

Transnet Port Terminal

an Operating Division **TRANSNET SOC LTD**

[Registration Number 1990/000900/30]

REQUEST FOR PROPOSAL (RFP)

FOR THE PROVISION TO REFURBISHMENT OF SUBSTATION 1A AND 1B AT NGQURA CONTAINER TERMINAL FOR TRANSNET SOC LTD (REG NO:1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED AS "TPT") FOR NGQURA CONTAINER TERMINAL AS A ONCE OFF

RFP NUMBER	: ICLM PE 746/TPT
ISSUE DATE	: 26 MAY 2025
COMPULSORY BRIEFING	: 10 JUNE 2025 at 11:00 am
CLOSING DATE	: 27 JUNE 2025
CLOSING TIME	: 14H00 PM (via Transnet etender portal)
TENDER VALIDITY PERIOD	: 12 weeks from closing date

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T1.1 TENDER NOTICE AND INVITATION TO TENDER

SECTION 1: NOTICE TO TENDERERS

1. INVITATION TO TENDER

Responses to this Tender [hereinafter referred to as a **Tender**] are requested from persons, companies, close corporations or enterprises [hereinafter referred to as a Tenderer].

DESCRIPTION	PROVISION TO REFURBISHMENT OF SUBSTATION 1A AND 1B AT NGQURA CONTAINER TERMINAL FOR TRANSNET SOC LTD (REG NO:1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED AS "TPT") FOR NGQURA CONTAINER TERMINAL AS A ONCE OFF
TENDER DOWNLOADING	This Tender may be downloaded directly from the National Treasury eTender Publication Portal at www.etenders.gov.za and the Transnet website at https://transnetetenders.azurewebsites.net (please use Google Chrome to access Transnet link) FREE OF CHARGE.

COMPULSORY TENDER CLARIFICATION MEETING	<p>A Compulsory Site and Tender Clarification Meeting will be conducted on the 10 JUNE 2025 at 11:00am [11 O'clock] for a period of ± 2 (Two) hours.</p> <p>Venue: 3rd Floor, TPT Executive Boardroom, Admin Building TPT, Neptune Road, Ngqura Container Terminal Port Elizabeth, 6001</p> <p>Tenderers to provide the following:</p> <ul style="list-style-type: none"> • own transportation & accommodation <p>The Compulsory Site & Tender Clarification Meeting will start punctually and information will not be repeated for the benefit of Tenderers arriving late.</p> <p>A Site visit/walk will take place, tenderers are to note:</p> <ul style="list-style-type: none"> • Tenderers are required to wear safety shoes, goggles, long sleeve shirts, high visibility vests and hard hats. • Tenderers without the recommended PPE will not be allowed on the site walk. • Tenderers and their employees, visitors, clients and customers entering Transnet Offices, Depots, Workshops and Stores will have to undergo breathalyser testing. • All forms of firearms are prohibited on Transnet properties and premises. • The relevant persons attending the meeting must ensure that their identity documents, passports or drivers licences are on them for inspection at the access control gates.
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	<p>Certificate of Attendance in the form set out in the Returnable Schedule T2.2-01 hereto must be completed and submitted with your Tender as proof of attendance is required for a compulsory site meeting and/or tender briefing.</p> <p>Tenderers are required to bring this Returnable Schedule T2.2-01 to the Compulsory Tender Clarification Meeting to be signed by the Employer's Representative.</p> <p>Tenderers failing to attend the compulsory tender briefing will be disqualified.</p>
CLOSING DATE	<p>14:00pm on 27 JUNE 2025</p> <p>Tenderers must ensure that tenders are uploaded timeously onto the system. If a tender is late, it will not be accepted for consideration.</p>
TENDER INCLUDES BUILD PROGRAMME REQUIREMENTS	<p>It is estimated that tenderers must have a CIDB contractor grading designation of 7EP or higher.</p> <p>This project will be implemented under the Construction Industry Development Board Contract Skills Development Goal (CSDG) programme, and the successful Tenderer will be required to adhere to the requirements of:</p> <ul style="list-style-type: none"> The CIDB Standard for Developing Skills Through Infrastructure Contracts is obtainable from the cidb's website www.cidb.org.za <p>Pro-Forma Documents</p> <p><i>To be downloaded from CIDB (Form A1 List of Recognised Skills Development Agencies, Form A2 Baseline Training Plan, Form A3 Project Interim Report, Form A4 Supervisor Agreement, Form A5 Project Completion Report</i></p>

2. TENDER SUBMISSION

Transnet has implemented a new electronic tender submission system, the e-Tender Submission Portal, in line with the overall Transnet digitalization strategy where suppliers can view advertised tenders, register their information, log their intent to respond to bids and upload their bid proposals/responses on to the system.

a) The Transnet e-Tender Submission Portal can be accessed as follows:

Log on to the Transnet eTenders management platform website (<https://transnetetenders.azurewebsites.net>);

- Click on "ADVERTISED TENDERS" to view advertised tenders;
- Click on "SIGN IN/REGISTER – for bidder to register their information (must fill in all mandatory information);
- Click on "SIGN IN/REGISTER" - to sign in if already registered;
- Toggle (click to switch) the "Log an Intent" button to submit a bid;
- Submit bid documents by uploading them into the system against each tender selected.

- **Tenderers are required to ensure that electronic bid submissions are done at least a day before the closing date to prevent issues which they may encounter due to their internet speed, bandwidth or the size of the number of uploads they are submitting. Transnet will not be held liable for any challenges experienced by bidders as a result of the technical challenges. Please do not wait for the last hour to submit. A Tenderer can upload 30mb per upload and multiple uploads are permitted.**
- b) The tender offers to this tender will be opened as soon as possible after the closing date and time. Transnet shall not, at the opening of tenders, disclose to any other company any confidential details pertaining to the Tender Offers / information received, i.e. pricing, delivery, etc. The names and locations of the Tenderers will be divulged to other Tenderers upon request.
- c) Submissions must not contain documents relating to any Tender other than that shown on the submission.
- d) Each company must register its profile using its company details and use the corresponding registered profile to log an intent to bid as well as submitting any bid.
- e) Transnet will not accept a bid or will disqualify a bidder who submits a bid in the Transnet e-tender submission through another bidders'/Company's profile. In other words, each bidder must register the intent to bid and submit its bid through its own profile under the same company name that will eventually bid for the tender. No company shall submit a bid on behalf of another company regardless of the company being a subsidiary or holding company.
- f) In case of a Joint Venture, any of the parties/companies to the Joint Venture may use its registered profile to submit a bid on behalf of the Joint Venture.
- g) The tender offers to this tender will be opened as soon as possible after the closing date and time. Transnet shall not, at the opening of tenders, disclose to any other company any confidential details pertaining to the Tender Offers / information received, i.e. pricing, delivery, etc. The names and locations of the Tenderers will be divulged to other Tenderers upon request.
- h) Submissions must not contain documents relating to any Tender other than that shown on the submission.

3. CONFIDENTIALITY

All information related to this RFP is to be treated with strict confidentiality. In this regard Tenderers are required to certify that they have acquainted themselves with the Non-Disclosure

Agreement. All information related to a subsequent contract, both during and after completion thereof, will be treated with strict confidence. Should the need however arise to divulge any information gleaned from provision of the Works, which is either directly or indirectly related to Transnet's business, written approval to divulge such information must be obtained from Transnet.

4. DISCLAIMERS

Tenderers are hereby advised that Transnet is not committed to any course of action as a result of its issuance of this Tender and/or its receipt of a tender offer. In particular, please note that Transnet reserves the right to:

- 4.1. Award the business to the highest scoring Tenderer/s unless objective criteria justify the award to another tenderer.
- 4.2. Not necessarily accept the lowest priced tender or an alternative Tender;
- 4.3. Go to the open market if the quoted rates (for award of work) are deemed unreasonable;
- 4.4. Should the Tenderers be awarded business on strength of information furnished by the Tenderer, which after conclusion of the contract is proved to have been incorrect, Transnet reserves the right to terminate the contract;
- 4.5. Request audited financial statements or other documentation for the purposes of a due diligence exercise;
- 4.6. Not accept any changes or purported changes by the Tenderer to the tender rates after the closing date;
- 4.7. Verify any information supplied by a Tenderer by submitting a tender, the Tenderer/s hereby irrevocably grant the necessary consent to the Transnet to do so;
- 4.8. Conduct the evaluation process in parallel. The evaluation of Tenderers at any given stage must therefore not be interpreted to mean that Tenderers have necessarily passed any previous stage(s);
- 4.9. Unless otherwise expressly stated, each tender lodged in response to the invitation to tender shall be deemed to be an offer by the Tenderer. The Employer has the right in its sole and unfettered discretion not to accept any offer.
- 4.10. Not be held liable if tenderers do not provide the correct contact details during the clarification session and do not receive the latest information regarding this RFP with the possible consequence of being disadvantaged or disqualified as a result thereof.



4.11. Transnet reserves the right to exclude any Tenderers from the tender process who has been convicted of a serious breach of law during the preceding 5 [five] years including but not limited to breaches of the Competition Act 89 of 1998, as amended. Tenderers are required to indicate in tender returnable [clause 12 on T2.2-20], [**Breach of Law**] whether or not they have been found guilty of a serious breach of law during the past 5 [five] years.

4.12. Transnet reserves the right to perform a risk analysis on the preferred tenderer to ascertain if any of the following might present an unacceptable commercial risk to the employer:

- *unduly high or unduly low tendered rates or amounts in the tender offer;*
- *contract data of contract provided by the tenderer; or*
- *the contents of the tender returnables which are to be included in the contract.*

5. Transnet will not reimburse any Tenderer for any preparatory costs or other work performed in connection with this Tender, whether or not the Tenderer is awarded a contract.

6. NATIONAL TREASURY'S CENTRAL SUPPLIER DATABASE

Tenderer are required to self-register on National Treasury's Central Supplier Database (CSD) which has been established to centrally administer supplier information for all organs of state and facilitate the verification of certain key supplier information. The CSD can be accessed at <https://secure.csd.gov.za/>. Tenderer are required to provide the following to Transnet in order to enable it to verify information on the CSD:

Supplier Number..... and Unique registration reference number.....(Tender Data)

Transnet urges its clients, suppliers and the general public
to report any fraud or corruption to
TIP-OFFS ANONYMOUS: 0800 003 056 OR Transnet@tip-offs.com

T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Engineering and Construction Works Contracts. The Standard for Uniformity in Construction Procurement was first published in Board Notice 62 of 2004 in Government Gazette No 26427 of 9 June 2004. It was subsequently amended in Board Notice 67 of 2005 in Government Gazette No 28127 of 14 October 2005, Board Notice 93 of 2006 in Government Gazette No 29138 of 18 August 2006, Board Notice No 9 of 2008 in Government Gazette No 31823 of 30 January 2009, Board Notice 86 of 2010 in Government Gazette No 33239 of 28 May 2010, Board Notice 136 of 2015 in Government Gazette 38960 of 10 July 2015 and Board Notice 423 of 2019 in Government Gazette No 42622 of 8 August 2019.

This edition incorporates the amendments made in Board Notice 423 of 2019 in Government Gazette 42622 of 8 August 2019. (see www.cidb.org.za).

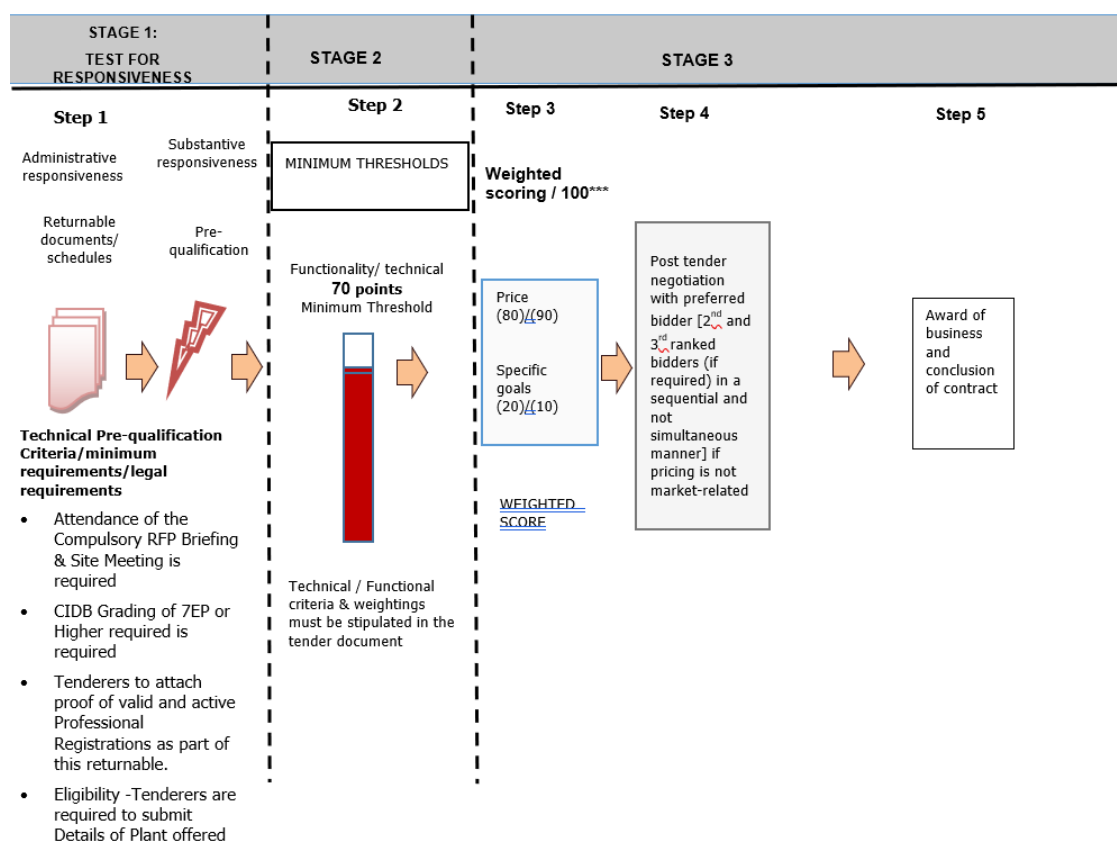
The Standard Conditions of Tender make several references to Tender data for detail that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

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

Clause	Data
C.1.1 The <i>Employer</i> is	Transnet SOC Ltd (Reg No. 1990/000900/30)
C.1.2 The tender documents issued by the <i>Employer</i> comprise:	
Part T: The Tender	
Part T1: Tendering procedures	T1.1 Tender notice and invitation to tender T1.2 Tender data
Part T2 : Returnable documents	T2.1 List of returnable documents T2.2 Returnable schedules
Part C: The contract	
Part C1: Agreements and contract data	C1.1 Form of offer and acceptance C1.2 Contract data (Part 1 & 2) C1.3 Form of Securities
Part C2: Pricing data	C2.1 Pricing instructions

		C2.2 Bill of Quantities
Part C3: Scope of work		C3.1 Works Information
Part C4: Site information		C4.1 Site information
C.1.4	The Employer's agent is:	Commodity Specialist
	Name:	Sinenhlanhla Mtshali
	Address:	NRE Garage, Port of Port Elizabeth, Green Street,6001
	Tel No.	041-816-9660
	E – mail	Snenhlanhla.mtshali@transnet.net

C.2.1 Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:



Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:

1. STAGE One

Step 1 - Eligibility with regards to attendance at the compulsory clarification meeting:

An authorised representative of the tendering entity or a representative of a tendering entity that intends to form a Joint Venture (JV) must attend the compulsory clarification meeting. **(Refer to Schedule Returnable T2.2-01)**

Step 2 – Eligibility in terms of the Construction Industry Development Board:

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

b) Joint Venture (JV)

Joint ventures are eligible to submit tenders subject to the following:

1. every member of the joint venture is registered with the CIDB;
2. the lead partner has a contractor grading designation of not lower than one level below the required class of construction works under consideration and possesses the required recognition status; and
3. the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a **grade 7EP or higher** class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations

The tenderer shall provide a certified copy of its signed joint venture agreement

(Refer to Schedule Returnable T2.2-02)

- **Step 3 - Eligibility with regards to valid and active Professional Registrations**

Tenderers are to attach proof of valid and active Professional Registrations as part of this returnable. Failure to comply with eligibility criteria i.e., a **"No" answer / response and No attachment** will lead to disqualification. (*Bidders will be tested via the Professional Bodies) – **(Refer to Schedule Returnable T2.2-07)**

- **Step 4 : Eligibility – Tenderer's are required to submit Details of Plant Offered**

Tenderers are required to submit the form of offer for critical plant. Bidders need to return exactly what plant is offered in the form of data sheets, schedule of requirements for plant components, and/or specifications for the OEMs. This will be used to evaluate the compliance to the employers works information. Where there is/are material deviation/s from the employers WI requirements, the Bid will be considered unacceptable.

- Tenderers to submit the details of offer for MV Switchgear.
- Tenderers to submit the details of offer for terminations.
- Tenderers to submit the details of offer for fire suppression technology

(Refer to Schedule Returnable T2.2-08)

2. STAGE Two- Functionality:

Only those tenderers who obtain the minimum qualifying score for functionality will be evaluated further in terms of price and the applicable preference point system. The minimum qualifying score for functionality is **70 points**.

The evaluation criteria for measuring functionality and the points for each criteria and, if any, each sub-criterion are as stated in C.3.11.3 below.

Any tenderer that fails to meet the stipulated pre-qualifying criteria will be regarded as an unacceptable tender.

3. STAGE Three – WEIGHTED SCORING (PRICE AND SPECIFIC GOALS)

Only tenders that achieve the minimum qualifying score for functionality will be evaluated further in accordance with the 80/20 or 90/10 preference points systems as described in Preferential Procurement Regulations.

Preferential Procurement Points will be allocated as per the table below:

Preference Point System 80/20

Specific Goals	Number of Points	Price
B-BBEE Level 1&2	4	
Local content and production	4	
Subcontracting 30% of the value of the contract to EME's and QSE's 51%)	12	
Total	20	80

OR

Preference Point System 90/10

Specific Goals	Number of Points	Price
B-BBEE Level 1&2	2	
Local content and production	2	
Subcontracting 30% of the value of the contract to EME's and QSE's 51%)	6	
Total	10	90

Note: Stage four also includes post tender negotiations and stage five will be award of business

- C.2.7 The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. **Tenderers must complete and sign the attendance register.** Addenda will be issued to and tenders will only be received from those tendering entities including those entities that intends forming a joint venture appearing on the attendance register.
Tenderers are also **required to bring their RFP document to the briefing session and have their returnable document T2.2-01 certificate of attendance** signed off by the Employer's authorised representative.

- C.2.12 No alternative tender offers will be considered.

- C.2.13.3 Each tender offer shall be in the **English Language.**

C.2.13.5 The *Employer's* details and identification details that are to be shown on each tender
C2.15.1 offer are as follows:

- | | |
|-------------------------|---|
| Identification details: | <p>The tender documents must be uploaded with:</p> <ul style="list-style-type: none"> ▪ Name of Tenderer: (insert company name) ▪ Contact person and details: (insert details) ▪ The Tender Number: ICLM PE 746/TPT ▪ The Tender Description: Provision to Refurbishment Of Substation 1A & 1B at Ngqura Container Terminal For Transnet SOC LTD (Reg No:1990/000900/30) Operating as Transnet Port Terminals (hereinafter referred as "TPT") as once off supply – once off |
|-------------------------|---|

Documents must be marked for the attention of:
Employer's Agent: Sinenhlanhla Mtshali

C.2.13.9 Telephonic, telegraphic, facsimile or e-mailed tender offers will not be accepted.

C.2.15 The closing time for submission of tender offers is:
Time: **14:00pm** on the **27 JUNE 2025**
Location: The Transnet e-Tender Submission Portal:
(<https://transnetetenders.azurewebsites.net>);

NO LATE TENDERS WILL BE ACCEPTED

C.2.16 The tender offer validity period is **12 weeks** after the closing date. Tenderers are to note that they may be requested to extend the validity period of their tender, on the same terms and conditions, if Transnet's internal evaluation and governance approval processes has not been finalised within the validity period.

C.2.23 The tenderer is required to submit with his tender:

1. A valid Tax Clearance Certificate issued by the South African Revenue Services.
Tenderers also to provide Transnet with a TCS PIN to verify Tenderers compliance status.
2. A **valid B-BBEE Certificate** from a Verification Agency accredited by the South African Accreditation System [**SANAS**], or a **sworn affidavit** confirming annual turnover and level of black ownership, in line with the code of good practice, together with the tender;
3. A valid CIDB certificate in the correct designated grading;
4. Proof of registration on the Central Supplier Database;

Note: Refer to Section T2.1 for List of Returnable Documents

C3.11 The minimum number of evaluation points for functionality is: **70 points**

The procedure for the evaluation of responsive tenders is Functionality, Price and Preference:

Only those tenderers who attain the minimum number of evaluation points for Functionality will be eligible for further evaluation, failure to meet the minimum threshold will result in the tender being disqualified and removed from any further consideration.

Functionality Criteria

The functionality criteria and maximum score in respect of each of the criteria are as follows:

Functionality shall be scored independently by not less than two (2) evaluators and averaged in accordance with the following schedules:

Evaluation Criteria	Description	Scoring principal			Scoring	Returnable Schedule	Weighting
Management and CVs of Key Persons	Management and Engineering	Project Manager	100%	10%	<ul style="list-style-type: none">General Experience =7Education, Training and skills =8Design and Build Knowledge of Issues pertinent to the project= 10	T2.2-03	25
		Construction Manager		30%			
		Installation Electrician		20%			
		Protection Engineer		20%			
		Mechanical Engineer		20%			
PREVIOUS EXPERIENCE	Demonstrate past experience in the delivery of similar projects "of a minimum value of R10m per project" in last 10 years, and reference supplied: with following as a minimum <ul style="list-style-type: none">Electrical MV and LVEarthing and lightningAutomatic fire detection and suppression system	Electrical MV infrastructure works = 10				T2.2-04	25
		Earthing and lightning protection 20% and Power Systems modelling and simulation 80%= 7					
		Automatic fire detection and suppression system 50%, HVAC 50% = 8 (score 0): The tenderer has submitted no information or inadequate information to determine a score. (score 20): The tenderer has limited experience and has successfully completed 1 similar project. (score 40): The tenderer has limited experience and has successfully completed 2 similar project. (score 60): The tenderer has relevant experience and has successfully completed 3 similar projects. (score 80): The tenderer has extensive experience in relation to the project and has worked previously under similar conditions and circumstances and has successfully completed 4 more similar projects. (score 100): The tenderer has outstanding experience in relation to the project and has worked previously under similar conditions and circumstances and has successfully completed 5 or more similar projects.					

Method Statement	<p>The tenderers need to sufficiently demonstrate the approach/methodology that will be employed to cover the scope of the project linked to the submitted project programme.</p> <p>Electrical MV infrastructure Installation Works (60%) Power system modelling and simulation (20%) Automatic fire detection and suppression system, and HVAC (20%)</p>	Clearly articulated and based on the Works Information which includes the design, GA of switchgear, power system study investigations and criteria. Approach to ensuring less disruption to operations.	20	0: The Tenderer has submitted no information or inadequate information to determine a score. 20: The approach paper is not acceptable as it will not satisfy project objectives or requirements. The tenderer has misunderstood the scope of work and does not deal with the critical aspects of the project. 40: The technical approach and / or methodology is poor, not realistic, and practical and is therefore unlikely to satisfy project objectives or requirements. The tenderer has misunderstood certain aspects of the scope of work and does not deal with the critical aspects of the project. 60: The approach is generic and not tailored to address the specific project objectives and requirements. The approach does not adequately deal with the critical characteristics of the project. The approach to managing risk is too generic. 80: The approach is specifically tailored to address the specific project objectives and methodology and is sufficiently flexible to accommodate changes that may occur during execution. The approach to managing risk etc. is specifically tailored to the critical characteristics of the project. 100: Besides meeting the "80" rating, the important issues are approached in an innovative and efficient way, indicating that the tenderer has outstanding knowledge of state-of-the- art approaches. The approach paper details ways to improve the project outcomes and the quality of the outputs.	T2.2-05	35
		Demonstrates a clear understanding of the project objectives and the employer's specifications. Clear construction, and commissioning methodology. Outline the project specific requirements of the SHEQ requirements	15			

HEALTH, SAFETY AND ENVIRONMENT	<p>Policy (Signed by the CEO)</p> <ol style="list-style-type: none"> 1. Commitment to Safety, prevention of pollution, 2. Continual improvement, 3. Compliance to legal requirements, appropriate to the nature of contractor's activities, 4. Hold management accountable for development of the safety systems, 5. Include objectives and targets. 	<p>(score 0): The tenderer has submitted no information or inadequate information to determine a score. (score 20): 1 of the 5 key policy components are recognized and meet the Employer's requirement. (score 40): 2 of the 5 key policy components are recognized and meet the Employer's requirement. (score 60): 3 of the 5 key policy components are recognized and meet the Employer's requirements. (score 80): 4 of the five key policy components are recognized and meets the Employer's requirements. (score 100): All 5 key policy components are recognized and meets the Employer's requirements</p>		1
	<p>Roles & Responsibilities, such as S16.1 Chief Executive Officer, S16.2 Assistant to Chief Executive Officer, 8.1 Construction manager/Foreman, 8.2 Assistant Construction manager/ Installation Electrician 8.5 Safety officer, 8.7 Risk Assessor, 17.1 SHE Reps, etc. as per the Occupational health and safety Act 85 of 1993</p>	<p>(Score 20): 1. Information supplied is totally insignificant /inadequate to achieve the required standard of service. (Score 40): 2. Poor response/answer /solution lacks convincing evidence, medium risk that stated employer's requirements will not be met. (Score 60): 1. Satisfactory response/answer/solution to the particular aspect of the requirement, evidence given that the stated Employer's requirements will be met. (Score 80): 4.1. Good response/answer/solution which demonstrates real understanding and evidence of ability to meet stated Employer's requirements. (Score 100): 5. Very good response /answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated Employer's requirements</p>		2

	Safety cost breakdown is attached	(Score 20): 1. Health and safety Budget submitted is totally insignificant /inadequate to achieve the required standard of service, < 1% allocated construction cost. (Score 40): 2. Health and safety Budget submitted is insignificant /inadequate /answer /solution to the returnable, Employer's health and safety requirements (Score 60): 3. will not be met, 1 – 2% allocated construction cost. (Score 60): 3. Health and safety Budget submitted is Satisfactory response /answer/solution to the returnable, Employer's health and safety requirements will be met, 2 – 3% allocated construction cost. (Score 80): 4. Health and safety Budget submitted is Good response /answer/solution to the returnable, Employer's health and safety requirements will be met, 3 – 4% - above allocated construction cost. (Score 100): 5. Health and safety Budget submitted is Good response /answer/solution to the returnable, Employer's health and safety requirements will be met, 4 – 5% - above allocated construction cost.	T2.2-06	3
	Overview of the project specific Baseline Risk Assessment indicating major activities of the SoW	(Score 20): 1. Information supplied is totally insignificant /inadequate to achieve the required standard of service. (Score 40): 2. Poor response/answer /solution lacks convincing evidence, medium risk that stated employer's requirements will not be met. (Score 60): 1. Satisfactory response/answer/solution to the particular aspect of the requirement, evidence given that the stated Employer's requirements will be met. (Score 80): 4.1. Good response/answer/solution which demonstrates real understanding and evidence of ability to meet stated Employer's requirements. (Score 100): 5. Very good response /answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated Employer's requirements.		5
	One year synopsis of SHE incidents, description, type and action taken to prevent re-occurrence	(Score 20): 1. Information supplied is totally insignificant /inadequate to achieve the Employers Works information. (Score 40): 2. Poor response /answer/solution lacks convincing evidence, medium risk that stated Employer's requirements will not be met. (Score 60): 3. Some guidance / supervision required for response /answer /solution to particular aspect of the requirement, evidence given the Employer's requirements. (Score 80): 4. Good response /answer/solution which demonstrates real understanding and evidence of ability to meet stated Employer's requirements. (Score 100): 5. Very good response /answer/solution gives real confidence that the tenderer ensured compliance with stated Employer's requirements.		2

	Contractor site specific Health and Safety plan.	(Score 20): 1. Information supplied is totally insignificant/inadequate to achieve the Employers Works information. (Score 40): 2. Poor response/answer/solution lacks convincing evidence, medium risk that stated Employer's requirements will not be met. (Score 60): 3. Satisfactory response/answer/solution to the particular aspect of the requirement, evidence given that the stated Employer's requirements will be met. (Score 80): 4. Good response/answer/solution which demonstrates real understanding and evidence of ability to meet stated Employer's requirements. (Score 100): 5. Very good response/answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated Employer's requirements.		2
TOTAL RATING				100

Functionality shall be scored independently by not less than 3 (three) evaluators and averaged in accordance with the following schedules:

- T2.2-03 Management and CVs of Key Persons
- T2.2-04 Previous Experience
- T2.2-05 Method Statement
- T2.2-06 Health, Safety and Environment

Each evaluation criteria will be assessed in terms of scores of 0, 20, 40, 60, 80 or 100.

The scores of each of the evaluators will be averaged, weighted and then totalled to obtain the final score for functionality, unless scored collectively. (See CIDB Inform Practice Note #9).

Note: Any tender not complying with the above-mentioned requirements, will be regarded as non-responsive and will therefore not be considered for further evaluation. This note must be read in conjunction with Clause C.2.1.

C.3.11.

80 where the financial value of one or more responsive tenders received have a value equal to or below R50 million, inclusive of all applicable taxes,

and/or

90 where the financial value of one or more responsive tenders received have a value equal to or above R50 million, inclusive of all applicable taxes.

Thresholds	Minimum Threshold
Technical / functionality	70

Evaluation Criteria	Final Weighted Scores
Price	80
Specific goals - Scorecard	20
TOTAL SCORE:	100

OR

Evaluation Criteria	Final Weighted Scores
Price	90
Specific goals - Scorecard	10
TOTAL SCORE:	100

Up to 100 minus W_1 tender evaluation points will be awarded to tenderers who complete the preferencing schedule and who are found to be eligible for the preference claimed. **Should the evidence required for any of the Specific Goals applicable in this tender not be provided, a tenderer will score zero preference points for that particular "Specific Goal".**

In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, the following preference points must be awarded to a bidder who provides the relevant required evidence for claiming points

Selected Specific Goal	Number of points allocated (80/20)
B-BBEE Level of contributor (1 or 2)	4
Local content and production	4
Subcontracting 30% of the value of the contract to EME's and QSE's 51%)	12
Non-Compliant and/or B-BBEE Level 3-8 contributors	0

OR

Selected Specific Goal	Number of points allocated (90/10)
B-BBEE Level of contributor (1 or 2)	2
Local content and production	2
Subcontracting 30% of the value of the contract to EME's and QSE's 51%)	6

The following Table represents the evidence to be submitted for claiming preference points for applicable specific goals in a particular tender:

Specific Goals	Acceptable Evidence
B-BBEE	B-BBEE Certificate / Sworn-Affidavit B-BBEE Certificate (in case of JV, a consolidate scorecard will be accept) as per DTIC guidelines
The promotion of supplier development through sub-contracting or JV for a minimum of 30% of the value of a contract to South African Companies which are: I. EMEs and/or QSEs who are 51% black-owned, Youth Women or people with Disabilities	Sub-contracting agreements and Declaration / Joint Venture Agreement and CIPC – B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate as per DTIC guideline
Local Content and Local Production	Returnable Local Content and production Annexures

The maximum points for this bid are allocated as follows:

<u>DESCRIPTION</u>	<u>POINTS</u>
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTION <ul style="list-style-type: none"> B-BBEE Level 1&2 (4 points) Local content and production (4 points) Subcontracting 30% of the value of the contract to EME's and QSE's 51%) (12 points) 	20
Total points for Price and Specific Goals must not exceed	100

OR

<u>DESCRIPTION</u>	<u>POINTS</u>
PRICE	90
B-BBEE STATUS LEVEL OF CONTRIBUTION <ul style="list-style-type: none"> B-BBEE Level 1&2 (2 points) Local content and production (2 points) Subcontracting 30% of the value of the contract to EME's and QSE's 51%) (6 points) 	10
Total points for Price and Specific Goals must not exceed	100

Note: Transnet reserves the right to carry out an independent audit of the tenderers scorecard components at any stage from the date of close of the tenders until completion of the contract.

C.3.13 Tender offers will only be accepted if:

1. The tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;
2. the tenderer does not appear on Transnet's list for restricted tenderers and National Treasury's list of Tender Defaulters;
3. the tenderer has fully and properly completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the Employer

or potentially compromise the tender process and persons in the employ of the state.

4. Transnet reserves the right to award the tender to the tenderer who scores the highest number of points overall, unless there are **objective criteria** which will justify the award of the tender to another tenderer. Objective criteria include but are not limited to the outcome of a due diligence exercise to be conducted. The due diligence exercise may take the following factors into account inter alia;the tenderer:
- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
 - b) is not undergoing a process of being restricted by Transnet or other state institution that Transnet may be aware of,
 - c) 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,
 - d) has the legal capacity to enter into the contract,
 - e) 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,
 - f) complies with the legal requirements, if any, stated in the tender data and
 - g) is able, in the option of the employer to perform the contract free of conflicts of interest.

C.3.17 The number of paper copies of the signed contract to be provided by the Employer is 1 (one).

T2.1 List of Returnable Documents

2.1.1 These schedules are required for pre-qualification and eligibility purposes:

T2.2-01 Stage One: Eligibility Criteria Schedule – Attendance of Compulsory Briefing

Attendance of Compulsory Briefing (Certificate of attendance at Compulsory Tender Clarification Meeting)

T2.2-02 Stage One: Eligibility Criteria Schedule – CIDB Registration

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

b) Joint Venture (JV)

Joint ventures are eligible to submit tenders subject to the following:

1. every member of the joint venture is registered with the CIDB;
2. the lead partner has a contractor grading designation of not lower than one level below the required class of construction works under consideration and possesses the required recognition status; and
3. the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a **grade 7EP or higher** class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations

The tenderer shall provide a certified copy of its signed joint venture agreement

T2.2-07 Stage One: Eligibility Criteria Schedule – Valid and Active Proof of Professional Registrations

Tenderers are to attach a valid and active Proof of Professional Registration as part of this returnable. Failure to comply with eligibility criteria i.e., a "No" answer / response and No attachment will lead to disqualification. (*Bidders will be tested via the Professional Bodies)

T2.2-08 Stage One as per Details of Plant Offered

Tenderers are required to submit the form of offer for critical plant. Bidders need to return exactly what plant is offered in the form of ***data sheets, schedule of requirements for plant components, and specifications*** for the OEMs. This will be used to evaluate the compliance to the employers works information. Where there is/are material deviation/s from the employers WI requirements, the Bid will be considered unacceptable.

- Tenderers to submit the details of offer for MV Switchgear.
- Tenderers to submit the details of offer for terminations.

- Tenderers to submit the details of offer for fire suppression technology

2.1.2 Stage Two as per CIDB: these schedules will be utilised for evaluation purposes:

T2.2-03 **Evaluation Schedule:** Management & CVs of Key persons

T2.2-04 **Evaluation Schedule:** Tenderer's Previous Work Experience

T2.2-05 **Evaluation Schedule:** Method Statement

T2.2-06 **Evaluation Schedule:** Health and Safety & Environment Management

Stage Three: These schedules will be utilised for Specific Goals

- Valid proof of Respondent's compliance to Specific Goals evidence (Preference Claim Form) requirements stipulated in SBD6.1.

Local Contant Documents

- SDB 6.2 Annexure B (Essential Returnable)
- Annexure C (Essential Returnable)
- Annexure D
- Annexure E

2.1.3 Returnable Schedules General

T2.2-09 Authority to submit tender

T2.2-10 Record of addenda to tender documents

T2.2-11 Letter of Good Standing

T2.2-12 Risk Elements CPM 2020 Rev 01

T2.2-13 Availability of equipment and other resources

T2.2-14 RFP Declarations form CPM 2024

T2.2-15 Site Establishment requirements

T2.2-16 Schedule of Proposed Subcontractors

Agreement and Commitment by Tenderer:

T2.2-17 CIDB SFU ANNEX G Compulsory Enterprise Questionnaire

T2.2-18 Non-Disclosure Agreement

T2.2-19 RFP Declaration Form

T2.2-20 RFP – Breach of Law

T2.2-21 Certificate of Acquaintance with Tender Document

T2.2-22 Service Provider Integrity Pact

T2.2-23 Supplier Code of Conduct

T2.2-23a Domestic prominent influential persons (DPIP) or foreign prominent public officials (FPPO)

T2.2-23b Agreement in Terms of Protection of Personal Information

Bonds/Guarantees/Financial/Insurance:

T2.2-24 Insurance provided by the Contractor

T2.2-25 Form of Intent to provide a Performance Guarantee

T2.2-26 Forecast Rate of Invoicing

T2.2-27 Three (3) years audited financial statements

2.2 C1.1 Offer portion of Form of Offer & Acceptance

2.3 C1.2 Contract Data

2.4 C1.3 Forms of Securities

2.5 C2.1 Pricing Instructions (Bill of Quantities)

2.6 C2.2 Bill of Quantities

2.7 C3 Works Information

2.8 C4 Site Information

NOTES: List of Annexures

- **Annexure A:** List Drawings
- **Annexure B:** General Quality Requirements for Contractors and Suppliers
- **Annexure C:** Project Health and Safety Specifications (PHSS-0001)
- **Annexure D:** TPD- 001- EL & PSPEC – Technical Specifications for the Supply and Installation of Electrical Lighting and Power in Buildings other than Dwelling Houses
- **Annexure E:** TPD – 003-CABLESPEC – Technical Specification for the Installation of Medium and Low Voltage Cables
- **Annexure F:** TPD – 004 – EARTHINGSPEC – Technical Specification for the Design Supply and Installation of Lightning Protection and Earthing for Buildings and Structures
- **Annexure G:** TPD-007-MVSWITCHSPEC- Technical Specification for indoor medium/high voltage (1kV to 33kV) alternating current switchgear and control gear
- **Annexure H:** High Level Commissioning Management Plan
- **Annexure I :** Standard Operating Procedures – Construction Environmental Management Programme (SOP-CEMP)
- **Annexure J:** Contractor Environmental and Sustainable Specifications



STAATSKOERANT, 8 AUGUSTUS 2019

DEPARTMENT OF PUBLIC WORKS

NOTICE 423 OF 2019

STANDARD FOR UNIFORMITY IN ENGINEERING AND CONSTRUCTION

WORKS CONTRACTS

AUGUST 2019

Annex C

Standard Conditions of Tender

C.1 General

C.1.1 Actions

C.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

C.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender Process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note: 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his

or her position even if no improper acts result.

