1.2 “Type 1B Other”, *“For Performance Class P2/3,and the total transmission time shall be the order of one cycle. Therefore, 20ms are defined”*. **No** relay will be accepted which has a protocol converter as an IEC-61850 interface.

- Relays shall be equipped with at least one front communication port and one Ethernet fibre-optic port with LC connections, to facilitate local and remote communications.

1.6 Breaker fail functionality:

A programmable circuit breaker fail logic shall also be provided and shall be activated by a protection trip signal from the relay and terminated when the protection resets. A user programmable breaker fail timer shall be incorporated with a selectable timing range of 0.1 to 2 seconds.

1.7 Breaker Monitoring

The relay shall have the capability to monitor the number of through-faults, accumulated I^2t, and fault duration times to determine the frequency and impact of external faults on breaker.

The relay shall have the capability to monitor the two trip circuits, of the associated breaker, in the open and close state.

1.8 Demand metering

The relay shall have the capability to measure and record measurerands to be stored in a non-volatile memory. Preference will be given to relays that do both thermal and rolling demand metering.

1.9 Arc Flash detection

The relay shall have the capability to detect “Arc” flashes via a fibre-optic cable which is connected to a sensor situated in the protected chamber. A minimum of four (4) Arc flash fibre-optic cable inputs are required. The inputs shall be individually configurable to be marshalled to different outputs for different events.
The relay shall have an Arc flash monitoring system which will monitor the integrity of the loop and point sensors. The Arc flash monitoring process will not influence the performance under an Arc flash fault condition. When such a sensor is compromised the relay will alarm and annunciate such a condition.

1.10 IED Configuration software

The relay configuration software (for engineers and technicians to configure, commission and manage the relay) and IEC61850 system configurator software (for engineers to configure GOOSE and Manufacturing Message Specification - MMS messages for process bus and SCADA applications) shall be included in the offer submitted. All software shall have an unlimited amount of user licences available to CCT.

1.11 Displays and Menus

All displays and menus on the relay must be available in English. Labels and text on the relays shall be in English and easily legible.

2. TRANSFORMER DIFFERENTIAL PROTECTION RELAYS

2.1 TRANSFORMER DIFFERENTIAL PROTECTION RELAY FUNCTIONALITY:

- This type of relay shall be of integrated micro-processor design and be capable of providing all the protection and alarm functions for 2 or 3 winding power transformers. The protection functions shall include:
    - Current differential with load bias and second and fifth harmonic blocking
    - Vector group compensation and current amplitude correction
    - Differential high-set over current
    - Low impedance Restricted earth fault for each transformer winding
    - High set and IDMT over current and earth fault protection for all windings
    - Circuit breaker monitoring of HV (high voltage), MV (medium voltage) and LV (low voltage) circuit breakers.
    - Circuit breaker control for the HV, MV and LV breakers shall be possible via the relay HMI. (Human Machine Interface)
    - Controls for all the Isolator and earth apparatus shall be possible via the relay HMI.
    - Statuses of the HV, MV and LV breakers, and all isolator and earth statuses shall be displayed on the relay HMI.
    - VT input for power measurements.
- The relay shall have additional binary inputs to accommodate other transformer protection devices such as:
    - Buccholtz alarm and trip signals
    - Oil Temperature alarm and trip signals
    - Winding temperature alarm and trip signals
    - Breaker and link statuses (HV & MV)
    - Over pressure trip
    - Oil level
    - OLTC (on-load tap changer control) alarms & trips.
- The relay shall have a minimum of 36 freely programmable LED’s (light emitting diodes) to be used for alarm annunciation.
- Additional binary inputs shall provide an indication on the LED’s and integrate their condition into the operation of the protection by means of programmable binary output contacts to provide a complete transformer protection scheme without the addition of further repeat relays.
- Comprehensive data storage and communication facilities shall be provided to accommodate the following data:
    - Internal waveforms for the operating and restraint currents for each phase. The sampling frequency should be no less than 800 Hz. Recording period should be settable between 15 and 60 power frequency cycles.
    - Automatic recording of HV and MV waveforms and the condition of all inputs and outputs for post fault analysis.

- Internal metering point values shall be available from a L.C.D. (liquid crystal display) display on the front of the relay to provide values for operate and restraint currents as well as currents following amplitude and vector correction and magnetizing inrush values by phase.

- Settings shall be applied to the relay by means of configuration software or push buttons with L.C.D. displays providing prompts in English. Settings shall be read from the front of the relay by scrolling through the menu using push buttons without any possibility of changing any settings.

- The setting ranges of this relay shall be as follows:

  Setting ranges shall conform to the minimum requirement specified in **Schedule 13 A: Technical Schedules of Equipment Offered**

- The operating times shall not exceed 20 ms (milli-seconds) at 2 x setting for current differential, 15 ms at 8 x In for high-set over-current and 15 ms at 4 x In for restricted earth fault.

- The relay manufacturer shall provide a formula for calculating the minimum requirements for the current transformers to be used with this relay to ensure stability on through-faults of up to 15 times the rated current.

2.2 Overcurrent and earth fault functions:

- The O/C and E/F protection shall consist of a current measuring element per phase and a measuring element for residual/neutral current.

- All protection functions, i.e. overcurrent, earth fault and sensitive earth fault shall have elements with characteristics that comply with IEC 60255 and ANSI/IEEE C37.112-1996.

- Resetting of a picked-up IDMT or DTL protection function shall be done by simulating the reset time of an electromechanical protection relay. This is in order to prevent notching of an upstream electromechanical relay which picked-up for the same fault as the downstream re-closer.

- The ratio of drop-off current to pick-up current shall be at least 95% for all protection functions.

- At least two delayed elements shall be provided for both phase and earth faults. It shall be possible to select between DTL and IDMTL. At least three high-set elements shall be provided.

- Where DTL and IDMTL characteristics are combined in order to provide a composite characteristic, there shall be a smooth transition between the two curves, with no overshoot.

- Delayed protection operation shall be possible by selecting and IDMT protection element with an NI, VI or EI or a DTL protection element in accordance with IEC 60255 and ANSI/IEEE C37.112-1996.

- The current plug setting range shall cover at least the range 5 - 300% of relay rated current. Preference shall be given to relays providing faulted phase indication, digital readout of settings, service and fault currents, disturbance recording and fault-recording.

- All relays elements shall be insensitive to the magnetizing inrush currents of power transformers. Negative sequence over current protection shall be provided to protect the system against unbalanced conditions.
- The high set setting range shall be at least 5 – 2000% of relay rated current and the transient over-reach shall be less than 20%. It must be possible to introduce a delay in these relays of 0 - 320 seconds to cater for special applications.

- Each time delayed element and each instantaneous element shall be provided with a hand-reset operation indicator. At least one operation indicator for the time delayed elements and one for the instantaneous elements shall be provided.

- The relay current circuit thermal rating shall be at least three times the nominal current rating continuously, and 100 x the nominal current for 1 second.

- Alternative groups of settings shall be provided for the overcurrent elements and shall be selected by energizing an opto-isolated binary input assigned to this function or by a suitable command.

2.3 Real time clock and time synchronization

- The correct function of the protection relay for event reports and oscillo-graphs requires that the relay have a real time clock for correct information capturing and ease of incident investigation.

- The protection device shall have a real time clock that will not "drift" by more than 15s in a 30 day period and have a built in calendar, accurate for a minimum of thirty years.

- When the time of the relay is being rectified it shall be possible to do so without resetting any other parameters in the relay. During any loss of supply the time of the clock shall be maintained by a back-up battery.

- The relay shall have an IRIG-B input and support IEEE 1588 PTP to be synchronised from GPS device.

2.4 Communications Protocol:

- The relay shall have the IEC-61850 protocol as a standard communication and control protocol. The relay will comply with the IEC-61850-5 section 12.7.1.1 standard. "Type 1A Trip", *"For Performance Class P1, the total transmission time shall be below the order of a quarter cycle. Therefore, 10ms are defined"*.

- The relay will also comply with the IEC-61850-5 section 12.7.1.2 "Type 1B Other", *"For Performance Class P2/3, the total transmission time shall be the order of one cycle. Therefore, 20ms are defined*". **No** relay will be accepted which have a protocol converter as an IEC-61850 interface.

- The relay shall be equipped with at least one (1) front communications port and two (2) rear fibre-optic Ethernet ports with LC connections, to facilitate local and remote communications.

2.5 Breaker fail functionality.

A programmable circuit breaker fail logic shall also be provided and shall be activated by a protection trip signal from the relay and terminated when the protection resets. A user programmable breaker fail timer shall be incorporated with a selectable timing range of 0.1 to 2 seconds.

2.6 Breaker Monitoring

The relay shall have the capability to monitor the number of through-faults, accumulated I^2t, and fault duration times to determine the frequency and impact of external faults on breaker.

The relay shall have the capability to monitor two trip circuits, of the associated circuit breaker, in the open and close state.

2.7 Demand metering

The relay shall have the capability to measure and record measure-hands and store these in a nonvolatile memory. Preference will be given to relays that do both thermal and rolling demand metering.

2.8 IED Configuration software

The relay configuration software (for engineers and technicians to configure, commission and manage the relay) and IEC61850 system configurator software (for engineers to configure GOOSE and Manufacturing Message Specification - MMS messages for process bus and SCADA applications) shall be included in the offer submitted. All software shall have an unlimited amount of user licences available to CCT.

2.9 Displays and Menus

All displays and menus on the relay must be available in English. Labels and text on the relays shall be in English and easily legible.

3. FEEDER DIFFERENTIAL PROTECTION RELAYS

3.1 Feeder Differential Protection Relay Functionality:

- This type of relay shall be capable of providing instantaneous tripping of all ends circuit breakers for phase and earth faults on a three ended circuit, even when the fault is fed single ended.
- This type of protection shall make use of digital technology and shall be suitable for use with dedicated optical fibre or multiplexing systems. Direct relay to relay digital communication shall offer current comparison (for current differential schemes) or a minimum of eight communication channels for direction comparison or permissive tripping schemes.
- In all cases, stepped distance protection shall be provided as a backup on the HV network. A minimum of three (3) Mho's and Quadrilateral characteristics shall be provided.
- Continuous checking of the communications channel shall be performed automatically and it shall be possible to select an alternative setting group in the case of communications failure.
- The electrical to optical converter shall be supplied as part of the protection scheme if not part of the relay.
- All feeder differential protection relays shall be immune to CT saturation and harmonic current levels.
- In the case of feeder differential relays, the relay shall be of microprocessor based design for use with modern digital communication systems and shall incorporate the following features:
    - Current differential with load bias restraint characteristics: The relay shall ensure sensitivity at low fault levels.
- All relays shall offer the following features:
    - Power-on diagnostics and continuous self-monitoring
    - Event and fault recording
    - Remote interrogation via a serial link or Ethernet link.
    - Inter-trip facilities
    - Permissive inter-trip facilities
    - In-line Transformer compensation
    - Charging current compensation
- The setting ranges shall conform to the minimum requirement specified in **Schedule 13A: Technical Schedule of Equipment**
- All binary input terminals to the relay shall be opto-isolated and the relay shall have operating times not exceeding 20 ms for in-zone faults, and inter-tripping times not exceeding 30 ms.
- The relay shall have a minimum of 24 freely programmable LED's (light emitting diodes) to be used for alarm annunciation.
- The relay manufacturer must supply a formula for calculating the CT (current transformer) requirements to ensure adequate through-fault stability and internal fault sensitivity (current differential relays). The relay manufacturer shall also supply a full specification for the optical fibre communications requirements of the relay.
- The cable differential relay shall compensate for the effects of in-line transformers, including voltages, currents and vector differences. The relay shall provide complete protection of the combined line and transformer without the transformer line side CT's and a circuit breaker.

3.2 Overcurrent and earth fault functions:

- The O/C and E/F protection shall consist of a current measuring element per phase and a measuring element for residual/neutral current. When SEF protection is required a fifth measuring element shall be provided.
- All protection functions, i.e. overcurrent, earth fault and sensitive earth fault shall have elements with characteristics that comply with IEC 60255 and ANSI/IEEE C37.112-1996.
- Resetting of a picked-up IDMT or DTL protection function shall be done by simulating the reset time of an electromechanical protection relay. This is in order to prevent notching of an upstream electromechanical relay which picked-up for the same fault as the downstream re-closer.
- The ratio of drop-off current to pick-up current shall be at least 95% for all protection functions.
- At least two delayed elements shall be provided for both phase and earth faults. It shall be possible to select between DTL and IDMT. At least three high-set elements shall be provided.
- Where DTL and IDMT characteristics are combined in order to provide a composite characteristic, there shall be a smooth transition between the two curves, with no overshoot.
- Delayed protection operation shall be possible by selecting and IDMT protection element with an NI, VI or EI or a DTL protection element in accordance with IEC 60255 and ANSI/IEEE C37.112-1996.
- The current plug setting range shall cover at least the range 5 - 300% of relay rated current. Preference shall be given to relays providing faulted phase indication, digital readout of settings, service and fault currents, disturbance recording and fault-recording.
- All relays elements shall be insensitive to the magnetizing inrush currents of power transformers. Negative sequence over current protection shall be provided to protect the system against unbalanced conditions.
- The high set setting range shall be at least 5 – 2000% of relay rated current and the transient over-reach shall be less than 20%. It must be possible to introduce a delay in these relays of 0 - 5 seconds to cater for special applications.
- Each time delayed element and each instantaneous element shall be provided with a hand-reset operation indicator. At least one operation indicator for the time delayed elements and one for the instantaneous elements shall be provided.
- The relay current circuit thermal rating shall be at least three times the nominal current rating continuously, and 100 x the nominal current for 1 second.
- Alternative groups of settings shall be provided for the overcurrent elements and shall be selected by energizing an opto-isolated binary input assigned to this function or by a suitable command.