2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

C.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

C.1.2 Tender Documents

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

C.1.3 Interpretation

C.1.3.1 The tender data and additional requirements contained in the tender schedules that are Included in the returnable documents are deemed to be part of these conditions of tender.

C.1.3.2 These conditions of tender, the tender data and tender schedules which are required for Tender evaluation purposes, shall form part of any contract arising from the invitation to tender.

C.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

a) **conflict of interest** means any situation in which:

- i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;
- ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
- iii) incompatibility or contradictory interests exist between an employee and the tenderer who employs that employee.

b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;

c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;

d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;

C.1.4 Communication and employer's agent

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

from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

C.1.5 Cancellation and Re-Invitation of Tenders

C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if

- a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
- b) funds are no longer available to cover the total envisaged expenditure; or
- c) no acceptable tenders are received.
- d) there is a material irregularity in the tender process.

C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the original tender invitation was advertised

C.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender Invitation for the second time.

C.1.6 Procurement procedures

C.1.6.1 General

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

C.1.6.2 Competitive negotiation procedure

C.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of C.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

C.1.6.2.2 All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the tender data shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of C.2.17, the employer may request that tenders be clarified, Specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any

fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

C.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

C.1.6.2.4 The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer.

C.1.6.3 Proposal procedure using the two stage-system

C.1.6.3.1 Option 1

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

C.1.6.3.2 Option 2

C.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

C.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

C.2 Tenderer's obligations

C.2.1 Eligibility

C.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.

C.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

C.2.2 Cost of tendering

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

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

C.2.3 Check documents

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

C.2.4 Confidentiality and copyright of documents

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

C.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.

C.2.6 Acknowledge addenda

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

C.2.7 Clarification meeting

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

C.2.8 Seek clarification

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

C.2.9 Insurance

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

C.2.10 Pricing the tender offer

C.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes

Except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the tender data.

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

C.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

C.2.10.4 State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

C.2.11 Alterations to documents

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

C.2.12 Alternative tender offers

C.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

C.2.12.2 Accept that an alternative tender offer must be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.

C.2.13 Submitting a tender offer

C.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.

C.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

C.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number Of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

C.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the Packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

C.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

C.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

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

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

C.2.14 Information and data to be completed in all respects

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

C.2.15 Closing time

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

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

C.2.16 Tender offer validity

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

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

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

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

C.2.17 Clarification of tender offer after submission

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

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

C.2.18 Provide other material

C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

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

C.2.19 Inspections, tests and analysis

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

C.2.20 Submit securities, bonds and policies

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

C.2.21 Check final draft

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

C.2.22 Return of other tender documents

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

C.2.23 Certificates

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

C.3 The employer's undertakings

C.3.1 Respond to requests from the tenderer

C.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up To five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who collected tender documents.

C.3.1.2 Consider any request to make a material change in the capabilities or formation of the Tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as

individual firms or as another joint venture; or

- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

C.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

C.3.3 Return late tender offers

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

C.3.4 Opening of tender submissions

C.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

C.3.4.3 Make available the record outlined in C.3.4.2 to all interested persons upon request.

C.3.5 Two-envelope system

C.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

C.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and

the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

C.3.6 Non-disclosure

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

C.3.7 Grounds for rejection and disqualification

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

C.3.8 Test for responsiveness

C.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

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

C.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified. Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

C.3.9 Arithmetical errors, omissions and discrepancies

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

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

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

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

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

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

C.3.10 Clarification of a tender offer

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

C.3.11 Evaluation of tender offers

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project. Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:

Requirement Qualitative interpretation of goal

Fair The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.

Equitable Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.

Transparent The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.

Competitive The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.

Cost effective The processes, procedures and methods are standardized with sufficient flexibility to attain best value outcomes in respect of quality, timing and price, and least resources to effectively manage and control procurement processes.

The activities associated with evaluating tender offers are as follows:

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

C.3.11.1 General

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

C.3.12 Insurance provided by the employer

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

C.3.13 Acceptance of tender offer

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

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

C.3.14 Prepare contract documents

C.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by

The employer as part of the tender documents to take account of:

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

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

C.3.15 Complete adjudicator's contract

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

C.3.16 Registration of the award

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

C.3.17 Provide copies of the contracts

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

C.3.18 Provide written reasons for actions taken

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

T2.2-01: Eligibility Criteria Schedule:

Certificate of Attendance at Tender Clarification Meeting

This is to certify that

(Company Name)

Represented
by:

(Name and
Surname)

Was represented at the compulsory tender clarification meeting

Held at:	Port of Ngqura Container Terminal	
On (date)		

Particulars of person(s) attending the meeting:

Name

Signature

Capacity

Attendance of the above company at the meeting was confirmed:

Name

Signature

**For and on Behalf of the
Employers Agent.**

Date

T2.2-17: ANNEX G Compulsory Enterprise Questionnaire

The following particulars hereunder must be furnished.

In the case of a Joint Venture, separate enterprise questionnaires in respect of each partner/member must be completed and submitted.

Section 1: Name of enterprise: _____

Section 2: VAT registration number, if any: _____

Section 3: CIDB registration number, if any: _____

Section 4: CSD number: _____

Section 5: Particulars of sole proprietors and partners in partnerships

Name	Identity number	Personal income tax number

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 6: Particulars of companies and close corporations

Company registration number _____

Close corporation number _____

Tax reference number: _____

Section 7: The attached SBD4 must be completed for each tender and be attached as a tender requirement.

Section 8: The attached SBD 6 must be completed for each tender and be attached as a requirement.

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed	_____	Date	_____
Name	_____	Position	_____
Enterprise name	_____		

-
- Part T2: Returnable Schedules
T2.2-17: Compulsory Questionnaire

<p>51% Black Youth and 51% Black people with disabilities</p> <p>II. Entities with a specified minimum B-BBEE level (1 and 2)</p> <p>III. EMEs and/or QSEs who are 51% black-owned</p>	
Local Content and Local	Production Annexures Returnable Local Content and production

4.2 The table below indicates the required proof of B-BBEE status depending on the category of enterprises:

Enterprise	B-BBEE Certificate & Sworn Affidavit
Large	Certificate issued by SANAS accredited verification agency
QSE	<p>Certificate issued by SANAS accredited verification agency</p> <p>Sworn Affidavit signed by the authorised QSE representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership (only black-owned QSEs - 51% to 100% Black owned)</p> <p>[Sworn affidavits must substantially comply with the format that can be obtained on the DTI's website at www.dti.gov.za/economic_empowerment/bee_codes.jsp.]</p>
EME¹	<p>Sworn Affidavit signed by the authorised EME representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership</p> <p>Certificate issued by CIPC (formerly CIPRO) confirming annual turnover and black ownership</p> <p>Certificate issued by SANAS accredited verification agency only if the EME is being measured on the QSE scorecard</p>

4.3 A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Status Level verification certificate for every separate bid.

4.4 Tertiary Institutions and Public Entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.

4.5 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of

¹ In terms of the Implementation Guide: Preferential Procurement Regulations, 2017, Version 2, paragraph 11.11 provides that in the Transport Sector, EMEs can provide a letter from accounting officer or get verified and be issued with a B-BBEE certificate by SANAS accredited professional or agency as the Transport Sector Code has not been aligned to the generic Codes. EMEs in the Transport Sector are not allowed to provide a sworn affidavit as the generic codes are not applicable to them.

the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.

4.6 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.

4.7 Bidders are to note that the rules pertaining to B-BBEE verification and other B-BBEE requirements may be changed from time to time by regulatory bodies such as National Treasury or the DTI. It is the Bidder's responsibility to ensure that his/her bid complies fully with all B-BBEE requirements at the time of the submission of the bid.

5. BID DECLARATION

5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 6.1

6.1 B-BBEE Status Level of Contribution: = maximum of 10 or 20 points

(Points claimed in respect of paragraph 6.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. SUB-CONTRACTING

7.1 Will any portion of the contract be sub-contracted?

(***Tick applicable box***)

YES		NO	
-----	--	----	--

7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE.

(***Tick applicable box***)

YES		NO	
-----	--	----	--

Description of Works: Provision to Refurbishment of Substation 1A & 1B at Ngqura

Container Terminal for TRANSNET SOC LTD (Reg No.1990/000900/30) operating as Transnet

Port Terminals (Hereinafter referred as "TPT") for Ngqura Container Terminal as once off.

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One person business/sole propriety
- ☐ Close corporation
- ☐ Company
- ☐ (Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....
.....
.....

8.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
- ☐ Supplier
- ☐ Professional Supplier/Service provider
- ☐ Other Suppliers/Service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in

paragraph 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;

- iv) If a bidder submitted false information regarding its B-BBEE status level of contributor,, which will affect or has affected the evaluation of a bid, or where a bidder has failed to declare any subcontracting arrangements or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have
- (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) if the successful bidder subcontracted a portion of the bid to another person without disclosing it, Transnet reserves the right to penalise the bidder up to 10 percent of the value of the contract;
 - (e) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
 - (f) forward the matter for criminal prosecution.

WITNESSES

1.

2.

.....

SIGNATURE(S) OF BIDDERS(S)

DATE:

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

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

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

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest² in the enterprise, employed by the state? **YES/NO**

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

Full Name	Identity Number	Name of State institution

2.2 Do you, or any person connected with the bidder, have a relationship with any

² the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

.....
.....

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

YES/NO

2.3.1 If so, furnish particulars:

.....
.....

3 DECLARATION

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

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

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

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

TRANSNET PORT TERMINALS

TENDER NUMBER: ICLM PE 746/TPT

DESCRIPTION OF THE WORKS: PROVISION TO REFURBISHMENT OF SUBSTATION 1A AND 1B AT NGQURA
CONTAINER TERMINAL FOR TRANSNET SOC LTD (REG NO:1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS
(HEREINAFTER REFERRED AS "TPT") FOR NGQURA CONTAINER TERMINAL AS A ONCE OFF

T2.2-07: Compliance to Eligibility Criteria – Valid & Active Proof of Professional Registrations

Tenderers are to attach a valid and active Proof of Professional Registration as part of this returnable. Failure to comply with eligibility criteria i.e., a **"No" answer / response and No attachment** will lead to disqualification.

Eligibility Criteria – Proof of Professional Registrations		Comply (Yes/No)	Evidence Provided (Yes/No)
1.	The Project Manager must be professionally registered (SACPMP).		
2.	The Protection Engineer must be registered as a Pr Eng or Pr Tech with ECSA.		
3.	The Mechanical Engineer must be registered as a Pr Eng or Pr Tech with ECSA.		
4.	The Construction Manager must be registered as a Pr Eng or Pr Tech with ECSA.		

Signed	Date
Name	Position
Tenderer	

TRANSNET PORT TERMINALS

TENDER NUMBER: ICLM PE 746/TPT

DESCRIPTION OF WORKS: Refurbishment of Substation 1A & 1B at Ngqura Container Terminal for Transnet SOC Ltd (Reg No:1990/000900/30) Operating as Transnet Port Terminals (Hereinafter referred as "TPT") for Ngqura Container Terminal as a once off

T2.2-08: ELIGIBILITY CRITERIA – DETAILS OF PLANT OFFERED

Note to Tenderer:

Tenderers are required to submit the form of offer for critical plant. Bidders need to return exactly what plant is offered in the form of data sheets, schedule of requirements for plant components, and specifications for the OEMs. This will be used to evaluate the compliance to the employers works information. Where there is/are material deviation/s from the employers WI requirements, the Bid will be considered unacceptable.

- Tenderers to submit the details of offer for MV Switchgear.
- Tenderers to submit the details of offer for terminations.
- Tenderers to submit the details of offer for fire suppression technology.

#	Description.	Compliance requirement.	Complies fully with the WI. Yes/No	Comments
1	MV Switchgear	As per the WI		
2	Terminations	As per the WI		
3	Fire suppression	As per the WI		

Signed

Date

Name

Position

Tenderer

T2.2-03: Evaluation Schedule: Management & CV's of Key Persons

Please describe the management arrangements for the *works* and the tenderer is to take note that evaluation of this schedule must contain the following information:

Comprehensive CV's should be attached to this schedule:

As a minimum each CV should address the following, but not limited to;

1. Personal particulars;
2. Qualifications (degrees, grades of membership of professional societies and Professional registrations, all these certificates are to be attached);
3. Skills (attach certificates of short courses and training obtained);
4. Name of current employer and position;
5. Overview of post graduate experience (year, organisation, position and responsibilities); and
6. Outline of recent assignments / detailed experience that has a bearing on the scope of work.
7. CV's for people proposed for all identified posts including:
8. Project Manager
8.1 The Project Manager should at least have a minimum qualification of a BSc. Eng./ B.Tech./ National Diploma in Engineering and a SACPM registration/Pr. CPM/PMP with at least 5 years post registration experience in Electrical MV/LV and building construction projects. The Project Manager must have experience working in at least 3 separate projects, with at least 1 project in excess of R10m in electrical works (MV and LV switchgear, and power transformer installation) component value.
9. Construction Manager
9.1 The Construction Manager or Site Agent must at least have a minimum qualification of a National Diploma in Electrical Engineering with a PR registration with ECSA as a Pr Tech Eng, with at least 5 years' post registration experience in electrical MV/LV substation design and construction. The Construction Manager or Site Agent must have experience working in at least one substation project with MV and LV switchgear scope in excess of R10 million.
10. Mechanical Engineer
10.1 The Mechanical Engineer must at least have a minimum qualification of a National Diploma in Electrical Engineering with a PR registration with ECSA as a Pr Tech Eng, with at least 5 years' post registration experience in HVAC and Fire Protection design and installation.

11. Protection Engineer/Specialist

11.1 The Protection Engineer must at least have a minimum qualification of a National Diploma in Electrical/Electronic Engineering with a PR registration with ECSA as a Pr Tech Eng, with at least 5 years' post registration experience in electrical MV/LV substation protection and SCADA. The protection specialist must have done a protection grading study, and load flow analysis for a power system network similar to the requirement of the scope of this project with experience in ETAP or a similar software.

12. Installation Electrician

The Installation Electrician must have a minimum N6 qualification, an Electrical trade, registration with the department of Labour and have at least 5 years' in MV/LV Switchgear installations. The Installation Electrician must have experience working in at least one substation project with MV and LV switchgear scope in excess of R10 million.

13. Details of experience for proposed staff working in similar projects in terms of nature, competency and value.

14. An explanation of how you propose to allocate adequate resources to enable you to comply with the requirements and prohibitions imposed on you by or under the statutory provisions relating to health and safety.

15. Details of experience for proposed staff in respect of NEC3 Engineering & Construction Contract option chosen for this Contract. If staff experience is limited, an indication of relevant training that they have attended would be helpful.

Attached submissions to this schedule:

.....

.....

.....

.....

The scoring of the Management & CV's of Key Persons will be as follows:

Weight	Relevant Technical experience:	Education, training and skills for the following:	Knowledge of issues pertinent to the project for the following: Management and Engineering = 100%
10%	Management and Engineering= 100%	Management and Engineering =100%	
30%	10% Project Manager	10% Project Manager	10% Project Manager
20%	30% Construction Manager	30% Construction Manager	30% Construction Manager
20%	20% Protection Specialist	20% Protection Specialist	20% Protection Specialist
	20% Mechanical Engineer	20% Mechanical Engineer	20% Mechanical Engineer
	20% Installation Electrician	20% Installation Electrician	20% Installation Electrician
Points	7	8	10
(score 0)	Failed to provide information or inadequate information provided to determine a score	Failed to provide information or inadequate information provided to determine a score	Failed to provide information or inadequate information provided to determine a score
(score 20)	Key staff do not have relevant levels of relevant experience.	Key staff does not have project specific education, skills, training and experience as indicated above.	Key staff has no experience of issues pertinent to the project.
	<ul style="list-style-type: none"> Project Manager: ≥1 < 3 years Construction Manager: ≥1 < 3 years Protection Specialist: ≥1 < 3 years Mechanical Engineer: ≥1 < 3 years Installation Electrician: ≥1 < 3 years 		
(score 40)	Key staff have limited levels of general experience	Key staff have limited levels of project specific education, skills, training and experience	Key staff have limited experience of issues pertinent to the project
	<ul style="list-style-type: none"> Project Manager: ≥ 3 < 5 years Construction Manager: ≥ 3 < 5 years Protection Specialist: ≥ 3 < 5 years Mechanical Engineer: ≥ 3 < 5 years Installation Electrician: ≥ 5 < 10 years 		
(score 60)	Key staff have reasonable levels of general experience	Key staff have reasonable levels of project specific education, skills, training and experience	Key staff have reasonable experience of issues pertinent to the project
	<ul style="list-style-type: none"> Project Manager: ≥ 5 < 8 years Contracts Manager: ≥ 5 < 8 years Protection Specialist: ≥ 5 < 8 years Mechanical Engineer: ≥ 5 < 8 years Installation Electrician: ≥ 10 < 12 years 		
(score 80)	Key staff have extensive levels of general	Key staff have extensive	Key staff have extensive

	experience	levels of project specific education, skills, training and experience	experience of issues pertinent to the project
	<ul style="list-style-type: none"> ▪ Project Manager: ≥ 8 < 12 years ▪ Contracts Manager: ≥ 8 < 12 years ▪ Protection Specialist: ≥ 8 < 12 years ▪ Mechanical Engineer: ≥ 8 < 12 years ▪ Installation Electrician: ≥ 12 < 15 years 		
	Key staff have outstanding levels of general experience	Key staff have outstanding levels of project specific education, skills, training and experience	Key staff have outstanding experience of issues pertinent to the project
(score 100)	<ul style="list-style-type: none"> ▪ Project Manager: ≥ 12 years ▪ Construction Manager: ≥ 12 years ▪ Protection Specialist: ≥ 12 years ▪ Mechanical Engineer: ≥ 12 years ▪ Installation Electrician: ≥ 15 years 		

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

T2.2-04: Evaluation Schedule - Previous Experience

Note to Tenderers:

Tenderers are required to demonstrate their past experience in the delivery of similar projects "of a minimum value of R8m per project" areas, conditions and circumstances in relation to the scope of work in the last 10 years, and to this end shall supply a sufficiently detailed reference list with contact details for tracing and verification of customers, indicate previous experience, and provide completion certificates. Tenderers are required to provide sufficient information about the reference work previously undertaken because only references that are similar to the scope of work of this contract will be considered for evaluation.

Please provide your previous experience showing but not limited to the following:

- Electrical MV infrastructure Installation Works: MV Power system studies, Design, installations, commissioning of MV reticulation and distribution systems, MV cable laying, splicing, transformer refurbishments, power quality installations, termination and installation inside substation buildings.
- Earthing and lightning protection, power system modelling and simulation: Design, supply and installation of Lightning protection and Earthing of buildings and structures. Proof of design reports, accreditation of specialist person and company shall be submitted for evaluation. Previously conducted power system modelling and simulation studies related to the SoW.
- Automatic fire smoke detection and suppression system, HVAC: Type of fire protection designs, installation, testing, commissioning, gas plant and equipment. Provide evidence for previously undertaking the design, supply, and installation of the HVAC or climate control system.

Fill in as many line items as needed for the similar previous projects undertaken, starting from the most recent projects completed:

Client	Client contact details	Project Description	Year of project completion	Contract Value	Subcontractors

Index of documentation attached to this schedule:

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The scoring of the Previous Experience will be as follows and in particular, the tenderers shall demonstrate their experience in the following areas:

	Electrical MV infrastructure works	Earthing and lightning protection 20%, and power systems modelling and simulation 80%	Automatic fire smoke detection and suppression system 50%, HVAC 50%
Points	10	7	8
(score 0)	The tenderer has submitted no information or inadequate information to determine a score.		
(score 20)	The tenderer has successfully completed 1 similar project.		
(score 40)	The tenderer has successfully completed 2 similar projects.		
(score 60)	The tenderer has successfully completed 3 similar projects.		
(score 80)	The tenderer has successfully completed 4 similar projects.		
(score 100)	The tenderer has sufficient experience in relation to the project and has worked previously under similar conditions and circumstances and has successfully completed more than 4 similar projects.		

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

T2.2-05: Evaluation Schedule – Method Statement

Method statement which responds to the scope of work and outlines proposed approach / methodology including that relating but not limited to programme, method statement, technical approach, and an understanding of the project objective.

The method statement should articulate what the Tenderer will provide in achieving the stated objectives for the project which should include a high-level project schedule which is aligned to the programme. Tenderers to also exhibit a clear understanding of the scope of works and has shown a concise method statement for all activities incorporating best practice.

The Tenderer must as such explain his / her understanding of the objectives of the works and the Employer's stated and implied requirements, highlight the issues of importance, and explain the technical approach and methodology they would adopt to address them. The method statement should explain the methodologies which are to be adopted and demonstrate its compatibility. The approach should also include and outline processes, procedures, and associated resources, to meet the requirements and indicate how risks will be managed. Consideration should be made to design objectives with respect to the legislations and compliance standards.

The method statement should also include a cash flow based on the tenderer's programme. The tenderer must attach his / her method statement to this page. The method statement should not be longer than 10 pages.

Tenderer shall attach the form of offer or general arrangements for plant and/or technology to demonstrate compliance to scope and an understanding of the employer's requirements.

The method statement should cover:

- Outline of proposed approach
- Narrative related to the programme, level four programme to be attached will be evaluated as part of this criterion.
- Detailed method statement, technical approach, and construction sequencing in terms of the Works Information (design philosophy)
- Demonstrate an understanding of the project objectives.
- Detailed list of equipment, plant and people and number thereof to execute the works, and areas it will be utilised.
- Detailed list of other resources utilised including a resource matrix.

The Tenderer must attach his / her method statement to this page.

The method statement shall include as a minimum but not limited to the following (the contractor must refer to the Works Information for a full description of the scope of the works):

- a. Power system Survey
- b. MV and LV installations in Substations by Certified Personnel. Attach MV switchgear details.
- c. Provide details of the form of offer for switchgear in relation to the employer's specifications. General arrangements and data sheets.
- d. MV and LV cable laying, tracing, jointing and termination. Attach cable termination details.
- e. Power systems load flow studies and protection grading.
- f. Installations of earthing, bonding, and lightning protection systems.
- g. Installation of MV and LV cable ways, cable trays and cable management systems.
- h. Installation of electrical infrastructure in buildings and structures.
- i. Installation of conduit and conduit systems.
- j. Rigging of heavy electrical equipment.
- k. Changing of transformer oil.
- l. Design, supply, and installation of the HVAC.
- m. Design, supply and installation of the fire detection and suppression system.

Index of documentation attached to this schedule:

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The scoring of the approach paper will be as follows:

Elements: Weight		Clearly articulated and based on the Works Information which includes the design, general arrangements of switchgear, power system study investigations and criteria. Approach to ensuring less disruption to operations.	Demonstrates a clear understanding of the project objectives, programme, and the employer's specifications. Clear construction, and commissioning methodology. Outline the project specific requirements of the SHEQ requirements.
	Points	20	15
	Score		
Electrical MV infrastructure Installation Works (60%) Power system modelling and simulation (20%) Installation of automatic fire/smoke detection and suppression system, and HVAC (20%)	0	The Tenderer has submitted no information or inadequate information to determine a score.	
	20	The approach paper is not acceptable as it will not satisfy project objectives or requirements. The tenderer has misunderstood the scope of work and does not deal with the critical aspects of the project.	
	40	The technical approach and / or methodology is poor, not realistic, and practical and is therefore unlikely to satisfy project objectives or requirements. The tenderer has misunderstood certain aspects of the scope of work and does not deal with the critical aspects of the project.	
	60	The approach is generic and not tailored to address the specific project objectives and requirements. The approach does not adequately deal with the critical characteristics of the project. The approach to managing risk is too generic.	
	80	The approach is specifically tailored to address the specific project objectives and methodology and is sufficiently flexible to accommodate changes that may occur during execution. The approach to managing risk etc. is specifically tailored to the critical characteristics of the project.	
	100	Besides meeting the "80" rating, the important issues are approached in an innovative and efficient way, indicating that the tenderer has outstanding knowledge of state-of-the-art approaches. The approach paper details ways to improve the project outcomes and the quality of the outputs.	

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.



Signed

Date

Name

Position

Tenderer

T2.2-06: Evaluation Schedule - Health and Safety Requirements

Submit the following documents as a minimum with your tender:

1. Safety, Health & Environmental Policy signed by the CEO. List the five elements -
 - Commitment to Safety, prevention of pollution,
 - Continual improvement,
 - Compliance to legal requirements, appropriate to the nature of contractor's activities,
 - Hold management accountable for development of the safety systems,
 - Include objectives and targets.
2. Roles & Responsibilities, as per the Occupational health and safety Act 85 of 1993
3. Safety cost breakdown
4. Overview of the project specific Baseline Risk Assessment (RA), indicating major activities of the project.
5. One year synopsis of SHE incidents, description, type and action taken to prevent re-occurrence.
6. Contractor site specific Health and Safety plan.

Attached submissions to this schedule:

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The scoring of the Tenderer's Health and safety requirements will be as follows:

	Policy 1. Commitment to Safety, prevention of pollution, 2. Continual improvement, 3. Compliance to legal requirements, appropriate to the nature of contractor's activities, 4. Hold management accountable for development of the safety systems, 5. Include objectives and targets.	Roles & Responsibilities , such as S16.1 Chief Executive Officer, S16 2 Assistant to Chief Executive Officer, 8.1 Construction manager/ Foreman, 8.2 Assistant Construction manager/ Installation Electrician 8.5 Safety officer, 8.7 Risk Assessor, 17.1 SHE Reps, etc. as per the Occupational health and safety Act 85 of 1993	Safety cost breakdown.	Overview of the Project Specific Baseline Risk Assessment indicating major activities of the SoW.	One year synopsis of SHE incidents, description, type and action taken to prevent re-occurrence.	Contractor site specific Health and Safety plan.
Points	1	2	3	5	2	2

(score 0)	The Tenderer has submitted no information or inadequate information to determine a score.					
(score 20)	1 of the 5 key policy components are recognized and meet the <i>Employer's</i> requirement.	Roles and responsibilities do not meet the Occupational health and safety Act as per construction regulations and Project health and safety specification.	Key responsible persons are not included on training matrix as per proposed organogram structure.	Information supplied is totally insignificant/inadequate to achieve the required standard of service.	Information supplied is totally insignificant/inadequate to achieve the Employers Works information.	Information supplied is totally insignificant/inadequate to achieve the Employers Works information.
(score 40)	2 of the 5 key policy components are recognized and meet the <i>Employer's</i> requirement.	Roles and responsibilities are unlikely to ensure compliance as per the Works information and not in line with OHS Act and Project health and safety specification.	Not all key responsible persons are included in the training matrix. Trainings matrix submitted does not cover all SHE training listed on Health and Safety specification. Training matrix not signed by responsible personnel.	Poor response/answer/solution lacks convincing evidence, medium risk that stated <i>employer's</i> requirements will not be met.	Poor response/answer/solution lacks convincing evidence, medium risk that stated <i>Employer's</i> requirements will not be met.	Poor response/answer/solution lacks convincing evidence, medium risk that stated <i>Employer's</i> requirements will not be met.
(score 60)	3 of the 5 key policy components are recognized and meet the <i>Employer's</i>	Satisfactory response on roles and responsibilities as per Employer's requirements.	Satisfactory response on the list of job categories and trainings as per proposed project organogram structure. Training matrix covers	Satisfactory response/answer/solution to the particular aspect of the requirement, evidence given that the stated <i>Employer's</i> requirements will be	Satisfactory response/answer/solution to the particular aspect of the requirement,	Satisfactory response/answer/solution to the particular aspect of the requirement,

	requirements.		most of the trainings listed on TCP Health and safety specification.	met.	evidence given that the stated <i>Employer's</i> requirements will be met.	evidence given that the stated <i>Employer's</i> requirements will be met.
(score 80)	4 of the five key policy components are recognized and meets the <i>Employer's</i> requirements.	Roles and responsibilities are likely to ensure compliance as per Works Information, OHS Act and Project health and safety specification.	Most of key persons listed on the training matrix as per proposed project organogram structure. Trainings specified on the matrix are in line with TCP health and safety specification.	Good response/answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.	Good response/answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.	Good response/answer/solution which demonstrates real understanding and evidence of ability to meet stated <i>Employer's</i> requirements.
(score 100)	All 5 key policy components are recognized and meets the <i>Employer's</i> requirements	Roles and Responsibilities most likely to ensure compliance as per requirements of OHS Act and Project health and safety specification.	Training matrix include Management and all employees /personnel in the project. Training matrix had been signed by responsible personnel.	Very good response/answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements.	Very good response/answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements.	Very good response/answer/solution gives real confidence that the tenderer is most likely to ensure compliance with stated <i>Employer's</i> requirements.

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed	_____	Date	_____
Name	_____	Position	_____
Tenderer	_____		

ANNEXURE B

SBD 6.2

DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

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

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2. Regulation 8.(2) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. In terms of Regulation 16(2) of the Preferential Procurement Regulations, 2017, any sector designated and minimum threshold determined for local production and content for purposes of regulation 9 of the 2011 Regulations and in force immediately before the repeal of the 2011 Regulations, are regarded as having been done under regulation 8(1) of the 2017 Regulations.
- 1.4. Where necessary, for bids referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.5. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.6. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

x is the imported content in Rand

y is the bid price in Rand excluding value added tax (VAT)

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

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

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

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Air Insulated MV Switchgear	50%

4. Does any portion of the services, works or goods offered have any imported content?
(***Tick applicable box***)

YES		NO	
-----	--	----	--

- 4.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on www.reservebank.co.za

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

5. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

LOCAL CONTENT DECLARATION
(REFER TO ANNEX B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO. ICLM PE 746/TPT – Provision to refurbishment of Substation 1A and 1B at Ngqura Container Terminal SOC LTD (reg No:1990/000900/30) Operating as Transnet Port Terminal (Hereinafter Referred as "TPT") for Ngqura Container Terminals once off

ISSUED BY: Transnet Port Terminal

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thdti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names), do hereby declare, in my capacity as of (name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____

DATE: _____

WITNESS No. 1 _____

DATE: _____

WITNESS No. 2 _____

DATE: _____

SATS 1286.2011

Annex C

Local Content Declaration - Summary Schedule

(C1)	Tender No.	ICLM PE 746/TPT		
(C2)	Tender description:	PROVISION TO REFURBISHMENT OF SUBSTATION 1A AND 1B AT NGQURA CONTAINER TERMINAL FOR TRANSNET SOC LTD (REG NO:1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED AS “TPT”) FOR NGQURA CONTAINER TERMINAL AS A ONCE		
(C3)	Designated product(s)			
(C4)	Tender Authority:	Transnet Port Terminals		
(C5)	Tendering Entity name:			
(C6)	Tender Exchange Rate:	Pula <input type="text"/>	EU <input type="text"/>	GBP <input type="text"/>
(C7)	Specified local content %			

Note: VAT to be excluded from all calculations

[illegible][illegible]

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

Signature of tenderer from Annex B

Date:

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1) Tender No.

ICLM PE 746/TPT

(D2) Tender description:

PROVISION TO REFURBISHMENT OF SUBSTATION 1A AND 1B AT NGQURA CONTAINER TERMINAL FOR TRANSNET SOC LTD (REG NO:1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED AS "TPT")

(D3) Designated Products:

(D4) Tender Authority:

Transnet Port Terminals

(D5) Tendering Entity name:

(D6) Tender Exchange Rate:

Pula

EU

GBP

Note: VAT to be excluded from all calculations

A. Exempted imported content

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
(D19) Total exempt imported value										R 0	

This total must correspond with Annex C - C 21

B. Imported directly by the Tenderer

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)

(D32) Total imported value by tenderer R 0

C. Imported by a 3rd party and supplied to the Tenderer

Calculation of imported content										Summary	
Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
(D45) Total imported value by 3rd party										R 0	

D. Other foreign currency payments

Calculation of foreign currency payments					Summary of payments
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange	
(D46)	(D47)	(D48)	(D49)	(D50)	Local value of payments
					(D51)
(D52) Total of foreign currency payments declared by tenderer and/or 3rd party					

Signature of tenderer from Annex B

Date:

(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above R 0**This total must correspond with
Annex C - C 23**

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	ICLM PE 746/TPT	Note: VAT to be excluded from all calculations
(E2)	Tender description:	PROVISION TO REFURBISHMENT OF SUBSTATION 1A AND 1B AT NGQURA CONTAINER TERMINAL FOR TRANSNET SOC LTD (REG NO:1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED AS "TPT")	
(E3)	Designated products:		
(E4)	Tender Authority:		
(E5)	Tendering Entity name:		

Local Products (Goods, Services and Works)	Description Raw Material items purchased	Local Supplier Name	Manufacturer Contact Details	Value
	(E6)	(E7)		(E8)
(E9) TotalRaw Materials (Goods, Services and Works)				R 0

(E10)	Manpower costs	(Tenderer's manpower cost)	R 0
(E11)	Factory overheads	(Rental, depreciation & amortisation, utility costs, consumables etc.)	R 0
(E12)	Administration overheads and mark-up	(Marketing, insurance, financing, interest etc.)	R 0
(E13) Total local content			R 0

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date: _____

T2.2-09: Authority to submit a Tender

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer must complete the certificate set out below for his category of organisation or alternatively attach a certified copy of a company / organisation document which provides the same information for the relevant category as requested here.

A - COMPANY	B - PARTNERSHIP	C - JOINT VENTURE	D - SOLE PROPRIETOR

A. Certificate for Company

I, _____ chairperson of the board of directors _____
 _____, hereby confirm that by resolution of the
 board taken on _____ (date), Mr/Ms _____,
 acting in the capacity of _____, was authorised to sign all
 documents in connection with this tender offer and any contract resulting from it on behalf of
 the company.

Signed

Date

Name

Position

Chairman of the Board of Directors

B. Certificate for Partnership

We, the undersigned, being the **key partners** in the business trading as _____

_____ hereby authorise Mr/Ms _____

acting in the capacity of _____, to sign all documents in connection with the tender offer for Contract _____ and any contract resulting from it on our behalf.

Name	Address	Signature	Date

NOTE: This certificate is to be completed and signed by the full number of Partners necessary to commit the Partnership. Attach additional pages if more space is required.

C. Certificate for Joint Venture

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise

Mr/Ms _____, an authorised signatory of the company

_____, acting in the capacity of lead

partner, to sign all documents in connection with the tender offer for Contract _____

_____ and any contract resulting from it on our behalf.

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all the partners to the Joint Venture.

Furthermore we attach to this Schedule a copy of the joint venture agreement which incorporates a statement that all partners are liable jointly and severally for the execution of the contract and that the lead partner is authorised to incur liabilities, receive instructions and payments and be responsible for the entire execution of the contract for and on behalf of any and all the partners.

Name of firm	Address	Authorising signature, name (in caps) and capacity



D. Certificate for Sole Proprietor

I, _____, hereby confirm that I am the sole owner of the
business trading as _____.

Signed

Date

Name

Position

Sole Proprietor

T2.2-10: Record of Addenda to Tender Documents

This schedule as submitted confirms that the following communications received from the Purchaser before the submission of this tender offer, amending the tender documents, have been taken into account in this specific tender offer:

	Date	Title or Details
1		
2		
3		
4		
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11		
12		
13		
14		
15		

T2.2-11 Letter/s of Good Standing with the Workmen's Compensation Fund

Attached to this schedule is the Letter/s of Good Standing.

- 1.
- 2.
- 3.

Name of Company/Members of Joint Venture:

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T2.2-14: TENDER DECLARATION FORM

NAME OF COMPANY: _____

We _____ do hereby certify that:

1. Transnet has supplied and we have received appropriate tender offers to any/all questions (as applicable) which were submitted by ourselves for tender clarification purposes;
2. we have received all information we deemed necessary for the completion of this Tender;
3. at no stage have we received additional information relating to the subject matter of this tender from Transnet sources, other than information formally received from the designated Transnet contact(s) as nominated in the tender documents;
4. we are satisfied, insofar as our company is concerned, that the processes and procedures adopted by Transnet in issuing this TENDER and the requirements requested from tenderers in responding to this TENDER have been conducted in a fair and transparent manner; and
5. furthermore, we acknowledge that a direct relationship exists between a family member and/or an owner / member / director / partner / shareholder (unlisted companies) of our company and an employee or board member of the Transnet Group as indicated below: *[Respondent to indicate if this section is not applicable]*

FULL NAME OF OWNER/MEMBER/DIRECTOR/

PARTNER/SHAREHOLDER:

ADDRESS:

Indicate nature of relationship with Transnet:

[Failure to furnish complete and accurate information in this regard may lead to the disqualification of your response and may preclude a Respondent from doing future business with Transnet]

We declare, to the extent that we are aware or become aware of any relationship between ourselves and Transnet (other than any existing and appropriate business relationship with Transnet) which could unfairly advantage our company in the forthcoming adjudication process, we shall notify Transnet immediately in writing of such circumstances.



6. We accept that any dispute pertaining to this tender will be resolved through Transnet Supply Chain Management (SCM) Complaints and Allegations Office process and will be subject to the Terms of Reference of SCM Complaints and Allegations Office. Transnet Supply Chain SCM Complaints and Allegations Office process must first be exhausted before judicial review of a decision is sought. (Refer "Important Notice to respondents" below).
7. We further accept that Transnet reserves the right to reverse a tender award or decision based on the recommendations of SCM Complaints and Allegations Office without having to follow a formal court process to have such award or decision set aside.

For and on behalf of duly authorised thereto
Name:
Signature:
Date:

IMPORTANT NOTICE TO RESPONDENTS

- Transnet established the SCM Complaints and Allegations Office to investigate any material complaint in respect of any tenders regardless of the value. Should a Respondent have any material concern regarding a tender process, a complaint may be lodged with Transnet SCM Complaints and Allegations Office for further investigation.
- It is incumbent on the Respondent to familiarise himself/herself with the Terms of Reference for the Transnet SCM Complaints and Allegations Office, details of which are available for review at Transnet's website www.transnet.net.
- An official complaint form which will be shared upon receipt of a complaint should be completed and submitted, together with any supporting documentation, to groupscmcomplaints@transnet.net
- All Respondents should note that a complaint must be made in good faith. If a complaint is made in bad faith, Transnet reserves the right to place such a bidder on its List of Excluded Bidders.

T2.2-16: Schedule of Proposed Subcontractors

The tenderer is required to provide details of all the sub-contractors that will be utilised in the execution of the *works*.

Note to tenderers:

- A tenderer may not be awarded points for B-BBEE status level of contributor if the tender documents indicate that the tenderer intends subcontracting more than 25% of the value of the contract to any other person not qualifying for at least the points that the tenderer qualifies for, unless the intended subcontractor is an EME that has the capability to execute the subcontract.
- A person awarded a contract may not subcontract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level of contributor that the person concerned, unless the contract is subcontracted to an EME that has the capability and ability to execute the contract.

Tenderer to note that after award, any deviations from this list of proposed sub-contractors will be subject to acceptance by the *Project Manager* in terms of the Conditions of Contract.

Provide information of the Sub-contractors below:

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work
% Black Owned	EME	QSE	Youth	Women	Disabilities	Rural/ Underdeveloped areas/ Townships		Military Veterans
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work
% Black Owned	EME	QSE	Youth	Women	Disabilities	Rural/ Underdeveloped areas/ Townships		Military Veterans
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work

% Black Owned	EME	QSE	Youth	Women	Disabilities	Rural/ Underdeveloped areas/ Townships	Military Veterans
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work	
% Black Owned	EME	QSE	Youth	Women	Disabilities	Rural/ Underdeveloped areas/ Townships		Military Veterans	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	

T2.2-17: ANNEX G Compulsory Enterprise Questionnaire

The following particulars hereunder must be furnished.

In the case of a Joint Venture, separate enterprise questionnaires in respect of each partner/member must be completed and submitted.

Section 1: Name of enterprise: _____

Section 2: VAT registration number, if any: _____

Section 3: CIDB registration number, if any: _____

Section 4: CSD number: _____

Section 5: Particulars of sole proprietors and partners in partnerships

Name	Identity number	Personal income tax number

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 6: Particulars of companies and close corporations

Company registration number _____

Close corporation number _____

Tax reference number: _____

Section 7: The attached SBD4 must be completed for each tender and be attached as a tender requirement.

Section 8: The attached SBD 6 must be completed for each tender and be attached as a requirement.

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed	_____	Date	_____
Name	_____	Position	_____
Enterprise name	_____		

SBD 6.1

PREFERENCE POINTS CLAIM FORM

This preference form must form part of all bids invited. It contains general information and serves as a claim for preference points for Specific Goals contribution. Transnet will award preference points to companies who provide valid proof of evidence as per the table of evidence in paragraph 4.1 below.

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

Either the 80/20 or 90/10 preference point system will apply.

1.2 Preference points for this bid shall be awarded for:

- (a) Price;
- (b) B-BBEE Status Level of Contribution; and
- (c) Any other specific goal determined in the Transnet preferential procurement policy

1.3 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	80
B-BBEE Level 1&2 (4 points) Local content and production (4 Points) Subcontracting 30% of the value of the contract to EME's and QSE's 51%) (12 points)	20
Total points for Price and B-BBEE must not exceed	100

OR

	POINTS
PRICE	90
B-BBEE Level 1&2 (2 points)	
Local content and production (2 Points)	10
Subcontracting 30% of the value of the contract to EME's and QSE's 51%) (6 points)	
Total points for Price and B-BBEE must not exceed	100

1.4 Failure on the part of a bidder to submit proof of evidence required for any of the specific goals together with the bid will be interpreted to mean that preference points for that specific goal are not claimed.

1.5 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) **"all applicable taxes"** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- (b) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (c) **"B-BBEE status level of contributor"** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (d) **"bid"** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the supply/provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- (e) **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (f) **"EME"** means an Exempted Micro Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (g) **"functionality"** means the ability of a bidder to provide goods or services in accordance with specification as set out in the bid documents
- (h) **"Price"** includes all applicable taxes less all unconditional discounts.
- (i) **"Proof of B-BBEE Status Level of Contributor"**
 - i) the B-BBBEE status level certificate issued by an authorised body or person;

- ii) a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice; or
 - iii) any other requirement prescribed in terms of the B-BBEE Act.
- (j) **“QSE”** means a Qualifying Small Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (k) **“rand value”** means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties.
- (l) **“Specific goals”** means targeted advancement areas or categories of persons or groups either previously disadvantaged or falling within the scope of the Reconstruction and Development Programme identified by Transnet to be given preference in allocation of procurement contracts in line with section 2(1) of the PPPFA.

3. POINTS AWARDED FOR PRICE

3.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

80/20

or

90/10

$$P_s = 80 \left(1 - \frac{Pt - P_{\min}}{P_{\min}} \right) \quad \text{or} \quad P_s = 90 \left(1 - \frac{Pt - P_{\min}}{P_{\min}} \right)$$

Where

Ps = Points scored for comparative price of bid under consideration

Pt = Comparative price of bid under consideration

P_{min} = Comparative price of lowest acceptable bid

4. EVIDENCE REQUIRED FOR CLAIMING SPECIFIC GOALS

4.1 In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, preference points must be awarded to a bidder for providing evidence in accordance with the table below:

Specific Goals	Acceptable Evidence
B-BBEE Status contributor	B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline
The promotion of supplier development through sub-contracting or JV for a minimum of 30% of the value of a contract to South African Companies which are:	Sub-contracting agreements and Declaration / Joint Venture Agreement and CIPC – B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate as per DTIC guideline

Description of Works: Provision to Refurbishment of Substation 1A & 1B at Ngqura

Container Terminal for TRANSNET SOC LTD (Reg No.1990/000900/30) operating as Transnet

Port Terminals (Hereinafter referred as "TPT") for Ngqura Container Terminal as once off.

I. 51% Black Youth women and 51% Black people with disabilities	
II. EMEs and/or QSEs who are 51% black-owned	
Local Content and Local	Production Annexures Returnable Local Content and production

4.2 The table below indicates the required proof of B-BBEE status depending on the category of enterprises:

Enterprise	B-BBEE Certificate & Sworn Affidavit
Large	Certificate issued by SANAS accredited verification agency
QSE	Certificate issued by SANAS accredited verification agency Sworn Affidavit signed by the authorised QSE representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership (only black-owned QSEs - 51% to 100% Black owned) [Sworn affidavits must substantially comply with the format that can be obtained on the DTI's website at www.dti.gov.za/economic_empowerment/bee_codes.jsp .]
EME¹	Sworn Affidavit signed by the authorised EME representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership Certificate issued by CIPC (formerly CIPRO) confirming annual turnover and black ownership Certificate issued by SANAS accredited verification agency only if the EME is being measured on the QSE scorecard

4.3 A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Status Level verification certificate for every separate bid.

4.4 Tertiary Institutions and Public Entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.

4.5 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that

¹ In terms of the Implementation Guide: Preferential Procurement Regulations, 2017, Version 2, paragraph 11.11 provides that in the Transport Sector, EMEs can provide a letter from accounting officer or get verified and be issued with a B-BBEE certificate by SANAS accredited professional or agency as the Transport Sector Code has not been aligned to the generic Codes. EMEs in the Transport Sector are not allowed to provide a sworn affidavit as the generic codes are not applicable to them.

such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.

- 4.6 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.
- 4.7 Bidders are to note that the rules pertaining to B-BBEE verification and other B-BBEE requirements may be changed from time to time by regulatory bodies such as National Treasury or the DTI. It is the Bidder's responsibility to ensure that his/her bid complies fully with all B-BBEE requirements at the time of the submission of the bid.

5. BID DECLARATION

- 5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 6.1

- 6.1 B-BBEE Status Level of Contribution: = maximum of 10 or 20 points
(Points claimed in respect of paragraph 6.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. SUB-CONTRACTING

- 7.1 Will any portion of the contract be sub-contracted?

(***Tick applicable box***)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

- 7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE.

(***Tick applicable box***)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

Description of Works: Provision to Refurbishment of Substation 1A & 1B at Ngqura

Container Terminal for TRANSNET SOC LTD (Reg No.1990/000900/30) operating as Transnet

Port Terminals (Hereinafter referred as "TPT") for Ngqura Container Terminal as once off.

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One person business/sole propriety
- ☐ Close corporation
- ☐ Company
- ☐ (Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....
.....
.....

8.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
- ☐ Supplier
- ☐ Professional Supplier/Service provider
- ☐ Other Suppliers/Service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraph 1.4 and 6.1, the contractor may be required to furnish documentary

proof to the satisfaction of the purchaser that the claims are correct;

iv) If a bidder submitted false information regarding its B-BBEE status level of contributor,, which will affect or has affected the evaluation of a bid, or where a bidder has failed to declare any subcontracting arrangements or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have

- (a) disqualify the person from the bidding process;
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) if the successful bidder subcontracted a portion of the bid to another person without disclosing it, Transnet reserves the right to penalise the bidder up to 10 percent of the value of the contract;
- (e) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
- (f) forward the matter for criminal prosecution.

WITNESSES

1.

2.

.....

SIGNATURE(S) OF BIDDERS(S)

DATE:

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

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

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

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest² in the enterprise, employed by the state? **YES/NO**

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

Full Name	Identity Number	Name of institution	State

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

² the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.2.1 If so, furnish particulars:

.....
.....

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

YES/NO

2.3.1 If so, furnish particulars:

.....
.....

3 DECLARATION

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

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to

³ 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.

combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

T2.2-18 NON-DISCLOSURE AGREEMENT

[FEBRUARY 2020]

Note to tenderers: This Non-Disclosure Agreement is to be completed and signed by an authorised signatory:

THIS AGREEMENT is made effective as of day of 20..... by and between:

TRANSNET SOC LTD

(Registration No. 1990/000900/30), a company incorporated and existing under the laws of South Africa, having its principal place of business at Transnet Corporate Centre 138 Eloff Street , Braamfontein , Johannesburg 2000

and

.....
(Registration No.), a private company incorporated and existing under the laws of South Africa having its principal place of business at
.....
.....

WHEREAS

Transnet and the Company wish to exchange Information [as defined below] and it is envisaged that each party may from time to time receive Information relating to the other in respect thereof. In consideration of each party making available to the other such Information, the parties jointly agree that any dealings between them shall be subject to the terms and conditions of this Agreement which themselves will be subject to the parameters of the Tender Document.

IT IS HEREBY AGREED

1. INTERPRETATION

In this Agreement:

- 1.1 **Agents** mean directors, officers, employees, agents, professional advisers, contractors or sub-contractors, or any Group member;
- 1.2 **Bid or Bid Document** (hereinafter Tender) means Transnet's Request for Information [**RFI**] Request for Proposal [**RFP**] as the case may be;
- 1.3 **Confidential Information** means any information or other data relating to one party [the **Disclosing Party**] and/or the business carried on or proposed or intended to be carried on by that party and which is made available for the purposes of the Bid to the other party [the **Receiving Party**] or its Agents by the Disclosing Party or its Agents or recorded in agreed minutes following oral disclosure and any other information otherwise made available by the Disclosing Party or its Agents to the Receiving Party or its Agents, whether before, on or after the date of this Agreement, and whether in writing or otherwise, including any information, analysis or specifications derived from, containing or reflecting such information but excluding information which:

- 1.3.1 is publicly available at the time of its disclosure or becomes publicly available [other than as a result of disclosure by the Receiving Party or any of its Agents contrary to the terms of this Agreement]; or
- 1.3.2 was lawfully in the possession of the Receiving Party or its Agents [as can be demonstrated by its written records or other reasonable evidence] free of any restriction as to its use or disclosure prior to its being so disclosed; or
- 1.3.3 following such disclosure, becomes available to the Receiving Party or its Agents [as can be demonstrated by its written records or other reasonable evidence] from a source other than the Disclosing Party or its Agents, which source is not bound by any duty of confidentiality owed, directly or indirectly, to the Disclosing Party in relation to such information;
- 1.4 **Group** means any subsidiary, any holding company and any subsidiary of any holding company of either party; and
- 1.5 **Information** means all information in whatever form including, without limitation, any information relating to systems, operations, plans, intentions, market opportunities, know-how, trade secrets and business affairs whether in writing, conveyed orally or by machine-readable medium.

2. CONFIDENTIAL INFORMATION

- 2.1 All Confidential Information given by one party to this Agreement [the **Disclosing Party**] to the other party [the **Receiving Party**] will be treated by the Receiving Party as secret and confidential and will not, without the Disclosing Party's written consent, directly or indirectly communicate or disclose [whether in writing or orally or in any other manner] Confidential Information to any other person other than in accordance with the terms of this Agreement.
- 2.2 The Receiving Party will only use the Confidential Information for the sole purpose of technical and commercial discussions between the parties in relation to the Tender or for the subsequent performance of any contract between the parties in relation to the Tender.
- 2.3 Notwithstanding clause 2.1 above, the Receiving Party may disclose Confidential Information:
- 2.3.1 to those of its Agents who strictly need to know the Confidential Information for the sole purpose set out in clause 2.2 above, provided that the Receiving Party shall ensure that such Agents are made aware prior to the disclosure of any part of the Confidential Information that the same is confidential and that they owe a duty of confidence to the Disclosing Party. The Receiving Party shall at all times remain liable for any actions of such Agents that would constitute a breach of this Agreement; or
- 2.3.2 to the extent required by law or the rules of any applicable regulatory authority, subject to clause 2.4 below.
- 2.4 In the event that the Receiving Party is required to disclose any Confidential Information in accordance with clause 2.3.2 above, it shall promptly notify the Disclosing Party and cooperate with the Disclosing Party regarding the form, nature, content and purpose of such disclosure or any action which the Disclosing Party may reasonably take to challenge the validity of such requirement.

- 2.5 In the event that any Confidential Information shall be copied, disclosed or used otherwise than as permitted under this Agreement then, upon becoming aware of the same, without prejudice to any rights or remedies of the Disclosing Party, the Receiving Party shall as soon as practicable notify the Disclosing Party of such event and if requested take such steps [including the institution of legal proceedings] as shall be necessary to remedy [if capable of remedy] the default and/or to prevent further unauthorised copying, disclosure or use.
- 2.6 All Confidential Information shall remain the property of the Disclosing Party and its disclosure shall not confer on the Receiving Party any rights, including intellectual property rights over the Confidential Information whatsoever, beyond those contained in this Agreement.

3. RECORDS AND RETURN OF INFORMATION

- 3.1 The Receiving Party agrees to ensure proper and secure storage of all Information and any copies thereof.
- 3.2 The Receiving Party shall keep a written record, to be supplied to the Disclosing Party upon request, of the Confidential Information provided and any copies made thereof and, so far as is reasonably practicable, of the location of such Confidential Information and any copies thereof.
- 3.3 The Company shall, within 7 [seven] days of receipt of a written demand from Transnet:
- 3.3.1 return all written Confidential Information [including all copies]; and
- 3.3.2 expunge or destroy any Confidential Information from any computer, word processor or other device whatsoever into which it was copied, read or programmed by the Company or on its behalf.
- 3.4 The Company shall on request supply a certificate signed by a director as to its full compliance with the requirements of clause 3.3.2 above.

4. ANNOUNCEMENTS

- 4.1 Neither party will make or permit to be made any announcement or disclosure of its prospective interest in the Tender without the prior written consent of the other party.
- 4.2 Neither party shall make use of the other party's name or any information acquired through its dealings with the other party for publicity or marketing purposes without the prior written consent of the other party.

5. DURATION

The obligations of each party and its Agents under this Agreement shall survive the termination of any discussions or negotiations between the parties regarding the Tender and continue thereafter for a period of 5 [five] years.

6. PRINCIPAL

Each party confirms that it is acting as principal and not as nominee, agent or broker for any other person and that it will be responsible for any costs incurred by it or its advisers in considering or pursuing the Tender and in complying with the terms of this Agreement.

7. ADEQUACY OF DAMAGES

Nothing contained in this Agreement shall be construed as prohibiting the Disclosing Party from pursuing any other remedies available to it, either at law or in equity, for any such threatened or actual breach of this Agreement, including specific performance, recovery of damages or otherwise.

8. PRIVACY AND DATA PROTECTION

- 8.1 The Receiving Party undertakes to comply with South Africa's general privacy protection in terms Section 14 of the Bill of Rights in connection with this Tender and shall procure that its personnel shall observe the provisions of such Act [as applicable] or any amendments and re-enactments thereof and any regulations made pursuant thereto.
- 8.2 The Receiving Party warrants that it and its Agents have the appropriate technical and organisational measures in place against unauthorised or unlawful processing of data relating to the Tender and against accidental loss or destruction of, or damage to such data held or processed by them.

9. GENERAL

- 9.1 Neither party may assign the benefit of this Agreement, or any interest hereunder, except with the prior written consent of the other, save that Transnet may assign this Agreement at any time to any member of the Transnet Group.
- 9.2 No failure or delay in exercising any right, power or privilege under this Agreement will operate as a waiver of it, nor will any single or partial exercise of it preclude any further exercise or the exercise of any right, power or privilege under this Agreement or otherwise.
- 9.3 The provisions of this Agreement shall be severable in the event that any of its provisions are held by a court of competent jurisdiction or other applicable authority to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law.
- 9.4 This Agreement may only be modified by a written agreement duly signed by persons authorised on behalf of each party.
- 9.5 Nothing in this Agreement shall constitute the creation of a partnership, joint venture or agency between the parties.
- 9.6 This Agreement will be governed by and construed in accordance with South African law and the parties irrevocably submit to the exclusive jurisdiction of the South African courts.

Signed

Date

Name

Position

Tenderer

T2.2-19: RFP DECLARATION FORM

NAME OF COMPANY: _____

We _____ do hereby certify that:

1. Transnet has supplied and we have received appropriate tender offers to any/all questions (as applicable) which were submitted by ourselves for tender clarification purposes;
2. we have received all information we deemed necessary for the completion of this Tender;
3. at no stage have we received additional information relating to the subject matter of this tender from Transnet sources, other than information formally received from the designated Transnet contact(s) as nominated in the tender documents;
4. we are satisfied, insofar as our company is concerned, that the processes and procedures adopted by Transnet in issuing this tender and the requirements requested from tenderers in responding to this tender have been conducted in a fair and transparent manner; and
5. furthermore, we acknowledge that a direct relationship exists between a family member and/or an owner / member / director / partner / shareholder (unlisted companies) of our company and an employee or board member of the Transnet Group as indicated below:

[Respondent to indicate if this section is not applicable]

FULL NAME OF OWNER/MEMBER/DIRECTOR/

PARTNER/SHAREHOLDER:

ADDRESS:

Indicate nature of relationship with Transnet:

[Failure to furnish complete and accurate information in this regard may lead to the disqualification of your response and may preclude a Respondent from doing future business with Transnet]

We declare, to the extent that we are aware or become aware of any relationship between ourselves and Transnet (other than any existing and appropriate business relationship with Transnet) which could unfairly advantage our company in the forthcoming adjudication process, we shall notify Transnet immediately in writing of such circumstances.

6. We accept that any dispute pertaining to this tender will be resolved through the Ombudsman process and will be subject to the Terms of Reference of the Ombudsman. The Ombudsman process must first be exhausted before judicial review of a decision is sought. (Refer "Important Notice to respondents" below).
7. We further accept that Transnet reserves the right to reverse a tender award or decision based on the recommendations of the Ombudsman without having to follow a formal court process to have such award or decision set aside.
8. We have acquainted ourselves and agree with the content of T2.2-22 "Service Provider Integrity Pact".

For and on behalf of duly authorised thereto
Name:
Signature:
Date:

IMPORTANT NOTICE TO TENDERERS

- Transnet has appointed a Procurement Ombudsman to investigate any material complaint in respect of tenders exceeding R5,000,000.00 (five million S.A. Rand) in value. Should a Tenderer have any material concern regarding an tender process which meets this value threshold, a complaint may be lodged with Transnet's Procurement Ombudsman for further investigation.
- It is incumbent on the Tenderer to familiarise himself/herself with the Terms of Reference for the Transnet Procurement Ombudsman, details of which are available for review at Transnet's website www.transnet.net.

- An official complaint form may be downloaded from this website and submitted, together with any supporting documentation, within the prescribed period, to procurement.ombud@transnet.net
- For transactions below the R5,000,000.00 (five million S.A. Rand) threshold, a complaint may be lodged with the Chief Procurement Officer of the relevant Transnet Operating Division.
- All Tenderers should note that a complaint must be made in good faith. If a complaint is made in bad faith, Transnet reserves the right to place such a tenderer on its List of Excluded Bidders.

T2.2-20: REQUEST FOR PROPOSAL – BREACH OF LAW

NAME OF COMPANY: _____

I / We _____ do hereby certify that ***I/we have/have not been*** found guilty during the preceding 5 (five) years of a serious breach of law, including but not limited to a breach of the Competition Act, 89 of 1998, by a court of law, tribunal or other administrative body. The type of breach that the Tenderer is required to disclose excludes relatively minor offences or misdemeanours, e.g. traffic offences.

Where found guilty of such a serious breach, please disclose:

NATURE OF BREACH:

DATE OF BREACH:

Furthermore, I/we acknowledge that Transnet SOC Ltd reserves the right to exclude any Tenderer from the tendering process, should that person or company have been found guilty of a serious breach of law, tribunal or regulatory obligation.

Signed on this _____ day of _____ 20____

SIGNATURE OF TENDER

T2.2-21 Certificate of Acquaintance with Tender Documents

NAME OF TENDERING ENTITY:

1. By signing this certificate I/we acknowledge that I/we have made myself/ourselves thoroughly familiar with, and agree with all the conditions governing this RFP. This includes those terms and conditions of the Contract, the Supplier Integrity Pact, Non-Disclosure Agreement etc. contained in any printed form stated to form part of the documents thereof, but not limited to those listed in this clause.
2. I/we furthermore agree that Transnet SOC Ltd shall recognise no claim from me/us for relief based on an allegation that I/we overlooked any tender/contract condition or failed to take it into account for the purpose of calculating my/our offered prices or otherwise.
3. I/we understand that the accompanying Tender will be disqualified if this Certificate is found not to be true and complete in every respect.
4. For the purposes of this Certificate and the accompanying Tender, I/we 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 Services as the Tenderer and/or is in the same line of business as the Tenderer
5. The Tenderer has arrived at the accompanying Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive Tendering.
6. In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - a) prices;
 - b) geographical area where Services 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 winning the tender.
7. 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 Services to which this tender relates.
8. The terms of the accompanying 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.
9. I/We am/are 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 No 89 of 1998 and/or may be reported to the National Prosecuting Authority [NPA] for criminal investigation. In addition, Tenderers that submit suspicious tenders 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 No 12 of 2004 or any other applicable legislation.

Signed on this _____ day of _____ 20____

SIGNATURE OF TENDERER

T2.2-22 Service Provider Integrity Pact

Important Note: All potential tenderers must read this document and certify in the RFP Declaration Form that that have acquainted themselves with, and agree with the content.

The contract with the successful tenderer will automatically incorporate this Integrity Pact and shall be deemed as part of the final concluded contract.

INTEGRITY PACT

Between

TRANSNET SOC LTD

Registration Number: 1990/000900/30

("Transnet")

and

The Contractor (hereinafter referred to as the "Tenderer/Service Providers/Contractor")

PREAMBLE

Transnet values full compliance with all relevant laws and regulations, ethical standards and the principles of economical use of resources, fairness and transparency in its relations with its Tenderers/Service Providers/Contractors.

In order to achieve these goals, Transnet and the Tenderer/Service Provider/Contractor hereby enter into this agreement hereinafter referred to as the "Integrity Pact" which will form part of the Tenderer's/Service Provider's/Contractor's application for registration with Transnet as a vendor.

The general purpose of this Integrity Pact is to agree on avoiding all forms of dishonesty, fraud and corruption by following a system that is fair, transparent and free from any undue influence prior to, during and subsequent to the currency of any procurement and/or reverse logistics event and any further contract to be entered into between the Parties, relating to such event.

All Tenderers/Service Providers/Contractor's will be required to sign and comply with undertakings contained in this Integrity Pact, should they want to be registered as a Transnet vendor.

1 OBJECTIVES

- 1.1 Transnet and the Tenderer/Service Provider/Contractor agree to enter into this Integrity Pact, to avoid all forms of dishonesty, fraud and corruption including practices that are anti-competitive in nature, negotiations made in bad faith and under-pricing by following a system that is fair, transparent and free from any influence/unprejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:
 - a) Enable Transnet to obtain the desired contract at a reasonable and competitive price in conformity to the defined specifications of the works, goods and services; and
 - b) Enable Tenderers/Service Providers/Contractors to abstain from bribing or participating in any corrupt practice in order to secure the contract.

2 COMMITMENTS OF TRANSNET

Transnet commits to take all measures necessary to prevent dishonesty, fraud and corruption and to observe the following principles:

- 2.1 Transnet hereby undertakes that no employee of Transnet connected directly or indirectly with the sourcing event and ensuing contract, will demand, take a promise for or accept directly or through intermediaries any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage

from the Tenderer, either for themselves or for any person, organisation or third party related to the contract in exchange for an advantage in the tendering process, Tender evaluation, contracting or implementation process related to any contract.

- 2.2 Transnet will, during the registration and tendering process treat all Tenderers/ Service Providers/Contractor with equity, transparency and fairness. Transnet will in particular, before and during the registration process, provide to all Tenderers/ Service Providers/Contractors the same information and will not provide to any Tenderers/Service Providers/Contractors confidential/additional information through which the Tenderers/Service Providers/Contractors could obtain an advantage in relation to any tendering process.
- 2.3 Transnet further confirms that its employees will not favour any prospective Tenderers/Service Providers/Contractors in any form that could afford an undue advantage to a particular Tenderer during the tendering stage, and will further treat all Tenderers/Service Providers/Contractors participating in the tendering process in a fair manner.
- 2.4 Transnet will exclude from the tender process such employees who have any personal interest in the Tenderers/Service Providers/Contractors participating in the tendering process.

3 OBLIGATIONS OF THE TENDERER / SERVICE PROVIDER

- 3.1 Transnet has a '**Zero Gifts**' Policy. No employee is allowed to accept gifts, favours or benefits.
 - a) Transnet officials and employees **shall not** solicit, give or accept, or from agreeing to solicit, give, accept or receive directly or indirectly, any gift, gratuity, favour, entertainment, loan, or anything of monetary value, from any person or juridical entities in the course of official duties or in connection with any operation being managed by, or any transaction which may be affected by the functions of their office.
 - b) Transnet officials and employees **shall not** solicit or accept gifts of any kind, from vendors, suppliers, customers, potential employees, potential vendors, and suppliers, or any other individual or organisation irrespective of the value.
 - c) Under **no circumstances** should gifts, business courtesies or hospitality packages be accepted from or given to prospective suppliers participating in a tender process at the respective employee's Operating Division, regardless of retail value.

- d) Gratuities, bribes or kickbacks of any kind must never be solicited, accepted or offered, either directly or indirectly. This includes money, loans, equity, special privileges, personal favours, benefit or services. Such favours will be considered to constitute corruption.
- 3.2 The Tenderer/Service Provider/Contractor commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its Tender or during any ensuing contract stage in order to secure the contract or in furtherance to secure it and in particular the Tenderer/Service Provider/Contractor commits to the following:
- a) The Tenderer/Service Provider/Contractor will not, directly or through any other person or firm, offer, promise or give to Transnet or to any of Transnet's employees involved in the tendering process or to any third person any material or other benefit or payment, in order to obtain in exchange an advantage during the tendering process; and
 - b) The Tenderer/Service Provider/Contractor will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any employee of Transnet, connected directly or indirectly with the tendering process, or to any person, organisation or third party related to the contract in exchange for any advantage in the tendering, evaluation, contracting and implementation of the contract.
- 3.3 The Tenderer/Service Provider/Contractor will not collude with other parties interested in the contract to preclude a competitive Tender price, impair the transparency, fairness and progress of the tendering process, Tender evaluation, contracting and implementation of the contract. The Tenderer / Service Provider further commits itself to delivering against all agreed upon conditions as stipulated within the contract.
- 3.4 The Tenderer/Service Provider/Contractor will not enter into any illegal or dishonest agreement or understanding, whether formal or informal with other Tenderers/Service Providers/Contractors. This applies in particular to certifications, submissions or non-submission of documents or actions that are restrictive or to introduce cartels into the tendering process.
- 3.5 The Tenderer/Service Provider/Contractor will not commit any criminal offence under the relevant anti-corruption laws of South Africa or any other country. Furthermore, the Tenderer/Service Provider/Contractor will not use for illegitimate purposes or for restrictive purposes or personal gain, or pass on to others, any information provided by Transnet as part of the business relationship,

regarding plans, technical proposals and business details, including information contained or transmitted electronically.

- 3.6 A Tenderer/Service Provider/Contractor of foreign origin shall disclose the name and address of its agents or representatives in South Africa, if any, involved directly or indirectly in the registration or tendering process. Similarly, the Tenderer / Service Provider / Contractor of South African nationality shall furnish the name and address of the foreign principals, if any, involved directly or indirectly in the registration or tendering process.
- 3.7 The Tenderer/Service Provider/Contractor will not misrepresent facts or furnish false or forged documents or information in order to influence the tendering process to the advantage of the Tenderer/Service Provider/Contractor or detriment of Transnet or other competitors.
- 3.8 Transnet may require the Tenderer/Service Provider/Contractor to furnish Transnet with a copy of its code of conduct. Such code of conduct must address the compliance programme for the implementation of the code of conduct and reject the use of bribes and other dishonest and unethical conduct.
- 3.9 The Tenderer/Service Provider/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 3.10 The Tenderer/Service Provider/Contractor confirms that they will uphold the ten principles of the United Nations Global Compact (UNGC) in the fields of Human Rights, Labour, Anti-Corruption and the Environment when undertaking business with Transnet as follows:

a) Human Rights

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
- Principle 2: make sure that they are not complicit in human rights abuses.

b) Labour

- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- Principle 4: the elimination of all forms of forced and compulsory labour;
- Principle 5: the effective abolition of child labour; and

- Principle 6: the elimination of discrimination in respect of employment and occupation.

c) Environment

- Principle 7: Businesses should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

d) Anti-Corruption

- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

4 INDEPENDENT TENDERING

4.1 For the purposes of that Certificate in relation to any submitted Tender, the Tenderer declares to fully 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.

4.2 The Tenderer has arrived at his submitted Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive tendering.

4.3 In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

- a) prices;
- b) geographical area where Goods or Services 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 RFP; or
 - f) tendering with the intention of not winning the Tender.
- 4.4 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 Goods or Services to which his/her tender relates.
- 4.5 The terms of the Tender as submitted 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.
- 4.6 Tenderers are 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 No 89 of 1998 and/or may be reported to the National Prosecuting Authority [**NPA**] for criminal investigation and/or may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.
- 4.7 Should the Tenderer find any terms or conditions stipulated in any of the relevant documents quoted in the Tender unacceptable, it should indicate which conditions are unacceptable and offer alternatives by written submission on its company letterhead, attached to its submitted Tender. Any such submission shall be subject to review by Transnet's Legal Counsel who shall determine whether the proposed alternative(s) are acceptable or otherwise, as the case may be.

5 DISQUALIFICATION FROM TENDERING PROCESS

- 5.1 If the Tenderer/Service Provider/Contractor has committed a transgression through a violation of section 3 of this Integrity Pact or in any other form such as to put its reliability or credibility as a Tenderer/Service Provider/Contractor into question, Transnet may reject the Tenderer's / Service Provider's / Contractor's application from the registration or tendering process and remove the Tenderer/Service Provider/Contractor from its database, if already registered.

- 5.2 If the Tenderer/Service Provider/Contractor has committed a transgression through a violation of section 3, or any material violation, such as to put its reliability or credibility into question. Transnet may after following due procedures and at its own discretion also exclude the Tenderer/Service Provider /Contractor from future tendering processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, which will include amongst others the number of transgressions, the position of the transgressors within the company hierarchy of the Tenderer/Service Provider/Contractor and the amount of the damage. The exclusion will be imposed for up to a maximum of 10 (ten) years. However, Transnet reserves the right to impose a longer period of exclusion, depending on the gravity of the misconduct.
- 5.3 If the Tenderer/Service Provider/Contractor can prove that it has restored the damage caused by it and has installed a suitable corruption prevention system, or taken other remedial measures as the circumstances of the case may require, Transnet may at its own discretion revoke the exclusion or suspend the imposed penalty.

6 TRANSNET'S LIST OF EXCLUDED TENDERERS (BLACKLIST)

- 6.1 The process of restriction is used to exclude a company/person from conducting future business with Transnet and other organs of state for a specified period. No Tender shall be awarded to a Tenderer whose name (or any of its members, directors, partners or trustees) appear on the Register of Tender Defaulters kept by National Treasury, or who have been placed on National Treasury's List of Restricted Suppliers. Transnet reserves the right to withdraw an award, or cancel a contract concluded with a Tenderer should it be established, at any time, that a tenderer has been restricted with National Treasury by another government institution.
- 6.2 All the stipulations on Transnet's restriction process as laid down in Transnet's Supply Chain Policy and Procurement Procedures Manual (CPM included) are included herein by way of reference. Below follows a condensed summary of this restriction procedure.
- 6.3 On completion of the restriction procedure, Transnet will submit the restricted entity's details (including the identity number of the individuals and registration number of the entity) to National Treasury for placement on National Treasury's Database of Restricted Suppliers for the specified period of exclusion. National Treasury will make the final decision on whether to restrict an entity from doing business with any organ of state for a period not exceeding 10 years and place

the entity concerned on the Database of Restricted Suppliers published on its official website.

- 6.4 The decision to restrict is based on one of the grounds for restriction. The standard of proof to commence the restriction process is whether a "*prima facie*" (i.e. on the face of it) case has been established.
- 6.5 Depending on the seriousness of the misconduct and the strategic importance of the Goods/Services, in addition to restricting a company/person from future business, Transnet may decide to terminate some or all existing contracts with the company/person as well.
- 6.6 A Service Provider or Contractor to Transnet may not subcontract any portion of the contract to a blacklisted company.
- 6.7 Grounds for blacklisting include: If any person/Enterprise which has submitted a Tender, concluded a contract, or, in the capacity of agent or subcontractor, has been associated with such Tender or contract:
 - a) Has, in bad faith, withdrawn such Tender after the advertised closing date and time for the receipt of Tenders;
 - b) has, after being notified of the acceptance of his Tender, failed or refused to sign a contract when called upon to do so in terms of any condition forming part of the Tender documents;
 - c) has carried out any contract resulting from such Tender in an unsatisfactory manner or has breached any condition of the contract;
 - d) has offered, promised or given a bribe in relation to the obtaining or execution of the contract;
 - e) has acted in a fraudulent or improper manner or in bad faith towards Transnet or any Government Department or towards any public body, Enterprise or person;
 - f) has made any incorrect statement in a certificate or other communication with regard to the Local Content of his Goods or his B-BBEE status and is unable to prove to the satisfaction of Transnet that:
 - (i) he made the statement in good faith honestly believing it to be correct;
 - and

(ii) before making such statement he took all reasonable steps to satisfy himself of its correctness;

g) caused Transnet damage, or to incur costs in order to meet the contractor's requirements and which could not be recovered from the contractor;

h) has litigated against Transnet in bad faith.

6.8 Grounds for blacklisting include a company/person recorded as being a company or person prohibited from doing business with the public sector on National Treasury's database of Restricted Service Providers or Register of Tender Defaulters.

6.9 Companies associated with the person/s guilty of misconduct (i.e. entities owned, controlled or managed by such persons), any companies subsequently formed by the person(s) guilty of the misconduct and/or an existing company where such person(s) acquires a controlling stake may be considered for blacklisting. The decision to extend the blacklist to associated companies will be at the sole discretion of Transnet.

7 PREVIOUS TRANSGRESSIONS

7.1 The Tenderer/Service Provider/Contractor hereby declares that no previous transgressions resulting in a serious breach of any law, including but not limited to, corruption, fraud, theft, extortion and contraventions of the Competition Act 89 of 1998, which occurred in the last 5 (five) years with any other public sector undertaking, government department or private sector company that could justify its exclusion from its registration on the Tenderer's/Service Provider's/Contractor's database or any tendering process.

7.2 If it is found to be that the Tenderer/Service Provider/Contractor made an incorrect statement on this subject, the Tenderer/Service Provider/Contractor can be rejected from the registration process or removed from the Tenderer/Service Provider/Contractor database, if already registered, for such reason (refer to the Breach of Law Returnable Form contained in the document.)