3.3 Real time clock and time synchronization:

- The correct function of the protection device/relay for event reports and oscillo-graphs requires that the relay have a real time clock for correct information capturing and ease of incident investigation.
- The protection device shall have a real time clock that will not “drift” by more than 15s in a 30 day period and have a built in calendar, accurate for a minimum of thirty years.
- When the time of the relay is being corrected it shall be possible to do so without resetting any other parameters in the relay. During any loss of supply the time of the clock shall be maintained by a back-up battery.
- The current differential relay shall have an IRIG-B input and support IEEE 1588 PTP to be synchronised from GPS device.

3.4 Communications Protocol:

- The relay shall have the IEC-61850 protocol as a standard communication and control protocol. The relay will comply with the IEC-61850-5 section 12.7.1.1 standard. “Type 1A Trip”, *“For Performance Class P1, the total transmission time shall be below the order of a quarter cycle. Therefore, 10ms are defined”*.

- The relay will comply with the IEC-61850-5 section 12.7.1.2 “Type 1B Other”, *“For Performance Class P2/3, the total transmission time shall be the order of one cycle. Therefore, 20ms are defined*”. **No** relay will be accepted which have a protocol converter as an IEC-61850 interface.

- Relays shall be equipped with at least one (1) front communications port and two (2) rear fibre-optic Ethernet ports with LC connections, to facilitate local and remote communications.

3.5 Breaker-fail functionality:

Programmable circuit breaker fail logic shall also be provided and shall be activated by a protection trip signal from the relay and terminated when the protection resets. A user programmable breaker fail timer shall be incorporated with a selectable timing range of 0, 1 to 2 seconds.

3.6 Breaker Monitoring:

The relay shall have the capability to monitor the number of through-faults, accumulated I^2t, and fault duration times to determine the frequency and impact of external faults on breaker.

The relay shall have the capability to monitor two trip circuits, of the associated circuit breaker, in the open and close state.

3.7 Demand metering:

The relay shall have the capability to measure and record measure-hands and store these in non-volatile memory. Preference will be given to relays that do both thermal and rolling demand metering.

3.8 IED Configuration software

The relay configuration software (for engineers and technicians to configure, commission and manage the relay) and IEC61850 system configurator software (for engineers to configure GOOSE and Manufacturing Message Specification - MMS messages for process bus and SCADA applications) shall be included in the offer submitted. All software shall have an unlimited amount of user licences available to CCT.

3.9 Displays and Menus

All displays and menus on the relay must be available in English. Labels and text on the relays shall be in English and easily legible.

4. LOW IMPEDANCE BUSBAR PROTECTION RELAY

4.1 Low Impedance Busbar Protection relay functionality:

This type of relays shall be utilized on HV Busbar protection schemes. Each HV busbar shall be covered with a high-speed, low impedance bus bar protection relay. The busbar protection relay, protecting each bus, shall be capable of operating in a two-out-of-two mode (incorporating a check zone and a main zone) so as to achieve better security.

4.2 Each busbar protection relay shall comply with the following:

- Be a numerical relay and have a modular construction of the three pole type;
- Have a maximum operating time for all types of faults of 20ms at five times the setting value;
- Operate selectively for each busbar including transfer busbar and bypasss selection functionality;
- Incorporate continuous supervision of the secondary side of the current transformers against any possible open circuits, and if this occurs, the supervision system shall render the relevant zone of protection in-operative (blocked);
- The relay shall operate correctly with class TPS, TPS, TPY, TPZ and P current transformers;
- The relay shall remain stable during normal load flow on the busbars;
- The relay shall not mal-operate for an out-of-zone fault, particularly with current transformer saturation under maximum through fault current with maximum DC offset;
- The relay shall provide independent zones of protection and incorporate clear zone indication;
- Be transient free in operation;
- The relay shall be a biased differential type, have operate and restraint characteristics and self-monitoring facilities;
- Shall be of phase segregated type with three-pole tripping;
- Shall include overall check zone protection and not be effected by “In-Out” bay switch positions;
- Shall include a selectable “internal/external” breaker failure functionality;
- Shall include continuous DC supply supervision;
- Shall include the required bay “Connected and Not connected” module and indication when a circuit is connected or disconnected from the busbar;
- The busbar protection relay shall provide a visible alarm on the main busbar protection unit when a circuit is in transit and the zone selection is incomplete. The latest isolator status shall be stored and a bay-selective indication of a failure shall be issued. The Busbar protection relay shall not block for such conditions;
- The detection and clearance of faults between the current transformer and the circuit breaker shall not be delayed (CTs on both sides of the Bus Coupler circuit breakers with overlapping);
- The busbar protection relay shall be capable of connecting to a Interbay Communication Bus via a Ethernet connection;
- The busbar protection relay settings and analysis of busbar fault data shall be possible from the Engineering port;
- The Central processing unit of the relay shall connect to a substation LAN via IEC61850.

- The relay shall have a minimum of 36 freely programmable LED's (light emitting diodes) to be utilised for alarm annunciation.

4.3 Binary/Digital Outputs

The requirements for the binary outputs are:

- The output contacts shall be rated for at least 125 VA @ 110 VDC;
- The output switching voltage shall be derived from equipment external to the relay. It shall be possible to switch the positive and negative voltage rails independently through to a control actuating device;
- A module providing pulse width output functionality shall be available whereby a normally open contact will close for a configured period of time. Contact closure times shall be user configurable (typically 0.1 s to 20 s in 10 ms steps). The relay shall be provided with self-reset contacts once the target object completes the intended operation;
- Preference will be given to relays which enable the control output module to be configured internally (or in a separate module) to provide latching relay outputs. In this configuration it shall be possible to have more than one output relay active at a time;

4.4 Binary/Digital Inputs

The requirements for the binary inputs are:

- Digital status and alarm inputs shall be derived from external potential free contacts. The relay will be required to operate with an external wetting voltage of 110 VDC. A closed contact shall be detected when a condition exists of 0 to 200 Ω in parallel with up to 4.0 µF at the input. An open contact shall be detected when a condition exists of 100 kΩ or higher in parallel with up to 4.0 µF at the input;
- Each digital input shall be configurable to provide time stamping of status changes with a minimum accuracy of 1ms or better;
- The relay shall provide non-volatile digital change history storage. The storage capacity should preferably be a function of a (modular) non-volatile memory option. The minimum requirement is the last 50 events (status + time stamp);
- Preference will be given to systems which provide the ability to invert the logic status of the binary inputs.

4.5 Analogue Inputs

The requirements for the analogue inputs are:

- The busbar protection relay should interface directly to the CTs and VTs. The AC analogue module should sample input waveforms and apply DSP techniques to derive measurements.
- AC Analogue inputs will be operated at the following levels:
    - Voltage: 110 V nominal (phase-to-phase);
    - Current: 1 A nominal;

4.6 Real time clock and time synchronization:

- The correct function of the protection device/relay for event reports and oscillo-graphs requires that the relay must have a real time clock for correct information capturing and ease of incident investigation.
- The busbar protection relay shall have a real time clock that will not "drift" by more than 15s in a 30 day period and have a built in calendar, accurate for a minimum of thirty years.

- When the time of the relay is being corrected it shall be possible to do so without resetting any other parameters in the relay. During any loss of supply the time of the clock shall be maintained by a back-up battery.

- The current differential relay shall have an IRIG-B input and support IEEE 1588 PTP to be synchronised from an external GPS device.

4.7 Communications Protocol:

- The relay shall have the IEC-61850 protocol as a standard communication and control protocol. The relay will comply with the IEC-61850-5 section 12.7.1.1 standard. “Type 1A Trip”, *“For Performance Class P1, the total transmission time shall be below the order of a quarter cycle. Therefore, 5ms are defined”*.

- The relay shall comply with IEC-61850-5 section 12.7.1.2 “Type 1B Other”, *“For Performance Class P2/3, the total transmission time shall be the order of one cycle. Therefore, 20ms are defined*”. **No** relay shall be accepted which have a protocol converter as an IEC-61850 interface.

- Relays shall be equipped with at least one (1) front communications port and two (2) rear fibre-optic Ethernet ports with LC connections, to facilitate local and remote communications.

4.8 IED Configuration software

The relay configuration software (for engineers and technicians to configure, commission and manage the relay) and IEC61850 system configurator software (for engineers to configure GOOSE and Manufacturing Message Specification - MMS messages for process bus and SCADA applications) shall be included in the offer submitted. All software shall have an unlimited amount of user licences available to CCT.

4.9 Displays and Menus

All displays and menus on the relay must be available in English. Labels and text on the relays shall be in English and easily legible.

5. UNDER FREQUENCY/OCEF PROTECTION RELAY

5.1 Under Frequency/OCEF protection relay shall comply with the following general functions:

The protection relay shall be a non-directional over-current and earth fault protection device and will have the following functionality:

- IDMT Overcurrent and Earth Fault protection;
- SOTF function;
- Over voltage protection;
- Under voltage protection;
- Frequency protection;
- Circuit breaker failure.
- Time synchronisation shall be by a GPS master via IRIG-B and, where possible, be capable of synchronizing with an external GPS device.

5.2 Overcurrent and earth-fault protection functions:

- The overcurrent and earth-fault protection shall consist of a current measuring element per phase and a measuring element for residual/neutral current. When sensitive earth-fault protection is required a fifth measuring element may be provided.

- All protection functions, i.e. overcurrent, earth fault and sensitive earth fault shall have elements with characteristics that comply with IEC 60255 and ANSI/IEEE C37.112-1996.

- Resetting of a picked-up IDMT or DTL protection function shall be done by simulating the reset time of an electromechanical protection relay. This is in order to prevent notching of an upstream electromechanical relay which picked-up for the same fault as the downstream re-closer.

- The ratio of drop-off current to pick-up current shall be at least 95% for all protection functions.

- At least one delayed element shall be provided for both phase and earth faults. It shall be possible to select between DTL and IDMT. At least two high-set elements shall be provided.

- Where DTL and IDMT characteristics are combined in order to provide a composite characteristic, there shall be a smooth transition between the two curves, with no overshoot.

- Delayed protection operation shall be possible by selecting and IDMT protection element with an NI, VI or EI or a DTL protection element in accordance with IEC 60255 and ANSI/IEEE C37.112-1996.

- The current plug setting range shall cover at least the range 10 - 300% of relay rated current. Preference shall be given to relays providing faulted phase indication, digital readout of settings, service and fault currents, disturbance recording and fault-recording.

- All relays elements shall be insensitive to the magnetizing inrush currents of power transformers. Negative sequence over current protection shall be provided to protect the system against unbalanced conditions.

- The high set setting range shall be at least 10 – 2000% of relay rated current and the transient over-reach shall be less than 20%. It must be possible to introduce a delay in these relays of 0 - 5 seconds to cater for special applications.

- Each time delayed element and each instantaneous element shall be provided with a hand-reset operation indicator. At least one operation indicator for the time delayed elements and one for the instantaneous elements shall be provided.

- The relay current circuit thermal rating shall be at least three times the nominal current rating continuously, and 100 x the nominal current for 1 second.

- Alternative groups of settings shall be provided for the overcurrent elements and shall be selected by energizing an opto-isolated binary input assigned to this function or by a suitable command.

5.3 Under Frequency functionality:

- The protection shall have frequency protection that can detect over-frequency and under-frequency conditions in the network and issue a trip at a specified frequency setting.
- The frequency range should have adjustable setting ranges of 45 Hz to 55 Hz. The over-frequency and under-frequency elements shall be set and be delayed separately.
- Time delay setting: each element/stage shall have a separately settable definite time delay with a range of 0s to 10s in steps of 0.1s.
- The minimum trip time shall be less than 100ms.
- The accuracy of the frequency measurement shall be better than ±10mHz.
- The protection elements shall have a reset difference (i.e. hysteresis) of between 30mHz and 50mHz and/or shall accommodate frequency averaging.
- The reset time of the under frequency relay shall be less than 100ms.
- The relay shall include a settable under voltage blocking of the frequency protection.
- The relay shall have a df/dt element (rate of change of frequency) with a setting range of 0.1 to 10Hz/sec
- The relay shall have a minimum of four (4) frequency elements.

5.4 Binary/Digital Outputs

The requirements for the binary outputs are:

- The output contacts shall be rated for at least 125 VA @ 110 VDC;
- The output switching voltage will be derived from equipment external to the relay. It shall be possible to switch the positive and negative voltage rails independently through to a control actuating device;
- A module providing pulse width output functionality shall be available whereby a normally open contact will close for a configured period of time. Contact closure times shall be user configurable (typically 0.1 s to 20 s in 10 ms steps). The relay shall be provided with self-reset contacts once the target object completes the intended operation;
- Preference will be given to relays which enable the control output module to be configured, or in a separate module to provide latching relay outputs. In this configuration it shall be possible to have more than one output relays active at a time;

5.5 Binary/Digital Inputs

The requirements for the binary inputs are:

- Digital status and alarm inputs shall be derived from external potential free contacts. The relay will be required to operate with an external wetting voltage of 110 VDC. A closed contact shall be detected when a condition exists of 0 to 200 Ω in parallel with up to 4.0 µF at the input. An open contact shall be detected when a condition exists of 100 kΩ or higher in parallel with up to 4.0 µF at the input;
- Each digital input shall be configurable to provide time stamping of status changes with a minimum accuracy of 10ms or better;
- The relay shall provide non-volatile digital change history storage. The storage capacity should preferably be a function of a modular non-volatile memory option. The minimum requirement is the last 50 events (status + time stamp);

- Preference will be given to systems which provide the ability to invert the logic status of the binary inputs.

5.6 Analogue Inputs

The requirements for the analogue inputs are:

- The relay shall interface directly to the CTs and VTs. The AC analogue module shall sample input waveforms and apply DSP techniques to derive measurements.
- AC Analogue inputs will be operated at the following levels:
    - Voltage: 110 V nominal (phase-to-phase);
    - Current: 1 A nominal;

5.7 Real time clock and time synchronization:

- The correct function of the protection device/relay for event reports and oscillo-graphs requires that the relay have a real time clock for correct information capturing and ease of incident investigation.
- The protection device shall have a real time clock that will not “drift” by more than 15s in a 30 day period and have a built in calendar, accurate for a minimum of thirty years.
- When the time of the relay is being corrected it shall be possible to do so without resetting any other parameters in the relay. During any loss of supply the time of the clock shall be maintained by a back-up battery.
- The under-frequency relay shall have an IRIG-B input to be synchronised from an external GPS device.

5.8 Communications Protocol:

- The relay shall have the IEC-61850 protocol as a standard communication and control protocol. The relay will comply with the IEC-61850-5 section 12.7.1.1 standard. “Type 1A Trip”, *“For Performance Class P1, the total transmission time shall be below the order of a quarter cycle. Therefore, 5ms are defined”*.
- The relay shall comply with the IEC-61850-5 section 12.7.1.2 “Type 1B Other”, *“For Performance Class P2/3, the total transmission time shall be the order of one cycle. Therefore, 20ms are defined*”. **No** relay will be accepted which have a protocol converter as an IEC-61850 interface.
- Relays shall be equipped with at least one (1) front communications port and one (1) rear fibre-optic Ethernet port with LC connections, to facilitate local and remote communications.

5.9 IED Configuration software

The relay configuration software (for engineers and technicians to configure, commission and manage the relay) and IEC61850 system configurator software (for engineers to configure GOOSE and Manufacturing Message Specification - MMS messages for process bus and SCADA applications) shall be included in the offer submitted. All software shall have an unlimited amount of user licences available to CCT.

5.10 Displays and Menus

All displays and menus on the relay must be available in English. Labels and text on the relays shall be in English and easily legible.

6 BAY CONTROL RELAY

6.1 Bay Control relay functionality:

- The bay control unit (BCU) is intended to perform the functions traditionally associated with control as well as protection-related functionality such as synchronism check, auto-reclosing, etc.
- This device will also perform additional automation functions such as command sequencing, interlocking and alarm grouping. The BCU shall display the interlocking status of each device.
- Directional Back-up overcurrent and earth-fault protection functionality is required to be provided by the BCU
- The BCU shall be fully compliant to IEC-61850 and shall also meet all the operational requirements for withstanding electromagnetic interference according to the relevant parts of the IEC-61850 standard (i.e. 61850-3).
- The BCU shall have an integrated local Human Machine Interface (HMI) providing the ability to clearly display a graphical mimic (i.e. a single line diagram of the bay) as well as other information pertinent to the bay such as alarms, events and analogue quantities

  This should be done via an LCD display with twenty six (26) rows by forty (40) characters each in text mode and 10x8 (large)/ 20x15 (small) symbols in graphical mode and be clearly readable under all indoor lighting conditions
- Control of the Circuit breaker, Isolators and earth apparatus shall be possible via the relay HMI.
- a minimum of 36 configurable LED indications must be available.
- Navigation of the HMI shall be done via push buttons or a touch-sensitive screen
- The unit must be able to store at least two hundred (200) time stamped events which can be listed on the integrated HMI or be remotely accessible.
- The BCU must support sufficient binary inputs and outputs as well as AC analogue inputs (CT and VT inputs) to accommodate the required hard wired signals for the bay (i.e. CT and VT inputs, trip outputs, interlocking, etc.).
- All operations from the Control Centre are to be done through this relay.
- The BCU shall support an integrated synchronism-check functionality, breaker fail functionality, as well as auto-reclose functionality. The auto-reclose functionality is required to support 1p, 3p, 1&3p, 3 cycle, 5 cycle, and manual closing.
- VT input for power measurements.

6.2 Binary/Digital Outputs

The requirements for the binary outputs are:

- The output contacts shall be rated for at least 125 VA @ 110 VDC;
- The output switching voltage will be derived from equipment external to the relay. It shall be possible to switch the positive and negative voltage rails independently through to the control actuating device;
- A module providing pulse width output functionality shall be available whereby a normally open contact will close for a configured period of time. Contact closure times shall be user configurable (typically 0.1 s to 20 s in 10 ms steps). Relays shall be provided with self-reset contacts once the target object completes the intended operation;
- Preference will be given to relays which enable the control output module to be configured (or in an external module) to provide latching relay outputs. In this configuration it shall be possible to

have more than one output relay active at a time;

6.3 Binary/Digital Inputs

The requirements for the binary inputs are:

- Digital status and alarm inputs shall be derived from external potential free contacts. The relay will be required to operate with an external wetting voltage of 110 VDC. A closed contact shall be detected when a condition exists of 0 to 200 Ω in parallel with up to 4.0 µF at the input. An open contact shall be detected when a condition exists of 100 kΩ or higher in parallel with up to 4.0 µF at the input;

- Each digital input shall be configurable to provide time stamping of status changes with a minimum accuracy of 10ms or better;

- The relay shall provide non-volatile digital change history storage. The storage capacity should preferably be a function of a (modular) non-volatile memory option. The minimum requirement is the last 50 events (status + time stamp);

- Preference will be given to systems which provide the ability to invert the logic status of the binary inputs.

6.4 Analogue Inputs:

The requirements for the analogue inputs are:

- The relay shall interface directly to the CTs and VTs. The AC Analogue module shall sample input waveforms and apply DSP techniques to derive measurements.

- AC Analogue inputs will be operated at the following levels:

    - Voltage: 110 V nominal (phase-to-phase);

    - Current: 1 A nominal;

6.5 Real time clock and time synchronization:

- The correct function of the protection device/relay for event reports and oscillo-graphs requires that the relay have a real time clock for correct information capturing and ease of incident investigation.

- The protection device shall have a real time clock that will not “drift” by more than 15s in a 30 day period and have a built in calendar, accurate for a minimum of thirty years.

- When the time of the relay is being corrected it shall be possible to do so without resetting any other parameters in the relay. During any loss of supply the time of the clock shall be maintained by a back-up battery.

- The bay control relay shall have an IRIG-B input and support IEEE 1588 PTP to be synchronised to be synchronised from an external GPS device.

6.6 Communications Protocol:

- The relay shall have the IEC-61850 protocol as a standard communication and control protocol. The relay shall comply with the IEC-61850-5 section 12.7.1.1 standard. “Type 1A Trip”, *“For Performance Class P1, the total transmission time shall be below the order of a quarter cycle. Therefore, 5ms are defined”*.

- The relay shall comply with the IEC-61850-5 section 12.7.1.2 “Type 1B Other”, *“For Performance Class P2/3, the total transmission time shall be the order of one cycle. Therefore, 20ms are defined*”. **No** relay will be accepted which have a protocol converter as an IEC-61850 interface.

- Relays shall be equipped with at least one (1) front communications port and two (2) rear fibre-optic Ethernet ports with LC connections, to facilitate local and remote communications.

6.7 Breaker fail functionality:

A programmable circuit breaker fail logic shall also be provided and shall be activated by a protection trip signal from the relay and terminated when the protection resets. A user programmable breaker fail timer shall be incorporated with a selectable timing range of 0.1 to 2 seconds.

6.8 Breaker Monitoring:

The relay shall have the capability to monitor the number of through-faults, accumulated I2t, and fault duration times to determine the frequency and impact of external faults on breaker.

The relay shall have the capability to monitor two trip circuits, of the associated circuit breaker, in the open and close state.

6.9 IED Configuration software

The relay configuration software (for engineers and technicians to configure, commission and manage the relay) and IEC61850 system configurator software (for engineers to configure GOOSE and Manufacturing Message Specification - MMS messages for process bus and SCADA applications) shall be included in the offer submitted. All software shall have an unlimited amount of user licences available to CCT.

6.10 Displays and Menus

All displays and menus on the relay must be available in English. Labels and text on the relays shall be in English and easily legible.

7 PROTECTION PANEL SPECIFICATIONS:

FLOOR STANDING PROTECTION PANELS

7.1 General

All protection relays and associated control and indication equipment shall be housed in swing –frame, front entry type floor standing cubicles.

7.2 Manufacturing of Floor-Standing Protection Panels (Cubicles)

7.2.1 All protection panels shall be totally enclosed, vermin, insect, drip and dust-proof, and shall be of the multi-tiered, fixed pattern, sectional manufactured type and allow for the logical grouping of equipment on a swing-frame hinged front door.

7.2.2 The protection panel shall basically consist of the following:

- A solid angle iron plinth of 100 mm height and of sufficient strength to carry the total mass of the cubicle complete with equipment over any proposed cable ducts, trench or access hole with the necessary safety and without distorting. The maximum height of the cubicle shall be 2 400 mm.
- The top, side and rear panels of the cubicle shall be of minimum 2 mm folded steel and shall be fixed by means of studs welded to the base frame and chromium plated brass dome nuts and washers where required.
- Access to the panel shall be via a hinged front swing-frame door with two approved non-ferrous handles and fasteners designed to draw the door frame to the fully closed position and designed with facilities for padlocking. The swing-frame front door shall be hinged on the left hand side (as seen from the front of the board).
- The swing-frame front door shall be designed to accommodate IEC type 19 inch relay racks over a height of 43U (1 909 mm) and shall be suitably strengthened so as to carry a full complement (43U) of relays without distorting. A 20 mm wide neoprene type seal of 5 mm thickness shall be applied to the front of the cubicle to ensure a sealing face between the swing-frame front door and the framework of the cubicle when the door is closed. All corners of pan sections shall be welded and shall be completed to a smooth finish.
- All mounting holes for the fitting of 19 inch relay racks, mimic plates and blanking plates shall be pre-punched on the swing-frame door over the entire 43U height.
- Any removable front, side or back panels shall be manufactured of minimum 2 mm sheet steel and shall be fixed to the cubicle frame by means of studs with a minimum diameter of 6 mm welded to the frame and bolted down by means of chromium plated hexagonal brass dome nuts and washers. Hank nuts and bolts are not acceptable. All sharp points and edges shall be avoided in the manufacturing of any panel. Sharp ended self-tapping screws or similar fixing items shall not be used.
- All front mounted 19 inch blanking plates, shall be manufactured of minimum 2 mm sheet steel and the mounting holes shall be pre-punched or drilled prior to the paint process being applied.

  Note: Upon delivery the swing frame door shall be blanked off with an assortment of 1U, 2U, 3U and 6U blanking plates.

- The manufacturing and assembly of floor standing panels shall be such that the individual cubicles are completely separated from one another by means of the side sheets of each cubicle.
- A gland plate with a minimum thickness of 3 mm for the glanding off of all required cables shall be provided at the base of all floor standing panels.
- An internal rear mounting plate of 3 mm sheet steel shall be provided for each floor standing panel with a

height of at least 33U (1 464,3 mm). This mounting plate shall be mounted on unistrut brackets and fixed to a pair of unistrut rails (top and bottom) that run horizontal on either side of the inside of the relay panel. The unistrut rails shall be welded to the inside of the relay panel and shall be 400 mm long as measured from the rear of the relay panel.

- The effect of this arrangement is that the rear mounting plate can be adjusted to move forwards or backwards, thus determining the effective depth of the relay panel.

- A suitable cubicle interior illumination light (minimum 40 Watt BC) for operating on an alternating current supply, with an approved limit switch, operated by opening and closing the cubicle door, shall be provided for each cubicle. The lamp holder shall be of the adjustable angle batten type. Internal wiring for this light arrangement shall be terminated on a suitable terminal strip on the rear mounting plate. The outside dimensions of the relay panels shall be 800 mm x 600 mm x 2 400 mm.

7.3 Metalwork Finish and Painting

- All metalwork shall be smooth, free of rust, scale or grease and shall be cleaned in strict accordance with SABS 780 of 1966 (as amended), and finished with either baked enamel or electro-statically applied powder coating in the case of interior applications. In the case of all outdoor applications the final paint layer shall consist of an ultra-violet resistant epoxy type paint to the approval of the Director: Electricity Services or his Representative, and shall generally comply with :

    - Dry ground-layer paint thickness – minimum 0,03 mm of approved rust inhibiting paint

    - Total dry-paint thickness for indoor applications – minimum 0,06 mm

    - Total dry-paint thickness for outdoor applications – minimum 0,09 mm

    - Shock resistance on 0,9 soft steel plate – 25 kg

    - Scratch resistance 2 000 grams

    - Each coat of paint shall be of a different colour and shall only be applied to clean and dry surface.

- Where the electrostatic powder coating method is used, the paint shall be baked to harden within 10 minutes at a constant temperature of 190°C.

- The internal surfaces of all boards shall be painted satin “white” with a durable paint, while the external surfaces shall be painted to SABS G29 “Grey”.

- Special attention shall be given to achieving the required paint thickness to all edges, corners, as well as the inside of slots and channels formed by folding of the metal.

- Before the installation is handed over, the Contractor shall ensure that all painted surfaces are clean and undamaged.

- Any damage to paintwork incurred during transport shall be made good to the approval of the Director: Electricity Services or his nominated representative. The damaged portion shall be thoroughly cleaned to the original metal surface and the full number of coats that had previously existed shall then be re-applied.

8. FLOOR STANDING COMMUNICATION PANELS:

8.1 General

All communication and associated equipment shall be housed in a 19” inch frame type floor standing cubicles with front and rear entry.