8 SANCTIONS FOR VIOLATIONS

8.1 Transnet shall also take all or any one of the following actions, wherever required to:

a) Immediately exclude the Tenderer/Service Provider/Contractor from the tendering process or call off the pre-contract negotiations without giving any compensation

- the Tenderer/Service Provider/Contractor. However, the proceedings with the other Tenderer/ Service Provider/Contractor may continue;
- b) Immediately cancel the contract, if already awarded or signed, without giving any compensation to the Tenderer/Service Provider/Contractor;
 - c) Recover all sums already paid by Transnet;
 - d) Encash the advance bank guarantee and performance bond or warranty bond, if furnished by the Tenderer/Service Provider/Contractor, in order to recover the payments, already made by Transnet, along with interest;
 - e) Cancel all or any other contracts with the Tenderer/Service Provider/Contractor; and
 - f) Exclude the Tenderer/ Service Provider/Contractor from entering into any Tender with Transnet in future.

9 CONFLICTS OF INTEREST

- 9.1 A conflict of interest includes, inter alia, a situation in which:
- a) A Transnet employee has a personal financial interest in a tendering / supplying entity; and
 - b) A Transnet employee has private interests or personal considerations or has an affiliation or a relationship which affects, or may affect, or may be perceived to affect his / her judgment in action in the best interest of Transnet, or could affect the employee's motivations for acting in a particular manner, or which could result in, or be perceived as favouritism or nepotism.
- 9.2 A Transnet employee uses his / her position, or privileges or information obtained while acting in the capacity as an employee for:
- a) Private gain or advancement; or
 - b) The expectation of private gain, or advancement, or any other advantage accruing to the employee must be declared in a prescribed form.
- Thus, conflicts of interest of any Tender committee member or any person involved in the sourcing process must be declared in a prescribed form.
- 9.3 If a Tenderer/Service Provider/Contractor has or becomes aware of a conflict of interest i.e. a family, business and / or social relationship between its owner(s)/ member(s)/director(s)/partner(s)/shareholder(s) and a Transnet employee/ member of Transnet's Board of Directors in respect of a Tender which will be considered for the Tender process, the Tenderer/Service Provider/ Contractor:
- a) must disclose the interest and its general nature, in the Request for Proposal ("RFX") declaration form; or
 - b) must notify Transnet immediately in writing once the circumstances has arisen.
- 9.4 The Tenderer/Service Provider/Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly,

with any committee member or any person involved in the sourcing process, where this is done, Transnet shall be entitled forthwith to rescind the contract and all other contracts with the Tenderer/Service Provider/Contractor.

10 DISPUTE RESOLUTION

10.1 Transnet recognises that trust and good faith are pivotal to its relationship with its Tenderer / Service Provider / Contractor. When a dispute arises between Transnet and its Tenderer / Service Provider / Contractor, the parties should use their best endeavours to resolve the dispute in an amicable manner, whenever possible. Litigation in bad faith negates the principles of trust and good faith on which commercial relationships are based. Accordingly, following a blacklisting process as mentioned in paragraph 6 above, Transnet will not do business with a company that litigates against it in bad faith or is involved in any action that reflects bad faith on its part. Litigation in bad faith includes, but is not limited to the following instances:

- a) **Vexatious proceedings:** these are frivolous proceedings which have been instituted without proper grounds;
- b) **Perjury:** where a Tenderer / Service Provider / Contractor make a false statement either in giving evidence or on an affidavit;
- c) **Scurrilous allegations:** where a Tenderer / Service Provider / Contractor makes allegations regarding a senior Transnet employee which are without proper foundation, scandalous, abusive or defamatory; and
- d) **Abuse of court process:** when a Tenderer / Service Provider / Contractor abuses the court process in order to gain a competitive advantage during a Tender process.

11 GENERAL

- 11.1 This Integrity Pact is governed by and interpreted in accordance with the laws of the Republic of South Africa.
- 11.2 The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the law relating to any civil or criminal proceedings.
- 11.3 The validity of this Integrity Pact shall cover all the tendering processes and will be valid for an indefinite period unless cancelled by either Party.
- 11.4 Should one or several provisions of this Integrity Pact turn out to be invalid the remainder of this Integrity Pact remains valid.

11.5 Should a Tenderer/Service Provider/Contractor be confronted with dishonest, fraudulent or corruptive behaviour of one or more Transnet employees, Transnet expects its Tenderer/Service Provider/Contractor to report this behaviour directly to a senior Transnet official/employee or alternatively by using Transnet's "Tip-Off Anonymous" hotline number 0800 003 056, whereby your confidentiality is guaranteed.

The Parties hereby declare that each of them has read and understood the clauses of this Integrity Pact and shall abide by it. To the best of the Parties' knowledge and belief, the information provided in this Integrity Pact is true and correct.

I duly authorised by the tendering entity, hereby certify that the tendering entity are **fully acquainted** with the contents of the Integrity Pact and further **agree to abide by it** in full.

Signature

Date

T2.2-23 : Supplier Code of Conduct

Transnet SOC Limited aims to achieve the best value for money when buying or selling goods and obtaining services. This however must be done in an open and fair manner that supports and drives a competitive economy. Underpinning our process are several acts and policies that any supplier dealing with Transnet must understand and support. These are:

- The Transnet Procurement Policy – A guide for Tenderers.
- Section 217 of the Constitution - the five pillars of Public PSCM (Procurement and Supply Chain Management): fair, equitable, transparent, competitive and cost effective;
- The Public Finance Management Act (PFMA);
- The Broad Based Black Economic Empowerment Act (BBBEE)
- The Prevention and Combating of Corrupt Activities Act (PRECCA); and
- The Construction Industry Development Board Act (CIDB Act).

This code of conduct has been included in this contract to formally appraise Transnet Suppliers of Transnet's expectations regarding behaviour and conduct of its Suppliers.

Prohibition of Bribes, Kickbacks, Unlawful Payments, and Other Corrupt Practices

Transnet is in the process of transforming itself into a self-sustaining State Owned Enterprise, actively competing in the logistics industry. Our aim is to become a world class, profitable, logistics organisation. As such, our transformation is focused on adopting a performance culture and to adopt behaviours that will enable this transformation.

1. Transnet SOC Limited will not participate in corrupt practices. Therefore, it expects its suppliers to act in a similar manner.

- Transnet and its employees will follow the laws of this country and keep accurate business records that reflect actual transactions with, and payments to, our suppliers.
- Employees must not accept or request money or anything of value, directly or indirectly, from suppliers.
- Employees may not receive anything that is calculated to:

-
- Illegally influence their judgement or conduct or to ensure the desired outcome of a sourcing activity;
 - Win or retain business or to influence any act or decision of any person involved in sourcing decisions; or
 - Gain an improper advantage.
- There may be times when a supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our Suppliers to use our "Tip-offs Anonymous" Hot line to report these acts. (0800 003 056).

2. *Transnet SOC Limited is firmly committed to the ideas of free and competitive enterprise.*

- Suppliers are expected to comply with all applicable laws and regulations regarding fair competition and antitrust practices.
- Transnet does not engage with non-value adding agents or representatives solely for the purpose of increasing BBBEE spend (fronting).

3. *Transnet's relationship with suppliers requires us to clearly define requirements, to exchange information and share mutual benefits.*

- Generally, suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our suppliers, we will not tolerate any illegal activities. These include, but are not limited to:
 - Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc);
 - Collusion;
 - Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, BBBEE status, etc.);
 - Corrupt activities listed above; and
 - Harassment, intimidation or other aggressive actions towards Transnet employees.



- Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the supplier is expected to participate in an honest and straight forward manner.
- Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

Conflicts of Interest

A conflict of interest arises when personal interests or activities influence (or appear to influence) the ability to act in the best interests of Transnet SOC Limited.

- Doing business with family members.
- Having a financial interest in another company in our industry

Where possible, contracts will be negotiated to include the above in the terms of such contracts. To the extent such terms are not included in contractual obligations and any of the above code is breached, then Transnet reserves its right to review doing business with these suppliers.

I, _____ of _____
(insert name of Director or as per Authority Resolution from Board of Directors) *(insert name of Company)*

hereby acknowledge having read, understood and agree to the terms and conditions set out in the "Transnet Supplier Code of Conduct."

Signed this on day _____ at _____

Signature

T2.2-23a: Domestic prominent influential persons (DPIP) or foreign prominent public officials (FPPO)

Transnet is free to procure the services of any person within or outside the Republic of South Africa in accordance with applicable legislation. Transnet shall not conduct or conclude business transactions, with any Respondents without having:

- Considered relevant governance protocols;
- Determined the DPIP or FPPO status of that counterparty; and
- Conducted a risk assessment and due diligence to assess the potential risks that may be posed by the business relationship.

As per the Transnet Domestic Prominent Influential Persons (DPIP) and Foreign Prominent Public Officials (FPPO) and Related Individuals Policy available on Transnet website

<https://www.transnet.net/search/pages/results.aspx?k=FPIDP#k=DPIP>.

Respondents are required to disclose any commercial relationship with a DPIP or FPPO (as defined in the Policy) by completing the following section:

The below form contains personal information as defined in the Protection of Personal Information Act, 2013 (the "Act"). By completing the form, the signatory consents to the processing of her/his personal information in accordance with the requirements of the Act. Consent cannot unreasonably be withheld.

Is the Respondent

(Complete with a "Yes" or "No")

A		Closely Related to a DPIIP/FPPO		Closely Associated to a DPIIP/FPPO	
DPIIP/FPPO					
List all known business interests, in which a DPIIP/FPPO may have a direct/indirect interest or significant participation or involvement.					
	Name of Entity / Business	Role in the Entity / Business (Nature of interest/ Participation)	Shareholding %	Registration Number	Status (Mark the applicable option with an X)

Respondents declaring a commercial relationship with a DPIIP or FPPO are to note that Transnet is required to annually publish on its website a list of all business contracts entered into with DPIIP or FPPO. This list will include successful Respondents, if applicable.

T2.2-23b Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")

1. PREAMBLE AND INTRODUCTION

- 1.1. The rights and obligation of the Parties in terms of the Protection of Personal Information Act, 4 of 2013 ("POPIA") are included as forming part of the terms and conditions of this contract.

2. PROTECTION OF PERSONAL INFORMATION

- 2.1. The following terms shall bear the same meaning as contemplated in Section 1 of the Protection of Person information act, No. of 2013 "(POPIA)":

consent; data subject; electronic communication; information officer; operator; person; personal information; processing; record; Regulator; responsible party; special information; as well as any terms derived from these terms.

- 2.2. The Operator will process all information by the Transnet in terms of the requirements contemplated in Section 4(1) of the POPIA:

Accountability; Processing limitation; Purpose specification; Further processing limitation; Information quality; Openness; Security safeguards and Data subject participation.

- 2.3. The Parties acknowledge and agree that, in relation to personal information of Transnet and the information of a third party that will be processed pursuant to this Agreement, the Operator is (.....) insert name of Tenderer/Contractor) hereinafter Operator and the Data subject is "Transnet". Operator will process personal information only with the knowledge and authorisation of Transnet and will treat personal information and the information of a third party which comes to its knowledge as confidential and will not disclose it, unless so required by law or subject to the exceptions contained in the POPIA.

- 2.4. Transnet reserves all the rights afforded to it by the POPIA in the processing of any of its information as contained in this Agreement and the Operator is required to comply with all prescripts as detailed in the POPIA relating to all information concerning Transnet.

- 2.5. In terms of this Agreement, the Operator acknowledges that it will obtain and have access to personal information of Transnet and the information of a third party and agrees that it shall only process the information disclosed by Transnet in terms of this Agreement and only for the purposes as detailed in this Agreement and in accordance with any applicable law.

- 2.6. Should there be a need for the Operator to process the personal information and the information of a third party in a way that is not agreed to in this Agreement, the Operator must request consent from Transnet to the processing of its personal information or and the information of a third party in a manner other than that it was collected for, which consent cannot be unreasonably withheld.

- 2.7. Furthermore, the Operator will not otherwise modify, amend or alter any personal information and the information of a third party submitted by Transnet or disclose or permit the disclosure of any personal information and the information of a third party to any third party without prior written consent from Transnet.
- 2.8. The Operator shall, at all times, ensure compliance with any applicable laws put in place and maintain sufficient measures, policies and systems to manage and secure against all forms of risks to any information that may be shared or accessed pursuant to the services offered to Transnet in terms of this Agreement (physically, through a computer or any other form of electronic communication).
- 2.9. The Operator shall notify Transnet in writing of any unauthorised access to personal information and the information of a third party, cybercrimes or suspected cybercrimes, in its knowledge and report such crimes or suspected crimes to the relevant authorities in accordance with applicable laws, after becoming aware of such crimes or suspected crime. The Operator must inform Transnet of the breach as soon as it has occurred to allow Transnet to take all necessary remedial steps to mitigate the extent of the loss or compromise of personal information and the information of a third party and to restore the integrity of the affected personal information as quickly as is possible.
- 2.10. Transnet may, in writing, request the Operator to confirm and/or make available any personal information and the information of a third party in its possession in relation to Transnet and if such personal information has been accessed by third parties and the identity thereof in terms of the POPIA.
- 2.11. Transnet may further request that the Operator correct, delete, destroy, withdraw consent or object to the processing of any personal information and the information of a third party relating to the Transnet or a third party in the Operator's possession in terms of the provision of the POPIA and utilizing Form 2 of the POPIA Regulations.
- 2.12. In signing this addendum that is in terms of the POPIA, the Operator hereby agrees that it has adequate measures in place to provide protection of the personal information and the information of a third party given to it by Transnet in line with the 8 conditions of the POPIA and that it will provide to Transnet satisfactory evidence of these measures whenever called upon to do so by Transnet.

The Operator is required to provide confirmation that all measures in terms of the POPIA are in place when processing personal information and the information of a third party received from Transnet:

YES	
-----	--

NO	
----	--



2.13. Further, the Operator acknowledges that it will be held liable by Transnet should it fail to process personal information in line with the requirements of the POPIA. The Operator will be subject to any civil or criminal action, administrative fines or other penalty or loss that may arise as a result of the processing of any personal information that Transnet submitted to it.

2.14. Should a Tenderer have any complaints or objections to processing of its personal information, by Transnet, the Tenderer can submit a complaint to the Information Regulator on <https://www.justice.gov.za/infoereg/>, click on contact us, click on complaints.IR@justice.gov.za

3. **SOLE AGREEMENT**

3.1. The Agreement, constitute the sole agreement between the parties relating to the subject matter referred to in paragraph 1.1 of this and no amendment/variation/change shall be of any force and effect unless reduced to writing and signed by or on behalf of both parties.

Signed at _____ on this _____ day of _____ 2021

Name: _____

Title: _____

Signature: _____

Company Name: _____

(Operator)

Authorised signatory for and on behalf of (insert name of Tenderer/Contractor) who warrants that he/she is duly authorised to sign this Agreement.

AS WITNESSES:

1. Name: _____ Signature: _____

2. Name: _____ Signature: _____

T2.2-24: Insurance provided by the *Contractor*

Clause 84.1 in NEC3 Engineering & Construction Contract (June 2005)(amended June 2006 and April 2013) requires that the *Contractor* provides the insurance stated in the insurance table except any insurance which the *Employer* is to provide as stated in the Contract Data.

Please provide the following details for insurance which the *Contractor* is still to provide. Notwithstanding this information all costs related to insurance are deemed included in the tenderer's rates and prices.

Insurance against (See clause 84.2 of the ECC)	Name of Insurance Company	Cover	Premium
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract			
Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R5 000 000/R10 000 000.			
Insurance in respect of loss of or damage to own property and equipment.			
(Other)			

T2.2-25: Form of Intent to Provide a Performance Guarantee

It is hereby agreed by the Tenderer that a Performance Guarantee drafted **exactly** as provided in the tender documents will be provided by the Guarantor named below, which is a **bank or insurer registered in South Africa**:

Name of Guarantor
(Bank/Insurer)

Address

The Performance Guarantee shall be provided within **2 (Two)** weeks after the Contract Date defined in the contract unless otherwise agreed to by the parties.

Signed

Name

Capacity

On behalf of (name of
tenderer)

Date

Confirmed by Guarantor's Authorised Representative

Signature(s)

Name (print)

Capacity

On behalf of Guarantor
(Bank/insurer)

Date

T2.2-26: Forecast Rate of Invoicing

Tenderer to submit the forecast rate of invoicing (cash-flow) based on the Tender Price and Tender Programme.

Index of documentation attached to this schedule:

.....
.....
.....
.....
.....
.....
.....
.....

T2.2-27: Three (3) years audited financial statements

Attached to this schedule is the last three (3) years audited financial statements of the single tenderer/members of the Joint Venture.

NAME OF COMPANY/IES and INDEX OF ATTACHMENTS:

.....

.....

.....

.....

.....

.....

.....

C1.1: Form of Offer & Acceptance

Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of: **Provision to Refurbishment of Substation 1A & 1B at Ngqura Container Terminal for TRANSNET SOC LTD (Reg No.1990/000900/30) operating as Transnet Port Terminals (Hereinafter referred as "TPT") for Ngqura Container Terminal as once off.**

Title of the Contract

The tenderer, identified in the Offer signature block, has

<i>either</i>	examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.
<i>or</i>	examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.

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

The offered total of the Prices exclusive of VAT is	R
Value Added Tax @ 15% is	R
The offered total of the Prices inclusive of VAT is	R
(in words)	

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Contractor* in the *conditions of contract* identified in the Contract Data.

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Date

Transnet Port Terminals
Tender Number: ICLM PE 746/TPT
Description of the Works: Provision to Refurbishment of Substation 1A & 1B at Ngqura Container Terminal for TRANSNET SOC LTD (Reg No.1990/000900/30) operating as Transnet Port Terminals (Hereinafter referred as "TPT") for Ngqura Container Terminal as once off.



Name &
signature of
witness

Tenderer's CIDB registration number:

Acceptance

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 *Contractor* the amount due in accordance with the *conditions of contract* identified in the Contract Data. 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:

Part C1	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: Works Information
Part C4	Site Information

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 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 of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. 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 tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any).

Transnet Port Terminals
Tender Number: ICLM PE 746/TPT
Description of the Works: Provision to Refurbishment of Substation 1A & 1B at Ngqura Container Terminal for TRANSNET SOC LTD (Reg No.1990/000900/30) operating as Transnet Port Terminals (Hereinafter referred as "TPT") for Ngqura Container Terminal as once off.



Unless the tenderer (now *Contractor*) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)

Name(s)

Capacity

**for the
Employer**

Transnet SOC Ltd

(Insert name and address of organisation)

Name &
signature of
witness

Date

Schedule of Deviations

Note:

1. To be completed by the Employer prior to award of contract. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

No.	Subject	Details
1		
2		
3		
4		
5		

By the duly authorised representatives signing this Schedule of Deviations below, the Employer and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the Offer agreed by the tenderer and the Employer 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 Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

For the tenderer:

For the Employer

Signature

Name

Capacity

On behalf
of

(Insert name and address of organisation)

Transnet SOC Ltd

Name &
signature
of witness

Date

C1.2 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	B: Priced contract with bill of quantities
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	X5: Sectional Completion X7: Delay damages X13: Performance Bond X16: Retention X18: Limitation of liability Z: Additional conditions of contract
	of the NEC3 Engineering and Construction Contract June 2005 (amended June 2006 and April 2013)	
10.1	The <i>Employer</i> is:	Transnet SOC Ltd (Registration No. 1990/000900/30)
	Address	Registered address: Carlton Centre 150 Commissioner Street Johannesburg 2001
	Having elected its Contractual Address for the purposes of this contract as:	Transnet Port Terminals 202 Anton Lembede Street Durban 4001

TRANSNET PORT TERMINALS
TENDER NUMBER: ICLM PE 746/TPT
DESCRIPTION OF THE WORKS: PROVISION TO REFURBISHMENT OF SUBSTATION 1A AND 1B AT NGQURA
CONTAINER TERMINAL FOR TRANSNET SOC LTD (REG NO:1990/000900/30) OPERATING AS TRANSNET PORT
TERMINALS (HEREINAFTER REFERRED AS "TPT") FOR NGQURA CONTAINER TERMINAL AS A ONCE OFF

10.1	The <i>Project Manager</i> is: (Name)	Maxwell Ntabankulu
	Address	Transnet Port Terminals, Green Steet, North End, Port Elizabeth
	Tel	041-507-1656
	e-mail	Maxwell.ntabankulu@transnet.net
10.1	The <i>Supervisor</i> is: (Name)	Muziwandile Cele
	Address	Transnet Port Terminals Port of Port Elizabeth
	Tel No.	
	e-mail	Muziwandile.cele@transnet.net
11.2(13)	The <i>works</i> are	The PROVISION TO REFURBISHMENT OF SUBSTATION 1A AND 1B AT NGQURA CONTAINER TERMINAL FOR TRANSNET SOC LTD (REG NO:1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED AS "TPT") FOR NGQURA CONTAINER TERMINAL AS A ONCE OFF
11.2(14)	The following matters will be included in the Risk Register	Failure to meet project timelines Commissioning delays Quality Risk Environmental risk Inclement adverse weather challenges Labour unrest Safety Waste Management
11.2(15)	The <i>boundaries of the site</i> are	As stated in Part C4.1. "Description of the Site and it surroundings"
11.2(16)	The Site Information is in	Part C4
11.2(19)	The Works Information is in	Part C3
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa subject to the jurisdiction of the Courts of South Africa.

TRANSNET PORT TERMINALS
TENDER NUMBER: ICLM PE 746/TPT
DESCRIPTION OF THE WORKS: PROVISION TO REFURBISHMENT OF SUBSTATION 1A AND 1B AT NGQURA
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TERMINALS (HEREINAFTER REFERRED AS "TPT") FOR NGQURA CONTAINER TERMINAL AS A ONCE OFF

13.1	The <i>language of this contract</i> is	English	
13.3	The <i>period for reply</i> is	2 weeks	
2	The <i>Contractor's</i> main responsibilities	No additional data is required for this section of the <i>conditions of contract</i>.	
3	Time		
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	12 Months	
30.1	The <i>access dates</i> are	Part of the Site	Date
		• Site Establishment	TBC
		• FATs for new switchgears	TBC
		• Dismantling of existing MV and LV switchgear	TBC
		• Supply, Install and Commissioning of new MV switchgear	TBC
		• Supply, Install and Commissioning of new LV Switchgears	TBC
		• Supply, Install and Commissioning of new Fire Detection and suppression system	TBC
		• Supply, Install and Commissioning of room climate control	TBC
		• Earthing and bonding system testing	TBC
		• Supply of Data pack	TBC

TRANSNET PORT TERMINALS
TENDER NUMBER: ICLM PE 746/TPT
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TERMINALS (HEREINAFTER REFERRED AS "TPT") FOR NGQURA CONTAINER TERMINAL AS A ONCE OFF

31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	2 weeks of the Contract Date.
31.2	The <i>starting date</i> is	TBA
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	2 weeks.
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.	
4	Testing and Defects	
42.2	The <i>defects date</i> is	52 (fifty two) weeks after Completion of the whole of the <i>works</i>.
43.2	The <i>defect correction period</i> is	2 weeks
5	Payment	
50.1	The <i>assessment interval</i> is monthly on the	25th (twenty fifth) day of each successive month.
51.1	The <i>currency of this contract</i> is the	South African Rand.
51.2	The period within which payments are made is	Payment will be effected on or before the last day of the month following the month during which a valid Tax Invoice and Statement were received.
51.4	The <i>interest rate</i> is	the prime lending rate of Standard Bank of South Africa.
6	Compensation events	
60.1(13)	The <i>weather measurements</i> to be recorded for each calendar month are,	the cumulative rainfall (mm) the number of days with rainfall more than 10 mm the number of days with wind speed exceeding 40 km/hr

TRANSNET PORT TERMINALS
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TERMINALS (HEREINAFTER REFERRED AS "TPT") FOR NGQURA CONTAINER TERMINAL AS A ONCE OFF

The place where weather is to be recorded (on the Site) is:

The *Contractor's* Site establishment area

The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:

East London Weather Station

and which are available from:

South African Weather Service 012 367 6023 or info3@weathersa.co.za.

7	Title	No additional data is required for this section of the <i>conditions of contract</i>.
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	No additional risks are accepted by the Employer other than those which are provided for in this contract
84.1	The <i>Employer</i> provides these insurances from the Insurance Table	
	1 Insurance against:	Loss of or damage to the <i>works</i>, Plant and Materials is as stated in the Insurance policy for Contract Works/ Public Liability.
	Cover / indemnity:	to the extent as stated in the insurance policy for Contract Works / Public Liability
	The deductibles are:	as stated in the insurance policy for Contract Works / Public Liability
	2 Insurance against:	Loss of or damage to property (except the <i>works</i>, Plant and Materials & Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising out of or in connection with the performance of the Contract as stated in the insurance policy for Contract Works / Public Liability

TRANSNET PORT TERMINALS
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	Cover / indemnity	Is to the extent as stated in the insurance policy for Contract Works / Public Liability
	The deductibles are	as stated in the insurance policy for Contract Works / Public Liability
3	Insurance against:	Loss of or damage to Equipment (Temporary Works only) as stated in the insurance policy for contract Works and Public Liability
	Cover / indemnity	Is to the extent as stated in the insurance policy for Contract Works / Public Liability
	The deductibles are:	As stated in the insurance policy for Contract Works / Public Liability
4	Insurance against:	Contract Works SASRIA insurance subject to the terms, exceptions and conditions of the SASRIA coupon
	Cover / indemnity	Cover / indemnity is to the extent provided by the SASRIA coupon
	The deductibles are	The deductibles are, in respect of each and every theft claim, 0,1% of the contract value subject to a minimum of R2,500 and a maximum of R25,000.
	Note:	The deductibles for the insurance as stated above are listed in the document titled "Certificate of Insurance: Transnet (SOC) Limited Principal Controlled Insurance." Refer to Annexure A
84.1	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract for any one event is	The <i>Contractor</i> must comply at a minimum with the provisions of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 as amended.

-
- The *Contractor* provides these additional Insurances
- 1 Where the contract requires that the design of any part of the *works* shall be provided by the *Contractor* the *Contractor* shall satisfy the *Employer* that professional indemnity insurance cover in connection therewith has been affected**
 - 2 Where the contract involves manufacture, and/or fabrication of Plant & Materials, components or other goods to be incorporated into the *works* at premises other than the site, the *Contractor* shall satisfy the *Employer* that such plant & materials, components or other goods for incorporation in the *works* are adequately insured during manufacture and/or fabrication and transportation to the site.**
 - 3 Should the *Employer* have an insurable interest in such items during manufacture, and/or fabrication, such interest shall be noted by endorsement to the *Contractor's* policies of insurance as well as those of any sub-contractor**
 - 4 Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R 5 000 000.**

TRANSNET PORT TERMINALS
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DESCRIPTION OF THE WORKS: PROVISION TO REFURBISHMENT OF SUBSTATION 1A AND 1B AT NGQURA
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TERMINALS (HEREINAFTER REFERRED AS "TPT") FOR NGQURA CONTAINER TERMINAL AS A ONCE OFF

		<p>5 The insurance coverage referred to in 1, 2, 3, and 4 above shall be obtained from an insurer(s) in terms of an insurance policy approved by the <i>Employer</i>. The <i>Contractor</i> shall arrange with the insurer to submit to the <i>Project Manager</i> the original and the duplicate original of the policy or policies of insurance and the receipts for payment of current premiums, together with a certificate from the insurer or insurance broker concerned, confirming that the policy or policies provide the full coverage as required. The original policy will be returned to the <i>Contractor</i>.</p>
84.2	The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the works, Plant, Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) caused by activity in connection with this contract for any one event is	<p>Whatever the <i>Contractor</i> requires in addition to the amount of insurance taken out by the <i>Employer</i> for the same risk.</p>
84.2	The insurance against loss of or damage to the works, Plant and Materials as stated in the insurance policy for contract works and public liability selected from:	<p>Principal Controlled Insurance policy for Contract OR Project Specific Insurance for the contract</p>
9	Termination	<p>There is no additional Contract Data required for this section of the <i>conditions of contract</i>.</p>
10	Data for main Option clause	
B	Priced contract with Bill of Quantities	<p>No additional data is required for this Option.</p>

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11	Data for Option W1			
W1.1	The <i>Adjudicator</i> is	Both parties will agree as and when a dispute arises. If the parties cannot reach an agreement on the <i>Adjudicator</i> , the Chairman of the Association of Arbitrators will appoint an <i>Adjudicator</i> .		
W1.2(3)	The <i>Adjudicator nominating body</i> is: If no <i>Adjudicator nominating body</i> is entered, it is:	The Chairman of the Association of Arbitrators (Southern Africa) the Association of Arbitrators (Southern Africa)		
W1.4(2)	The <i>tribunal</i> is:	Arbitration		
W1.4(5)	The <i>arbitration procedure</i> is	The Rules for the Conduct of Arbitrations of the Association of Arbitrators (Southern Africa)		
	The place where arbitration is to be held is	Durban, South Africa		
	The person or organisation who will choose an arbitrator	The Chairman of the Association of Arbitrators (Southern Africa)		
	- if the Parties cannot agree a choice or			
	- if the arbitration procedure does not state who selects an arbitrator, is			
12	Data for secondary Option clauses			
X5	Sectional Completion			
X5.1	The <i>completion date</i> for each <i>section</i> of the <i>works</i> is:	<i>Section</i>	Description	<i>Completion date</i>
		1	Substation 1	TBC
		2	Substation 2	TBC
X7	Delay damages			
X7.1	Delay damages for Completion of the whole of the <i>works</i> are	5% of the total of the prices		

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X13	Performance bond	
X13.1	The amount of the performance bond is	5% of the total of the Prices
X16	Retention	
X16.1	The retention free amount is	Nil
	The retention percentage is	10% on all payments certified.
X18	Limitation of liability	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	An amount being equal to the loss or total contract value inclusive of VAT
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to:	The deductible of the relevant insurance policy
X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to:	The cost of correcting the Defect
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	The Total of the Prices
X18.5	The <i>end of liability date</i> is	A period being 12 (twelve) consecutive months after the completion by the Contractor of the whole of the works to the Employer in terms of the Contract
Z	<i>Additional conditions of contract are:</i>	

Z2.1

The Performance Guarantee under X13 above shall be an irrevocable, on-demand performance guarantee, to be issued exactly in the form of the Pro Forma documents provided for this purpose under C1.3 (Forms of Securities), in favour of the *Employer* by a financial institution reasonably acceptable to the *Employer*.

Z3 Additional clauses relating to Joint Venture

Z3.1

Insert the additional core clause 27.5

27.5. In the instance that the *Contractor* is a joint venture, the *Contractor* shall provide the *Employer* with a certified copy of its signed joint venture agreement, and in the instance that the joint venture is an 'Incorporated Joint Venture,' the Memorandum of Incorporation, within 4 (four) weeks of the Contract Date.

The Joint Venture agreement shall contain but not be limited to the following:

- **A brief description of the Contract and the Deliverables;**
- **The name, physical address, communications addresses and domicilium citandi et executandi of each of the constituents and of the Joint Venture;**
- **The constituent's interests;**
- **A schedule of the insurance policies, sureties, indemnities and guarantees which must be taken out by the Joint Venture and by the individual constituents;**
- **Details of an internal dispute resolution procedure;**
- **Written confirmation by all of the constituents:**
 - i. **of their joint and several liabilities to the *Employer* to Provide the Works;**
 - ii. **identification of the lead partner in the joint venture confirming the authority of the lead partner to bind the joint venture through the *Contractor's* representative;**

	<ul style="list-style-type: none"> iii. Identification of the roles and responsibilities of the constituents to provide the Works. • Financial requirements for the Joint Venture: iv. the working capital requirements for the Joint Venture and the extent to which and manner whereby this will be provided and/or guaranteed by the constituents from time to time; v. the names of the auditors and others, if any, who will provide auditing and accounting services to the Joint Venture.
--	--

Z3.2

Insert additional core clause 27.6

27.6. The *Contractor* shall not alter its composition or legal status of the Joint Venture without the prior approval of the *Employer*.

Z4	Additional obligations in respect of Termination
Z4.1	<p>The following will be included under core clause 91.1:</p> <p>In the second main bullet, after the word 'partnership' add 'joint venture whether incorporate or otherwise (including any constituent of the joint venture)' and</p> <p>Under the second main bullet, insert the following additional bullets after the last sub-bullet:</p> <ul style="list-style-type: none"> • commenced business rescue proceedings (R22) • repudiated this Contract (R23)

Z4.2	Termination Table	<p>The following will be included under core clause 90.2 Termination Table as follows:</p> <p>Amend "A reason other than R1 – R21" to "A reason other than R1 – R23"</p>
Z4.3		Amend "R1 – R15 or R18" to "R1 – R15, R18, R22 or R23."
Z5	Right Reserved by the Employer to Conduct Vetting through SSA	
Z5.1		<p>The <i>Employer</i> reserves the right to conduct vetting through State Security Agency (SSA) for security clearances of any <i>Contractor</i> who has access to National Key Points for the following without limitations:</p> <ol style="list-style-type: none"> 1. Confidential – this clearance is based on any information which may be used by malicious, opposing or hostile elements to harm the objectives and functions of an organ of state. 2. Secret – clearance is based on any information which may be used by malicious, opposing or hostile elements to disrupt the objectives and functions of an organ of state. 3. Top Secret – this clearance is based on information which may be used by malicious, opposing or hostile elements to neutralise the objectives and functions of an organ of state.

Z6	Additional Clause Relating to Collusion in the Construction Industry	
Z6.1		The contract award is made without prejudice to any rights the <i>Employer</i> may have to take appropriate action later with regard to any declared tender rigging including blacklisting.
Z7	Protection of Personal Information Act	
Z7.1		The <i>Employer</i> and the <i>Contractor</i> are required to process information obtained for the duration of the Agreement in a manner that is aligned to the Protection of Personal Information Act.
Z8	Assignment and Waiver	
Z8.1		Neither the Employer nor the Contractor may, without the written consent of the other, assign the Contract or any part thereof or any obligation under the Contract or cede any right or benefit thereunder.
Z8.2		No grant by the Contractor or the Employer to the other of any concession, waiver, condonation or allowance is, in respect of any specific event or circumstance other than that in respect of which the grant was made to constitute a waiver of the rights of the grantor in terms of the Contract or an estoppel of the grantor's right to enforce the provisions of the Contract.

**Z9 Anti-corruption, TPT
Indemnity**

Z9.1 Anti - Corruption

In the event that the Contractor is alleged to be, or found by any competent court or Tribunal to be involved in any corrupt, unlawful or illegal activities, or is being investigated for any alleged corrupt, unlawful or illegal activity in relation to Transnet or any other party with whom Contractor does business, or if Transnet learns that:

- a. Improper payments are being or have been made or offered to Transnet officials or any other person by Contractor or those acting on behalf of Contractor with respect to the Services; or**
- b. *Contractor* or those acting on behalf of *Contractor* has accepted any payment or benefit, regardless of value, as an improper inducement to award, obtain or retain business or otherwise gain or grant an improper business advantage from or to any other person or entity.**

Transnet reserves the right to terminate the aforementioned awarded contract, by giving immediate written notice to the effect that, all or any Agreements it may have with *Contractor* or any and all Awards made *Contractor* for breach of this clause.

Further in the event of such termination, Contractor shall not be entitled to any further payment, regardless of any activities undertaken or agreements with additional third parties entered into by Contractor prior to such termination; and further.

Contractor shall be liable to Transnet for any actual damages or remedies as provided either in the Agreements that are to be signed or in law.

Z9.2 Indemnity

- 1) Contractor irrevocably and unconditionally undertakes to indemnify and does hereby keep TPT indemnified and hold TPT harmless against, and, in respect of, all and any loss or damage incurred by itself or any other third- Party as a result of, arising out of or connected with any failure, act or omission or breach of this Agreement by Contractor or any of its employees, security officers, servants, agents , assigns, contractors or sub-contractors, or occurring during or as a result of the provision by the Contractor of the Security Service. Such absolute obligation of Contractor to indemnify TPT on a full indemnity basis against all claims shall including, but not be limited to:**

a) liability in respect of any loss or damage to property, whether movable or immovable, belonging to third parties; or other

b) liability in respect of lost property belonging to third parties;

c) liability arising out of any unlawful act committed by or *Contractor* or its employees, security officers, servants, agents, contractors and sub-contractors during the process of rendering a Security Services; or at any other time when a claim



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(Hereinafter referred as "TPT") for Ngqura Container Terminal as once off

has been and could be made against the TPT arising out of the acts of or omissions of one or more of such persons;

d) liability in respect of the death, unlawful arrest, injury, illness or disease of any person, or entity should the damage, loss, unlawful arrest, death, injury, illness or disease referred to above be attributable to or arise out of the Security Services that are being or have been rendered by the Contractor, its agents, contractors, sub-contractors in terms of this Agreement.

2) *Contractor* shall at its own expense and with effect from the date of signature hereof, take reasonable precautions for the protection of life and or property that is in any way connected with in whole or any part of this agreement and shall hold TPT harmless against all claims for any loss, demands, proceedings, damages, costs, charges, expenses whatsoever, arising out of this agreement.

3) *Contractor* agrees that it shall intervene in any claim arising and to indemnify and hold TPT harmless from any claim, damage, loss, cost, expense, legal expenses, arising from or attributable to *Contractor* provision of services, its acts, or omissions or those of its agents, employees, sub-contractors, representative/s or other for whom TPT may be / may not be deemed responsible for in terms of the agreement.



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Z10 Contract Skills Development (CSDG)

The contractor shall achieve in the Goal performance of the contract the Contract Skills Development Goal (CSDG) established in the cidb Standard for Developing Skills through Infrastructure Contracts, published in Gazette Notice No.43495 of 3 July 2020.

Note: CSDG is applicable for projects that have a tender value from grade 7 and above

The Employer shall provide the proforma documents that shall be completed by the contractors after award of the contract within the stipulated period. (Form A1 List of Recognised Skills Development Agencies, Form A2 Baseline Training Plan, Form A3 Project Interim Report, Form A4 Supervisor Agreement, Form A5 Project Completion Report) Annexure B



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C1.2 Contract Data

Part two - Data provided by the *Contractor*

The tendering *Contractor* is advised to read both the NEC3 Engineering and Construction Contract - June 2005 (with amendments June 2006 and April 2013) and the relevant parts of its Guidance Notes (ECC3-GN) in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to 158 of the ECC3 Guidance Notes.