8.2.1 Manufacturing of Floor-Standing Communication Panels.

8.2.1 All communication panels shall be totally enclosed, vermin, insect, drip and dust-proof, and shall be of the multi-tiered, fixed pattern, sectional manufactured type and allow for the logical grouping of equipment on a 19” inch rack.

8.2.2 The communication panel shall basically consist of the following:

- A solid angle iron plinth of 100 mm height and of sufficient strength to carry the total mass of the cubicle complete with equipment over any proposed cable ducts, trench or access hole with the necessary safety and without distorting. The maximum height of the cubicle shall be 2 400 mm.
- The top and side panels of the cubicle shall be of minimum 2 mm folded steel and shall be fixed by means of studs welded to the base frame and chromium plated brass dome nuts and washers where required.
- Access to the panel shall be via a hinged rear door with two approved non-ferrous handles and fasteners designed to draw the door frame to the fully closed position and designed with facilities for padlocking.
- A front door with glass insert (full length of the door) shall be hinged on the left hand side and will open up on to a 19” inch rack where the communication equipment will be housed.
- The rack shall be designed to accommodate IEC type 19 inch relay racks over a height of 43U (1 909 mm) and shall be suitably strengthened so as to carry a full complement (43U) of communication equipment without distorting.
- A 20 mm wide neoprene type seal of 5 mm thickness shall be applied to both the rear and front of the cubicle to ensure a sealing face between the doors and the framework of the cubicle when the doors are closed. All corners of pan sections shall be welded and shall be completed to a smooth finish.
- All mounting holes for the fitting of 19 inch relay racks, mimic plates, blanking plates shall be pre-punched on the swing-frame door over the entire 43U height.
- Any removable panels shall be manufactured of minimum 2 mm sheet steel and shall be fixed to the cubicle frame by means of studs with a minimum diameter of 6 mm, welded to the frame and bolted down by means of chromium plated hexagonal brass dome nuts and washers. Hank nuts and bolts are not acceptable.
- All sharp points and edges shall be avoided in the manufacturing of any panel. Sharp ended self-tapping screws or similar fixing items shall not be used.
- All front mounted 19 inch blanking plates, shall be manufactured of minimum 2 mm sheet steel and the mounting holes shall be pre-punched or drilled prior to the paint process being applied.

Note: Upon delivery the 19” rack shall be blanked off with an assortment of 1U, 2U, 3U and 6U blanking plates.

- The manufacturing and assembly of floor standing panels shall be such that the individual cubicles are completely separated from one another by means of the side sheets of each cubicle.
- A gland plate with a minimum thickness of 3 mm for the glanding off of all required cables shall be provided at the base of all floor standing panels.

- A suitable cubicle interior illumination light (minimum 40 Watt BC) for operating on an alternating current supply, with an approved limit switch, operated by opening and closing the cubicle doors, shall be provided for each cubicle. The lamp holder shall be of the adjustable angle batten type. A plug socket shall be made available on the front of the 19" panel. Access to the socket will be via the front glass door. Internal wiring for this light and plug socket arrangement shall be terminated on a suitable terminal strip on the rear mounting plate.

- The outside dimensions of the communication panel shall be 800 mm x 600 mm x 2 400 mm.

8.3 Metalwork Finish and Painting:

- All metalwork shall be smooth, free of rust, scale or grease and shall be cleaned in strict accordance with SABS 780 of 1966 (as amended), and finished with either baked enamel or electro-statically applied powder coating in the case of interior applications.

- In the case of all outdoor applications the final paint layer shall consist of an ultra-violet resistant epoxy type paint to the approval of the Director: Electricity Services or his representative, and shall generally comply with :

    - Dry ground-layer paint thickness – minimum 0,03 mm of approved rust inhibiting paint
    - Total dry-paint thickness for indoor applications – minimum 0,06 mm
    - Total dry-paint thickness for outdoor applications – minimum 0,09 mm
    - Shock resistance on 0,9 soft steel plate – 25 kg
    - Scratch resistance 2 000 grams
    - Each coat of paint shall be of a different colour and shall only be applied to clean and dry surface.

- Where the electrostatic powder coating method is used, the paint shall be baked to harden within 10 minutes at a constant temperature of 190°C.

- The internal surfaces of all boards shall be painted satin "white" with a durable paint, while the external surfaces shall be painted to SABS G29 "Grey".

- Special attention shall be given to achieving the required paint thickness to all edges, corners, as well as the inside of slots and channels formed by folding of the metal.

- Before the installation is handed over, the Contractor shall ensure that all painted surfaces are clean and undamaged.

- Any damage to paintwork incurred during transport shall be made good to the approval of the Director: Electricity Services or his nominated representative. The damaged portion shall be thoroughly cleaned to the original metal surface and the full number of coats that had previously existed shall then be re-applied.

9. WALL MOUNTED COMMUNICATIONS CABINET

9.1 General

All communication panels shall be totally enclosed, vermin, insect, drip and dust-proof, and shall be of the multi-tiered, fixed pattern, sectional manufactured type and allow for the logical grouping of equipment on a 19" inch rack.

A detail drawing can be obtained from the Directorate: Energy: Protection Section.

9.2 Manufacturing of Wall Mounted Communication Panels.

The communication panel shall basically consist of the following:

- The outside dimensions of the wall mounted communication panel shall be **700(W) mm x 400(H) mm x 400(D) mm.**
- The top and side panels of the cubicle shall be of minimum 2 mm folded steel and shall be fixed by means of studs welded to the base frame and chromium plated brass dome nuts and washers where required.
- Access to the panel shall be via a hinged front door with an approved non-ferrous handle and fastener designed to draw the door frame to the fully closed position.
- A glass inserted front door shall be hinged on the right hand side and will open up on to a 19" inch rack where the communication equipment will be housed.
- The rack shall be designed to accommodate IEC type 19 inch relays over a height of 5U and shall be suitably strengthened so as to carry a full complement (5U) of communication equipment without distorting. The 19 inch rack shall be hinged on the right and open up to get access to the cabinet.
- A 20 mm wide neoprene type seal of 5 mm thickness shall be applied to front of the cubicle to ensure a sealing face between the door and the framework of the cubicle when the door are closed. All corners of pan sections shall be welded and shall be completed to a smooth finish.
- All mounting holes for the fitting of 19 inch relay racks, mimic plates, blanking plates shall be pre-punched on the swing-frame door over the entire 5U height.
- Any removable panels shall be manufactured of minimum 2 mm sheet steel and shall be fixed to the cubicle frame by means of studs with a minimum diameter of 6 mm, welded to the frame and bolted down by means of chromium plated hexagonal brass dome nuts and washers. Hank nuts and bolts are not acceptable.
- All sharp points and edges shall be avoided in the manufacturing of any panel. Sharp ended self-tapping screws or similar fixing items shall not be used.
- All front mounted 19 inch blanking plates, shall be manufactured of minimum 2 mm sheet steel and the mounting holes shall be pre-punched or drilled prior to the paint process being applied.

Note: Upon delivery the 19" rack shall be blanked off with an assortment of 1U blanking plates.

9.3 Metalwork Finish and Painting:

- All metalwork shall be smooth, free of rust, scale or grease and shall be cleaned in strict accordance with SABS 780 of 1966 (as amended), and finished with either baked enamel or electro-statically applied powder coating in the case of interior applications.
- In the case of all outdoor applications the final paint layer shall consist of an ultra-violet resistant epoxy type paint to the approval of the Director: Electricity Services or his representative, and shall generally comply with:

- Dry ground-layer paint thickness – minimum 0,03 mm of approved rust inhibiting paint
- Total dry-paint thickness for indoor applications – minimum 0,06 mm
- Total dry-paint thickness for outdoor applications – minimum 0,09 mm
- Shock resistance on 0,9 soft steel plate – 25 kg
- Scratch resistance 2 000 grams
- Each coat of paint shall be of a different colour and shall only be applied to clean and dry surface.

- Where the electrostatic powder coating method is used, the paint shall be baked to harden within 10 minutes at a constant temperature of 190°C.
- The internal surfaces of all boards shall be painted satin “white” with a durable paint, while the external surfaces shall be painted to SABS G29 “Grey”.
- Special attention shall be given to achieving the required paint thickness to all edges, corners, as well as the inside of slots and channels formed by folding of the metal.
- Before the installation is handed over, the Contractor shall ensure that all painted surfaces are clean and undamaged.
- Any damage to paintwork incurred during transport shall be made good to the approval of the Director: Electricity Services or his nominated representative. The damaged portion shall be thoroughly cleaned to the original metal surface and the full number of coats that had previously existed shall then be re-applied.

10. TRANSFORMER PROTECTION SCHEMES

10.1 Basic Scheme Manufacturing:

The successful Tenderer will be issued with a detailed schematic design for this scheme.

- The transformer protection schemes shall be housed in a 19 inch rack-mounted protection panel as specified in Section 7 of the Specifications.
- The terminal strip back plate shall be 19 inch rack-mountable and suitable in length to fit at least 5 rows of trunking. The terminals shall be Entrelec M10/10 or equivalent.
- The transformer protection scheme shall consist of the following equipment:
    - 1 x Transformer differential relay. (As specified in “Protection Relay and Swing-Frame Panel Specification” : 2.)
    - 1 x Over-current and earth-fault relay. (As specified in “Protection Relay and Swing-Frame Panel Specification” : 1) **or** 1 X Bay Control relay (As specified in “Protection Relay and Swing-Frame Panel Specification” : 6)
    - 1 x Voltage regulating relay – A-Eberle REG-DA or equivalent.
    - 1x Statistical meter – SEL-735 or equivalent.
    - 1 x lamp check switch (LCS)
    - 1 x protection not healthy indication lamp (KRE 222F – Amber) or equivalent.
    - 6 x PK2 - 4 way test blocks or equivalent.
    - Trafolite labels for front mounted equipment
    - Multi-pole MCB’s (SABS approved) for isolating AC & DC control circuits.
    - Trip Test Push Button (lock able)
    - Inter-lock override key switch
- Each transformer protection scheme shall be fully wired and functional, and all metal parts of the equipment in each scheme shall be earthed and connected to the earth bar of the relay panel.

10.2 Voltage regulating relay:

A-Eberle REG-DA (or equivalent.)

CODE: B0I1H0F1M1S1T1K1E99.7D0C91R1XW96.1G2A2 (or equivalent)

The equivalent relay shall comply to the following:

- The transformer on-load tap-change control (OLTC) relay shall be integrated in the Transformer protection scheme. The OLTC control relay shall comply with the Cape Town design standard *119.2005.004* and base program *119_2104_001_Capetown_06.rgl* including the setting software , a communication cable and documentation.
- The OLTC relay shall be capable of performing Load Take over , VT fuse monitoring , Tap position indication with either resistor string of BCD encoder, motor drive trip indication and inter-lock, drive not healthy inter-lock, illegal tap operation detection, drive run away detection and “ Over current Blocking “ functions.
- Communication protocol: IEC 61850 - GOOSE and MMS

10.3 Statistical Meter:

The SEL-735 statistical meter (or equivalent) shall be integrated in the Transformer protection current and voltage circuits by means of a SecuControl Test Block or equivalent orderCode:4620BSB26HXXX) to form a fully functional meter scheme.

SEL-0735HX10943EXXDXXX15211XX. (or equivalent)

The equivalent relay/meter shall comply to the following standards and functions:

- The Power Quality meter shall conform to both the ANSI C12.20-2015 0.1 and IEC 62053-22 0.2 accuracy class.
- Bidirectional, full four quadrant high accuracy elements.
- 0.06 % watt-hour (Wh) accuracy at unity power factor.
- Instrument Transformer Compensation (ITC)
- Load Profile Data Collection
- Time-of-Use (TOU) Metering
- Waveform Capture Using Programmable Triggers

10.4 Managed Switch:

All Ethernet capable IED's (intelligent electronic devices) or meters shall be connected to a substation class managed switch that will reside inside the protection module. The managed switch shall have adequate ports to accommodate all the relays and have two spare fibre ports to be connected to a centralized switch. The switch shall have a dual power supply which shall be powered from the Main and Back-up DC circuits.

10.5 Transformer Scheme Functionality:

All transformer protection systems shall consist of a main and back-up protection scheme.

11. Main protection (high voltage side)

- The main protection scheme shall be a combined unit differential and restricted earth fault relay with back-up IDMT over current and earth fault functionality. This relay shall also accommodate all the input terminals for the transformer alarm and trip signals such as Buchholtz, temperature and oil level, breaker and isolator statuses.
- Trip signals for transformer differential faults plus the HV and MV restricted earth faults (when applicable) as well as the instantaneous over current elements (when applicable) shall trip the main and back-up trip coils of the HV and MV circuit breakers directly.
- The main protection relay shall also be connected to an Ethernet bus system.

12. Back-up protection (high voltage side)

The HV back-up protection scheme shall comprise of the following protection:

- A combined IDMT over current and earth fault relay shall be included in the differential relay, with instantaneous high-set elements.
- The instantaneous over current and earth fault elements of the combined IDMT O/C and E/F relay shall trip the back-up trip coils of the HV and MV circuit breakers directly.
- In addition, the integrated breaker fail feature of this relay shall, after a set time, initiate a bus zone (bus strip) operation when the HV transformer circuit breaker fails to trip.

- The relay will be wired and programmed in such a manner that it shall block any closing signals to the HV and MV circuit breaker closing coils until the relay has been reset. Manual control of both the HV and MV circuit breakers shall be by means of push buttons on the relay.

- The combined IDMT O/C and E/F relay functions above shall also be connected to the Ethernet bus network.