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name):	
	Address	
	Tel No.	
	Fax No.	
11.2(8)	The <i>direct fee percentage</i> is	%
	The <i>subcontracted fee percentage</i> is	%
11.2(18)	The <i>working areas</i> are the Site and	
24.1	The <i>Contractor's</i> key persons are:	
	1 Name:	
	Job:	
	Responsibilities:	
	Qualifications:	
	Experience:	
	2 Name:	
	Job	
	Responsibilities:	
	Qualifications:	
	Experience:	



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		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled.
11.2(14)	The following matters will be included in the Risk Register	
31.1	The programme identified in the Contract Data is	
B	Priced contract with bill of quantities	
11.2(21)	The <i>bill of quantities</i> is in	C2 Part 2 Pricing Data Option B
11.2(31)	The tendered total of the Prices is	(in figures) (in words), excluding VAT
	Data for Schedules of Cost Components	<i>Note "SCC" means Schedule of Cost Components starting on page 60 of ECC, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC.</i>

B	Priced contract with bill of quantities	Data for the Shorter Schedule of Cost Components		
41 in SSCC	The percentage for people overheads is:	%		
21 in SSCC	The published list of Equipment is the last edition of the list published by			
	The percentage for adjustment for Equipment in the published list is	% (state plus or minus)		
22 in SSCC	The rates of other Equipment are:	Equipment	Size or capacity	Rate

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61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are	Category of employee		Hourly rate
62 in SSCC	The percentage for design overheads is	%		
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:			

C1.3 Forms of Securities

Pro forma Performance Guarantee

For use with the NEC3 Engineering & Construction Contract - June 2005 (with amendments June 2006 and April 2013)

The *conditions of contract* stated in the Contract Data Part 1 include the following Secondary Option:

Option X13: Performance bond

The pro forma document for this Guarantee is provided here for convenience but is to be treated as part of the *Works Information*.

The organisation providing the Guarantee does so by copying the pro forma document onto its letterhead without any change to the text or format and completing the required details. The completed document is then given to the *Employer* within the time stated in the contract.

The Performance Bond needs to be issued by an institution that are reasonably acceptable to the *Employer*.

Transnet may choose to not to accept an Issuer. Should the issuer not being accepted, the performance bond needs to be replaced by an issuer that are acceptable to Transnet. Issuers need to be verified for acceptance by Transnet before a performance bond is issued.



Pro-forma Performance Bond (for use with Option X13)

(to be reproduced exactly as shown below on the letterhead of the Surety)

Transnet SOC Ltd
C/o Transnet Port Terminals
Transnet Corporate Centre
138 Eloff Street
Braamfontein
Johannesburg
2000

Date:

Dear Sirs,

Performance Bond for Contract No. ICLM PE 746/TPT

With reference to the above numbered contract made or to be made between

Transnet SOC Limited, Registration No. 1990/000900/30

(the *Employer*) and

{Insert registered name and address of the *Contractor*}

(the *Contractor*), for

{Insert details of the *works* from the Contract Data}

Provision to
Refurbishment of
Substation 1A & 1B at
Ngqura Container
Terminal for TRANSNET
SOC LTD (Reg
No.1990/000900/30)
operating as Transnet
Port Terminals
(Hereinafter referred as
"TPT") for Ngqura
Container Terminal as
once off.

I/We the undersigned

on behalf of the
Guarantor

of physical address

and duly authorised thereto do hereby bind ourselves as Guarantor and co-principal debtors in solidum for the due and faithful performance of all the terms and conditions of the Contract by the *Contractor* and for all losses, damages and expenses that may be suffered or incurred by the *Employer* as a result of non-performance of the Contract by the *Contractor*, subject to the following conditions:

1. The terms *Employer*, *Contractor*, *Project Manager*, *works* and Completion Certificate have the meaning as assigned to them by the *conditions of contract* stated in the Contract Data for the aforesaid Contract.



2. We renounce all benefits from the legal exceptions "Benefit of Excussion and Division", "No value received" and all other exceptions which might or could be pleaded against the validity of this bond, with the meaning and effect of which exceptions we declare ourselves to be fully acquainted.
3. The *Employer* has the absolute right to arrange his affairs with the *Contractor* in any manner which the *Employer* deems fit and without being advised thereof the Guarantor shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the Guarantor. Without derogating from the foregoing compromise, extension of the construction period, indulgence, release or variation of the *Contractor's* obligation shall not affect the validity of this performance bond.
4. This bond will lapse on the earlier of
 - the date that the Guarantor receives a notice from the *Project Manager* stating that the Completion Certificate for the whole of the *works* has been issued, that all amounts due from the *Contractor* as certified in terms of the contract have been received by the *Employer* and that the *Contractor* has fulfilled all his obligations under the Contract, or
 - the date that the Surety issues a replacement Performance Bond for such lesser or higher amount as may be required by the *Project Manager*.
5. Always provided that this bond will not lapse in the event the Guarantor is notified by the *Project Manager*, (before the dates above), of the *Employer's* intention to institute claims and the particulars thereof, in which event this bond shall remain in force until all such claims are paid and settled.
6. The amount of the bond shall be payable to the *Employer* upon the *Employer's* demand and no later than 7 days following the submission to the Guarantor of a certificate signed by the *Project Manager* stating the amount of the *Employer's* losses, damages and expenses incurred as a result of the non-performance aforesaid. The signed certificate shall be deemed to be conclusive proof of the extent of the *Employer's* loss, damage and expense.
7. Our total liability hereunder shall not exceed the sum of:
 (say) _____
 R _____
8. This Performance Bond is neither negotiable nor transferable and is governed by the laws of the Republic of South Africa, subject to the jurisdiction of the courts of the Republic of South Africa

Signed at _____ on this _____ day of _____ 2025

Signature(s)

Name(s) (printed)

Position in Guarantor company

Signature of Witness(s)

Name(s) (printed)



PART C2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing instructions:	
C2.2	Pricing Schedule	



C2.1 Pricing Assumptions:

The contractor shall determine the contract skills participation goals, expressed in Rand, which shall not be less than the contract amount multiplied by a percentage (%) factor given in Table 2 in the standard for the applicable class of construction works (CSDG).

C2.1.1 Pricing Instructions

a) Respondents are to note that if the price offered by the highest scoring bidder is not market-related, Transnet may not award the contract to that Respondent. Transnet may-

(i) negotiate a market-related price with the Respondent scoring the highest points or cancel the RFP;

(ii) if that Respondent does not agree to a market-related price, negotiate a market-related price with the Respondent scoring the second highest points or cancel the RFP;

(iii) if the Respondent scoring the second highest points does not agree to a market-related price, negotiate a market-related price with the Respondent scoring the third highest points or cancel the RFP.

If a market-related price is not agreed with the Respondent scoring the third highest points, Transnet must cancel the RFP.

b) Prices must be quoted in South African Rand inclusive of VAT.

c) Any disbursement not specifically priced for will not be considered/accepted by Transnet.

d) To facilitate like-for-like comparison bidders must submit pricing strictly in accordance with this pricing schedule and not utilise a different format. Deviation from this pricing schedule could result in a bid being declared non-responsive.

e) Prices are to be quoted on a delivered basis to.....

f) Please note that should you have offered a discounted price(s), Transnet will only consider such price discount(s) in the final evaluation stage if offered on an unconditional basis.

g) Where a Respondent's price(s) includes imported goods/items, the rate of exchange to be used must be in South African Rands for purposes of determining whether the price is market related or not and must be the currency's rate published by the South African Reserve Bank on the date of the advertisement of the bid:

Currency rate of exchange utilised: _____

h) In respect of incoterms conditions, if applicable, please refer to paragraph 25 of the General Bid Conditions which is attached to the RFP as Annexure



i) Manufacturing and delivery lead time calculated from date of receipt of purchase order:
_____ weeks.

C2.1.2 Pricing Schedule

Scope Item/ Component (Replace or Repair as per SOW)	Unit	Quantity	Unit Rate (Supply & Install)	Total Price
Preliminary & General Costs & Design & Engineering				
FIXED COSTS				
1. HEAD OFFICE / MANAGEMENT / PLANNING	Sum	1		
2. INSURANCE / BONDS	Sum	1		
3. MANAGEMENT / ENGINEERING SITE VISITS	Sum	1		
4. PR.ENG - DRAWINGS & DESIGN CHECK / ATTENDENCE	Sum	1		
TIME RELATED COSTS	Sum	1		
5. SITE ESTABLISHMENT	Sum	1		
6. SAFETY, INDUCTION & MEDICALS	Sum	1		
7. SITE SUPERVISION & SAFETY	Sum	1		
8. TOOLS & EQUIPMENT	Sum	1		
9. ACCOMMODATION / MEALS / LIVING OUT ALLOWANCES	Sum	1		
10. SHEQ	Sum	1		
11. TRAVELLING	Sum	1		
12. DISBURSEMENTS	Sum	1		
13. QA QC DOCUMENTS	Sum	1		
14. TRAINING	Sum	1		
SUBSTATION 001A				
Preparation works for the proposed substation upgrades				
1. Disconnect and removal of the existing MV switchgear and	Sum	1		



battery bank to be replaced.				
Medium voltage switchgear				
2. Design, supply and install a new 1250A 11kV incomer VCB panel.	each	2		
3. Design, supply and store a new equipped 1250A 11kV spare incomer VCB panel.	each	1		
4. Design, supply and install a new 1250A 11kV bus section VCB panel.	each	1		
5. Design, supply and install a new 630 11kV feeder VCB panel.	each	5		
6. Design, supply and install new spare 630 11kV feeder VCB panel.	each	1		
7. Design supply and install a 11kV bus-riser panels/bus-bar Earth /VT panels.	each	1		
8. Design, supply, install and commission a complete arc ducting and protection system for the 11kV switchgear	Sum	1		
9. Design, supply, install a battery bank (enclosed in a cabinet) and battery terminal unit for the 11kV switchgear complete with protection and wiring.	Sum	1		
10. Provision of racking tools	Sum	1		
Electrical, Lighting and Power				
11. Design, supply and install a new lighting and small power	Sum	1		
Medium Voltage Cable Termination				
12. Supply new 630A Feeder MV plug type terminations designed to EN 50181 and DIN 47637.	each	18		
13. Supply new 1250A Incomer MV plug type terminations designed to EN 50181 and DIN 47637.	each	5		
Earthing and Lightning Protection				
14. Design, supply and install earthing and lightning surge protection for the proposed substation upgrades.	Sum	1		
Cables, Routes and Building Modifications				
15. Provisional sum for the replacement of old chequered plates and sealing of cable entry/exit opening	Sum	1		
16. Provisional sum for the building refurbishments.	Sum	1		
17. Provisional sum for the testing, joining and replacement of cables.	Sum	1		



18. Replacement of substation doors and provision of signages.	Sum	1		
HVAC and Fire				
19. Design, supply and installation of the fire detection and suppression system.	Sum	1		
20. Design, supply and installation of the HVAC/climate control plant.	Sum	1		
Testing and Commissioning				
21. Test and commission the entire installation. The contractor shall issue test, certificates, user manuals and as-built drawings.	Sum	1		
SUBSTATION 001B				
Preparation works for the proposed substation upgrades				
22. Disconnect and removal of the existing MV switchgear and battery bank to be replaced.	Sum	1		
Medium voltage switchgear				
23. Design, supply and install a new 1250A 11kV incomer VCB panel.	each	2		
24. Design, supply and store a new equipped 1250A 11kV spare incomer VCB panel.	each	1		
25. Design, supply and install a new 1250A 11kV bus section VCB panel.	each	1		
26. Design, supply and install a new 630 11kV feeder VCB panel.	each	7		
27. Design, supply and install new spare 630 11kV feeder VCB panel.	each	1		
28. Design supply and install a 11kV bus-riser panels/bus-bar Earth /VT panels.	each	1		
29.Design, supply, install and commission a complete arc ducting and protection system for the 11kV switchgear	Sum	1		
30. Design, supply, install a battery bank (enclosed in a cabinet) and battery terminal unit for the 11kV switchgear complete with protection and wiring.	Sum	1		
31. Provision of racking tools	Sum	1		
Electrical, Lighting and Power				
32. Design, supply and install a new lighting and small power	Sum	1		
Medium Voltage Cable Termination				
33. Supply new 630A Feeder MV plug type terminations designed to EN 50181 and DIN 47637.	each	18		

TRANSNET PORT TERMINALS

CONTRACT NUMBER: ICLM PE 746/TPT

REFURBISHMENT OF SUBSTATION 1A & 1B AT THE PORT OF NGQURA CONTAINER TERMINAL(NCT) FOR TRANSNET SOC LTD (REGISTRATION NO. 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT") FOR NGQURA CONTAINER TERMINAL AS A ONCE-OFF SUPPLY.



34. Supply new 1250A Incomer MV plug type terminations designed to EN 50181 and DIN 47637.	each	5		
Earthing and Lightning Protection				
35. Design, supply and install earthing and lightning surge protection for the proposed substation upgrades.	Sum	1		
Cables, Routes and Building Modifications				
36. Provisional sum for the replacement of old chequered plates and sealing of cable entry/exit opening	Sum	1		
37. Provisional sum for the building refurbishments.	Sum	1		
38. Provisional sum for the testing, joining and replacement of cables.	Sum	1		
39. Replacement of substation doors and provision of signages.	Sum	1		
HVAC and Fire				
40. Design, supply and installation of the fire detection and suppression system.	Sum	1		
41. Design, supply and installation of the HVAC/climate control plant.	Sum	1		
Testing and Commissioning				
42. Test and commission the entire installation. The contractor shall issue test, certificates, user manuals and as-built drawings.	Sum	1		
Total Price, Exclusive of VAT				
CSDG (0.25% factor)				
VAT 15% (if applicable)				
Total Price, Inclusive of VAT (where applicable)				

**SUMMARY**

Scope Item/ Component (Replace or Repair as per SOW)	Unit	Quantity	Unit Rate (Supply & Install)	Total Price
1. Preliminary & General Costs & Design & Engineering	Sum			
2. Preparation works for the proposed substation upgrades	Sum			
3. Medium voltage switchgear	Sum			
4. Electrical, Lighting and Power	Sum			
5. Medium Voltage Cable Termination	Sum			
6. Earthing and Lightning Protection	Sum			
7. Cables, Routes and Building Modifications	Sum			
8. HVAC and Fire	Sum			
9. Testing and Commissioning	Sum			
Total Price (Exclusive of VAT)				
CSDG (0,25% Factor Excl. Vat)				
VAT 15% (if applicable)				
Total Price, Inclusive of VAT (where applicable)				

PART C3: SCOPE OF WORK

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	<i>Annexures</i>	1
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SECTION 1

1 Description of the Works

1.1 Background

The Ngqura Container Terminal (NCT), since its inception in 2009 has complemented the South African port system as a transshipment hub. It services vessel traffic from the far East, South America, East and West African while promoting international trade for SADC countries. NCT trade activities brings the Eastern Cape Region into the mainstream economy of the country. NCT boasts a 16,5meter draft, with 4 berths and the state-of-the-art operational equipment such as STS cranes, RMGs, Reach Stackers, ECHs etc. The terminal is designed to handle 1.5 million TEU's with a large section designed to house reefer containers (refrigerated). In order for the port to operate, it requires an uninterrupted electricity power supply. The electricity supply for the Ports is sourced through the national grid. The supply enters the port at the main TNPA substation and gets distributed and transferred to the rest of the terminals through the various substations. The substation reduces the high voltage of electrical power transmission to a more suitable voltage for the end user. These substations are however maintained by TPT. The substations are critical as they supply power to the entire container terminal including all the STS cranes, buildings, reefers and high mast lights.

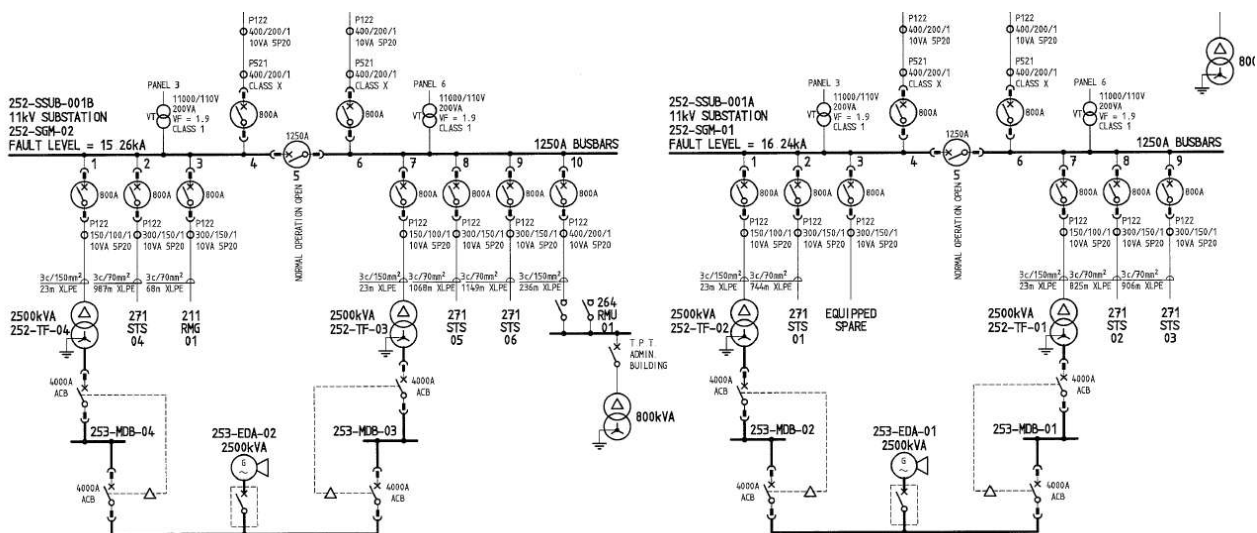


Fig 1: NCT MV Schematic

The line diagram above shows the NCT substations fed from substation 003.

1.2 Problem Statement

The NCT terminal is equipped with 4 major substations as follows:

- Substation 1A
- Substation 1B
- Substation 2A and
- Substation 2 B.

The current challenge is that Substations 1A & B are experiencing switchgear failures mainly due to corrosion that is affecting the cable connections, bus bars inside and the connections of the protection relays. NCT substations are located in a harsh environment, in close proximity to the ocean. Corrosion is caused by moisture that combines with the electricity, thus creating a highly corrosive substance called (Nitric acid). This acid causes tracking, meaning that the electricity finds the shortest and quickest way to earth and causes the transformer to fail. The corrosion on the critical equipment within the substation poses a significant challenge to operations. This has led to decreased reliability, increased maintenance costs and heightened safety risk for personnel. An incident occurred on substation 1A where there was a fire outbreak due to moisture buildup on the current transformers.

1.3 Project High Level Scope:

The works that the *Contractor* is to perform include but is not limited to the following:

- Upgrade of Substation 1A
- Upgrade of Substation 1B
- The *employer's* scope of works is based on the conditional assessment reports that will be made available to the contractor. This shall include a network single line diagram which will be provided to assist with pricing of the works.
- High level designs and specifications shall be provided by the *employer*.
- Supply and install medium voltage switchgear.
- Size, supply and install Battery Tripping Unit.
- Supply and install power factor correction.
- Earthing and lightning protection system for the substation.
- Design, Supply, Installation, Testing, Commissioning, Certification and Handover of HVAC positive pressurised system and HVAC cooling system for Substation 1A and Substation 1B for the LV Rooms and MV Rooms. The 2 transformer rooms in both Substation 1A and Substation 1B must also be equipped with positive pressurised HVAC system.
- Perform MV switchgear protection setting calculations, relay coordination and grading, and relay programming.

- Test, commission, and handover the MV switchgear.
- Make good of the substation walls and floors.
- Design, Supply, Installation, Testing, Commissioning, Handover and Certification of Gaseous Fire Detection and Suppression Systems as well as relevant fire extinguishers and fire signage associated with Substation 1A and Substation 1B in the Generator rooms, MV rooms, LV Rooms and both transformer rooms in both Substation 1A and Substation 1B .
- The contractor shall provide all the required designs in addition to the *employer's* high-level designs for the completion of the works.
- All designs shall be submitted to the employer's engineer for acceptance. All design developments which the employer deems to be critical shall be progressively communicated with the employer for alignment.
- During construction, Transnet's Port electrical appointed personnel shall perform all the required switching and control work permits.
- The Contractor shall submit a notification of switching to the Project Manager 7 working days prior to the required work being performed.
- Commission and testing of the entire installation and handover to the *Employer*.

1.4 Employer's objectives

The Employer is Transnet Port Terminals (TPT) and the eventual owners of the works. TPT requires the refurbishment of a substations in the Port of Ngqura Container Terminal.

The Employer's objectives are to achieve Completion of the Works by meeting the Completion Date whilst still maintaining the highest environmental, quality and safety standards and whilst minimising disruptions to on-going port and terminal operations and the operations and activities of other stakeholders.

1.5 Interpretation and terminology

For the purposes of this contract for all matters regarding technical decisions, Acceptance of Engineering related technical documents, Testing, Commissioning and any matters pertaining to the context of the Occupational Health and Safety Act, the Contractor is required to cooperate with the *Employer's* Engineers/Professional Engineers as per Core Clause 25.1 and Core Clause 14.2 as delegated by the *Project Manager*, for the former and as applicable in the context. The instructions received by the *Contractor* shall be interpreted as lawful in matters pertaining to the former if the Instruction has been endorsed by both the *Project Manager* and the Employer's Engineers/Professional Engineers as applicable in the context. The Employer's Owners Team shall be named post award of the contract and prior to commencement of the Works.

The Contractor is further advised that, in compliance to NEC3 ECC Core Clause 25.1, that co-operation with the *Employer's* Engineers and other representatives of the Employer (Others) is a requirement of this contract and the Contractor is to allow, grant and facilitate all reasonable access that may be required by the *Employer's* Engineers and Others as applicable, for the provision of the Works.

The following abbreviations are used in this Works Information:

Table 1: Abbreviations

Abbreviation	Meaning given to the abbreviation
A	Ampere
ACB	Air Circuit Breaker
AIA	Authorised Inspection Authority
AIS	Air Insulated Switchgear
ASHRAE	The American Society of Heating, Refrigerating and Air-Conditioning Engineers
BBBEE	Broad Based Black Economic Empowerment
CEMP	Construction Environmental Management Plan
CEMP _r	Construction Environmental Management Programme
CD	Compact Disc
CDR	<i>Contractor</i> Documentation Register
CDS	Contractor Documentation Schedule
CHSO	Construction Health and Safety Officer
CIRP	Contractor's Industrial Relations Practitioner
CM	Construction Manager
COC	Certificate of Compliance
COLTO	Committee of Land and Transport Officers
CRL	<i>Contractor</i> Review Label
CSHEO	<i>Contractor's</i> Safety, Health and Environmental Officer
D	Diameter
DSTI	Daily Safety Task Instruction
DTI	Department of Trade and Industry
DWG	Drawings
EA	Environmental Authorization
ECC	Engineering and Construction Contract
ECSA	Engineering Council of South Africa
EO	Environmental Officer
FAT	Factory Acceptance Test
FEL	Front End Loading
FIC	Field Inspection Checklist
HAW	Hazard Assessment <i>Workshop</i>
HAZOP	Hazard and Operability Study
HS	Health and Safety

HSSP	Health and Safety Surveillance Plan
HVAC	Heating, Ventilation and Air Conditioning
INC	Independent Nominated Consultant
IP	Industrial Participation
IR	Industrial Relations
IPP	Industrial Participation Policy
IPO	Industrial Participation Obligation
IPS	Industrial Participation Secretariat
IRCC	Industrial Relations Co-ordinating Committee
ISPS	International Ship and Port Facility Security
JSA	Job Safety Analysis
km	Kilo meter
kVA	Kilo-Volt Ampere
LV	Low Voltage
LT	Low Tension
m	metre
MV	Medium Voltage
mm	millimetre
MCB	Miniature Circuit Breaker
MCC	Motor Control Centre
MCCB	Moulded Case Circuit Breaker
Native	Original electronic file format of documentation
ONAN	Oil Natural Air Natural
PES	Project Environmental Specifications
PHA	Preliminary Hazard Assessment
PIRM	Project Industrial Relations Manager
PIRPMP	Project Industrial Relations Policy and Management Plan
PLA	Project Labour Agreements
PSIRA	Private Security Industry Regulatory Authority
PSIRM	Project Site Industrial Relations Manager
PSPM	Project Safety Program Manager
PSSM	Project Site Safety Manager
ProgEM	Programme Environmental Manager
ProjEM	Project Environmental Manager
PVC	Polyvinyl Chloride
QA	Quality Assurance
QC	Quality Control
R&D	Research and Development
SACPCMP	The South African Council for the Project and Construction Management Professions
SANS	South African National Standards
SAT	Site Acceptance Test

SASRIA	South African Special Risks Insurance Association
SCADA	Supervisory Control and Data Acquisition
SES	Standard Environmental Specification
SHE	Safety, Health and Environment
SHEC	Safety, Health and Environment Co-ordinator
SHEQ	Safety, Health, Environment and Quality
SIP	Site Induction Programme
SMP	Safety Management Plan
SOC	Safety Observation Conversations
SOC	State Owned Company
SSRC	Site Safety Review Committee
SF6	Sulphur Hexafluoride
TEU	Twenty-foot Equivalent Unit
TNPA	Transnet National Ports Authority
TPT	Transnet Port Terminals
VT	Voltage Transformer
CSDG	Contractor Skills Development Goals

Table 2: Description of Terminology

Terminology	Description
Employer	For the purpose of this document, the Employer shall be regarded as Transnet Port Terminals
<i>Contractor</i>	For the purposes of this document the <i>Contractor</i> refers to the person(company) whom has been awarded the contract to perform the works stipulated by the employer
Specialist	Is a person or company appointed by the <i>Contractor</i> or employer who has significant expertise in execution of a particular work
Employer's Engineer	For the purpose of this document, the Employer's Engineer is a technical representative appointed by the Employer who holds a Bsc/Beng/Btech/Ndip and registered with ECSA as Pr Eng/Pr Tech in a relevant field of engineering. The purpose for the Employer's Engineer is to review, support and accept the designs, documents and drawings for this project.
Accepted	For the purpose of this document, the term "Accepted" shall be used to describe that an activity/task/document/drawing/design/calculation is received and believed to be true. However, by Accepting any of the above items does not alleviate legal and ethical responsibilities that is carried by the ECSA responsible signatory for the item
Supported	For the purpose of this document, the term "Supported" shall be used to describe that an activity/task/document/drawing/design/calculation is received and the contents herein with are agreed upon with encouragement to proceed.

2 Employer and Contractor design

2.1 Employer's design and provisions

The *Employer's* design for the *Works* is:

2.1.1 Electrical:

- a. The high-level designs for the MV reticulation, for the Substation.
- b. The selection of electrical Plant and switchgear associated with the MV systems.
- c. The substation building and plant layout.
- d. The *Employer* grants the *Contractor* a licence to use the copyright in design data presented to the *Contractor* for the purpose of the *Works* of this contract ONLY.

2.1.2 Mechanical:

None

2.2 Contractor's design

All designs undertaken by the Contractor as per the below clauses are required to be endorsed by an ECSA Registered Professional Engineer/Professional Technologist suitably experienced in the relevant discipline.

2.2.1.1 The *Contractor* is to design the following parts of the *Works*:

- a. All supporting infrastructure required. These may include, but is not necessarily limited to, cableways, cable support systems, conduit systems and arrangement, piped systems and pipe support systems, and the selection of fasteners and fastening systems for these items, where required and not specified, referenced or detailed by the *Employer*.
- b. All designs of all MV distribution panels.
- c. The Earthing and Lightning Protection design.
- d. Detail design of specialised HVAC positive pressurised ventilation system and air conditioning cooling system which must also address the necessary dehumidification to required levels for Substation 1A and Substation 1B for the MV room and LV room in both Substation 1A and Substation 1B. Positive pressurised HVAC systems must also be designed for both Transformer rooms for both Substation 1A and Substation 1B.
- e. Detail design of Gaseous fire detection and suppression system for Substation 1A and Substation 1B in the MV rooms, LV rooms, both transformer rooms and generator rooms for both Substation 1A and Substation 1B,

- f. Detail design of fire protection in terms of fire extinguishers, fire and escape signage for Substation 1A and Substation 1B.
- g. The Contractor shall submit detailed drawings and Workshop details for all designs to the Project Manager for acceptance by the Employer's Consultant or the Employer's Engineers.
- h. All and any equipment, formwork, and temporary work associated with the provision of the Works.
- i. The Contractor is responsible in his design for the overall integration of the design of the Works with the existing infrastructure.
- j. The Contractor is wholly responsible for all design coordination, integration and liaison activities involved in the Works, and shall take all measures necessary and make all arrangements for activities such as meetings, inspections, endorsements, and any other activities required for the timeous completion of the Works and to the appropriate quality. When these activities require the involvement of the Employer's Professional Engineering team or any other stakeholders, the Contractor is required to make these arrangements with due consideration of the Employer's Professional Engineering team's availability and the availability of other stakeholders.
- k. The *Contractor* shall submit drawings and Workshop details for all designs to the Project Manager for acceptance by the Employer's Consultant or the Employer's Engineers.
- l. All residual design responsibility and overall responsibility for the total design solution for the Works rests with the Contractor.
- m. The *Contractor* shall engage the services of ECSA registered Engineers and/or Technologists for all aspects of the Works for which the Contractor is to design. All design drawings must be signed off by suitably experienced and qualified ECSA registered professional Engineers and or Technologists.
- n. The Contractor shall thus be wholly accountable and responsible for all aspects of the employer's high-level designs.
- o. The *Contractor* shall thus be wholly accountable and responsible for all aspects of his designs, including the implementation of all Statutory Safety, Health and Environmental Regulations of South Africa and the requirements, specifications, and regulations of the Employer pertaining to Health and Safety, Environment, Quality and Engineering.
- p. The *Contractor* shall be wholly accountable and responsible for the implementation of the aspects of his designs including commissioning, putting into service, and handover of his constructed designs to the Employer, and his duly appointed ECSA registered Engineers shall be held accountable and responsible for these aspects of the Works for the lifetime duration of the Works.

2.2.1.2 Use of *Contractor's* design

- a. The *Contractor* grants the *Employer* a licence to use the copyright in all design data presented to the *Employer* in relation to the Works for any purpose in connection with refurbishment, repair, and maintenance of the Works with such licence being capable of transfer to any third party without the consent of the *Contractor*.
- b. The *Contractor* vests in the *Employer* full title guarantee in the intellectual property and copyright in the design data created in relation to the Works of this contract.

2.2.1.3 Design of Equipment

- a. The *Contractor* submits his design details for the following categories of his proposed principal Equipment to the *Project Manager* for his information only:
 - Any formwork required to Provide the Works temporary electrically powered compressed air systems and pneumatic equipment that may be required to Provide the Works.
 - Small electrically powered equipment
 - Equipment designed for the lifting of personnel to access any areas necessary to Provide the Works, which are not at ground level.
 - Equipment designed for the lowering of personnel to access any areas necessary to Provide the Works, which are below ground level.
- b. The following principal Equipment categories deployed for the *Contractor* to Provide the Works require its design to be accepted by the *Project Manager*.
 - Temporary petrol- or diesel-powered compressed air systems and pneumatic equipment that may be required to Provide the Works
 - Small petrol- or diesel-powered equipment
 - Specialist Equipment required to Provide the Works
 - Rigging platforms and specialised rigging Equipment that may be required by the *Contractor* to Provide the Works.
 - Launching platforms and incremental launching equipment that may be required by the *Contractor* to Provide the Works
 - Temporary access platforms, ladders, walkways, scaffolds, and any other temporary structures required to Provide the Works.
 - The design of Equipment is considered in terms of this contract as *Contractor's* design.

2.2.1.4 Equipment required to be included in the Works

- a. Any shuttering/formwork that is left in-situ as required by the design of the *Works* and necessary for the provision of the *Works*.

3 Procedure for submission and acceptance of *Contractor's* design

3.1 The *Contractor* shall address the following procedures:

- a. The *Contractor's* documentation shall be issued to the *Project Manager* under cover of the *Contractor's* Transmittal Note indicating all Contract references (i.e. Project No, Contract No, etc.) as well as the *Contractor's* Project Document Number, Revision Number, Title and chronological listing of transmitted documentation. Formats of *Contractor* data submitted is dependent on the project procedure and shall be specified by the *Project Manager*, upon the notified request of the *Contractor*.
- b. The *Contractor* shall deliver both hard copies and electronic media copies (CD Rom) to the *Project Manager* either at the address stated within the Contract Data or at the Project site office.
- c. All electronic documentation shall be submitted by the *Contractor* in Adobe Acrobat (.PDF) and native file format.
- d. Acceptance of documentation by the *Project Manager* will in no way relieve the *Contractor* of the responsibility for the correctness of information, or conformance with his obligation to Provide the Works. This obligation rests solely with the *Contractor*.
- e. After review, a copy of the original reviewed/marked-up drawing/document, with the *Project Manager's* consolidated comments and document status marked on the *Contractor* Review Label, is scanned and the copy shall be returned to the *Contractor* under cover of the project's Transmittal Note for revision or re-submittal as instructed.
- f. The *Contractor* shall allow the *Project Manager* 14 working days (unless otherwise stated and agreed) to review and respond to the *Contractor's* submission of their documentation, i.e. from time of receipt by the project to the time of despatch. However, work shall proceed without delay in the event of late return of the documentation by the *Project Manager* with prior notification in writing by the *Contractor*.
- g. On receipt of the reviewed documentation the *Contractor* shall make any modifications requested/marked-up and resubmit the revised documentation to the *Project Manager* within 14 working days. Queries regarding comments/changes should be addressed with the *Project Manager* prior to re-submittal.
- h. Any re-submittals, which have not included the changes/comments identified, will be returned to the *Contractor* to be corrected. The *Contractor* shall re-issue the revised documentation incorporating all comments and other specified details not included in the previous issue within 2 working days of receipt of the marked-up document.
- i. The *Contractor* is required to undertake design safety reviews with the *Project Manager*, the NEC Supervisor, the Employer's Engineer's and Professional team, the Employer's Health and Safety Officers, the Employer's Environmental Officers, the Employer's Quality Assurance and Quality

Control Officers and any other Specialists and/or Subject Matter Experts (SME) as deemed by the *Employer* necessary for the provision of the *Works*.

- j. In undertaking the *Works* (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the *Contractor* Document Submittal Requirements Standard. The *Contractor* shall submit his designs to the *Project Manager* for acceptance before commencing with any manufacturing or construction.

3.2 Review and Acceptance of *Contractor* Documentation

- a. The *Contractor* submits documentation as the '*Works* Information' requires to the *Project Manager* for review and acceptance.
- b. In undertaking the '*Works*' (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the '*Contractor* Document Submittal Requirements' Standard.
- c. The *Project Manager* may withhold acceptance of a submission if the document submission requirements stated in the Works Information are not adhered to.
- d. The *Contractor* grants the *Employer* a licence to use the copyright in all design data presented to the *Employer* in relation to the *Works* for any purpose in connection with the construction, re-construction, refurbishment, repair, maintenance and extension of the *Works* with such licence being capable of transfer to any third party without the consent of the *Contractor*.
- e. All documents submitted by the *Contractor* to the *Project Manager* for review and acceptance must display the date on which the document was submitted, be adequately signed off by the relevant ECSA professional designer which must also include the designer's professional registration number on the document/drawing. Failing in providing this information on the documents/drawings will render the drawing/document incomplete and will result in it not being reviewed by the *Employer* and will subsequently be send back for correction and resubmission.

3.3 As-built drawings, Operating manuals and Maintenance schedules

The *Contractor* provides the following:

- a. As-Built/Final Documentation
 - In undertaking the *Works* (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the *Contractor* Document Submittal Requirements Standard.
- b. Installation, Maintenance and Operating Manuals and Data Books
 - The *Contractor* prepares two (2) marked up hard copies of the latest revision of the Employer documents/drawings to represent the As-Built/Final status.