13. Main protection (Medium Voltage side)

- This protection shall comprise of a combined IDMT over current and earth fault protection functionality, which shall be integrated in the Current Differential relay.

- For all timed over-current and earth-faults trip signals, this relay shall directly trip the MV circuit breaker trip coil.

- All other transformer trip signals such as Buchholtz, oil temperature and over pressure trip signals shall be routed to a master trip relay. The master trip relay shall trip the back-up trip coil of the HV circuit breaker as well as the trip coil of the MV circuit breaker.

14. Ethernet bus network:

The Ethernet ports of these relays shall be connected to the local scheme bus network and shall carry all the alarm, trip, metering and control information via a Ethernet connection to a Data Concentrator/Gateway/RTU which will make the data available to the Control Centre or local Substation HMI.

15. Trip circuit supervision:

The scheme will make provision to check the main and back-up trip circuits in the open and closed status for the HV and MV circuit breakers.

16. Circuit breaker failure

- Initiation of the circuit breaker failure function shall occur for all protection tripping of the circuit breaker. The initiation shall be for all phases and a dedicated, settable bus-strip timer shall commence timing on initiation of the circuit breaker failure function. Successful opening of the circuit breaker shall immediately stop the timer.

- Successful opening of the circuit breaker shall be determined by the drop-off of current (by way of a high speed resetting capability), or on detection of change of status (closed to open) of circuit breaker auxiliary contacts, and shall not rely solely on the resetting of the initiating signal.

17. Interlocking

- All bay level interlocking functions will reside in the Bay Control relay (If the Bay Control option has been opted for)

- Bay level interlocking shall be done via software implementation on the Bay Control relay.

- A means to override an interlocking condition shall be provided to enable the bypassing of the interlock function in cases of maintenance or emergencies. A unique key shall be used for each bay.

11. TRANSFORMER FEEDER PROTECTION SCHEMES

11.1 Basic Scheme Manufacturing:

The successful Tenderer will be issued with a detailed schematic design for this scheme.

- The transformer feeder protection schemes shall be housed in a 19 inch rack-mounted protection panel as specified in Section 7 of the Specifications.
- The terminal strip back plate shall be 19 inch rack-mountable and suitable in length to fit at least 5 rows of trunking. The terminals shall be Entrelec M10/10 or equivalent.
- The transformer feeder protection scheme shall consist of the following equipment:
  - 1 x Transformer differential relay. (As specified in “Protection Relay and Swing-Frame Panel Specification”: 2 of this specification).
  - 1 x Cable differential relay (as specified in “Protection Relay and Swing-Frame Panel Specification” : 3 of this specification)
  - 1 x Voltage regulating relay – Eberle REG-DA or equivalent.
  - 1 x Statistical meter – SEL-735 or equivalent.
  - 1 x lamp check switch (LCS)
  - 1 x protection not healthy indication lamp (KRE 222F – Amber) or equivalent.
  - 5 x PK2-4 way test blocks or equivalent
  - Trafolite labels for front mounted equipment
  - Multi-pole MCB’s (SABS approved) for isolating AC & DC control circuits
- Each transformer feeder protection scheme shall be fully wired and functional, and all metal parts of the equipment in each scheme shall be earthed and connected to the earth bar of the relay panel.

11.2 Voltage regulating relay

A-Eberle REG-DA (or equivalent.)

CODE: B0I1H0F1M1S1T1K1E99.7D0C91R1XW96.1G2A2 (or equivalent)

The equivalent relay shall comply to the following:

- The transformer on-load tap-change control (OLTC) relay shall be integrated in the Transformer protection scheme. The OLTC control relay shall comply with the Cape Town design standard *119.2005.004* and base program *119_2104_001_Capetown_06.rgl* including the setting software , a communication cable and documentation.
- The OLTC relay shall be capable of performing Load Take over , VT fuse monitoring , Tap position indication with either resistor string of BCD encoder, motor drive trip indication and inter-lock, drive not healthy inter-lock, illegal tap operation detection, drive run away detection and “ Over current Blocking “ functions.
- Communication protocol: IEC 61850 - GOOSE and MMS

11.3 Statistical Meter:

The SEL-735 statistical meter (or equivalent) shall be integrated in the Transformer protection current and voltage circuits by means of a SecuControl Test Block or equivalent.(Order Code: 4620BSB26HXXX) to form a fully functional meter scheme.

SEL-0735HX10943EXXDXXX15211XX (or equivalent)

The equivalent relay/meter shall comply to the following standards and functions:

- The Power Quality meter shall conform to both the ANSI C12.20-2015 0.1 and IEC 62053-22 0.2 accuracy class.
- Bidirectional, full four quadrant high accuracy elements.
- 0.06 % watt-hour (Wh) accuracy at unity power factor.
- Instrument Transformer Compensation (ITC)
- Load Profile Data Collection
- Time-of-Use (TOU) Metering
- Waveform Capture Using Programmable Triggers

11.4 Managed Switch:

All Ethernet capable relays or meters shall be connected to a substation class managed switch that will reside inside the protection module. The managed switch shall have adequate ports to accommodate all the relays and have two spare fibre ports to be connected to a centralized switch. The switch will have a dual power supply which will be powered from the Main and Back-up DC circuits.

11.5 Transformer *Feeder* Scheme Functionality:

General Protection Structure: All transformer protection systems shall consist of a main and back-up protection scheme.

11.6 Main protection (high voltage side)

- The main protection scheme shall be a combined unit transformer differential and restricted earth fault relay with back-up IDMT over current and earth fault functionality.(As specified in “Protection Relay and Swing-Frame Panel Specification” : 2 of this tender specification). This relay shall also accommodate all the input terminals for the transformer alarm and trip signals such as Buchholtz, temperature and oil level, breaker and link statuses.
- Trip signals for transformer differential faults plus the HV and MV restricted earth faults (when applicable) as well as the instantaneous over current elements (when applicable) shall trip the main and back-up trip coils of the HV and MV circuit breakers directly.
- All other transformer trip signals such as Buchholtz, oil temperature and over pressure trip signals shall be routed to a master trip relay. The master trip relay shall trip the main and back-up trip coil of the HV circuit breaker as well as the trip coil of the MV circuit breaker.

  The main protection relay shall also be connected to an Ethernet bus system.

11.7 Back-up Cable Differential Protection:

- The back-up protection scheme shall consist of an integrated pilot- wire (Fibre-optic) differential protection relay. (As specified in “Protection Relay and Swing-Frame Panel Specification” : 3 of this tender specification).
- For any in-zone faults, this relay shall trip the main and back-up trip coils of the circuit breaker directly. The relay shall also send an inter-trip signal to the remote-end circuit breaker via the fibre optic pilot link for an in-zone fault, and depending on the application, the relay shall also send a permissive inter-trip signal to the remote end.
- For all inter-trip receive signals, the relay shall trip the main and back-up trip coil of the MV circuit breaker directly.

11.8 Ethernet bus network:

The Ethernet ports of these relay shall be connected to the local scheme bus network and shall carry all the alarm, trip, metering and control information via a Ethernet connection to a Data Concentrator/Gateway/RTU which will make the data available to the Control Centre or local Substation HMI.

11.9 Trip circuit supervision:

The scheme will make provision to check the main and back-up trip circuits in the circuit breaker open and closed status of the MV circuit breaker.

12. CABLE FEEDER PROTECTION SCHEMES

12.1 Basic Scheme Manufacturing:

The successful Tenderer will be issued with a detailed schematic design for this scheme.

- The cable feeder protection schemes shall be housed in a 19 inch rack-mounted protection panel as specified in Section 7 of the Specifications.
- The terminal strip back plate shall be 19 inch rack-mounted and suitable in length to fit at least 4 rows of terminal strips (20 terminals per horizontal row) plus 4 rows of trunking.

12.1.1 The cable feeder protection scheme shall consist of the following equipment:

- 1 x Cable Differential Protection Relay (As specified in “Protection Relay and Swing-Frame Panel Specification” : 3 of this tender specification)
- 1 x Back-up Over-current and Earth- Fault Relay (As specified in “Protection Relay and Swing-Frame Panel Specification” : 1) **or** 1 X Bay Control relay (As specified in “Protection Relay and Swing-Frame Panel Specification” : 6)
- 1 x test normal switch (TNS)
- 1 x lamp-check switch (LCS)
- 1 x protection not healthy indication lamp (KRE 22F – Amber) or equivalent.
- 4 x PK2-4 way test blocks or equivalent
- Trafolite labels for front mounted equipment
- Multi-pole MCB’s (SABS approved) to isolate AC & DC control circuits.
- Trip Test Push Button (lock able)
- Inter-lock override key switch

12.1.2 Cable feeder protection schemes shall be fully wired and functional, and metal parts of equipment in the schemes shall be earthed and connected to the earth bar of the relay panel.

12.2 Managed Switch:

All Ethernet capable relays or meters shall be connected to a substation class managed switch that will reside inside the protection module. The managed switch shall have adequate ports to accommodate all the relays and have two spare ports to be connected to a centralized switch. The switch will have a dual power supply which will be powered from the main and back-up DC circuits.

12.3 Cable Feeder Protection Scheme Functionality:

This type of protection system shall be utilised for underground cables only and shall consist of a main and a back-up protection scheme.

12.3.1 Main protection:

- The main protection scheme shall consist of an integrated fibre –optic current differential protection relay. (As specified in “Protection Relay and Swing-Frame Panel Specification” : 4 of this tender specification).
- For any in-zone faults, this relay shall trip the main and back-up trip coil of the circuit breaker directly. The relay shall also send an inter-trip signal to the remote circuit breaker via the fibre optic pilots for an in-zone fault, and depending on the application, the relay shall also send a permissive inter-trip signal to the remote end as well.
- For all inter-trip receive signals, the relay shall trip the main trip coil of the circuit breaker directly.

12.3.2 Back-up protection:

- This protection shall consist of a combined IDMT over current and earth fault relay with high-set elements. (As specified in “Protection Relay and Swing-Frame Panel Specification” : 1 of this tender specification).

- All O/C and E/F elements of this relay shall trip the main and back-up trip coil of the circuit breaker directly.

- Manual control of the circuit breaker shall be by means of a push button or switch on the back-up protection relay HMI.

12.3.3 Ethernet bus network:

- Both the pilot wire differential relay as well as the combined IDMT O/C and E/F relay shall be connected to the Ethernet bus network.

- The Ethernet bus network shall carry all the alarm, trip, metering and control information to a Data Concentrator/Gateway which will make the data available to the Control Centre or local Substation HMI.

12.3.4 Trip circuit supervision:

The scheme will make provision to check the main and back-up trip circuits in the open and closed status of the circuit breaker.

12.3.5 Circuit breaker failure

- Initiation of the circuit breaker failure function shall occur for all protection tripping of the circuit breaker. The initiation shall be for all phases and a dedicated, settable bus-strip timer shall commence timing on initiation of the circuit breaker failure function. Successful opening of the circuit breaker shall immediately stop the timer.

- Successful opening of the circuit breaker shall be determined by the drop-off of current (by way of a high speed resetting capability), or on detection of change of status (closed to open) of circuit breaker auxiliary contacts, and shall not rely solely on the resetting of the initiating signal.

12.3.6 Interlocking

- All bay level interlocking functions will reside in the Bay Control relay (IF the Bay Control option has been opted for)

- Bay level interlocking shall be done via software implementation on the Bay Control relay.

- A means to override an interlocking condition shall be provided to enable the bypassing of the interlock function in cases of maintenance or emergencies. A unique key shall be used for each bay.

13 BUS COUPLER PROTECTION SCHEME

13.1 Basic Scheme Manufacturing:

The successful Tenderer will be issued with a detailed schematic design for this scheme.

- The bus coupler protection schemes shall be housed in a 19-inch rack-mounted protection panel as specified in Section 7 of the Specifications.

- The terminal strip back plate shall be 19 inch rack-mounted and suitable in length to fit at least 4 rows of terminal strips (20 terminals per horizontal row) plus 4 rows of trunking.

13.1.1 The Bus coupler protection scheme shall consist of the following equipment:

- 1 X Bay Control relay (As specified in “Protection Relay and Swing-Frame Panel Specification” : 6)
- 1 X Under Frequency protection relay (As specified in “Protection Relay and Swing-Frame Panel Specification” : 5
- 1 x lamp-check switch (LCS)
- 1 x protection not healthy indication lamp (KRE 22F – Amber) or equivalent.
- 3 x PK2-4 way test blocks or equivalent
- Trafolite labels for front mounted equipment
- Multi-pole MCB’s (SABS approved) to isolate AC & DC control circuits.
- Trip Test Push Button (lock able)
- Inter-lock override key switch
- VT Voltage change over scheme

13.1.2 Bus coupler protection schemes shall be fully wired and functional, and metal parts of equipment in the schemes shall be earthed and connected to the earth bar of the relay panel.

13.2 Managed Switch:

All Ethernet capable relays or meters shall be connected to a substation class managed switch that will reside inside the protection module. The managed switch shall have adequate ports to accommodate all the relays and have two spare ports to be connected to a centralized switch. The switch will have a dual power supply which will be powered from the main and back-up DC circuits.

13.3 Bus Coupler Protection Scheme Functionality:

This type of protection system shall be utilised to control, interlock and protect the Bus Coupler and will be able to be implemented to a single or double busbar configuration. This scheme will also perform the under frequency load shedding function for the switching substation.

13.3.1 Bay Control Relay function:

- The Bay Control scheme shall consist of a Bay control relay. (As specified in “Protection Relay and Swing-Frame Panel Specification” : 7 of this tender specification).

- The status of all primary equipment/ panel functionality, associated with the bay shall be displayed on the BCU mimic. The BCU shall also capture all the alarms and status of primary equipment/ panel functionality required for the real time operation of the power system.