- The mark-ups shall be in RED pencil or pen and be complete and accurate. The Contractor submits same to the Project Manager under cover of a *Contractor's* Transmittal Note.
- The *Contractor* provides manuals in an A4 hard covered, red, grease and waterproof binder, using 2 ring type binders. The manuals are well indexed and user friendly and include a summarized Table of Contents.
- Drawings and charts larger than A4 are folded and those greater than A3 are enclosed in an A4 plastic pocket of adequate strength.
- The *Contractor* submits the draft Table of Contents to the Project Manager for acceptance prior to the compilation and official submittal of the manuals.
- The originals of all brochures shall be issued to the Project Manager. When a general brochure is applicable to a range of equipment, then the specific item, catalogue number or model number shall be stated, which is best achieved by introducing a separate index page, which cross-references the specific item to a tag number.
- The address, phone numbers, fax numbers and reference numbers of all Sub-Contractors is provided.
- Where manuals include drawings that still need to be revised to "As-Built" status, and such manuals are required prior to 'As-Built' status, the manual will not be considered to be in its final form until the "As-Built" version of each such drawing has been incorporated. The required number of copies of the manual (s) shall be as specified by the Project Manager and submitted per type or model number of equipment included in the contract, or as specified by the Project Manager. A typical example of what the binder/file (s) shall be marked with on the spine and the front cover is as follows: -

- Project No./Name
- Manual Title, e.g. Installation, Maintenance and Operating Manual
- FBS No. and Title
- Manual Numbering (e.g. Volume 1 of 2, etc.)
- Contract Number
- *Contractor* Name

- a. Unless otherwise stated in the CDS, the required number of copies of all As-Built/Final/Data Packs shall be:

3 x hard copies (Full size)

4 x CD Roms with Adobe Acrobat (.pdf) and "Native" formats

4 Construction

4.1 Temporary Works, Site services & construction constraints

- a. The *Contractor* shall comply with the requirements of the *Employer* regarding site entry and security control, permits, and Site regulations.
- b. The *Contractor* complies with the following requirements of the *Employer*:
 - The *Contractor* shall attend all necessary Safety Inductions and ensure that all personnel engaged in the provision of the *Works* are inducted as directed by the *Project Manager*, *NEC Supervisor*.
 - The *Contractor* and all personnel engaged in the provision of the *Works* shall attend all Safety Inductions as required by the TPT Control Officer as directed through the Project Manager.
 - The *Contractor* and all personnel engaged in the provision of the *Works* shall attend all Safety Inductions as required by the Employer's Safety Officer, Employer's Electrical Engineer and/or as directed by the Project Manager.
 - All work subsequent to the energizing of the proposed substation shall be supervised by a Transnet Category C "Green" for work that does not involve MV switching operations; and a Transnet Category A "Brown" certified officer for work that involves MV switching operations.
- c. The *Contractor* shall make arrangements for the Transnet Category A "Brown" officer to arrange access to the substations during the execution of the *Works*.
 - All personnel working or accessing the substation are required to sign the Substation Register and indicate the time of entry, time of exit and the details of the work carried out.
- d. The *Contractor* shall obtain access permits from the TPT Permit Office, and the *Employer's* Safety Officer before accessing the site.
- e. The *Contractor* shall obtain the relevant work permits from the TPT control officer, and the *Employer's* Safety Officer before performing any work.
- f. The *Contractor* shall at all times comply with the Transnet MV Safety Instructions "Blue Book" whilst providing the *Works*.
- g. The Safety Inductions, Access Permits and Work Permits are part of this contract and the *Contractor* shall make allowance for it in his *Price* and *Schedule*.
- h. The *Contractor* shall ensure that all relevant safety inductions and access permits are obtained well before the Site Access Date as reflected in the Contract Data.
- i. The NCT is a designated Security Areas under the ISPS requirement, and in terms of this, all access into the Port area will be strictly controlled. Compliance to these security requirements,

including labour transport and access requirements, obtaining and maintaining access cards for the *Contractor's* personnel on Site is part of this contract, and the *Contractor* shall make allowance for it in his *Price* and *Schedule*.

- j. The *Contractor* shall obtain the TPT entry permits for all the *Contractor's* personnel within the NPT in accordance with the access control requirements of the Port and the *Contractor* shall make allowance for it in his *Price* and *Schedule*.
- k. The *Contractor* is also required to obtain the relevant permits for his Sub-*Contractors* and all suppliers. The *Contractor* is required to make applications for these permits on behalf of his workers, suppliers, and *Subcontractors*, and is to nominate a single person to liaise with the relevant port and terminal authorities and the *Contractor* shall make allowance for it in his *Price* and *Schedule*.
- l. The *Contractor* provides all staff working within the Project with *Contractor* identification cards which detail the person's name, identity number and the foreman / engineer responsible. The provision of construction personnel with ID cards is considered part of this contract and shall be made by the *Contractor* to a standard acceptable to the *Project Manager* and the *Contractor* shall make allowance for it in his *Price* and *Schedule*.
- m. The *Contractor* is to be in constant consultation and cooperation with the Port's security operations to ensure compliance with all the required security procedures and the *Contractor* shall make allowance for it in his *Price* and *Schedule*.

4.1.1 Restrictions to access on Site, roads, walkways and barricades

Access route to Site:

- a. All vehicles are subject to security checks and all Plant and Equipment brought into the facility and leaving the facility are required to be security cleared by the relevant authorities (Project Manager and TPT Security Manager) before access or exit is granted, as the situation may require.
- b. The Contractor is required to arrange for the clearing of the items with the Project Manager and the TPT Security Manager well in advance of the access or exit requirement to avoid delays in the provision of the Works.
- c. The Contractor ensures that any of his staff, labour and Equipment moving outside of his allocated Site and Working Areas does not obstruct the Employer's operations if any. To this end access routes are allocated and co-ordinated by the Contractor in liaison with the Project Manager.
- d. The Contractor ensures the safe passage of Contractor's traffic to and around the Site and Working Areas at all times. This includes providing flagmen, protective barriers, signage, etc for protection, direction and control of traffic.

- e. The Contractor shall provide designated, signed and demarcated walkways for all personnel who are required to traverse between the different working areas on site. Personnel outside of the designated walkways are required to be conducting work activities, and when traversing, are required to use the designated walkways.
- f. The Contractor plans and organises his work in such a manner so as to cause the least possible disruption to the Employer's operations or other possible contractors on site.

4.1.2 Barricades and fencing around site

- a. The Contractor shall be responsible for providing a temporary barricade fence between the port operations and the construction site and maintaining, providing, and/or relocating, if required for construction purposes; the ISPS standard palisade fence to ensure the boundary fence is continuous, and the Contractor shall make allowance for it in his Price and Schedule.
- b. The Contractor shall ensure that his site access gate is manned 24hrs a day for the duration of the Works and over any builder's breaks, by a Security Provider acceptable to the Project Manager and registered with the PSIRA and the Contractor shall make allowance for it in his Price and Schedule. Refer to Annexure O.
- c. The Contractor shall obtain permission from the Project Manager prior to erecting and/or dismantling including temporarily relocating any section of the ISPS standard boundary fencing.

4.1.3 Restrictions to access on Site

- a. The Contractor is prohibited from entering the Employer's Operational Areas.
- b. The Contractor plans and organises his work in such a manner so as to cause the least possible disruption to the Employer's operations.
- c. The Contractor ensures that all his construction staff, labour, and Equipment remains within his allocated and fenced off construction areas.

4.1.4 People restrictions on Site; hours of work, conduct and records:

- a. The working hours shall be in accordance with the requirements of the Department of Labour or with the agreement of the relevant trade unions. This information relating to working hours shall be supplied to the Project Manager prior to commencement of the proposed working hours.
- b. All Contractor's staff and labour engaged in the provision of the Works shall comply with Employer's safety requirements and are equipped with all necessary PPE, high visibility apparel and, when working within two meters of the quay wall, floating apparel.

- c. In the event that the Contractor requests to work overtime, the Contractor will be liable for the supervision cost required from the Employers team during the Works.
- d. The Contractor keeps daily records of his people, Plant and equipment engaged on the Site and Working Areas (including Sub-Contractors) with access to such daily records available for inspection by the Project Manager and/or the PIRM at all reasonable times. (summarised activity and progress for the day must be mentioned).
- e. Minimum requirements of people employed on the Site are as follows:
 - South African identity document or passport/ visa and work permit for foreign nationals;
 - Employment of local labour only for unskilled and semi-skilled job categories as per PIRPMP;
 - Secondment of skilled core/ permanent employees if skills are not locally available;
 - Pre-employment medical examinations; and
 - Induction in IR matters and conditions of employment on the Project.
- f. The *Contractor* complies with the requirements of the IRCC involving the engineering construction *Contractors* engaged (including all future *Contractors*) by the *Employer*.

4.1.5 Health and safety facilities on Site

- a. The *Contractor* is referred to the Health and Safety specifications: Annexure C.

4.1.6 Title to Materials from dismantling, demolition and excavation

- a. The *Contractor* has no title to any materials arising from dismantling, excavation and demolition in the performance of the *Works* with title to such materials remaining with the *Employer*. The *Project Manager* shall instruct the *Contractor* how to label, mark, set aside and/or dispose of such materials for the benefit of the *Employer* in accordance with ECC3 Clause 73.1

4.1.7 Cooperating with and obtaining acceptance of others

The *Contractor* performs the *Works* and co-operates with:

- a. The Contractor performs the Works and co-operates with the Employer (including the agents of the Employer) who operate on Site during the entire duration of the Contract period.

- b. The Contractor performs the Works and co-operates with the Employer's Engineers, (including the agents of the Employer's Engineers) who operate on Site during the entire duration of the Contract period.
- c. The Contractor performs the Works and co-operates with The Employer's Management Consultants (including the agents of the Management Consultants) who operate on Site during the entire duration of the Contract period.
- d. The Contractor performs the Works and co-operates with The TPT Control Office and agents of the TPT Control Office who operate on Site during the entire duration of the Contract period.
- e. The Contractor performs the Works and co-operates with others, of whom the Contractor is to be notified once appointed by the Employer, who operate on Site during the entire duration of the Contract period.

4.1.8 Publicity and progress photographs

- a. The Contractor shall obtain the permission and approval of the *Employer* before erecting any notice boards, using the details of the contract in any advertising media or revealing any details of the contract to the public.
- b. The *Contractor* does not advertise the contract or the project to any third party, nor communicate directly with the media (in any jurisdiction) whatsoever without the express written notification and consent of the *Project Manager*.
- c. The *Contractor* provides a notice board showing the *Employers* Details, The *Employers* Agent's Details and the *Contractor's* Details at the site.
- d. The *Contractor* shall submit the graphic design and the structural support designs of the notice board to the *Project Manager* for acceptance before fabricating or erecting it.
- e. The *Contractor* provides progress photographs at monthly intervals in digital format as part of the *Contractor's* monthly programme narrative report. The photos shall include detailed, close photos of construction activities as well as aerial photographs showing general progress.

4.1.9 Contractor's Equipment

- a. The *Contractor* keeps daily records of his Equipment used on Site and the Working Areas (distinguishing between owned and hired Equipment) with access to such daily records available for inspection by the *Project Manager* at all reasonable times.
- b. The *Contractor* complies with the following permissions and restrictions in the use of Equipment as required by the *Employer*:

- Equipment used by the Contractor to Provide the Works shall be assembled and disassembled within the Contractors work area and site boundaries or lay-down areas as authorised by the Project Manager.
- The Contractor is required to remove all equipment that is not part of the Works from site after completion of the Works and before de-establishment of the site.
- All and any equipment used by the Contractor for the provision of the Works shall comply to the Employer's SHEQ regulations and restrictions, or any other statutory Health and Safety requirements as directed by the Project Manager in liaison with the Employer's Engineers or the Employers Consultants.

4.1.10 Equipment provided by the Employer

The Employer shall not provide any Equipment to the Contractor for the purposes of this contract.

4.1.11 Site services and facilities:

The *Employer* provides the following facilities for the *Contractor*:

- a. For the duration of the Contract, the *Project Manager* will provide an area, free of charge, for the *Contractor* to establish his offices, lay down areas, stores, *Workshops*, and other *Contractor's* Equipment.
- b. The locations of the potential lay down areas will be identified at the site clarification meeting. The *Contractor* may establish a site camp anywhere within the boundary of this area that does not impede the provision of the *Works*.
- c. The *Contractor* shall ensure that the area used has a suitable continuous security fence and the necessary access gates.
- d. The area may be used for offices, stores, casting yards, repair shops, concrete batch Plants and any other engineering work that may be required.
- e. All preparation and fencing, etc. shall be done by the *Contractor* and shall be allowed for in his Price, this includes clearing away and leaving clean and clear at completion.
- f. The *Contractor* shall provide everything else necessary for Providing the *Works*.

4.1.12 Connections to services for Contractor's use:

- a. A supply point for Potable Water on Site.
- b. The connection points for the Potable water shall be identified at the site clarification meeting.
- c. The *Supervisor* will arrange for the closing of the water valves during the installation of the metered take-off points.

- d. The *Contractor* shall be responsible for providing water for all other Working Areas where not provided by *Employer*.
- e. The *Contractor* shall provide everything else necessary for Providing the *Works* in accordance with this contract and attached Annexures.
- f. The *Contractor* shall be provided with the power point for reticulation to a designated laydown area. The contractor shall provide a CoC for the power installation to the site establishment.
- g. Wherever the *Employer* provides facilities (including, *inter alia*, temporary power, water, waste disposal, telecommunications etc) for the *Contractor's* use within the Working Areas and the *Contractor* adapts such facilities for use, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.

4.1.13 Facilities provided by the Contractor:

- a. The *Contractor* ensures that the site establishment area is compliant with the relevant safety regulations and restrictions, is clearly sign posted, and has a suitable security fence, lighting and the necessary access control gates.
- b. All costs for preparation of the site establishment area are to be allowed for in the *Contractor's* Price.
- c. The *Contractor* submits details of the layout of his site establishment to the *Project Manager* for his acceptance.
- d. The *Contractor* is responsible for his own connection to the *Employer's* services and for the reticulation of his services from the connection point. The cost of reticulation and all other usage costs associated with the provision of services are included in Price.
- e. The *Contractor* provides the *Project Manager* with a "Certificate of Compliance" (COC), by an "Accredited" Person as defined by the OHS Act, in respect of his Construction Power electrical installation. The *Project Manager* only makes construction power available upon receipt of the COC.
- f. The *Supervisor* (or his nominated representative) conducts routine inspections of the *Contractor's* construction power reticulation and power tools. If found to be un-safe and / or non-compliant with statutory requirements, the electrical power supply is disconnected until the *Contractor* rectifies all defaults.
- g. The *Contractor* provides, at his cost, a sufficient number of toilets and maintains them in a clean and sanitary working condition.

- h. The *Contractor* provides temporary lighting and fencing around every section occupied by him during the phased construction of the *Works*.
- i. Such fencing demarcates and secures the construction area. The fencing is erected before any work starts and is removed only upon completion of the work in that area.
- j. The *Contractor* includes for all costs for such lighting and fencing, including access control into and out of these restricted areas.
- k. Wherever the *Contractor* provides facilities (either his own or for the *Project Manager* and/or *Supervisor*) and all items of equipment, involving, inter alia, offices, accommodation, laboratories, materials storage, etc, within the Working Areas, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard, upon dismantling of such facilities and items of Equipment.
- l. Upon completion, and within one month of the date of acceptance of the *Works*, the *Contractor* completely removes from the Site and Working Areas all his Equipment, including the foundations of any structures, stores, office accommodation or any other asset belonging to him, and leaves the Site and Working Areas in a tidy condition to the satisfaction of the *Project Manager*.
- m. No excess or discarded materials or equipment may be buried or dumped within the port boundary.
- n. Demolition of all temporary structures surfaces etc. shall be first approved by the *Project Manager* prior to the work being carried out.
- o. The *Employer* does not provide any security for the Site and Working Areas. The *Contractor* provides same and indemnifies and holds indemnified the *Project Manager* and *Employer* against any claims and actions that may arise out of Site and Working Area security.
- p. No housing is available for the *Contractor's* employees. The *Contractor* makes his own arrangements to house his employees and transports them to site in a closed vehicle specifically designed for passenger transport (bus or similar) accepted by the *Project Manager*.
- q. Wherever the *Employer* provides facilities for the *Contractor's* use and the *Contractor* adapts such facilities for use, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.
- r. The *Contractor* shall provide, maintain and remove lockable portable chemical type toilets.
- s. The *Contractor* shall provide a suitably sized construction power supply by means of either municipal supply, or Generation Plant equipment, as required.
- t. The *Contractor* shall be wholly responsible for the provision of this power supply and shall make all the necessary arrangements for the supply, and the maintenance of the supply for the duration of the *Works*.

- u. The *Contractor* shall submit his invoices and/or municipal billing statements for the power supply as part of his Preliminary and General claims for the duration of the Works.

4.1.14 The Contractor provides the following facilities for the Project Manager and Supervisor:

- a) Furnished air-conditioned offices. (accordance to SANS 12200A 8.3.2.1a)
- b) Wherever the *Contractor* provides facilities (either his own or for the *Project Manager* and/or *Supervisor*) and all items of Equipment, involving, *inter alia*, offices, accommodation, laboratories, Materials storage, compound areas etc, within the Working Areas, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard, upon dismantling of such facilities and items of Equipment.
- c) Unless explicitly stated as a responsibility of the *Employer*, Connections to Services for *Contractors'* use, all residual requirements for the provision of facilities and all items of Equipment necessary for the *Contractor* to Provide the Works remains the responsibility of the *Contractor*.
- d) Existing premises, inspection of adjoining properties and checking work of Others, the *Contractor* will be held responsible for any damage to the existing structures and surfacing caused by the *Contractor* during the execution of this contract; fair wear and tear excluded, and shall repair it to the satisfaction of the *Project Manager* on conclusion of the *Works*.
- e) For this purpose, a joint inspection with the *Project Manager* will be carried out prior to occupation of the site(s) and any existing damage noted.
- f) The *Contractor* is required to forward a photographic report following the inspection to the *Project Manager* for record purposes.

4.1.15 Control of noise, dust, water and waste

The *Contractor* complies with the following:

- a. Before moving Equipment onto the Site and Working Areas and commencing the Works, the Contractor submits his/her proposed methods of construction which demonstrate the measures taken to avoid and or reduce any environmental and health issues arising from dust, noise and vibration for acceptance by the Project Manager.
- b. The Contractor is to provide dust suppression as per the CEMP, PES and SES documents to ensure that dust levels resulting from the *Contractor's* construction traffic are kept to the required safety and environmental standards as specified in the relevant project environmental specifications.

4.1.16 Sequences of construction or installation

The *Contractor* complies with the following:

- a. The *Contractor* is hereby informed of the requirements of maintaining the continuity of supply to the Port of Ngqura, and is required to arrange and sequence his/her Works so as to ensure that there is no disruption to the Port Operations.
- b. Should it be impossible to avoid a disruption as described in (a) above, the *Contractor* shall notify the Project Manager, Supervisor and the Employers Engineers 21 working days before the anticipated disruption and request authorization to commence with the aspect of the Works that will cause the disruption. The *Contractor* shall not proceed without said authorization to proceed.

4.1.17 Giving notice of work to be covered up

- a. The *Contractor* notifies the *Project Manager* in writing of any elements of the *Works* which are to be covered up. This notification is given not less than 48 (forty-eight) hours prior to the proposed covering up.
- b. The *Contractor* shall not cover the *Works* without the authorization of the *Project Manager*.
- c. The *Contractor* shall notify the *Project Manager* of any tests and inspections required by the *Employers* Quality Management Procedures and/or the *Employers* Engineers within 14 working days prior to the advent of inspection or tests that require witnessing.

4.1.18 The Contractor complies with the following constraints in the execution of the Works:

- a. The *Contractor* is required not to disrupt the continuity of electrical supply to the Port of Ngqura during the provision of the *Works*.
- b. Should it be impossible to avoid a disruption as described in (a) above, the *Contractor* shall notify the *Project Manager* 21 working days before the anticipated disruption and request authorization to commence with the aspect of the *Works* that will cause the disruption. The *Contractor* shall not proceed without said authorization to proceed.

5 Completion, testing, commissioning, and correction of Defects

5.1 The work to be done by the Completion Date

- a. On or before the Completion Date or Sectional Completion Date, the *Contractor* shall have done everything required to Provide the Works including removal of his/her establishment and equipment from the respective sites but excluding the work listed below which may be done after the Completion Date but in any case before the dates stated in this contract.

- b. The *Project Manager* cannot certify Completion until all the work except that listed below has been done and is also free of Defects, which would have, in his/her opinion, prevented the *Employer* from using the *Works* and others from doing their work.

Table 3: Data Packs

Item of work	To be completed by
Submission of all data packs, quality assurance records and as-built drawings	30 days after Completion

5.2 Use of the *Works* before Completion has been certified.

The *Employer* uses the following part / parts of the *Works* before Completion is certified by the *Project Manager* which do not constitute take over by the *Employer* for the reason(s) stated:

- All Cable, Switchgear, Protection relays, Control Systems Plant and Software or any other Electrical or Mechanical Plant (HVAC and Fire Protection Systems) installed by the Contractor so that the Employer may maintain the functionality of systems and existing Plant that is required by the Employer to conduct the Employers operational activities, and the operational activities of TPT.
- All Cable, Switchgear, Protection relays, Control Systems Plant and Software or any other Electrical or Mechanical Plant installed by the Contractor so that the Employer may maintain the continuity of the Electrical Supply to the Port of Ngqura.
- Any temporary or permanent Lighting installation installed by the Contractor that may be required by the Employer to be used for the night-time operational activities of TPT or others, as required by the Project Manager.

5.3 Materials facilities and samples for tests and inspections

The *Contractor* provides the *Employer* with the following materials, facilities and samples during the provision of the *Works*, as per ECC Clause 40.2:

- The Contractor is required to provide all materials, facilities and samples for any tests required.
- The Contractor shall furnish samples of any Plant that is other than, or different to, that specified by the Employer's Engineers, to the Project Manager for Acceptance by the Employer's Engineers. The Contractor is prohibited from installing said Plant without the required prior authorization from the Project Manager.

- c. The Contractor shall furnish samples of any Plant that is other than, or different to, that required by the Employer's Engineering Specifications, that shall be utilised in the Contractor's Designs, to the Project Manager for Acceptance by the Employer's Engineers. The Contractor is prohibited from installing said Plant without the required prior authorization from the Project Manager.
- d. The Contractor shall furnish samples of any Plant that is proposed to be used in the Contractor's Designs, to the Project Manager for Acceptance by the Employer's Engineers. The Contractor is prohibited from designing with, and subsequently installing said Plant without the required prior authorization from the Project Manager.
- e. The *Contractor* shall give notice to the *Project Manager* of the required inspection not less than 2 weeks before the inspection is required.
- f. The *Employer* will not provide any materials or facilities for the use of the *Contractor*, to perform tests and inspections.

5.4 Pre-Commissioning Tests and Commissioning

- a. The *Contractor* is referred to Annexure N - High Level Commissioning Plan for details of the inspections tests and activities required for commissioning of Plant. Where the word or expression in the former document reads "Equipment" the meaning is "Plant" and vice versa. The contractor shall develop a detailed Commissioning plan, taking into cognisance the employer's High-Level commissioning plan, as part of the provisions of this contract and submit the commissioning plan to the Employer's Agent for acceptance.
- b. The *Contractor* shall arrange for Factory Acceptance Testing of selected Electrical and Mechanical Plant as required by the *Employer* at the Supplier's Premises before any Plant is despatched to site.
- c. The Factory Acceptance Testing shall be witnessed by the *Employer*, but in doing so; the *Employer* assume no responsibility or accountability for the proper functionality of the Plant in any way whatsoever.
- d. The *Contractor* shall arrange for Factory Acceptance testing for Electrical and Mechanical Plant at the factory of manufacture before the Plant leaves the factory.
- e. The *Contractor* shall arrange Site Acceptance Testing for the selected Plant when it arrives on Site.
- f. The Site Acceptance Testing shall be witnessed by the *Employer*, but in doing so; the *Employer* assumes no responsibility or accountability for the proper functionality of the Plant in any way whatsoever.
- g. The cost of the FATs and SATs, including travel and accommodation, is part of this contract, and shall be included in the *Contractor's* Price. The anticipated number of persons to be catered for in this regard is 3 (Three) per FAT.

- h. The *Contractor* shall appoint an independent ECSA registered commissioning engineer to conduct and coordinate the commissioning activities. The Curriculum Vitae of the commissioning engineer shall be submitted to the *Employer* for acceptance before his/her appointment.
- i. The *Employer* reserves the right to reject the proposed commissioning engineer if he/her is deemed unsuitable to carry out the commissioning activities as required by the *Employer*.
- j. The installation shall be comprehensively tested and commissioned as individual and integrated systems as may be required by the configuration, after the *Works* are substantially complete.
- k. The *Contractor* shall provide adequate and competent personnel for testing and commissioning of every particular installation and for the full duration of the commissioning process.
- l. The commissioning shall include interaction between other systems and others where interdependence of installations is encountered.
- m. The commissioning process shall, after all testing has been completed be the final proving ground of the systems and during this procedure the installations shall be subjected to all possible inputs and actions which may be encountered under operational conditions.
- n. The *Contractor* shall prove the full operation, working and compliance of the installation in accordance with the specifications.
- o. A detailed programme of the planned commissioning procedures shall be submitted to the *Project Manager* at least 10 working days before commissioning commences.
- p. The commissioning programme shall include but is not limited to:
 - A schedule of equipment to be commissioned, the proposed tests to be conducted and the testing methods and the range of acceptable results,
 - Commissioning check sheets,
 - Commissioning programme dates and duration
- q. The *Contractor* shall supply all relevant test equipment, monitoring devices, network analysers, protocol testers/analysers etc. required to test and commission the complete *Works*.
- r. An accurate record of all commissioning and testing is to be taken and included in the handover documentation as a permanent record.
- s. The *Contractor* shall perform all tests as required by any Sections or Clauses of the *Works* Information and all tests required by the *Employers* Specifications annexed thereto, and all tests required by any applicable SANS Standard, or other Standard, and/or as directed by the *Project Manager*.
- t. Testing and commissioning is considered part of the *Works* and is to be done before completion.

5.5 Take over procedures

The *Contractor* provides the following assistance to the *Employer*:

- a. The *Contractor* ensures that the documentation required as per this *Works* Information is presented to the *Project Manager* before Completion.
- b. The *Contractor* ensures that the *Project Manager* has a full and accurate dossier of As-built documents that represent the buildings, Plant, Switchgear, other systems that reflect the status of the completed Works for Mechanical, Electrical, Control and Instrumentation, General Layouts and Detail Drawings, (and including Plant within the Works) to present to the *Employer*.
- c. The *Contractor* must submit the following documents for the HVAC and Fire Protection systems as part of the Handover file:
 - i. Final As-built drawings-signed off by ECSA professional designer
 - ii. Design Criteria
 - iii. Engineering design report
 - iv. Operational manuals
 - v. Maintenance manuals
 - vi. Training register of staff trained on the systems.
 - vii. COC-Certificates of Compliance

5.5.1 Access given by the Employer for correction of Defects

The *Contractor* complies with the following constraints and procedures of the *Employer* where the *Project Manager* arranges access for the *Contractor* after Completion:

- a. Access into areas already handed over by the *Contractor* for correction of any defect shall be subject to the approval of Port's Operations, and these times shall be communicated to the *Contractor* by the *Project Manager*.
- b. The areas required by the *Contractor* will need to be temporarily barricaded by the *Contractor* before the *Contractor* commences with any corrective work.

5.5.2 The Contractor complies with the following constraints and procedures of the Employer where the Project Manager arranges access for the Contractor after Completion:

- a. Where the *Contractor* has to return to Site after Completion to rectify notified Defects, the *Employer* may either impose the same Site access / egress restrictions as communicated elsewhere in the *Employer's Works* Information at the starting date / access date stated under Contract Data - Part One, or as the *Works* are now in use or the *Employer's* occupation of the Site may be incrementally or substantially changed post Completion, there may be further access / egress restrictions as required by the *Employer* and/The Port of Ngqura.

5.6 Operational maintenance after Completion

The *Contractor* performs the following operational maintenance in relation to the *Works* after Completion:

- a. The *Contractor* shall provide technical support and operational maintenance (by means of an OEM service and maintenance contract) to the Port for the Substation Switchgear for a period of 24 months after completion.
- b. After the expiry of the 24-month period, the OEM shall be required to offer a renewal of these contracts to TPT, at the same contract Price for the period, plus reasonable escalation, however, TPT reserves the right to decline the offer.
- c. The *Contractor* shall provide maintenance contracts for Plant as contained and required anywhere else in this Works Information.
- d. The *Contractor* shall include a maintenance contract for 24 months for the maintenance of complete HVAC system.
- e. The *Contractor* shall include a maintenance contract for 24 months for the maintenance of complete fire detection and suppression system.

5.7 Performance tests after Completion

The *Contractor* performs the following performance tests after Completion of the *Works*:

- a. The *Contractor* is required to demonstrate the functionality and performance of the Protection Relay settings for the Port of Ngqura Substation installation, in its ability to function as a standalone system for the Substation, to the satisfaction of the Employer's Engineers.
- b. The *Contractor* is required to demonstrate the functionality and performance of the proposed Substation Protection Relay settings and the grading thereof, as a part of the overall integrated Protection Relay settings and the grading thereof, that service all the substations/works linked to the construction and operations of the proposed Substation.
- c. The *Contractor* shall perform all relevant testing and demonstrate the full functionality of the complete fire protection systems in both substation to the full satisfaction of the *Employer's Engineer*.
- d. The *Contractor* shall perform all relevant testing and demonstrate the full functionality of the complete HVAC systems in both substations to the full satisfaction of the *Employer's Engineer*.

5.8 Training and technology transfer

The *Contractor* facilitates the following requirements for training *Workshops* after Completion for the *Works* in use:

- a) The *Contractor* shall provide training for the Employer's selected staff in the maintenance and operations of all specialised Plant and Systems and Software, HVAC systems and FIRE systems, Switchgear and Protection Relays. Training cost is to be allowed for in the Contractor's Price.
- b) The *Contractor* is to train the *Employer's* staff on the power systems modelling and simulation software required as part of the scope of works.
- c) The Training shall be comprehensive with printed training manuals and electronic copies of such manuals made available to each delegate.
- d) The *Employer* envisages that the number of staff required to be trained will be 10, the exact number to be confirmed by the *Project Manager* during the provision of the Works.

6 Plant and Materials Standards and Workmanship

6.1 Plant and Materials

- a. The *Contractor* provides Plant and Materials for inclusion in the *Works* in accordance with the Standard Specifications and/or Project Specifications, unless otherwise stated elsewhere in the *Works* Information provided by the *Employer*. All Plant and Materials are new, unless the use of old or refurbished goods and/or Materials are expressly permitted as stated by the *Project Manager*.
- b. The *Contractor* replaces any Plant and Materials subject to breakages (whether in the Working Areas or not) or any Plant and Materials not conforming to standards or specifications stated and notifies the *Project Manager* and the *Supervisor* on each occasion where replacement is required.
- c. No Plant or Materials will be provided "free issue" by the *Employer*.
- d. The *Contractor* provides all Plant and Materials necessary for the *Works*.
- e. The *Contractor* supplies all certification including test certificates, user manuals, maintenance manuals and data books with respect to Plant and Materials procured for the *Works*.

7 Detailed Engineering Scope of Works

7.1 Legal Requirements Regarding Designs

In addition to the specifications, TPT substations upgrade shall comply with the following relevant South African Acts and Regulations, and they shall apply in the order of precedence as listed below:

7.1.1 Reference Documents

7.1.2 Legislations

Table 4: List of South African and International Codes used in the development of this document.

Item	Document Number	Description
[1]	OSH ACT 85 of 1993	South African National Occupational Health and Safety Act 85 of 1993

7.1.3 Standards

Table 5: List of all South African and International Standards used in the development of this document.

Item	Document Number	Description
[1]	SANS 10142-1&2	Code of Practice for the Wiring of Premises.
[2]	SANS 62305-1	Protection against lightning Part 1: General principles
[3]	SANS 62305-2	Protection against lightning Part 2: Risk management
[4]	SANS 62305-3	Protection against lightning Part 3: Physical damage to structures and life hazard
[5]	SANS 62305-4	Protection against lightning Part 4: Electrical and electronic systems within structures
[6]	SANS 10313	Protection against lightning - Physical damage to structures and life hazard
[7]	SANS 10199	The design and installation of earth electrodes
[8]	SANS 1063	Earth rods, couplers and connections
[9]	SANS 10198-8	The selection, handling and installation of electric power cables of rating not exceeding 33 kV Part 8: Cable laying and installation
[10]	SANS 1091	National Colour Codes
[11]	SANS 1973-1	Low Voltage switchgear assemblies >10kA
[12]	SANS 1973-2	Low Voltage switchgear assemblies <10kA
[13]	SANS 10292	Earthing of Low Voltage (LV) distribution systems
[14]	SANS 60529	Degrees of protection by enclosure (IP codes)
[15]	SANS 61689	Instrument Transformer
[16]	SANS 62268	Electricity Metering Equipment
[17]	SANS 725	IEEE Guide for Safety in AC Substation Grounding

7.1.4 Specifications

Table 6: List of all Transnet Specifications used in the development of this document

Item	Document Number	Description
[1]	TPD-001-EL&PSPEC	Specification for electrical installations to buildings other than dwellings houses
[2]	TPD-002-DBSPEC	Specification for low voltage distribution boards
[3]	TPD-003-CABLESPEC	Specification for the supply and installation of medium voltage and low voltage electrical cables
[4]	TPD-004-EARTHINGSPEC	Specification for earthing and the protection of buildings and structures against lightning.
[5]	TPD-007-MVSWITCHSPEC	Specification for indoor medium/ high voltage (1kv to 33 kV) alternating current switchgear and control gear
[6]	TPD-008-MINISUBSPEC	Specification for Mini substations

7.2 Service Conditions

The plant/equipment shall be designed and rated for continuous operation under the following conditions: -

Altitude	0 to 1800m above sea level
Ambient air temperature	Max 45 deg. C; Min. -5 deg. C
Humidity	as high as 96 %
Lightning conditions	Severe with 11 flashes/km ² /annum
In addition, the atmosphere will be Salt laden and corrosive industrial chemical and dust laden nature. Frequent heavy rains driven by wind reaching speeds of 100 Km/h and above.	

7.3 Low Voltage Power System

All Low Voltage equipment and or plants to be provided as part of the engineering solution shall normally operate in the following conditions:

Nominal system voltage:	400V
Minimum - Maximum system voltage:	380V - 420V
Nominal frequency:	50 Hz \pm 2 Hz
No. of phases:	3 Phase and Neutral
Short Circuit	31.5kA
Neutral Point	Solidly Earthed

7.4 Medium Voltage Power System

All Medium Voltage equipment and or plants to be provided as part of the engineering solution shall normally operate in the following conditions:

Nominal system voltage:	11kV
Minimum - Maximum system voltage:	10.45kV – 11.55kV
Nominal frequency:	50 Hz \pm 2 Hz
No. of phases:	3 Phase
Neutral Point	Solidly Earthed
Short Circuit	25kA

7.5 Design Works to be executed by the Contractor

- a. The *Contractor* shall appoint a protection *specialist* to perform medium voltage protection study for the entire Medium Voltage network.
- b. The *Specialist* shall perform a modelling and simulation study of the entire network using the latest version of ETAP^{PS} (latest version) and produce a load flow, short circuit, and protection study report for acceptance by the *Employer*.
- c. The *Contractor* shall procure the required software as part of the works and hand it over to TPT as a project deliverable with the power system models upon completion of the works.
- d. The *Specialist* shall implement the protection settings of the entire network based on the simulated model and protection study report.
- e. The *Contractor* shall test the integrity of the existing earthing system at the substation. The *Contractor* shall submit all test results to the *Project Manager* for acceptance by the *Employers Engineer*.
- f. The *Contractor* shall perform a full design of the lighting protection, earthing and bonding earthing for substation/s in accordance with the requirements of SANS 10313, SANS 62305 and the *Employer's* specification. All designs performed by the *Contractor* shall be undertaken by an accredited specialist and the credentials/CV of the specialist shall be submitted during execution to the *Employers Engineer* for acceptance.
- g. The *Contractor* shall implement the outputs of the designs for supplement or the provision of the lightning protection, earthing and bonding.
- h. All detailed designs of the plant in accordance with the specifications incorporated in this contract.
- i. The *Contractor* shall be responsible for the full detail design of a HVAC positive pressurised ventilation system which must ensure that a positive pressure, relative to the surrounding environment, is maintained in the MV rooms and LV rooms and both Transformer rooms in both Substation 1A and Substation 1B which will have the purpose of preventing ingress of fine dust particles from the outside environment into the substation rooms. The *Contractor* shall also be responsible for the full detail design of a HVAC air conditioning system for the LV rooms and MV rooms of each substation which will have sufficient cooling capacity to service all heat loads which exists in the substations 1A and 1B. The HVAC systems design must also include for the relevant dehumidification applicable to the highly corrosive environment in line with the relevant applicable HVAC codes for the MV rooms and LV rooms and both Transformer rooms in both Substation 1A and 1B . All designs must be carried out in compliance with the relevant, applicable SANS codes and ASHRAE design codes. HVAC system designs must include for all demolition

works of existing systems where required to bring it into compliance with the relevant codes of design and compliance. All HVAC designs must be signed off by and ECSA registered professional Pr.Eng or Pr.Tech Eng which has adequate experience in the specific discipline and applicable system design.

- j. The *Contractor* shall be responsible for the full detail design of a Gaseous fire detection and suppression systems for the MV rooms, LV rooms, both transformer rooms and diesel generator rooms for both Substation 1A and Substation 1B. The fire suppression system detection and discharging of the gas shall include all rooms listed, but exclude the cable trenches which must be isolated from the relevant rooms by suitable sealing of openings. The fire protection systems must be based on a total flooding gaseous agent which has a low ODP (ozone depletion potential). The gaseous suppression agent/gas must be FK-5-1-12 or any of the other of the Inert gasses which are most suitable for the substation, and which will fit into the space allowed for it inside each of the substations. It is the responsibility of the Contractor to ensure that most suitable type of system is designed. All designs must be carried out in accordance with the relevant SANS codes and other applicable codes of design. All modifications which is required to the existing HVAC components, louvers, openings, etc. and additions must be included in the designs.
- k. All fire detection and suppression designs must be signed off by and ECSA registered professional Pr.Eng or Pr.Tech Eng which has adequate experience in the specific discipline and applicable system design.
- l. The *Contractor* shall be responsible for taking the necessary on-site measurements and drafting of the relevant drawings needed/required as input to the HVAC system and Fire detection and suppression system designs.
- m. The *Contractor* shall as part of the design process of the HVAC and Fire Protection Systems compile and submit the following documents to the *Employer* during the design process at the various stages of the design process:
 - i. Concept drawings
 - ii. Detail design drawings, plan layouts, sections, elevations and relevant detail drawings.
 - iii. Design Criteria document which specifies the design premise, site conditions, codes of design, type of systems which will be designed, design approach etc.
 - iv. Engineering design report which must report on all the systems designed regarding the design process followed, the codes of design followed, the design considerations, explain how the specific system were arrived at in

the design process as the best possible solution including all design calculations.

7.6 Construction *Works to be executed by the Contractor*

7.6.1 MV Switchgear Installation

The *Contractor* shall apply for a working permit two weeks before any commencement of the MV works and ensure minimal disruption to operations.