- This relay shall trip both the main and back-up trip coils.

13.3.2 Under Frequency function

- The Under frequency control scheme shall consist of a Under frequency relay. (As specified in “Protection Relay and Swing-Frame Panel Specification” : 6 of this tender specification).
- The under frequency load shedding scheme shall have four stages of load shedding. Each stage shall have separate trip and alarm contacts.
- The trip contacts shall operate the binary inputs of the relevant circuit breakers.
- The scheme shall monitor the voltage derived from the VT selection scheme and shall be insensitive to the momentary loss of the input voltage during voltage selection changeover.
- The relay shall block operation when the ac voltage input falls below 30%.

13.3.3 Ethernet bus network:

The Ethernet ports of these relay shall be connected to the local scheme bus network and shall carry all the alarm, trip, metering and control information via a Ethernet connection to a Data Concentrator/Gateway/RTU which will make the data available to the Control Centre or local Substation HMI.

13.3.4 Trip circuit supervision:

The scheme will make provision to check the main and back-up trip circuits in the open and closed status of the circuit breaker.

13.3.5 Circuit breaker failure

- Initiation of the circuit breaker failure function shall occur for all protection tripping of the circuit breaker. The initiation shall be for all phases and a dedicated, settable bus-strip timer shall commence timing on initiation of the circuit breaker failure function. Successful opening of the circuit breaker shall immediately stop the timer.
- Successful opening of the circuit breaker shall be determined by the drop-off of current (by way of a high speed resetting capability), or on detection of change of status (closed to open) of circuit breaker auxiliary contacts, and shall not rely solely on the resetting of the initiating signal.

13.3.6 Interlocking

- All bay level interlocking functions will reside in the Bay Control relay (IF the Bay Control option has been opted for)
- Bay level interlocking shall be done via software implementation on the Bay Control relay.
- A means to override an interlocking condition shall be provided to enable the bypassing of the interlock function in cases of maintenance or emergencies. A unique key shall be used for each bay.

14. BUSBAR PROTECTION SCHEME (7 BAYS)

14.1 Basic Scheme Manufacturing:

The successful Tenderer will be issued with a detailed schematic design for this scheme.

- The Busbar protection schemes shall be housed in a 19 inch rack-mounted protection panel as specified in Section 7 of the Specifications.
- The terminal strip back plate shall be 19 inch rack-mountable and suitable in length to fit at least 5 rows of trunking. The terminals shall be Entrelec M10/10 or equivalent.
- The Busbar protection scheme shall consist of the following equipment:
  - Low Impedance Busbar protection relays. (As specified in “Protection Relay and Swing-Frame Panel Specification” : 4.)
  - 14 x PK2-4 way test blocks or equivalent. or equivalent
  - 1 x lamp check switch (LCS)
  - 1 x protection not healthy indication lamp (KRE 222F – Amber) or equivalent.
  - Trafolite labels for front mounted equipment
  - Multi-pole MCB’s (SABS approved) for isolating AC & DC control circuits.
  - 1 X Zone 1 on/off switch (Lockable)
  - 1 X Zone 2 on/off switch (Lockable)
  - 1 X Check Zone on/off switch (Lockable)
  - 1 X Circuit breaker fail on/off switch (Lockable)
- Each Busbar protection scheme shall be fully wired and functional, and all metal parts of the equipment in each scheme shall be earthed and connected to the earth bar of the relay panel.

14.2 Managed Switch:

All Ethernet capable IED’s (intelligent electronic devices) or meters shall be connected to a substation class managed switch that will reside inside the protection module. The managed switch shall have adequate ports to accommodate all the relays and have two spare ports to be connected to a centralized switch. The switch shall have a dual power supply which shall be powered from the Main and Back-up DC circuits.

14.3 Busbar Protection Scheme Functionality:

- Each busbar shall be protected by independent biased differential function, with an overall biased differential check zone function monitoring both busbars.
- The equipment shall be stable for all out-of-zone phase-to-phase and phase-to-earth fault currents up to the short circuit current rating of the switchgear, applied gradually or suddenly and irrespective of the distribution of current between the individual circuits.
- There shall be fully discriminative clearance of busbar faults on any section of busbar so that no zone is tripped if the fault is outside of that zone. All circuit breakers connected to a faulty busbar section shall be tripped simultaneously, whether they feed fault current or not. The protection shall be so designed that it isolates the minimum possible number of sections of the busbar under fault conditions
- The protection shall not mal-operate as a result of faults in the associated secondary current transformer wiring when the primary circuit is carrying load current. Continuous or automatic cyclic supervision shall be provided for this purpose. The zone containing the faulty circuit shall be blocked. Where the operation of the supervision device is dependent upon the load current in the primary circuit, operation shall occur at currents of 25 A or 10% of the circuit rating whichever is the greater.
- The sensitivity shall be such that definite operation occurs for phase-to-phase and phase-to-earth short circuits during minimum plant conditions, irrespective of the number of circuits in service and the distribution of load and fault currents.

14.4 Breaker Fail functionality

- The purpose of the breaker fail function is to clear a fault which has been correctly detected by the appropriate protection but for which the associated circuit breaker(s) has (have) failed to open.

- In the event of a circuit breaker failing to operate, the protection shall be arranged to trip all circuit breakers capable of feeding fault current to the faulted circuit. For this purpose the tripping circuitry of busbar protection shall be used. Intertripping shall also be initiated where appropriate.

14.5 Ethernet bus network:

The Ethernet ports of these relay shall be connected to the local scheme bus network and shall carry all the alarm, trip, metering and control information via a Ethernet connection to a Data Concentrator/Gateway/RTU which will make the data available to the Control Centre or local Substation HMI.

15 BUSBAR PROTECTION SCHEME (21 BAYS)

15.1 Basic Scheme Manufacturing:

The successful Tenderer will be issued with a detailed schematic design for this scheme.

- The Busbar protection schemes shall be of design and each scheme shall comprise of a 19 inch rack-mountable metal enclosure with rear access via a hinged door and a separate terminal strip back plate to be mounted in the rear of the protection panel.
- The terminal strip back plate shall be 19 inch rack-mountable and suitable in length to fit at least 5 rows of trunking. The terminals shall be Entrelec M10/10 or equivalent.
- The Busbar protection scheme shall consist of the following equipment:
  - Min. 3 Low Impedance Busbar protection relays. (As specified in “Protection Relay and Swing-Frame Panel Specification” : 4.)
  - 40 x PK2-4 way test blocks or equivalent.
  - 1 x lamp check switch (LCS)
  - 1 x protection not healthy indication lamp (KRE 222F – Amber) or equivalent.
  - Trafolite labels for front mounted equipment
  - Multi-pole MCB’s (SABS approved) for isolating AC & DC control circuits.
  - Main Zone on/off switches (Lockable)
  - Check Zone on/off switch (Lockable)
  - Circuit breaker fail on/off switches (Lockable)
- Each Busbar protection scheme shall be fully wired and functional, and all metal parts of the equipment in each scheme shall be earthed and connected to the earth bar of the relay panel.

15.2 Managed Switch:

All Ethernet capable IED’s (intelligent electronic devices) or meters shall be connected to a substation class managed switch that will reside inside the protection module. The managed switch shall have adequate ports to accommodate all the relays and have two spare ports to be connected to a centralized switch. The switch shall have a dual power supply which shall be powered from the Main and Back-up DC circuits.

15.3 Busbar Protection Scheme Functionality:

- Each busbar shall be protected by independent biased differential function, with an overall biased differential check function monitoring all busbars.
- The equipment shall be stable for all out-of-zone phase-to-phase and phase-to-earth fault currents up to the short circuit current rating of the switchgear, applied gradually or suddenly and irrespective of the distribution of current between the individual circuits.
- There shall be fully discriminative clearance of busbar faults on any section of busbar so that no zone is tripped if the fault is outside of that zone. All circuit breakers connected to a faulty busbar section shall be tripped simultaneously, whether they feed fault current or not. The protection shall be so designed that it isolates the minimum possible number of sections of the busbar under fault conditions
- The protection shall not mal-operate as a result of faults in the associated secondary current transformer wiring when the primary circuit is carrying load current. Continuous or automatic cyclic supervision shall be provided for this purpose. The zone containing the faulty circuit shall be blocked. Where the operation of the supervision device is dependent upon the load current in the primary circuit, operation shall occur at currents of 25 A or 10% of the circuit rating whichever is the greater.
- The sensitivity shall be such that definite operation occurs for phase-to-phase and phase-to-earth short circuits during minimum plant conditions, irrespective of the number of circuits in service and the distribution of load and fault currents.

15.4 Breaker Fail functionality

- The purpose of the breaker fail function is to clear a fault which has been correctly detected by the appropriate protection but for which the associated circuit breaker(s) has (have) failed to open.

- In the event of a circuit breaker failing to operate, the protection shall be arranged to trip all circuit breakers capable of feeding fault current to the faulted circuit. For this purpose the tripping circuitry of busbar protection shall be used. Intertripping shall also be initiated where appropriate.

15.5 Ethernet bus network:

The Ethernet ports of these relay shall be connected to the local scheme bus network and shall carry all the alarm, trip, metering and control information via a Ethernet connection to a Data Concentrator/Gateway/RTU which will make the data available to the Control Centre or local Substation HMI

16 TRANSFORMER ON-LOAD TAP-CHANGE CONTROL SCHEMES

16.1 Scheme Manufacturing:

The successful Tenderer will be issued with a detailed schematic design for this scheme.

- The transformer OLTC schemes shall be housed in a 19 inch rack-mounted protection panel as specified in section 7 of the Specifications. The two OLTC relays will be able to function individually, controlling individual transformers or as a unit controlling two transformer in parallel.
- The terminal strip back plate shall be 19 inch rack-mountable and suitable to fit at least two rows of terminal strips (20 terminals per horizontal row), plus 2 strips of trunking for each OLTC relay. The terminal strips shall be Entrelec M10/10 or equivalent.
- The OLTC scheme shall consist of the following equipment:
  - 2 x OLTC Relay (REG-DA or equivalent).
  - Trafolite labels for front mounted equipment.
  - 2 x 110V AC VT phase fail relays.
  - 2 x 400V AC phase fail relays.

A-Eberle REG-DA (or equivalent.)

CODE: B0I1H0F1M1S1T1K1E99.7D0C91R1XW96.1G2A2 (or equivalent)

The equivalent relay shall comply to the following:

- The transformer on-load tap-change control (OLTC) relay shall be integrated in the Transformer protection scheme. The OLTC control relay shall comply with the Cape Town design standard *119.2005.004* and base program *119_2104_001_Capetown_06.rgl* including the setting software, a communication cable and documentation.
- The OLTC relay shall be capable of performing Load Take over, VT fuse monitoring, Tap position indication with either resistor string of BCD encoder, motor drive trip indication and inter-lock, drive not healthy inter-lock, illegal tap operation detection, drive run away detection and “Over current Blocking” functions.
- Communication protocol: IEC 61850 - GOOSE and MMS

17 TRAINING

17.1 Basic Training (two (2) days)

17.1.1 Training shall be provided in Cape Town to enable the Employer's staff to configure and maintain the equipment offered.

17.1.2 The Training course for the IED’s offered shall include, but not be limited to, the following

i. Detailed overview of IED’s offered

ii. Theory of operation

iii. Configuration and commissioning

iv. Testing and troubleshooting of the configuration

17.1.3 The training proposal shall include a description of the contents and duration of each section. The outlines shall be in sufficient detail to evaluate the course material. The proposal shall be submitted on request.

17.1.4 The training instructors shall be South African based staff members of the OEM or their Agent and shall have been certified by the OEM as training instructors in the particular equipment offered.

17.1.5 The instructors shall have a complete and thorough knowledge of the equipment and course materials and shall have prior experience in conducting the specified training.

17.1.6 All training will be undertaken at the Employer’s premises.

17.1.7 The price for each training intervention shall cover the complete training and include all preparation, travelling, accommodations and incidental costs including all course materials for a maximum of twenty (20) delegates. The price tendered in the Schedule of Rates shall be for the full training intervention (Two days) The training price is not a price per person nor a price per day.

17.2 Advance Training (five (5) days)

17.2.1 Training shall be provided in Cape Town to enable the Employer's staff to configure and maintain the equipment offered.

17.2.2 The Training course for the Protection Schemes and Substation automation equipment offered shall include, but not be limited to, the following

i. Detailed overview of Protection schemes and Substation automation equipment offered

ii. Theory of operation

iii. Interlocks and Safety Features

iv. Configuration and commissioning

v. Testing and troubleshooting of the Scheme configurations

17.2.3 The training proposal shall include a description of the contents and duration of each section. The outlines shall be in sufficient detail to evaluate the course material. The proposal shall be submitted on request.

17.2.4 The training instructors shall be South African based staff members of the OEM or their Agent and shall have been certified by the OEM as training instructors in the particular equipment

17.2.5 The instructors shall have a complete and thorough knowledge of the equipment and course materials and shall have prior experience in conducting the specified training.

17.2.6 All training will be undertaken at the Employer’s premises.

17.2.7 The price for each training intervention shall cover the complete training and include all preparation, travelling, accommodations and incidental costs including all course materials for a maximum of twenty (20) delegates. The price tendered in the Schedule of Rates shall be for the full training intervention (Five days) The training price is not a price per person nor a price per day.

SECTION B: LOOSE PROTECTION RELAYS AND EQUIPMENT.

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"

Should an alternative be offered, the alternative offer/unit shall have the same dimensions as the original item requested, or an adequate conversion plate/tool shall be supplied to mount or install the alternative offer in the original intended IED position. The alternative offered shall have the same functionality, the same or more Binary I/O & Analogue I/O and the same or better performance.