7.6.1.1 Existing Switchgear (and the associated installation) Disconnection in the Substation.

- a. The *Contractor* shall disconnect, remove and dismantle the existing 11kV MV switchgear. The removed 11kV switchgear shall be transported by the *Contractor* to the Transnet Port Terminals Depot within a radius of 5km and handed over to the depot electrical supervisor.
- b. The *Contractor* shall disconnect and remove the existing battery charger with battery banks and associated accessories including loading, transportation within a 5km radius; offloading and safe disposal storage as instructed by the Transnet Port Terminals electrical supervisor.
- c. The *Contractor* shall disconnect and remove the existing power factor correction equipment and associated accessories including loading, transportation within a 5km radius; offloading and safe disposal storage as instructed by the Transnet Port Terminals electrical supervisor.

7.6.1.2 Substation 1A MV Plant SoW

- a. The *Contractor* shall supply, install and commission two (2) 11kV incomer panels, and supply one (1) spare delivered to TPT storage inside the port. The incomer panels are to be complete with protection relays, anti condensation heaters, Current and voltage transformers as per specification TPD-007-MVSWITCHSPEC and drawing name: Substation 1A MV Single Line Diagram and Floor Plans. The panels shall be bottom cable entry to allow installation of incoming cables from the Trench. The panels cable termination compartments shall be designed suitable for EN 50181 and DIN 47637 plug type terminations.
- b. The *Contractor* shall supply, install and commission five (5) 11kV feeder panel, and supply one (1) feeder spare delivered to TPT storage inside the port. The feeder panels are to be complete with protection relays, anti condensation heaters and instrument transformers as per specification TPD-007-MVSWITCHSPEC and drawing name: Substation 1A MV Single Line Diagram and Floor Plans. The panels shall be bottom cable entry to allow feeding cables to the Trench. The switchgear cable termination

- compartments shall be designed suitable for EN 50181 and DIN 47637 plug type terminations.
- c. The *Contractor* shall supply, install and commission one (1) spare 11kV feeder panel complete with protection relays, anti condensation heaters and instrument transformers as per specification TPD-007-MVSWITCHSPEC and drawing name: Substation 1A MV Single Line Diagram and Floor Plans. The panels shall be bottom cable entry to allow feeding cables to the Trench. The switchgear cable termination compartments shall be designed suitable for EN 50181 and DIN 47637 plug type terminations.
 - d. The *Contractor* shall supply, install and commission one (1) 11kV bus-section panel equal to the incomer panel, complete with protection relays, anti condensation heaters and instrument transformers as per specification TPD-007-MVSWITCHSPEC and drawing name: Substation 1A MV Single Line Diagram and Floor Plans. The panels shall be bottom cable entry to allow feeding cables to the Trench. The switchgear cable termination compartments shall be designed suitable for EN 50181 and DIN 47637 plug type terminations.
 - e. The *Contractor* shall supply, install and commission one 11kV bus-riser panels/bus-bar Earth and VT panels.
 - f. The *Contractor* shall design, supply, install and commission a power quality technology for the installation. The power quality requirement shall be informed by the power systems simulation study that is part of the contractor's scope.
 - g. The *Contractor* shall design, supply, install and commission the battery bank (enclosed in a cabinet) and battery terminal unit for the 11kV switchgear complete with protection and wiring.
 - h. The *Contractor* shall design, supply, install and commission a complete arc ducting system for the 11kV switchgear as per specification TPD-007-MVSWITCHSPEC. (Ducting to extract to exterior of substation with suitable weatherproof stainless-steel cowl).

7.6.1.3 Substation 1B MV Plant SoW

- i. The *Contractor* shall supply, install and commission two (2) 11kV incomer panels, and supply one (1) spare delivered to TPT storage inside the port. The incomer panels are to be complete with protection relays, anti condensation heaters, Current and voltage transformers as per specification TPD-007-MVSWITCHSPEC and drawing name: Substation 1B MV Single Line Diagram and Floor Plans. The panels shall be bottom cable entry to allow installation of incoming cables from the Trench. The panels cable termination compartments shall be designed suitable for EN 50181 and DIN 47637 plug type terminations.

- j. The *Contractor* shall supply, install and commission seven (7) 11kV feeder panel, and supply one (1) feeder spare delivered to TPT storage inside the port. The feeder panels are to be complete with protection relays, anti condensation heaters and instrument transformers as per specification TPD-007-MVSWITCHSPEC and drawing name: Substation 1B MV Single Line Diagram and Floor Plans. The panels shall be bottom cable entry to allow feeding cables to the Trench. The switchgear cable termination compartments shall be designed suitable for EN 50181 and DIN 47637 plug type terminations.
- k. The *Contractor* shall supply, install and commission one (1) spare 11kV feeder panel complete with protection relays, anti condensation heaters and instrument transformers as per specification TPD-007-MVSWITCHSPEC and drawing name: Substation 1B MV Single Line Diagram and Floor Plans. The panels shall be bottom cable entry to allow feeding cables to the Trench. The switchgear cable termination compartments shall be designed suitable for EN 50181 and DIN 47637 plug type terminations.
- l. The *Contractor* shall supply, install and commission one (1) 11kV bus-section panel equal to the incomer panel, complete with protection relays, anti condensation heaters and instrument transformers as per specification TPD-007-MVSWITCHSPEC and drawing name: Substation 1B MV Single Line Diagram and Floor Plans. The panels shall be bottom cable entry to allow feeding cables to the Trench. The switchgear cable termination compartments shall be designed suitable for EN 50181 and DIN 47637 plug type terminations.
- m. The *Contractor* shall supply, install and commission one 11kV bus-riser panels/bus-bar Earth and VT panels.
- n. The *Contractor* shall design, supply, install and commission a power quality technology for the installation. The power quality requirement shall be informed by the power systems simulation study that is part of the contractor's scope.
- o. The *Contractor* shall design, supply, install and commission the battery bank (enclosed in a cabinet) and battery terminal unit for the 11kV switchgear complete with protection and wiring.
- p. The *Contractor* shall design, supply, install and commission a complete arc ducting system for the 11kV switchgear as per specification TPD-007-MVSWITCHSPEC. (Ducting to extract to exterior of substation with suitable weatherproof stainless-steel cowl).

7.6.2 Cable Installation

- a. The *Contractor* shall disconnect the existing MV feeder and incomer cables from the existing MV switchgear. The mentioned cables to be disconnected shall be reused in the new installation with new termination kits.
- b. The existing cable terminations shall be handed over to the Transnet Port Terminals Depot electrical supervisor.
- c. The *Contractor* shall supply new MV plug type terminations designed to EN 50181 and DIN 47637. The Contractor shall install and terminate all existing MV cables with new termination kits as per SANS 101980-4, Transnet specification TPD-003-CABLESPEC and drawing name: Substation 1A MV Single Line Diagram and Floor Plans. The contractor to note that the switchgear cable compartment shall be manufactured (with the female end) to suit the plug type termination.
- d. The *Contractor* shall select, supply, and install trifurcation joints from MV three core cables to single core XLPE SWA cables. The termination to switchgear shall be from single core XLPE cables.
- e. The contractor shall supply and install new MV single core XLPE SWA cables.
- f. The Contractor shall seal and make good all cable entries and exits of the substation to block water from entering the substation trenches.

7.6.3 Design, Supply, and Installation, Testing, Commissioning and Handover of new HVAC systems

- a. The Contractor shall design, supply, install, test, commission, and handover a complete positive pressurised HVAC system for all the rooms in Substation 1A and 1B. This shall also include the testing and commissioning of newly installed HVAC systems.
- b. The HVAC system shall be designed in such a way that it will be able to provide adequate cooling for all the heat loads present in each of the substations 1A and 1B.
- c. The HVAC system shall be a positively pressurised air conditioning system, to prevent ingress of dust and other fine particulate matter from the outside environment. The HVAC system shall also be designed in such a way that it includes for dehumidification on air entering the substations to the relevant levels in accordance with the relevant design codes. This design shall be carried out in accordance with the relevant SANS and ASHRAE design codes for this application to ensure efficiency and compliance.
- d. The ventilation of the building must be in accordance with the requirements of the Occupational Health and Safety Act 85, 1993 and the relevant SANS codes or as amended.
- e. The HVAC system shall be designed to conform to the SANS 10400 O and all other applicable standards.
- f. All refrigerants used in HVAC systems must have an Ozone Depletion Potential (ODP) of zero and a very low Global Warming Potential.

- g. The HVAC system must be interlocked with the fire detection and suppression system to allow for successful suppression in the event of a fire.
- h. HVAC Distribution Efficiency:
 - All supply and return air branch ducts shall include the appropriate style of volume damper. Air terminal devices such as grilles, registers, and diffusers shall be balanced at duct branch dampers, not at terminal face.
 - All ductworks shall comply with SANS 1238 and all the codes referred to herein.
 - All medium- and high-pressure ductwork systems shall be pressure-tested in accordance with the relevant SANS code.
 - All ductworks shall be insulated. No interior duct liner shall be permitted.
 - All HVAC equipment shall be isolated from the ductwork system with flexible duct connectors to minimize the transmittance of vibration.
 - All mechanical system components shall be new.
- i. The *Contractor* shall be responsible for the dismantling, and removal of all existing HVAC plant, materials ,components and builders work in the substations and safely disposing thereof at a suitable off-site facility.
- j. The *Contractor* shall also be responsible for making good all openings used by existing HVAC plant and components which will no longer be used in the newly designed HVAC system.
- k. The *Contractor* must provide a 24-month warranty on the complete HVAC system.

7.6.4 Design, Supply, Installation, Testing, Commissioning and Handover of Fire Protection systems.

- a. The Contractor shall design, supply, install, test, commission, and handover a complete fire suppression and detection system in all the rooms of the Substation 1A and Substation 1B. This system must include fire detection for the substation rooms including the fire detection and suppression in cable trenches in the substation rooms.
- b. The *Contractor* shall also be responsible for the design, supply, installation, testing, commissioning and handover of all fire extinguishers, fire and escape signage in accordance with the relevant SANS codes.
- c. The *Contractor* shall also provide and install all required fire extinguishers and relevant fire and emergency escape signage in compliance with the relevant SANS code.
- d. A fire stopping solution shall be installed between rooms and within the trenches. This will slow down the spread of a fire for a calculated length of time and would also allow for the designed suppression system to extinguish the fire.
- e. The *Contractor* shall perform room integrity testing on each of the rooms of the substation, to ensure that all openings are tightly sealed to provide efficient containment of the fire

suppression gas during a fire event. This would require any holes in walls, ceilings, etc. to be sealed using the correct method for the application.

- f. Any roller shutter doors, windows, louvers, etc. may require sealing along the edges, or alternatively, the installation of fire curtains to prevent the release of gasses to the outside during a suppression event may be required.
- g. The fire detection and suppression system must be suitably interlocked with the HVAC system in each of the rooms to ensure that the fire suppression system effectiveness is not hampered by the HVAC system operation. The necessary automated louvers and all other mechanisms to ensure an efficient suppression system must be included as part of the system.
- h. The *Contractor* shall be responsible for the dismantling, and removal of all existing fire protection systems, materials and components and safely disposing thereof at a suitable off-site facility.
- i. All inter-leading doors shall be fire rated to prevent a fire spreading between building compartments. The current doors need to be checked and replaced if required. All exterior doors needing replacement to ensure that the functioning of the fire protection and HVAC systems are not compromised, must be replaced.
- j. All building works which needs to be performed in terms of creating new openings or closing up of existing openings is included in the works of the *Contractor*.
- k. Fire control, safety and risk management shall be conducted in full compliance with the National Building Regulations, SANS 10400-T, as amended and with all other applicable codes, Legislation and Regulations. It will be required that a complete Fire systems report be submitted, along with all other information regarding Fire Compliance for all rooms in the substations.
- l. The control panel for the monitoring of the fire detection system will be fitted to a Security Control Room to facilitate 24-hour monitoring.
- m. All fire detection and suppression system plant, components and fixtures shall be new.
- n. The *Contractor* must provide a 24-month warranty on the complete Fire Protection system.

7.6.5 Substation building refurbishments.

- a. The *Contractor* shall supply and install new fire rated doors for the substation building.
- b. The *Contractor* shall supply and install new signages in accordance with the OHS Act.
- c. The *Contractor* shall undertake minor building refurbishments which includes but will not be limited to making good the substation floor, roof, and walls. A provisional sum will be

allowed to undertake this work and the extent of the work shall be assessed and agreed in execution.

- d. All works shall be in accordance with SANS 10400 and the OHS Act.

7.6.6 Testing and Commissioning of the installation

- a. The *Contractor* shall conduct a Factory Acceptance Test (FAT) for all Plant's to be installed as part of the Works to be executed in this Contract prior to delivery to site. The FAT shall be conducted in the presence of the *Employer's Engineers*. The legal transfer of ownership from the Plant's supplier to the *Contractor* shall be held by the *Contractor* until the Plant is fully installed, tested commissioned on the *Employer's* designated site.
- b. The *Contractor* shall conduct a Site Acceptance Test (SAT) for all Plant's supplied, offloaded, and delivered to the designated *Employer's* site. The SAT shall be conducted in the presence of the *Employer's Engineer*. The legal transfer of ownership from the Plant's supplier to the *Contractor* shall be held by the *Contractor* until the Plant is fully installed, tested commissioned on the *Employer's* designated site.
- c. The *Contractor* shall test the MV installation and LV installation and hand over all relevant test certificates to the *Employer's* engineer for acceptance. The *Contractor* shall hand over both MV and LV certificate of compliance respectively as per the OHS Act 85 and SANS 10142-1 and SANS1042-2 for the installation.
- d. The *Contractor* shall test and commission the entire Earthing system as per Transnet Specification TPD-004-EARTHINGSPEC and SANS 10142-1 in the presence of the *Employer's Engineer*. The *Contractor* shall handover all test certificates to the *Employer's Project Manager* for acceptance by the *Employer's Engineers*.
- e. The *Contractor* shall test and commission the protection system.
- f. The *Contractor* shall test and commission all HVAC systems and Fire detection and suppression systems in accordance with the relevant SANS and other applicable codes of standards.
- g. All COC (certificates of compliance) and other relevant certifications must be issued for all HVAC and fire detection and suppression systems.

8 List of Drawings

8.1 Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

Note: Some drawings may contain both Works Information and Site Information.

Table 7: Drawings

Drawing number	Revision	Title
	0A	Port Switching Layout
	0A TD	Substation 1A MV Single Line Diagram and Floor Plans
	0A TD	Substation 1B MV Single Line Diagram and Floor Plans

SECTION 2

9 Management and start up

9.1 Management meetings

- It is the *Employer's* specific intention that the Parties and their agents use the techniques of partnering to manage the contract by holding meetings designed to pro-actively and jointly manage the administration of the contract with the objective of minimising the adverse effects of risks and surprises for both parties.
- Depending on the size and complexities of the Works, it is probably beneficial for the *Employer* to hold a weekly risk register meeting. This could be used to discuss safety, environmental, compensation events, subcontracting, overall co-ordination and other matters of a general nature. Separate meetings for specialist activities such as programming, engineering and design management, may also be warranted.

Regular meetings of a general nature may be convened and chaired by the Project Manager as follows:

Table 8: Communication Plan

Title and purpose	Approximate time & interval	Location	Attendance by:
Kick-Off Meeting	Prior to Commencement of Construction	Port of Ngqura	<i>Employer, Contractor (key persons) and Project Manager (appropriate delegates)</i>
Contract Progress Meeting	Fortnightly	Port of Ngqura	<i>Employer, Contractor (key persons) and Project Manager (appropriate delegates)</i>
Risk Register and Compensation Events	Weekly	Port of Ngqura	<i>Project Manager (and appropriate delegates), Supervisor (and</i>

			<i>appropriate delegates) and Contractor (appropriate key persons)</i>
Monthly SHE meeting	Monthly	Port of Ngqura	<i>Employer, Project Manager (and appropriate delegates), Contractor (line management, site Supervisors, safety officer, environmental officer and safety reps)</i>
Safety Visible Felt Leadership Walkabout	Weekly	On Site	<i>Project Manager (and appropriate delegates) and Contractor (appropriate key persons)</i>
Safety Workshop	Bi-weekly	On Site	<i>Contractor's site Supervisors</i>
Safety Committee Meeting	Every second month	Port of Ngqura	<i>Employer, Contractor (key persons) and Project Manager (appropriate delegates)</i>

- c. Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the Works. Records of these meetings are to be submitted to the *Project Manager* by the person convening the meeting within 5 working days of the meeting.
- d. All meetings are to be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register are not to be used for the purpose of confirming actions or instructions under the contract as these are to be done separately by the person identified in the conditions of contract to carry out such actions or instructions.
- e. The *Contractor* attends management meetings at the *Project Manager's* request as set out in the table above. At these meetings the *Contractor* presents all relevant data including safety, health and environmental issues, progress reports, quality plans, Sub-contractor management reports, as may be required.

9.2 Documentation Control

- a. In undertaking the *Works* all documentation requirements for the *Works* shall be dealt with in accordance with document DOC-STD-0001 – Rev03 (*Contractor* Documentation Submittal Requirements). The control, maintenance and handling of these documents and drawings, using a suitable document control system, remain the sole responsibility of the *Contractor*.

- b. The *Contractor* Documentation Submittal Requirements (CDSR) is as contemplated in DOC-STD-0001 – Rev 03, as contained in the Annexure B.
- c. The *Contractor* documentation “Starter kit”, as contemplated in DOC-STD-0001 – Rev 03, will be issued at the kick-off meeting following award.
- d. All contract correspondence is issued through document control. All hardcopy communication will be delivered to the *Employer* via the Lead Document Controller at the project site office document control department.
- e. Each supplier of documentation and data to the Project is responsible for ensuring that all documentation and data submitted conforms to the Project Standards and data Quality requirements in terms of numbering, uniqueness, quality, accuracy, format, completeness and currency of information. Data not meeting the Project Standards and data Quality requirements will be cause for rejection and returned to the *Contractor* for corrective action and re-submission.
- f. Should any change be made to documentation or data, which has already been submitted to the Project, then new or revised documentation or data shall be issued to replace the out-dated information.
- g. It is the responsibility of all Project participants undertaking work on the Project to ensure they obtain and comply with the relevant requirements to suit their deliverables and Scope of Work.
- h. The *Contractor* is to ensure that the latest version of the required application software and a suitable ‘IT’ Infrastructure is in place to support the electronic transmission of documentation.
- i. Electronic files submitted to the Project shall be clear of known viruses and extraneous “macros”. The supplier of documentation is required to have, at all times, the latest generation of virus protection software and up-to-date virus definitions.
- j. The *Contractor* shall be responsible for the supply of all Sub-Supplier/*Contractor*/ Manufacturer, etc. documentation and data related to their package of work and shall ensure that these Sub-Suppliers have the capability to supply the necessary documentation and data in the required time-frame and quality as outlined in the specified standards prior to awarding sub-orders.
- k. The required number of copies shall as a minimum be three (3) (1x original + 2 x hard copies), with the corresponding PDF and ‘Native’ file formats upon final submission.
- l. The *Contractor* shall apply “wet signatures” to the original Documentation before scanning the signed original and prior to formal submission to the Project.
- m. Final issues of all documentation shall be supplied to the Project in “wet signature” format along with the associated corresponding electronic ‘native files’ and PDF renditions.
- n. The *Contractor* shall ensure adequate resources are available to manage and execute the Document Control function as per the requirements of the Project. (*The Contractor* shall ensure that a dedicated Document Controller is available for the Project)

9.3 Safety risk management

- a. The Contractor complies with the following HAS specifications and standards:
 - i. Annexure C: Health and Safety Project Specification TRN-IMS-GRP-GDL-014.3;
 - ii. Occupational Health and Safety Act (Act 85 of 1993) and Regulations;
 - iii. Transnet health and safety policies and procedures;
 - iv. National Road Traffic Act.
- b. The Contractor ensures that its Subcontractors comply with the above-mentioned requirements.
- c. The Employer will acknowledge the achievement of specific safety milestones set for the project with regards to incident statistics, incident recording, safety observation and conversations (SOC's) participation, safety initiatives, etc.
- d. The Contractor makes the HAS specification available to its employees and subcontractors in the language of this contract and other local languages as required.
- e. The Contractor conducts a risk assessment and method statement pack prior to carrying out any activity on the Site to the approval of the *Project Manager*.
- f. The lines of communication of the various personnel acting on behalf of the *Project Manager*, who communicates directly with the *Contractor*, and his key persons with respect to the HAS specification, are contained within Annexure C (Health and Safety Project Specification TRN-IMS-GRP-GDL-014.3). One such person is the Clients appointed PrCHSA who will be responsible for obtaining the project construction work permit.
- g. The roles and responsibilities of the various personnel acting on behalf of the *Project Manager* with respect to the HAS Project specification and health and safety issues as per Annexure C (Health and Safety Specification TRN-IMS-GRP-GDL-014.3)
- h. The *Contractor* shall appoint a full time CHSO per shift, registered with SACPCMP for the duration of the works, the number of which depending on the scope, complexity, and high-risk activities involved, as required by the Construction regulations of 2014, regulation 8(5). The Health and Safety Officer(s) must be on site when work commences at the start of the day and must remain on site until all activities for that day (including the activities of sub-Contractors) have been completed.
- i. The CM is responsible, within the context of the HAS project Specification, for health and safety on the Site and reports to the *Project Manager*. The CM specific tasks are detailed in:
 - i. Annexure C (Health and Safety project Specification TRN-IMS-GRP-GDL-014.3).
- j. All items of plant, Equipment and vehicles travelling within the Site shall be equipped with fully operational amber rotating flashing lights. All vehicles shall be roadworthy and shall at all times adhere to all traffic signage and speed limits.

- k. All employees of the *Contractors* will undergo entry medicals at the *Contractor's* cost before the commencement of the project and thereafter on an annual basis inclusive of exit medicals. Medicals to include drug testing.
- l. Trainings as stipulated in the HS project specification will be conducted by relevant *Contractors* employees at the *Contractor's* cost before the commencement of the project
- m. All will comply with PPE requirements as mentioned in this document as well as HS project specification taking note that only long sleeve pants and shirts are allowed to be worn on site.
- n. Transportation of employees will not be allowed at the back of bakkies.
- o. All permit costs required for any activities relating to the project shall be for the *Contractors* account.
- p. The *Contractor* shall further comply with all applicable legislative requirements and standards with respect to his own activities and others on the Site. A health and safety file to be submitted by the *Contractor* 14 working days post award of tender for approval by the *Employer* or *Employers Representative* before site access can be granted. In addition, 14 working days should be allowed for health and safety file to be approved by the *Employer's* HS Staff as well as TPT SHEQ Department. The *Contractor* must allow for this in their scheduling.

9.4 Environmental constraints and management

9.4.1 General

- a. All work is to be conducted in accordance with the principles of the National Environmental Management Act, 1998 (Act no 107 of 1998) as well as all other applicable legislation, regulations, the accepted environmental good practice inclusive of *Contractor* Environment and Sustainability Specification Guideline Annexure D (TRN-IMS-GRP-GDL 014.4).
- b. The *Contractor* Environment and Sustainability Specification Guideline provides an integrated approach to environmental management. This approach is designed to guide the appropriate allocation of human resources, assign responsibilities, develop procedures and ensure project compliance with regulatory and best practice requirements. The *Contractor* Environment and Sustainability Specification Guideline requirements shall be applicable to the main *Contractor* and all its service providers.
- c. The *Contractor* must sign the declaration of understanding as a commitment to abide with the *Contractor* Environment and Sustainability Specification Guideline. Sufficient environmental budget must be allocated to meet all the project environmental requirements for the duration of the contract.

- d. The *Contractor* shall perform the Works and all construction activities within the Site and Working Areas having due regard for the environment and environmental management practices as more particularly described within the Contractor Environment and Sustainability Specification Guideline.
- e. The *Contractor* must appoint a suitably qualified Environmental Officer with a relevant environmental qualification and environmental management experience.

9.5 Environmental Obligation

- a. The overarching obligations of the *Contractor* in terms of the Contractor Environment and Sustainability Specification Guideline before construction activities commence on the Site and/or Working Areas is to provide environmental method statements for all construction operations at the Site and/or Working Area and where requested by the Construction Manager. The *Contractor* shall comply with the following:
 - i. The *Contractor* shall identify the kinds of environmental impacts that will occur as a result of their activities and accordingly prepare separate method statements describing how each of these impacts will be prevented or managed so that the standards set out in the *Contractor* Environment and Sustainability Specification Guideline are achieved.
- b. The *Contractor* shall take note of the environmental sensitivity of the Project area and surrounding areas and shall erect and maintain a highly visible temporary fence/barrier along the boundaries of the Site and around any no-go areas that may be pointed out. Site demarcation must be done and be in place prior to commencement of any construction related activity, to the satisfaction of the Construction Manager and Project Environmental Manager.
- c. The *Contractor* must take note of various environmental monitoring requirements during construction, as specified by the *Contractor* Environment and Sustainability Specification Guideline, and must make adequate allowance for undertaking specified monitoring.
- d. The *Contractor* must appoint a waste removal Service Providers as per the TPT list of waste removal Service Providers (to be provided after contract award).
- e. The *Contractor* shall be responsible for rehabilitation/reinstatement and cleaning all areas to the satisfaction of the *Employer's* Environmental Officer or Construction Manager as detailed in the *Contractor* Environment and Sustainability Specification Guideline.

9.6 Quality assurance requirements

9.6.1 General Requirements

- a. The *Contractor* shall execute the works in accordance with the project specification General Quality Requirements for *Contractors* and Suppliers included in Annexure E (General Quality Requirements for *Contractors* and Suppliers) of the Works Information.
- b. The *Contractor's* Quality Management System shall conform to the International ISO 9001 Standard or an equivalent standard acceptable to the *Project Manager*.
- c. Prior to the commencement of the works on Site, the *Contractor* shall submit his quality assurance and control proposal(s) to the *Employer* for review and approval 14 working days post award of tender. Works on Site may only commence once these proposals have been approved by the *Employer*.
- d. This proposal shall detail the *Contractor's* quality management system as it applies to all aspects of supply or service provision, including design, procurement, manufacturing, construction, installation, erection, and commissioning.

The *Contractor* shall make allowance for the provision of suitably qualified quality control staff to manage and carry out inspection on all supplier/*subcontractor* activities in all disciplines included within the Works Information.

9.7 Quality Policy

- a. The Quality Policy is a concise document, approved by the *Contractor's* executive management that *defines* organisational goals and objectives with regard to quality, a commitment to meeting stated requirements and an undertaking to drive continuous improvement throughout the organisation's activities. It must be suitable for the organisation and provide a framework for establishing, communicating and monitoring performance against agreed quality objectives.

9.8 Project Quality Plan

- a. The *Contractor* shall submit a Project Quality Plan (PQP) within the period stated and, in any event, no later than 28 working days after the Contract start date, which shall also contain specific proposals and details with regard to quality control (QC) for the scope of the works.
- b. The PQP includes the *Contractor's* statement that outlines strategy, methodology, resources allocation, QA and quality control co-ordination activities to ensure that the works meet the standards stated in the Works Information.
- c. The PQP is generally in narrative form detailing the Project Specific QA and QC systems and controls required by the *Contractor* for the specific works.
- d. The requirements for a PQP are detailed in the project standard and shall include, but not be limited to, the following:

- i. Include all quality activities relevant to the works, identifying all procedures, reviews, audits, controls and records used to control and verify compliance with the specified contractual requirements.
- ii. Include a listing of all special processes (e.g. welding and non-destructive testing, cube testing, etc.) envisaged for use, including confirmation of personnel certification as required;
- iii. Include a list of all proposed method statements for Site-based work activities;
- iv. Include a description of the *Contractor's* project organization, with key positions and responsibilities identified and individuals named.

The organization structure shall also indicate the resources committed to the management / coordination of QA / QC activities, both within the *Contractor's* organization and that of his *subcontractors* and suppliers;
- v. Include a listing of all Quality Control Plans (QCP's), and associated Field Inspection Checklists (FIC's), as applicable;
- vi. Identify in the PQP any supplier/*subcontractor* work. Supplier/*subcontractor* quality plans shall be approved by the *Contractor*, and a copy forwarded to the *Project Manager* for approval;
- vii. Include the proposed Authorized Inspection Authority (where applicable - for pressurized equipment and systems);
- viii. Include a Data Book Index, scheduling the proposed quality records that will form the permanent record of conformance to requirements.

9.9 Submissions and Records

- a. The *Contractor* submits his Quality Management System documents to the *Project Manager* as part of his programme under ECC3 Clause 31.2 to include details of:
 - i. PQP for the contract;
 - ii. Quality Policy;
 - iii. Index of procedures to be used;
 - iv. A schedule of internal and external audits during the contract.
- b. The *Contractor* develops and maintains a comprehensive register of documents that will be generated throughout the works, including all quality related documents as part of its Quality Plan.

- c. The *Project Manager* indicates those documents required to be submitted for information, review or acceptance and the *Contractor* indicates such requirements within his register of documents. The register shall indicate the dates of issue of the documents and the dates upon which the *Project Manager* responded to documents submitted by the *Contractor*.
- d. The index of procedures shall contain a list of the *Contractor's* quality management system procedures to be applied during the course of the works, including any relevant instructions or 3rd tier quality system documentation. Where aspects of the works are to be subcontracted, the *Contractor* shall include procedures for the management of suppliers and *subcontractors*.
- e. A schedule of internal and external audits shall be included in the *Contractor's* PQP, detailing the location, frequency and extent of internal and external quality system audits to be carried out during the contract period. The schedule shall include all locations at which such audits are carried, i.e., the *Contractor's* offices and construction Sites, as well as the premises of suppliers and service providers.

9.10 Programme

9.10.1 General

The Contract programme, progress reports, subsequent updates, revisions and supplementary programmes as detailed in this section are an essential part of the project control system used by the *Employer* for managing the works and in monitoring the progress of the work under the Contract. The information and data provided by the *Contractor* pursuant to this procedure must therefore be reliable, accurate and timely in presentation.

9.10.2 Programme submission

A copy of the *Contractor's* First Programme shall be submitted with the Tender Document Returnable Schedules that shall comply with the requirements as indicated in the Works Information. The *Contractor's* Detailed Programme shall be submitted in both hard and soft copy forms within two weeks of award using a computer software package approved by the *Project Manager*. The preferred software package is Microsoft Projects or Primavera/similar approved.

9.10.3 Contract Programme (Baseline)

The *Contractor's* First Programme, agreeing with the tender submission, shall become the "Contract Programme" or "baseline" against which actual time performance will be compared. Once the baseline has been established, all subsequent programmes will have baseline (target)

bars shown against each activity. This programme will be used as the basis on which all variations, extensions of time and changes to methods of delivery/execution shall be assessed.

Identified deviations from the baseline shall be addressed by the Contractor by either demonstrating that the deviation does not constitute a problem to the overall Contractor's Programme or providing a course of action to remedy the deviation.

9.10.4 Programme Information:

The Tenderer clearly indicates in the schedule all milestones, activities & information related to the following:

1. Float,
2. Time Risk Allowances,
3. Health and safety requirements,
4. Procedures set out in this contract,
5. Work by the Employer and Others,
6. Access to a part of the site if later than its access date,
7. Acceptances,
8. Plant & Materials and other things to be provided by the employer,
9. Information by Others,
10. starting date, access dates, Key Dates and Completion Date
11. planned Completion for each Key Date for each option and the complete works
12. Shows how each activity on the Activity Schedule relates to the operations on each programme.

9.10.5 Meet the required timeframes:

Ability to provide the services in terms of the *Employer's* requirements within the required timeframe as stated in the Works Information and Tender Data by indicating, in a logical sequence, the order, the timing, and the duration of the works that will take place in order to Provide the Works. The Programme must clearly support and demonstrate alignment to the approach paper/Method statement as contained under **T.2.2-05**.

9.10.6 Resourcing & Equipment:

The Tenderer indicates for each operation, how the Tenderer plans to do the work identifying the principal Equipment and other resources which he plans to use. Resources & equipment are loaded against activities with their associated rates to the programme for evaluation.

9.10.7 Revision to contract Schedule

The *Project Manager's* written approval of any revised contract programme shall be given prior to the revised contract programme becoming the new contract programme. Additional detail may be inserted into the Contract Programme at the request of either the *Contractor* or the *Project Manager*. In such cases, the overall start and finish dates of the detail activities shall not vary from the original summary activity(s) that were replaced. All revisions to the contract programme shall be prepared by, and at the cost of the *Contractor*.

9.10.8 Supplementary Programmes

The *Project Manager* may at any time, and at the cost and expense of the *Contractor*, direct the *Contractor* to produce supplementary programmes to highlight a particular aspect of the work under the Contract. The *Project Manager* shall not unreasonably request supplementary programmes.

9.10.9 Cash Flow

The *Contractor* shall submit to the *Project Manager* a detailed cash flow chart based on the contract programme showing the anticipated cash flow as represented by expected payment claim submissions, not only payments received.

9.10.10 Progress Reporting

To demonstrate the actual progress of the work under the Contract the *Contractor* shall, on a biweekly basis, update and submit the contract programme and the progress to the *Project Manager*. The contract programme shall be in the form of a two week look ahead schedule, and shall show the following two separate bars for each activity so as to enable comparison of the actual progress to the contract programme:

The contract programme "baseline" activity bar The current schedule activity bar identifying the currently forecast start and finish dates of the activity, and the status (% completion of each activity).

9.10.11 Progress Monitoring and Review

Monitoring and review of the progress of work under the Contract shall consist of an assessment of all activities currently in progress. The following shall be determined:

- percentage complete;

- forecast completion date;
- deviations from the baseline programme, and
- actions required to remedy any deviations.

9.10.12 Monthly Status Report

The *Contractor* shall provide a written status report by the 20th of each month or such other reporting period as may be required by the *Project Manager* from time-to-time. The report shall summarise progress and problems encountered during that month in respect of all parts of the work under the Contract.

- As a minimum the report shall include:
- progress against the current approved contract programme;
- summary of progress achieved during the period;
- list of milestones achieved during the period;
- status of design, procurement, and off-site works;
- status of on-site works;
- deviations from the contract programme "baseline", and in particular, the forecast completion
- dates of activities which have or should have commenced;
- status of approvals;
- actual or anticipated problems with corresponding action plans to minimise the impact;
- summary of works planned for the following period, and
- cash flow status versus the original forecast.

The progress report shall form the basis of a monthly progress meeting between the Project Manager and the *Contractor*

9.11 Staffing

- a. The *Contractor* shall nominate a suitably experienced quality representative for all aspects of the works, including general Site activities, with a staff complement that is adequate to perform the requirements of the PQP.
- b. The *Contractor* shall submit the CV of his nominated quality representative for the *Project Manager's* review and approval.

9.12 Contractor's management, supervision, and key people

- a. The *Contractor* shall make an adequate, experienced, and stable project team available for the duration of the contract. The Contractor must exercise every effort to minimise the replacement of project team members to ensure optimum contract management continuity and efficiency.
- b. The *Contractor* employs full time, fully qualified and experienced key persons who have been delegated sufficient authority to manage the contract efficiently on-Site during completion of the Works including and not limited to:

- **Project Manager x 1**

The Project Manager should at least have a minimum qualification of a National Diploma in Engineering and a SACPMP registration/Pr. CPM/PMP with at least 5 years post registration experience in Electrical MV/LV and building construction projects. The Project Manager must have experience working in at least 3 separate projects, with at least 1 project in excess of R10m in electrical works (MV and LV switchgear, and power transformer installation) component value.

- **Construction Manager X 1**

The Contract Manager or Site Agent must at least have a minimum qualification of a National Diploma in Electrical Engineering with a PR registration with ECSA as a Pr Tech Eng, with at least 5 years' post registration experience in electrical MV/LV substation design and construction. The Contract Manager or Site Agent must have experience working in at least one substation project with MV and LV switchgear scope in excess of R10 million. SACPMP will be awarded as an education.

- **Contractor's Mechanical Engineer X 1**

The Mechanical Engineer must at least have a minimum qualification of a National Diploma in Mechanical Engineering with a PR registration with ECSA as a Pr Tech Eng, with at least 5 years' post registration experience in HVAC and Fire Protection design and installation.

- **Protection Engineer/Specialist x 1**

The Protection Engineer must at least have a minimum qualification of a National Diploma in Electrical/Electronic Engineering with a PR registration with ECSA as a Pr Tech Eng, with at least 5 years' post registration experience in electrical MV/LV power systems modelling and simulation of load flow, fault level, and protection. The protection specialist must have done a protection grading study, application and commissioning, and load flow analysis for a power system network similar to

the requirement of the scope of this project with experience in ETAP or a similar software.

- **Installation Electrician X 1**

The Installation Electrician must have a minimum N6 qualification, an Electrical trade, registration with the department of Labour and have at least 5 years' in MV/LV Switchgear installations. The Installation Electrician must have experience working in at least one substation project with MV and LV switchgear scope. Cable termination and joining experience demonstration is expected.

- **Foreman (Electrical MV/LV) x 1**

The Electrical Foreman must have a minimum of NTC 4 Trade Certificate in Electrical Engineering with at least 5 years post certification experience in Electrical MV and LV Projects. The Electrical Foreman must have experience and/or preferably accreditation of plugged type termination from the manufacturer. The Foreman must have experience and/or preferably accreditation for trifurcation and transition MV joints.

- **Planner x1**

Planner should have at least a minimum qualification of a Diploma in one of the built environment disciplines and 5 years of experience working in Electrical MV/LV Projects as planner.

- **Quality Officer X 1**

Quality officer should have at least a minimum qualification of a Diploma in one of the built environment disciplines and a Certified qualification in quality systems with relevant quality experience in construction. At least 5 years of experience in a quality systems environment and relevant experience in electrical and mechanical construction projects is required.