B.1 SEL-387A Order Code:0387A011H44X231

B.2 SEL-387E Order Code:0387E014X1H4X35

B.3 SEL-487E Order Code:0487E3X648XXC2X3H643XXX

B.4 SEL-487B (103BI, 40BO) Order Code: 0487B1X4X12XC0XDH9NNNNX

B.5 SEL-487B (55BI, 24BO) Order Code: 0487B1X6X12XC2XEH7EEXXX

B.6 SEL-787 Order Code:0787EX2B3B1B71810410

B.7 SEL-311L Order Code:0311L7HEE4213X5XX

B.8 SEL-411L Order Code: 0411L0X6X1C8HHX34C3XXXX

B.9 SEL-411LA Order Code: 0411LAX6X1C8HHX34C3XXXX

B.10 SEL-421 Order Code:04214611XC2X3H343XXXX

B.11 SEL-451 Order Code:04515611XC2X3H74343X1

B.12 SEL-751A (MV ARC,24V,5A) Order Code:751A52B3BCB74850410

B.13 SEL-751A (MV ARC,24V,1A) Order Code:751A52B3BCB74810410

B.14 SEL-751A (MV ARC,110V,5A) Order Code:751A51D3DCD74850410

B.15 SEL-751A (MV ARC,110V,1A) Order Code:751A51D3DCD74810410

B.16 SEL-751A (HV B/U,110V,1A) Order Code:751A51D3DCDCD810410

B.17 SEL-751 (MV ARC,24V,5A) Order Code:751002B3BCB70851E90

B.18 SEL-751 (MV ARC,24V,1A) Order Code:751002B3BCB70811E90

B.19 SEL-751 (MV ARC,110V,5A) Order Code:751001D3DCD70851E90

B.20 SEL-751 (MV ARC,110V,1A) Order Code:751001D3DCD70811E90

B.21 SEL-751 (HV B/U,110V,1A) Order Code:751001D3DCDCD811E90

B.22 SEL-751 (BCU) Order Code:751401D4D4D2A81AE10

B.23 SEL-751 (GIS) Order Code:751301D4DCD7081AE10

B.24 SEL-851 (STD) Order Code:085100201000000

B.25 SEL-851 (ADV) Order Code:085100201010010

B.26 SEL-735 Order Code: 0735HX10943EXXDXXX15211XX

B.27 SEL-2505 (110V, 500m) Order Code: 2505413XX with SEL-2800 compatible transceiver.

B.28 SEL-2505 (110V, 4km) Order Code: 2505463XX with SEL-2812 compatible transceiver.

B.29 SEL-2505 (110V, 80km) Order Code: 2505433XX with SEL-2830 compatible transceiver.

B.30 SEL-2505 (24V, 500m) Order Code: 2505111XX with SEL-2800 compatible transceiver

B.31 SEL-2800 Order Code:2800M1

B.32 SEL-2812 Order Code: 2812MTX0

B.33 SEL-2815 Order Code: 2815M

B.34 SEL-2411 (24Vdc) Order Code: 241102B3B3B1B0X1440

B.35 SEL-2411 (110Vdc,1A) Order Code: 2411A1DDD1D5X811440

B.36 SEL-2411 (30Vdc,1A) Order Code: 2411A2BDD1D5X811440

B.37 SEL-2440 (110V,32DI,16DO) Order Code: 24402H11D1D11840

B.38 SEL-2440 (24V,32DI,16DO) Order Code: 24402311B1B11840

B.39 SEL-2440 (110V,48DI) Order Code: 24402H12D1D11840

B.40 SEL-751A 3Phase AC Voltage & 4 ARC-Flash Detection Input Card with compatible back-plate.

B.41 SEL-751A 8 Digital Input Card

B.42 SEL-751A 4 Digital Input / 4 Digital Output Card

B.43 SEL-751A 4AC Current Input card *(5A/5A)*

B.44 SEL-751A 4AC Current Input card *(5A/1A)*

B.45 SEL-751 14 Digital Input Card

B.46 SEL-751 8 Digital Output Card

B.47 SEL ARC-Flash Sensor Kit Order Code: 915900273

B.48 SEL-C814 Clear-Jacketed Fibre Spool (500m) Order Code: 915900234

B.49 SEL-3350 (110Vdc) *Order Code:* 3350#RCAE

B.50 SEL-3350 (24Vdc) *Order Code:* 3350#03E2

B.51 SEL-3530-4 (110Vdc) Order Code: 3530#97NJ

B.52 SEL-3530-4 (24Vdc) Order Code: 3530#466F

B.53 SEL-3555 Order Code: 3555#XPBB

B.54 SEL-3360 (WIN 10) Order Code: 3360#JBJN

B.55 SEL-3360 (Server 22') Order Code: 3360#1FE9

B.56 SEL HMI add-on for RTAC family

B.57 SEL GOOSE add-on for RTAC family

B.58 SEL FTP Synch add-on for RTAC family

B.59 SEL-2401 Order Code: 24010XXX2

B.60 SEL-2488 (IRIG-B) Order Code: 24880RAA1281AX2XX with SEL-9524 GNSS Antenna

B.61 SEL-2488 (PTP) Order Code: 2488PRAA2281AX2XX with SEL-9524 GNSS Antenna

B.62 SEL-2725 (3CU,2FX) Order Code: 2725#BGG9

B.63 SEL-2725 (4CU,1FX) Order Code: 2725#2KJK

B.64 SEL-2730M (125Vdc,16FX) Order Code: 2730M0ARAA2222AAAAX0

B.65 SEL-2730M (125Vdc,16CU) Order Code: 2730M0ARAA1111AAAAX0

B.66 SEL-2730M (125Vdc,8CU,8FX) Order Code: 2730M0ARAA1122AAAAX0

B.67 SEL-2730M (24Vdc,16FX) Order Code: 2730M0ARCX2222AAAAX0

B.68 SEL-2740S (125Vdc,16 FX) Order Code: 2740S#MM4B

B.69 SEL-2740S (125Vdc, 8FX) Order Code: 2740S#72MM

B.70 SEL-9330 (2730M-110V PS) Order Code:9330AXX

B.71 SEL-9330C (2730M-24V PS) Order Code:9330CXX

B.72 SEL 8131-01 SFP Transceiver

B.73 SEL C662 USB port to EIA-232, 9-pin, male, 15foot/5m

B.74 17” LCD Touch screen with 19” mounting bracket *Order Code: 91610013*

B.75 19” LCD Touch screen with 19” mounting bracket *Order Codes: 1939L & E579652*

SECTION C: LOOSE PROTECTION RELAYS AND EQUIPMENT.

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"

Should an alternative be offered, the alternative offer/unit shall have the same dimensions as the original item requested, or an adequate conversion plate/tool shall be supplied to mount or install the alternative offer in the original intended IED position. The alternative offered shall have the same functionality, the same or more Binary I/O & Analogue I/O and the same or better performance..

C.1 RET670 (32BI,24BO) – RET670*2.2-F00X00-A00010000200000000-B0000000000000000000000000000-C1100130000000000000100000000-D00010010-T0000-E000000-F3-S0-G100-H00000000000-K00000000-L0000-M00000000-P000000000000000000-B1X0-BX-CB-B-A3-CD1AD1RXXXX-KXXXXXXXXXXX

C.2 RET670 (32BI,24BO, LDCM) - RET670*2.2-F00X00-A00010000200000000-B0000000000000000000000000000-C1100130000000000000100000000-D00010010-T0000-E000000-F3-S0-G100-H00000000000-K00000000-L0000-M00000000-P000000000000000000-B1X0-BX-CB-B-A3-CD1AD1RXXXX-KXXXBXXXXXXX

C.3 RED670 (In Zone TX) - RED670*2.2-F00X00-A00000000000100100-B0000000000000000000000000000-C1000100000000000001000000-D00000010-E00000-F0-S0-G100-H00000000000-K00000000-L0000-M0010000-P00000000000000000-B1X0-AX-CB-B-A8-CD1AX-KXXXXXXXXBXY

C.4 RED670 (In Zone TX, VT's, Sync check, Fuse fail) -RED670*2.2-F00X00-A00000000000100100-B0000000000001000110000000-C1000100000000000001000000-D00000010-E00000-F0-S0-G110-H10100000000-K10100000-L0000-M0010000-P00000000000000000-B1X0-AX-CB-B-A6-CD1AX-KXXXXXXXXCXY

C.5 REC670 BC – REC670*2.2-F00X00-A00000000000000000-B0000000000000000000000000-C1100110010000000000100000000-D00000010-T0000-E000000-F0-S0-G020-H10101000000-K00000000-L0000-M10000000-P000000000000001000-B1X0-BX-CB-B-A6-CD1AD1D1AD1AA-KXXXXXXXXXXX

C.6 REC670 UF - REC670*2.2-F00X00-A00000000000000000-B0000000000000000000000000-C0000000000000000000000000-D20000010-T0000-E040200-F0-S0-G020-H00001000000-K00000000-L0000-M00000000-P000000000000000000-B1X0-AX-CB-B-A6-CD1AX-KXXXXXXXXXXX

C.7 REC670 FDR – REC670*2.2-F00X00-A00000000000000000-B0000000000000000000000000-C1100110010000000000100000000-D00000010-T0000-E000000-F0-S0-G020-H10001000000-K00000000-L0000-M10000000-P000000000000001000-B1X0-BX-CB-B-A6-CD1AD1D1AD1XX-KXXXXXXXXXXX

C.8 REB670 (64BI,24BO) - REB670*1.2-B21X03-C08C12-B1-E-F-KB-A-A1X0-DADDD-XXX-XD

C.9 REB670 (136BI,60BO) – REB670*1.2-B21X02-C08C12-B1X0-E-F-KB-A-A1X0-DADDDDNDDDA-XXX-XD

C.10 REB500 Power Supply Module 500PSM03 - 1MRB150038R0001

C.11 REB500 Star Coupler 500SCM01 - 1MRB150004R0001

C.12 REB500 500BIO01 I/O Card - 1MRB150005R0001

C.13 REB500 500CU03 Processor Unit - 500CPU05

C.14 REB500 500CIM06 Coms Card - 1MRB150077R0112

C.15 RTU 560 CMR01 R0001

C.16 RTU 560 Basic license (61850) open DP,SD

C.17 RTU 560 PLC/Archive license open DP,SD

C.18 RTU 560PSR00 R0001

C.19 RTU 560PSU02 R0001

C.20 RTU 560SFR02 R0001

C.21 RTU 560BCU05 R0001

C.22 RTU 560 23AIR01 R0001

C.23 RTU 560 23BA23 R0001

C.24 RTU 560 23BIR01 R0001

C.25 RTU 560 MPR03 R0001

C.26 SACO 16DI AA - RS811 016-AA

C.27 RED670 IO (mA card) - 1MRK000284-AB MIM

C.28 RED670 Power supply cards – 1MRK002239-BB

C.29 RED670 Output Card - 1MRK000614-AB BOM

C.30 RED670 Input Card - 1MRK000508-BD

C.31 RED670 Optical medium range LDCM, 1310 nm - 1MRK002311-AA

C.32 RED670 Optical long range LDCM, 1550 nm -1MRK002311-BA

C.33 RED670 TRM 6I 1A + 6U 110/220V, with Synch Check, Impedance protection and Fuse Failure - 1MRK002247-AG

C.34 SFP Transceiver 1MRK010501-AA

SECTION D: LOOSE PROTECTION RELAYS AND EQUIPMENT.

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"

Should an alternative be offered, the alternative offer/unit shall have the same dimensions as the original item requested, or an adequate conversion plate/tool shall be supplied to mount or install the alternative offer in the original intended IED position. The alternative offered shall have the same functionality, the same or more Binary I/O & Analogue I/O and the same or better performance.

D.1 RET 543-AM245AAAA

D.2 REF543KB127AAAA

D.3 REF543KB127AAAB

D.4 REF545KC133AAAA

D.5 REF545KB133AAAA

D.6 REF545KB133AAAB

D.7 REF545KM133AAAA

D.8 REF545KM133AAAB

D.9 REF630 (32BI, 27BO) - VBFNABACAAAZFNBBXD with 1KHL400452R0001 mounting bracket

D.10 REF630 (41BI, 36BO) - VBFNABADAAAZFNBBXD with 1KHL400452R0001 mounting bracket

D.11 REF630 (50BI, 45BO) - VBFNABAEAAAZFNBBXD with 1KHL400452R0001 mounting bracket

D.12 REF630 LHMI Display

D.13 REF630 Power Supply Module - 1KHL178082R0001

D.14 REX640 B10NN+AIM2+BIO1+BIO1+BIO1+BIO1+CMP1+COM5+LNG1+PCL3+PSM3 with 2RCA040872A0001 bracket and 1MRS120549-5 cable.

D.15 REX640 LHMI - 2RCA033008A0001

D.16 REA 101 (110Vdc, 1A)

D.17 REA 105 (110Vdc)

D.18 REA 107

D.19 ABB ZEE600 1.0 (3000 points)

D.20 ABB – AFS675-ERGSAAAAAAAAAAEENZZX08.0

D.21 ABB – AFS655 62CECTNHHX08.0

D.22 ABB – LC Multimode SFP

D.23 SPA-ZC 400 EL (IEC61850)

D.24 SPA-ZC 400 ELP (IEC61850 + PLASTIC FIBRE)

D.25 SPA-ZC 402 ELPA (IEC61850 + PLASTIC FIBRE)110-220VDC,100-240VAC

D.26 SPA-ZC 21 BB-S (RS951021 BB) (PLASTIC FIBRE)

D.27 HMI-PC USB converter cable, 12foot/4m (500OCC03 / 1MRB380084R0003)

D.28 SPA-ZP 5A3 RS232 cable

D.29 3-Phase 400V AC Phase Fail Relay - ABB CM-MPS.41S

D.30 REX610 - REX6101GMNANNNNA

D.31 REF611 - REF611HBBANA1NN21G

D.32 REF615E – REF615 HBFCACABNNA1ANN21G

D.33 Miniature Circuit Breaker - 2P - C – 2A (2CDS252001R0024-s202-c2)

D.34 Miniature Circuit Breaker - 2P - C – 6A (2CDS252001R0064-s202-c6)

D.35 Miniature Circuit Breaker - 2P - C – 10A (2CDS252001R0104-s202-c10)

D.36 Miniature Circuit Breaker - 2P - C – 20A (2CDS252001R0204-s202-c20)

D.37 Contactor ABB NF22E-13 2N/O 2N/C 100...250VACDC (1SBH137001R1322)

D.38 Axillary Contacts for ABB NF22E-13 FRONT 2N/C 2N/O FOR AF26.AF9 (1SBN010140R1022)

D.39 ABB LMR/S 4-Pole Rotary Rack-up Switch and Mounting Bracket (Part #'s: 931J126, 864J2462, 864J2461)

D.40 ABB LMR/S Rotary Rack-up switch Housing (Part #: 864J2502)

D.41 ABB LMR/S Circuit Breaker Spring Loaded Rack-up Pin (Part #'s:1091AJ298, 1091AJ299, 645A281)

D.42 ABB HD4 Circuit Breaker Spring Loaded Rack-up Pin (Part #'s:1111AJ685, 1111AJ698, 645A281)

D.43 ABB LMR/S Limit Switch; NO+; NC;10A; PG 13.5; IP65(ABB LS30P41B11 Limit Switch plus Mounting Bracket) – (Part #'s:1SBV010241R1211, 1VZADVD0000022-36)

SECTION E: LOOSE PROTECTION RELAYS AND EQUIPMENT.

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"

Should an alternative be offered, the alternative offer/unit shall have the same dimensions as the original item requested, or an adequate conversion plate/tool shall be supplied to mount or install the alternative offer in the original intended IED position . The alternative offered shall have the same functionality, the same or more Binary I/O & Analogue I/O and the same or better performance.

E.1 REG-DA Order Code: B0I1H0F1M1S1T1K1E99.7D0C91R1XW96.1G2A2

E.2 REG-SK1 BCD Encoder

E.3 REG-DA 6 Binary Input card with mounting bracket.

E.4 REG-DA REG-PEcs (1FX, 1RJ45) IEC61850 communication card with mounting bracket.

E.5 REG-DA 110Vdc power supply card.

E.6 REG-DA 30Vdc power supply card.

E.7 REG-DA Display screen with mounting brackets

E.8 Electro DVW3 Phase Fail relay 110VAC

E.9 Electro DVW3 Phase Fail relay 400VAC

E.10 11 PIN 3 wiper RELAY & BASE – 24Vdc

E.11 11 PIN 3 wiper RELAY & BASE – 110Vdc

E.12 11 PIN 3 wiper RELAY & BASE – 230Vac

E.13 11 PIN 3 wiper RELAY & BASE – 110Vac

SECTION F: LOOSE PROTECTION RELAYS AND EQUIPMENT.

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"

Should an alternative be offered, the alternative offer/unit shall have the same dimensions as the original item requested, or an adequate conversion plate/tool shall be supplied to mount or install the alternative offer in the original intended IED position . The alternative offered shall have the same functionality, the same or more Binary I/O & Analogue I/O and the same or better performance.

F.1 Solkor R/RF in a Epsilon Case [1A]

F.2 Solkor R/RF in a Epsilon Case [5A]

F.3 Solkor R/RF in a Epsilon Case [6.67A]

F.4 Solkor N (110Vdc) – 7SG18116DC10EB

F.5 Solkor N (30Vdc) – 7SG18116AC10EB

F.6 Siemens 7SR45 (MV Self Powered, 2 BI) Article Number: 7SR4503-1GA10-1AA0

F.7 Siemens 7SR45 (MV 24V, 2BI, 2BO, 5A) Article Number: 7SR4503-2HA20-1AA0

F.8 Siemens 7SR45 (MV 24V, 4BI, 4BO, 5A) Article Number: 7SR4504-2HB20-1AA0

F.9 WIP12-I1-E1 (SIAB000A0010AA)

F.10 RUGGEDCOM RSG 2300 (32 Copper & 2 Fibre ports)

F.11 RUGGEDCOM RSG 2100 (19 Fibre ports)

F.12 RUGGEDCOM – RSG2100NC (HI-HI –FX01-FX01-FX01-FX01 –FG51-XXXX –FX01-FX01-FX01-FX01)

F.13 RUGGEDCOM – RSG2100NC (HI-HI –TX01-TX01-TX01-XXXX –FG51-XXXX –XXXX-XXXX-XXXX-XXXX)

F.14 RUGGEDCOM - RX1400(48V): 6GK6014-0AM22-0BA0-Z A00+B00+C11+D11+E00+F01+G00+V00

F.15 RUGGEDCOM - RX1400(110V):6GK6014-0AM23-0BA0-Z A00+B00+C11+D11+E00+F01+G00+V00

F.16 RUGGEDCOM - LC Multi-mode SFP

SECTION G: SUBSTATION AUTOMATION EQUIPMENT.

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"

Should an alternative be offered, the alternative offer/unit shall have the same dimensions as the original item requested, or an adequate conversion plate/tool shall be supplied to mount or install the alternative offer in the original intended IED position . The alternative offered shall have the same functionality, the same or more Binary I/O & Analogue I/O and the same or better performance.

G.1 Moxa NPort S8458-4S-SC-T (4 SC SM Fibre ports, 4 Copper RJ45 ports, 4 DB9 serial ports)

G.2 Meanwell 110VDC – 12VDC Converter (10A rating)

G.3 Meanwell SD-25C-12 DC48/DC12V Converter

G.4 Meanwell DDT-120A-24

G.5 Meanwell TS-400-248D

G.6 Meanwell TS-700-248D

G.7 Transition Networks RS232 to FX converter – SRS2F3111-100(ST/ Multimode)

G.8 Transition Networks RS232 to FX converter – SRS2F3114-100(SC/ Single Mode)

G.9 Transition Networks RS232 to FX converter – CRS2F3111-100(ST/ Multimode)

G.10 Transition Networks RS232 to FX converter – CRS2F3114-100(SC/ Multimode)

G.11 Moxa Nport S9450I-SS-SC-WV

G.12 Moxa Nport S9450I-SS-SC-HV

G.13 Moxa ICF-1150I-S-SC

G.14 Moxa ICF-1150I-M-ST

G.15 Moxa PTC-101-S-SC-LV

G.16 Moxa PTC-101-S-SC-HV

G.17 Moxa PTC-101-M-LC-LV

G.18 Moxa PTC-101-M-LC-HV

G.19 Moxa Nport 5110A-T

G.20 Moxa Nport IA-5150 T

SECTION H: FIBRE CABLE AND EQUIPMENT.

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"

Should an alternative be offered, the alternative offer/unit shall have the same dimensions as the original item requested, or an adequate conversion plate/tool shall be supplied to mount or install the alternative offer in the original intended IED position . The alternative offered shall have the same functionality, the same or more Binary I/O & Analogue I/O and the same or better performance.

H.1 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, one meter(1) length

H.2 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, three meter(3) length

H.3 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, five mete(5)r length

H.4 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, seven(7) meter length

H.5 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, nine(9) meter length

H.6 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, eleven(11) meter length

H.7 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, thirteen(13) meter length

H.8 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, fifteen(15) meter length

H.9 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, twenty(20) meter length

H.10 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, twenty-five(25) meter length

H.11 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, twenty-five(30) meter length

H.12 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, thirty-five(35) meter length

H.13 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, forty(40) meter length

H.14 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, fifty(50) meter length

H.15 LC – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, sixty(60) meter length

H.16 ST – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, one(1) meter length

H.17 ST – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, ten(10) meter length

H.18 ST – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, fifteen(15) meter length

H.19 ST – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, twenty(20) meter length

H.20 ST – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, thirty(30) meter length

H.21 ST – LC OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, forty(40) meter length

H.22 ST – ST OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, ten(10) meter length

H.23 ST – ST OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, fifteen(15) meter length

H.24 ST – ST OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, twenty(20) meter length

H.25 ST – ST OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, thirty(30) meter length

H.26 ST – ST OM4 **Multi-Mode** Duplex 3mm fibre optic patch lead, forty(40) meter length

H.27 MTRJ – ST OM4 **Multi-Mode** Duplex 1.8mm fibre optic patch lead, one(1) meter length

H.28 ST - ST **Single Mode** Duplex 3mm fibre optic patch lead, ten(10) meter length

H.29 ST - ST **Single Mode** Duplex 3mm fibre optic patch lead, fifteen(15) meter length

H.30 ST - ST **Single Mode** Duplex 3mm fibre optic patch lead, twenty(20) meter length

H.31 ST - ST **Single Mode** Duplex 3mm fibre optic patch lead, thirty(30) meter length

H.32 ST - ST **Single Mode** Duplex 3mm fibre optic patch lead, forty(40) meter length

H.33 ST - ST **Single Mode** Duplex 3mm fibre optic patch lead, fifty(50) meter length

H.34 ST - FC **Single Mode** Duplex 3mm fibre optic patch lead, ten(10) meter length

H.35 ST - FC **Single Mode** Duplex 3mm fibre optic patch lead, fifteen(15) meter length

H.36 ST - FC **Single Mode** Duplex 3mm fibre optic patch lead, twenty(20) meter length

H.37 ST - FC **Single Mode** Duplex 3mm fibre optic patch lead, thirty(30) meter length

H.38 ST - FC **Single Mode** Duplex 3mm fibre optic patch lead, forty(40) meter length

H.39 ST - FC **Single Mode** Duplex 3mm fibre optic patch lead, fifty(50) meter length

H.40 ST - SC **Single Mode** Duplex 3mm fibre optic patch lead, ten(10) meter length

H.41 ST - SC **Single Mode** Duplex 3mm fibre optic patch lead, fifteen(15) meter length

H.42 ST - SC **Single Mode** Duplex 3mm fibre optic patch lead, twenty(20) meter length

H.43 ST - SC **Single Mode** Duplex 3mm fibre optic patch lead, thirty(30) meter length

H.44 ST - SC **Single Mode** Duplex 3mm fibre optic patch lead, forty(40) meter length

H.45 ST - SC **Single Mode** Duplex 3mm fibre optic patch lead, fifty(50) meter length

H.46 ST – FC **Single Mode** Duplex 3mm fibre optic patch lead ons(1) meter length

H.47 1mm Plastic fibre Duplex, per meter

H.48 CAT5e Ethernet cable, per meter

H.49 RG 58 Coaxial Cable, per meter

H.50 PK2 – 4 way Test blocks

H.51 PK2 – 4 way Test Handle

H.52 PK2 – 6 way Test blocks

H.53 PK2 – 6 way Test Handle

H.54 Entrelec M8/8.RS Terminal blocks

H.55 Entrelec M8 end plates

H.56 Entrelec M8 stop blocks

H.57 ST – ST mid-couplers

H.58 LC – LC mid-couplers

H.59 V-pin connector (HFBR Crimp)

H.60 V-pin mid-coupler

SECTION I: GENERAL CONDITIONS

1 AUTHORISATION LETTER

Where the tenderer is not the manufacturer of the product offered, tenderers must be an authorized distributor with the Original Equipment Manufacturer. **Proof in the form of an authorization letter from the manufacturer must be submitted with the tender document and date of letter must be prior to tender closing date**. Failure to submit an authorization letter **may** render the offer non-responsive.

2. TECHNICAL SCHEDULE OF EQUIPMENT OFFERED

Only tenderers who are submitting an offer for **Section A** must complete the following **Schedule 13A: Technical Schedule of Equipment** offered. Failure to complete the schedule **may render the offer non-responsive for Section A only**.

The schedules (Schedule 13A) must only be completed insofar as the equipment and materials required for Section A only.

3. TRADE NAMES OR PROPRIETARY PRODUCTS

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"

4. FORMS FOR CONTRACT ADMINISTRATION

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

a) Monthly Project Labour Report **(Annexed)**.

The Monthly Project Labour Report must include details of all labour (including that of sub-contractors) that are South African citizens earning less than R350.00 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.

(14) MONTHLY PROJECT LABOUR REPORT (EXAMPLE)

ANNEX 1

CITY OF CAPE TOWN
MONTHLY PROJECT LABOUR REPORT

CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Instructions for completing and submitting forms

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 certied 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.

PROJECT DETAILS

Numbers in cells below e.g (6) refer to the relevant instruction above for completing and submitting forms

CONTRACT OR WORKS PROJECT NAME: (6)		EPWP SUPPLIED PROJECT NUMBER: (6)	
DIRECTORATE:		DEPARTMENT:	
CONTRACTOR OR VENDOR NAME:		CONTRACTOR OR VENDOR E-MAIL ADDRESS:	
CONTRACTOR OR VENDOR CONTACT PERSON:		CONTRACTOR OR VENDOR TEL. NUMBER:	CELL WORK

PROJECT LABOUR REPORT CURRENT MONTH (mark with "X")

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR

ACTUAL START DATE (yyyy/mm/dd)	ANTICIPATED / ACTUAL END DATE (yyyy/mm/dd) (7)

TOTAL PROJECT EXPENDITURE / VALUE OF WORK DONE TO-DATE (INCLUDING ALL COSTS, BUT EXCLUDING VAT)

R													

ANNEX 1 (continued)

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			