- **Environmental Officer X 1**

Environmental Officer must be registered with SACNASP and must have a bachelor's degree in environmental management/science with a minimum of 5 years work experience in electrical and mechanical construction projects. Proof of professional registration and qualifications must be attached and certified by a Commissioner of Oaths.

- **Health & Safety Officer X 1**

Health and Safety Officers: Registered as Health and Safety Officer with SACPCMP with more than 5 years of experience on MV/LV electrical and mechanical construction projects and have a SAMTRAC or NEBOSH or modern SHEQ risk management training course as a minimum qualification.

- **Quantity Surveyor X 1**

The Quantity Surveyor should have a qualification of a Diploma in Quantity surveying, experience in cost installation of substation plant. The Quantity Surveyor must also have experience in Conveyor construction and also exhibit Mechanical design and installation experience associated with the any infrastructure, equipment related to the Substation.

- **Document Controller X 1**

Document controller should have at least a Higher Certificate in Office Administration and at least 5 years of experience working as a document controller in a construction environment.

The *Contractor* employs personnel listed above but not limited to those mentioned to perform the functions of key persons under NEC3 ECC Clause 24.1. These appointments shall have the necessary experience and be suitably qualified.

The *Contractor* provides an Organogram of all his key people (both as required by the *Employer* and as independently to be stated by the *Contractor* and how such key people communicate with the Project Manager and the Supervisor and their delegates.

- a. The *Contractor* appoints an EO as a key person under ECC Clause 24.1. The EO ensures that the works, including all parts thereof, are undertaken subject to prior environmental method statement(s), approved by the *Project Manager*, and ensures that all the project's EA, permits and licences and CEMPR are implemented by the Contractor in a timely and proper manner.
- b. The EO provides the *Project Manager* with all environmental method statements for approval prior to commencing with the required works. The EO tasks are:
 - i. Daily, weekly, and monthly inspections of the Site and working areas. Monitor compliance with
 - ii. the project's EA, permits and licences and CEMPr
 - iii. Reporting of environmental incidents to the *Project Manager*;
 - iv. Attendance at all SHE meetings, toolbox talks and induction programmes;

- v. Litter control and ensuring the *Contractor* clears litter from the Site;
 - vi. Ensuring that environmental signage and barriers are correctly placed;
 - vii. The EO submits daily, weekly and monthly checklists to the *Employer's* EO/ECO.
- c. The Contractor nominates a CIRP as a key person under ECC Clause 24.1. The CIRP is based on Site and ensures that all reports and IR requests are submitted accurately and in a timely manner to the Project Manager. The Contractor is referred to Annexure F (Industrial Relations Policy and Management Plan). The CIRP tasks are:
- i. Dedicated to human resources, industrial relations and any other *Contractor* employee related functions;
 - ii. Resolve all human resources and industrial relations matters arising from the *Contractor's* employees;
 - iii. Represent the *Contractor* at all industrial relations meetings.

9.13 Training *Workshops*

- a. The *Contractor* facilitates the following requirements for training *Workshops*:
- i. Pre-mobilization workshop, scheduled for one week prior to Site establishment. Workshop will be attended by the Site management team including Site agents, all *Contractor's Supervisors* and safety personnel. Additional training will include, but is not limited to, SOC training as well as DSTI training,
 - ii. Formal training as stipulated in the Health and Safety Project Specification 1124367-02-HS-SP-0001 to be attended by *Contractors* identified personnel before commencement of any works
- b. The Contractor provides the following documentation to the Employer:
- i. Health and Safety file, including Health and Safety Management Plan but not limited to:
 - ii. Valid Company Letter of Good Standing
 - iii. Medical certificates of fitness
 - iv. Incident Management procedures;
 - v. Performance Reporting;
 - vi. Site Training Packages;
 - vii. Safe Work Method Statements;
 - viii. Safety Procedures;

- ix. Risk Assessment Process and as well as risk assessments for all activities;
- x. Insurance provided by the *Employer*;
- xi. Insurance provided by the *Employer* is contained in the Contract Data – Part 1

9.14 Contract change management

- a. For ease of communication standard templates shall be used for contract change management. The *Contractor* forwards all correspondence with respect to contract change management, i.e. Early Warnings and notifications of Compensation Events, on the standard templates provided.

9.15 Provision of bonds and guarantees

- a. The form in which a bond or guarantee required by the conditions of contract is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data.
- b. The *Contractor* provides a bond or guarantee as required by the conditions of contract concurrently with the execution by the Parties of the form of agreement for the ECC contract.

9.16 Records of Defined Cost, payments & assessments of compensation events kept by Contractor

- a. The *Contractor* keeps the following records available for the *Project Manager* to inspect:
 - Records of design employees location of work or professional engineers engaged by the *Contractor*
 - Records of people and Equipment within the working areas
 - Records of Equipment used and people employed outside the Working Areas
 - Records of quotations, invoices and pay slips.

10 Plant and Materials

- a. The *Contractor* provides plant and materials for inclusion in the works in accordance with COLTO 1208 Item (e), unless stated otherwise in the Works Information provided by the *Employer*. All Plant and Materials are new, unless the use of old or refurbished goods and/or materials are expressly permitted as stated elsewhere in this Works Information, or as may be subsequently instructed by the *Project Manager*.
- b. The *Contractor* replaces any Plant and Materials subject to breakages (whether in the working areas or not) or any plant and materials not conforming to standards or specifications stated and notifies the *Project Manager* on each occasion where replacement is required.

11 Subcontracting

Where the *Contractor* employs a *subContractor* who constructs or installs part of the works or who supplies plant and materials for incorporation into the works which involves a *subContractor* operating on the Site, then the *Contractor* ensures that any such *subContractor* complies with the Contractor Environmental and Sustainability Specification Guidelines as well as Contractor Health and Safety Specification Guidelines as described in the Works Information, as appropriate. The subcontract documentation shall place back-to-back obligations on the *subContractor*, which reflect the *Contractor's* obligations under the Contractor Environmental and Sustainability Specification Guidelines, all within the *Contractor's* quality management system, as per the Works Information.

Where the *Contractor* employs a *subContractor* who constructs or installs part of the works, or who supplies plant and materials for incorporation into the works which involves a *subContractor* operating on the Site and/or working areas, then the *Contractor* ensures that any such *subContractor* complies with the PIRPMP as appropriate and that the subcontract documentation places back-to-back obligations on the *subcontractor* which reflect the *Contractor's* obligations under the PIRPMP, all within the *Contractor's* quality management system as per the Works Information.

12 Procurement

12.1 Code of Conduct

12.1.1 The Employer aims to achieve the best value for money when buying or selling goods and obtaining services. This however must be done in an open and fair manner that supports and drives a competitive economy. Underpinning our process are several acts and policies that any supplier dealing with Transnet must understand and support. These are:

- i. The Transnet Procurement Procedures Manual (PPM);
- ii. Section 217 of the Constitution - the five pillars of Public PSCM (Procurement and Supply Chain Management): fair, equitable, transparent, competitive and cost effective;
- iii. The Public Finance Management Act (PFMA);
- iv. Specific goals; and
- v. The Anti-Corruption Act.

12.1.2 This code of conduct has been included in this contract to formally apprise Transnet Suppliers of Transnet's expectations regarding behaviour and conduct of its Suppliers.

12.2 Prohibition of bribes, Kickbacks, Unlawful Payments, and Other Corrupt Practices

12.2.1 The *Employer* is in the process of transforming itself into a self-sustaining State-Owned Enterprise, actively competing in the logistics industry. Its aim is to become a world class, profitable, logistics organisation. As such, its transformation is focused on adopting a performance culture and to adopt behaviours that will enable this transformation.

12.2.1.1 The Employer will not participate in corrupt practices and therefore expects its suppliers to act in a similar manner.

- a) The *Employer* and its employees will follow the laws of this country and keep accurate business records that reflect actual transactions with and payments to our suppliers.
- b) Employees must not accept or request money or anything of value, directly or indirectly, to:
 - i. Illegally influence their judgement or conduct or to ensure the desired outcome of a sourcing activity;
 - ii. Win or retain business or to influence any act or decision of any decision stakeholders involved in sourcing decisions; or
 - iii. Gain an improper advantage.
- c) There may be times when a supplier is confronted with fraudulent or corrupt behaviour of the *Employer's* employees. We expect our Suppliers to use our "Tip-offs Anonymous" Hot line to report these acts. (0800 003 056).

12.2.1.2 The Employer is firmly committed to the ideas of free and competitive enterprise.

- a) The *Contractor* is expected to comply with all applicable laws and regulations regarding fair competition and antitrust.
- b) The *Employer* does not engage with non-value adding agents or representatives solely for the purpose of increasing fronting.

12.2.1.3 The Employer's relationship with suppliers requires us to clearly define requirements, exchange information and share mutual benefits.

- a) Generally, *Contractors* have their own business standards and regulations. Although Transnet cannot control the actions of our suppliers, we will not tolerate any illegal activities. These include, but are not limited to:
 - i. Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc.);

- ii. Collusion;
- iii. Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, B-BBEE, etc.);
- iv. Corrupt activities listed above; and
- v. Harassment, intimidation, or other aggressive actions towards Transnet employees.

b) The *Contractor* must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the supplier is expected to participate in an honest and straight forward manner.

The *Contractor* must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

12.3 Conflicts of Interest

12.3.1 A conflict of interest arises when personal interests or activities influence (or appear to influence) the ability to act in the best interests of the *Employer*. These include but are not limited to:

- i. Doing business with family members
- ii. Having a financial interest in another company in our industry

12.4 People

Minimum requirements of people employed on the Site include the following:

- i. Employee's medical certificate
- ii. Health and Safety induction training

The *Contractor* complies with Annexure F (Industrial Relations Policy and Management Plan), including the following requirements.

12.5 Contractor Liability

12.6.1 The *Contractor* warrants that it will be liable to the *Employer* for any loss or damage caused by strikes, riots, lockouts or any labour disputes by and/or confined to the *Contractor's* employees, which loss will include any indirect or consequential damages.

12.6.2 The *Contractor* warrants that no negotiations or feedback meetings by the *Contractor's* employees shall take place on the *Employer's* premises, whether owned or rented by the *Employer*.

12.6.3 The *Contractor* shall give notice to the *Employer* of any industrial action by the *Contractor's* employees immediately upon becoming aware of any actual or contemplated action that is or may be carried out on the *Employers* premises, whether owned or rented, and shall notify the *Employer* of all matters associated with such action that may potentially affect the *Employer*.

12.6.4 The *Contractor* is responsible for educating its employees on relevant provisions of the Labour Relations Act which deal with industrial action processes and the risks of non-compliance.

12.6.5 The *Contractor* is required to develop a contingency strike handling plan, which plan the *Contractor* is obliged to update on a three-monthly basis. The *Contractor* must provide the *Employer* with this plan and all updates to the plan. The *Contractor* is responsible to communicate with its employees on Site details of the plan.

12.6 Industrial Action by Contractors Employees

12.7.1 In the event of any industrial action by the *Contractor's* employees, the *Contractor* is required to provide competent contingency resources permitted in law to carry out any of the duties that are, or could potentially be, interrupted by industrial action in delivering the service.

12.7.2 The *Contractor* warrants that it will compensate the *Employer* for any costs the *Employer* incurs in providing additional security to deal with any industrial action by the *Contractor's* employees.

12.7.3 In the event of any industrial action by the *Contractor's* employees, the *Contractor* is obliged to prepare and deliver to the *Employer*, within two (2) hours of the commencement of industrial action, an industrial action report. If the industrial action persists, the *Contractor* is required to deliver the report at 8h30 each day.

12.7.4 The industrial action report must provide at least the following information:

- i. Industrial incident report;
- ii. Attendance registers;
- iii. Productivity / progress to schedule reports;
- iv. Operational contingency plan;
- v. Site security report;
- vi. Industrial action intelligence gathered.

12.7.5 The final industrial action report is to be delivered 24 hours after finalization of the industrial action.

12.7.6 The management of the *Contractor* is required to hold a daily industrial action teleconference with personnel identified by the *Employer* to discuss the industrial action, settlement of the industrial action, security issues and the impact on delivery under the contract.

12.7.7 The resolution of any disputes or industrial action by the *Contractor's* employees is the sole responsibility of the *Contractor*.

12.7.8 Access to the *Employer's* premises by the *Contractor* and its employees is only provided for purposes of the *Contractor* delivering its services to the *Employer*.

Should the *Contractor* and its employees not, for any reason, be capable of delivering its services, the *Employer* is entitled to restrict or deny access onto its premises and, unless otherwise authorized, such person will be deemed to be trespassing.

12.7.9 The *Contractor* performs the works having due regard to the PIRPMP, statutory requirements and industry agreements.

12.7.10 The *Contractor* complies with the requirements of the IRCC involving the engineering construction *Contractors* engaged (including all future *Contractors*) by the *Employer*.

12.7.11 The roles and responsibilities of the various personnel acting on behalf of the *Project Manager* with respect to IR issues are stated in the following paragraphs.

12.7.12 The PIRM is responsible for ensuring that the *Contractor* complies with the PIRPMP. 12.7.13 The PIRM acts on behalf of the *Project Manager*.

12.7.14 The PIRM specific tasks are:

- i. As per Annexure F (Industrial Relations Policy and Management Plan);
- ii. To liaise with the *Contractor* prior to the commencement of construction activities, as per the *Contractor's* programme accepted by the *Project Manager*, with respect to IR issues;
- iii. Responsible, inter alia, for day-to-day IR on the Site through the implementation of the PIRPMP;
- iv. The PIRM reports directly to the *Project Manager*.

12.7 Contractor Skills Development Goal (CSDG)

The contractor shall achieve in the performance of the contract the Contract Skills Development Goal (CSDG) established in the CIDB Standard for Developing Skills through Infrastructure Contracts, published in Gazette Notice No.43495 of 3 July 2020.

The contractor shall determine the contract skills participation goals, expressed in Rand, which shall not be less than the contract amount multiplied by a percentage (0.25%) factor.

13 Definitions

- (a) **"all applicable taxes"** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- (b) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the BroadBased Black Economic Empowerment Act;
- (c) **"B-BBEE status level of contributor"** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (d) **"bid"** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the supply/provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- (e) **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (f) **"EME"** means an Exempted Micro Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (g) **"functionality"** means the ability of a bidder to provide goods or services in accordance with specification as set out in the bid documents;
- (h) **"Price"** includes all applicable taxes less all unconditional discounts.
- (i) **"Proof of B-BBEE Status Level of Contributor"** means:
 - 1) B-BBBEE status level certificate issued by an unauthorised body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act.

- (j) **"QSE"** means a Qualifying Small Enterprise in terms of a Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (k) **"rand value"** means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties.
- (l) **"Specific goals"** means targeted advancement areas or categories of persons or groups either previously disadvantaged or falling within the scope of the Reconstruction and Development Programme identified by Transnet to be given preference in allocation of procurement contracts in line with section 2(1) of the PPPFA.

14 Annexures


List of Annexures:

- Annexure A : List of Drawings (Section 8)
- Annexure B : Contractor Documentation Submittal Requirements: DOC-STD-0001
- Annexure C : Health and Safety Specification: TRN-IMS-GRP-GDL-014.3
- Annexure D : Contractor Environment and Sustainability Specification Guideline: TRN-IMS-GRP-GDL 014.4
- Annexure E : General Quality Requirements for Contractors and Suppliers
- Annexure F : Industrial Relations Policy and Management Plan ACM-IR-POL-001
- Annexure G : TPD-001-EL&PSPEC - Technical Specification for the Supply and Installation of Electrical Lighting and Power in Buildings other than Dwelling Houses
- Annexure H : TPD-002-DBSPEC - Technical Specification for the Design and Manufacturing of Low Voltage Distribution Boards
- Annexure I : TPD-003-CABLESPEC - Technical Specification for the Installation of Medium and Low Voltage Cables
- Annexure J : TPD-004-EARTHINGSPEC - Technical Specification for the Design Supply and Installation of Lightning Protection and Earthing for Buildings and Structures
- Annexure K : TPD-007-MVSWITCHSPEC - Technical specification for indoor medium/high voltage (1kV to 33kV) alternating current switchgear and control gear

- Annexure L : TPD-011-UPSSPEC - Specification for the design, supply, delivery and installation of the back up three phase uninterruptible power supply system
- Annexure M : Substation Assessment Report (Substation Conditional Assessment Report)
- Annexure N : High Level Commissioning Management Plan

- Annexure O : Baseline Security Risk Assessment
- Annexure P : ETAP Specification

SPECIFICATION FOR INDOOR MEDIUM/ HIGH VOLTAGE (1KV TO 33 KV) ALTERNATING CURRENT SWITCHGEAR AND CONTROL GEAR

REVISIONS		
REV	DATE	APPROVED
	01/11/2024	

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1. SCOPE

“Where the document states “Transnet Group Capital, the name should read as Transnet Port Terminals”.

This specification covers Transnet Group Capital requirements for the supply, delivery, and installation of indoor, high voltage, 3 phase, 50-hertz switchgear and control gear in the range 1 kV to 36 kV as detailed in **Appendix 1** “Schedule of Requirements”.

2. REFERENCE LIST

The following publications and documents (latest edition) are referred to herein.

Note: We suggest that IEC standards are used, which allows the greatest selection of reputable suppliers and does not favour any particular supplier. For voltages above 11kV most switchgear is in any case imported and standards other than IEC standards are generally excluded.

2.1 International Electro Technical Commission

IEC PUBLICATION 62271-100 High-voltage alternating current circuit breakers.

IEC PUBLICATION 60060 High-voltage test techniques.

IEC PUBLICATION 62271 Specification for AC metal enclosed switchgear and control gear, for voltages above 1kV up to and including 52kV

Part:

- 1 Common specifications for HV switchgear and control gear standards (IEC 60694)
- 100 Alternating current Circuit breakers (IEC60056)
- 102 Alternating current disconnectors and earthing switches (IEC 60129)
- 103 Switches for rated voltages above 1kV and less than 52kV (IEC60265-1)
- 106 Alternating current contactors and contactor-based motor-starters (IEC60470)
- 200 AC metal-enclosed switchgear and control gear for rated voltages above 1 kV and up to and including 52 kV

IEC PUBLICATION 60027-7 Electrical drawing symbols used.

IEC PUBLICATION 60243 Recommended methods of test for electric strength of solid insulating materials at power frequencies.

IEC PUBLICATION 60282 High-voltage fuses.

IEC PUBLICATION 62271-200 High-voltage metal enclosed switchgear and control gear.

IEC PUBLICATION 62271-103 High-voltage alternating current fuse-switch combinations and fuse-circuit-breaker combinations.

IEC PUBLICATION 60051 Direct acting indicating electrical measuring instruments and their accessories.

IEC PUBLICATION 62271 -106 High-voltage switchgear and control gear - Part 106: Alternating current contactors, contactor-based controllers and motor-starters

IEC PUBLICATION 60071 Insulation coordination

- | | |
|-------------------------|----------------------------------|
| IEC PUBLICATION 60282-1 | Protection fuses |
| IEC PUBLICATION 60529 | Degree of protection (IP rating) |
| IEC PUBLICATION 60044-1 | Current transformer |
| IEC PUBLICATION 60044-2 | Voltage transformer |

IEC PUBLICATION 60044-8	Current sensors
IEC PUBLICATION 60044-7	Voltage sensors
IEC PUBLICATION 61343-5	Voltage detection system VDS
IEC PUBLICATION 60071-1	Insulation coordination
IEC PUBLICATION 60125	Protection relays
IEC PUBLICATION 60376	SF6 gas

- 2.2 The equipment offered shall comply with the latest editions of the relevant International Electro-technical Commission.
- 2.3 Users of this specification must ensure that they are in possession of the latest issues of the above-mentioned standards.

3. INFORMATION AND METHOD OF TENDERING

- 3.1 Tenderers shall submit their main offers/details of plant in accordance with the requirements of this specification. Deviations from the requirements of this specification which are of a minor nature and do not depart materially, will be considered at the discretion of Transnet Projects. The acceptance of alternative tenders will be considered only if a main tender is submitted as per this specification. Note, this specification will form part used to assess the substantive responsiveness of the bid and the submission of offer will be used for the assessment.
- 3.2 The "Technical Data Sheet" forming Appendix 2 of this specification shall be completed in detail, for each offer. Alternative offers shall be clearly marked "Alternative Offer No. _____".
- 3.3 All documents forming part of the Tender shall be firmly bound. No loose documents will be considered.
- 3.4 Failure to comply with the above requirements may preclude a tender from consideration.
- 3.5 All tender documents shall be presented in a clear format with index, uniquely numbered pages and cross-referenced. The total number of pages shall be clearly stated in the index.
- 3.6 **Type test reports/certificates shall be issued or certified by the appropriate test authority, that is accredited according to ISO/IEC 17025.**

4. APPENDICES

The following appendices form an integral part of this specification and shall be read in conjunction with it.

- 4.1 **Appendix 1 - Schedule of Requirements.**
This appendix details special requirements.
- 4.2 **Appendix 2 - Technical Data Sheet.**
This appendix calls, for specific technical information to be furnished with tenders. All Technical Data Sheets shall be signed by the Tenderer and returned as part of the tender. Failure to comply may result in a tender being excluded. This submission shall include the details of the form of offer, this is to say, the tenderers shall submit the drawing, preferably a preliminary shop/plant structural drawing, showing the details of the offer. This will be used to assess the compliance to the scope.

- 4.2.1 Equipment offered in this appendix shall be supplied in terms of this specification and no changes or substitutes will be allowed without the written consent from Transnet Group Capital.
- 4.2.2 Acceptance by Transnet Group Capital of the equipment offered in this appendix, in no way relieves the tenderer of his obligation to fulfil his statement of compliance with the specification.
- 4.2.3 This appendix is used during adjudication of tenders to assess the equipment offered.
- 4.2.4 The tenderer is responsible for the accuracy of information submitted in this appendix.
- 4.4 **Appendix 3 - "Test Requirements".**
This appendix contains Transnet Group Capital requirements with respect to type and routine test certificates and test procedures.
- 4.5 **Appendix 4 - "Statement of Compliance"**
This appendix shall be completed by all tenderers and signed. Where tenderers do not fully comply, all deviations shall be clearly indicated in the space provided or by means of a covering letter. **Failure to complete the statement of compliance will result in tenders being excluded.**

5. AMBIENT/ENVIRONMENTAL CONDITIONS:

The equipment shall be designed and rated for continuous operation under the following conditions:-

Altitude....	Sea level.
Ambient temperature....	-5 C to +40 C (daily average +35 C).
Relative humidity....	As high as 95%.
Lightning conditions .	Severe, with a maximum lightning ground flash density of 11 flashes per km ² per annum.
Atmospheric conditions....	Salt laden as well as industrial atmosphere. Electrolytic corrosion conditions prevail in all areas owing to the proximity of direct current traction systems and cathodic protection schemes.

6. DRAWINGS AND INSTRUCTION MANUALS

- 6.1 All drawings shall be in accordance with SANS 10111 – Engineering Drawings.
- 6.2 The successful tenderer shall supply the following instruction manuals, all of which shall be included in the tender price and be to the satisfaction of Transnet Group Capital:
- 6.2.1 Structural Drawings
- Structural drawings shall be completely dimensioned, showing:
- Arrangement.
 - Plan, front view, and other elevation views if pertinent.

- Required clearances for opening doors and for removing breakers.
- Conduit or cable entrance locations for bottom entrance.
- Busbar locations and configurations.
- Incoming and outgoing cable termination positions.
- Anchor bolt locations.
- Earthing connections.
- Mass of equipment. Individual mass of stationary units and breakers, if shipped separately.
- Foundation holding down bolting details showing mounting rails and run-out rails for draw-out circuit-breakers.

6.2.2 One Line Diagrams

One-line diagrams shall show:

- Instrument transformers
- Relays with their ANSI device numbers.
- Meters and meter switches.
- Other pertinent devices.

6.2.3 Schematic Diagrams

Schematic wiring diagrams shall be furnished for each different electrically operated breaker control scheme and show the following:

- All control devices and device contacts, each of which shall be labelled with its correct ANSI device function number, or reference.
- Device terminal numbers, terminal block numbers and terminal numbers.
- All internal interconnections, bus wiring, inter panel wiring and connections to external equipment.
- Relay internal logic configuration
- Protection relay setting sheet

6.2.4 As-Built Drawings

6.2.4.1 On completion of installation and commissioning of the relevant equipment, the originals of the above drawings shall be updated by the equipment supplier to reflect the as-built status.

6.2.4.2 The supplier shall then also provide Group Capital with three copies of all relevant CAD data for drawing records and drawing reproduction. The drawings must be in a format that can be read by AutoCAD 2000, format ("dwg" or "dxf" format).

6.2.5 Maintenance Manuals

6.2.5.1 On completion of installation and commissioning of the relevant equipment, the contractor shall submit three copies of the equipment maintenance manuals in both hard copy and electronic format. (The electronic format must be in Microsoft "Word", or .pdf format)

6.3 The maintenance manuals shall include all the necessary information on electrical and electronic equipment to enable the maintenance staff to fully comprehend the function of the equipment and to maintain service and repair the equipment. In order to comply with this condition, the following information (as applicable) shall be included in the manuals:

- 6.2.6 Complete circuit diagrams.
- 6.2.7 System Block or Logic Diagrams.
- 6.2.8 Test Procedures (Flow Chart form preferred) and information to enable testing such as voltage values and tolerances, waveforms, polarities etc.
- 6.2.9 Component lists, which shall contain complete electrical information and standard identification in respect of all components, unless this is indicated directly on diagrams.
- 6.2.10 A complete description of the electronic equipment, including the function of all input and output points, maintenance and calibration procedures, reference to special test instruments required, etc.
- 6.3 All symbols used on diagrams shall be in accordance with IEC Publication 60027-7 wherever possible. A legend shall be supplied for all symbols that do not appear in the IEC Publications.
- 6.4. All information submitted in manuals should be clearly cross-referenced, indexed and accurately descriptive of the equipment provided. All filed changes to equipment shall be incorporated in the updated diagrams/sheets before expiry of the guarantee period.
- 6.5 Photocopies of original material shall only be acceptable if these are clearly legible and preferably colour copies.
- 6.6 A preliminary copy of the maintenance manual shall be forwarded to Transnet Group Capital for approval prior to issue and in advance of the delivery of equipment.
- 6.7 **Late submission of drawings, manuals and instructions shall incur delivery penalties on the full contract price. The contract will only be deemed to be complete on reception of all drawings, manuals and instructions.**

7. SWITCHGEAR AND CONTROLGEAR

7.1 General

- 7.1.1 All switchgear and control gear shall be designed, manufactured and tested in accordance with the recommendations of IEC PUBLICATION 298, IEC 62271-100, IEC 62271-200 and IEC 62271-102. The switchgear panels shall be of arc proof, AFLR rated, stainless steel, air insulated, free standing, extensible type, containing power busses, earthing bus, withdrawable (to be used as a standard for the bid process) or fixed type (with three suggested and clear visible indicators for breaker position, fixed type to be considered as an option during contract only and not for bidding purposes), completely screened busbars and terminations, sealed and protected from water and dust, auxiliary control devices, instrument transformers, modern SCADA compatible protection relays fitted in the panel LV compartment and control switches. They shall be supplied complete with all necessary terminal plates, cable glands for cable entry, wiring trunking for LV wiring and multi core cables.
- 7.1.3 The switchgear and control gear shall be of the air-insulated, indoor, modular, free standing, cubicle type housing with a minimum 316 stainless steel with a thickness of 2mm, powder coated with a minimum thickness of 50µm to the colour as specified in the detail specification.

- 7.1.3 The switchgear and control gear panels shall be bolted together to form a continuous, self-supporting, and self-contained switchgear and control gear board of uniform appearance capable for extension at both ends with similar panels.
- 7.1.4 Access to the current transformer and cable terminations shall be from the rear of the panels.
- 7.1.5 All cubicles shall be so constructed by means of modular design to ensure inter-changeability of all components of the same type between different panels.
- 7.1.6 All removable plates shall be secured by means of bolts and nuts. All bolts, nuts, washers fixing equipment etc. shall be stainless steel. Nuts shall be either welded in position or secured by means of a mechanical fixing device. Self-tapping screws will not be considered.
- 7.1.7 High-voltage and low-voltage equipment shall be housed in separate compartments.
- 7.1.8 The busbars shall be completely screened and contained in a separate compartment.
 - 7.1.8.1 There shall be no barriers down the busbar runs except on either side of the busbar section switch. Barriers shall not be used to provide mechanical support for busbars or connections.
 - 7.1.8.2 Entry through barriers between cubicles shall be via purpose designed bushings.
- 7.1.9 Each switchgear panel shall be a self-contained unit with a minimum degree of protection of IP54 for indoor installations.
- 7.1.10 The pollution level (IEC 186) shall be taken as "Medium" (creepage distance of 20mm/kV) for all equipment installed indoors or inside enclosures.
- 7.1.11 The panels shall be built to withstand internal faults and shall be based on IEC 62271-200. In the event of an internal arc fault, a person standing at the front, rear or alongside the panel shall not be burnt or electrocuted.
 - 7.1.11.1 A means of pressure relief shall be provided and the tenderer shall describe in full the method used.
 - 7.1.11.2 Vent outlets, if used, shall be suitably designed to prevent accidental inward opening.
- 7.1.12 The rated insulation levels shall be in accordance with, the recommendation of IEC PUBLICATION 298 Appendix EE test 2.
- 7.1.13 Fault-make integral earthing shall be provided to earth the circuit on the cable side of all switching devices.
- 7.1.14 Where separate earthing switches are used, they shall be so interlocked as to prevent operation when the main circuit is closed.
- 7.1.15 Fault-make integral earthing on the busbar side shall be provided for each busbar section. The busbar-earthing device shall be interlocked to prevent the earthing of an energized busbar. The earth switch can be located in the bus section / bus riser, or dedicated busbar earthing cubicle. If required the busbar earth switch can be located in the same cubicle as the busbar VT.

- 7.1.16 Where separate earthing switches are provided the switching devices shall be capable of earthing either the cable or busbar side.
- 7.1.16.1 The earthing switching device will be tested at the routine testing of the switchgear as specified in this specification.
- 7.1.17 Integral earthing shall be capable of being padlocked in the earthed position.
- 7.1.18 An earthing bus shall be provided for the entire length of the board and shall provide connection points at each panel section. The cross-sectional area of the earthing conductor shall be such that the current density shall not exceed 200A/mm² under the specified earth fault conditions. Provision will be made for solder-less connectors for 70mm² copper cables.
- 7.1.19 All compartment doors giving direct access to high voltage equipment shall be mechanically and electrically interlocked so that the door cannot be opened whilst the equipment is alive.
- 7.1.20 Each switching device panel shall be fitted with "close" and "open" controls. Where "close" and "open" pushbuttons protrude to the outside of panel they shall be of the shrouded type.
- 7.1.21 Means shall be provided for easy inspection and maintenance of the switchgear and control gear.
- 7.1.22 Applied insulation shall be in intimate contact with conductors and conductor joints to obviate voids.
- 7.1.23 Anti-condensation 230 Volt heaters shall be provided for each individual compartment and the bus bar chamber of each switch-gear. A switch shall be provided to control the heaters.
- 7.1.23.1 A thermostatically controlled switch, adjustable between 10°deg.C and 40°deg. C, shall be provided in the supply circuit to the heaters. An over-riding switch shall be provided for the thermostat.
- 7.1.23.2 The wiring from the heater elements to terminals shall be high temperature insulation covered. A suitable compression type gland shall be fitted for an incoming 230V supply.
- 7.2 The successful tenderer shall supply all material required to assemble the switchgear on site.
- 7.3 Two copies of all type and routine test certificates shall be supplied in accordance with NRS 003 for all equipment in the panels as applicable.

8. WITHDRAWABLE SWITCHGEAR AND CONTROLGEAR

- 8.1 Suitable indication shall be provided to mechanically indicate the position of the switching device, i.e. racked-in, racked-out (isolated), earthed, on/off. The indication shall be readily visible from the front of each panel.
- 8.2 Each switching device shall be mounted on a transporting truck device, and fitted with wheels.
- 8.3 Connection and disconnection of the switching device shall be by means of suitable contacts mounted on robust insulators.
- 8.4 In addition to interlocks recommended in IEC PUBLICATION 62271-200 the following shall be provided.

- 8.4.1 Separate shutters shall be provided to cover the "Busbar" and "Circuit" high-voltage sockets. These shutters shall automatically cover the sockets with a positive action when the switching device is withdrawn. The shutters shall be equipped with a fail-safe device to prevent their manual opening when the circuit breaker is removed from the compartment and the door is open.

In addition to the above.

- 8.4.1.1 Facilities shall be provided for independently padlocking each shutter in the closed position.
- 8.4.1.2 Busbar shutters shall be red (colour D29 in CKS 279) and shall be clearly marked "Busbars". The "Circuit" shutters shall be yellow (colour D26 in CKS 279) and shall be marked "cable".
- 8.4.1.3 Provision shall be made for testing the operation of the switching device when fully withdrawn from the panels.
- 8.5 non-withdrawable switchgear shall only be offered if called for in Appendix 1 A of this specification or will only be considered in an event where a stringent requirement of this specification is only possible in a fixed pattern.
- 8.6 LSC type in accordance with IEC62271-200 shall apply. LSC2B shall apply for withdrawable switchgear and LSC2A shall apply for non-withdrawable switchgear, as called for in Appendix 1.
- 8.7 Partitioning shall be in accordance with IEC 62271-200. For withdrawable switchgear PM shall apply, for non withdrawable switchgear PI shall apply.
- 8.8 All operations shall be from the front of the switchgear from behind closed doors. No part of any operation / racking / shutter actuation shall be allowed with the door open or partially open.
- 8.9 The internal arc capability of the switchgear shall be in accordance with IEC62271-200 Appendix 1, and rated at AFLR, for the short circuit current for a duration of 1 second.
- 8.10 The switchgear shall be fitted with an arc vent duct that will contain the internal arc and safely vent the arc within the switch room or vent to the exterior of the switch room. The manufacturer should access each installation and make recommendations based as to the most suitable option for the switchgear installation. The manufacturers recommendations should be supported by a calculation that will calculate the pressure rise in the room, consider the room volume, and design fault level.

9. SWITCHING DEVICES

9.1 General requirements

- 9.1.1 All switching devices shall be ganged triple pole.
- 9.1.2 The method of securing the moving contact to the armature shall feature a safety device in addition to the normal securing mechanism.
- 9.1.3 A thermal overload device in addition to the low voltage circuit protection shall protect all motors used for spring charging or other applications.

- 9.1.4 Tripping shall be by means of trip coils.
- 9.1.5 Electrically held tripping mechanisms shall not trip due to transients or voltage dips to zero for 10 cycles or 70% of the rated voltage. This is not applicable when tripping occurs due to protective system operation.
- 9.1.6 Tripping mechanisms operating on power failures shall restore the switching device to the condition prior to the power failure.
- 9.1.7 If a direct means of indicating contact wear and the necessity for replacement is not provided, a concise description of how this can be determined shall be provided on a label permanently fixed to the switching device or switch panel.
- 9.1.8 Two spares normally open and two spare normally closed auxiliary contacts shall be provided on each switching device. The spare contacts shall be wired to a terminal strip in the panel. For withdrawable switchgear and control gear auxiliary plugs and sockets shall be used.

9.2 Circuit -Breakers

- 9.2.1 The insulation and arc-quenching medium will be vacuum or SF6.
- 9.2.2 Circuit breakers shall be designed manufactured and tested in accordance with IEC PUBLICATION 62271-100. The 50Hz electrical ratings of the circuit breaker shall be in accordance (or better) than the data listed in the manufacturer's data sheet.
- 9.2.3 The circuit breaker shall be of the vertical or horizontal isolating, draw out type. Where trolleys are required to remove circuit breakers, VT's or Contactors from the panel, at least two trolleys of each size / type per substation will be provided as standard operating equipment to facilitate swapping of similar equipment.
- 9.2.4 The control mechanism of the circuit breaker shall be of the spring assisted trip free type with anti-pumping circuitry. The circuit breaker shall be equipped with mechanical tripping and closing in addition to electrical trip and close.
- 9.2.5 The first pole to clear factor shall be 1,5.
- 9.2.6 The making time shall not be greater than one second.
- 9.2.7 Rated insulation level for circuit breakers shall be in accordance with IEC 62271-100 and will be listed in the data sheet.
- 9.2.8 Interlocking shall be provided to prevent connecting the circuit breaker to, or disconnecting it from the bus stabs unless the circuit breaker is open.
- 9.2.9 Barrier shutters shall be provided which effectively close the bus stab disconnect openings when the circuit breaker is withdrawn. These shutters will be pad lockable and clearly marked to indicate the primary circuit, i.e. Busbar, Cable, Left Busbar or Right Busbar. Facilities shall be provided for independently padlocking each shutter in the closed position.
- 9.2.10 All compartment doors giving direct access to high voltage equipment shall be mechanically interlocked so that the door cannot be opened whilst the equipment is live.

- 9.2.11 Suitable indication shall be provided to mechanically indicate the position of the switching device, i.e. racked-in, racked-out (isolated), earthed, on/off.
The indication shall be readily visible from the front of each panel.
- 9.2.12 Circuit breakers shall have the following class rating, in accordance with IEC 62271-200
Extended Electrical life rating of E2
Extended mechanical life of rating M2
Very low re-strike probability or rating C2
- 9.2.13 Circuit breakers shall have stored energy mechanisms. Where spring assisted stored energy mechanisms are provided these shall be charged by means of a motor. For magnetic actuated circuit breakers the stored energy device shall be charged via an electronic controller. In both cases the circuit breaker may not be able to be closed until there is sufficient energy in the stored energy mechanism to enable the breaker from being opened immediately. The circuit breaker closing and opening mechanisms must not consume more than 750 W of power peak during opening or closing operations.
- 9.2.14 It shall be possible to mechanically trip the circuit breaker with the CB door closed.

9.3 Switch Disconnectors (Isolators) and Earthing Switches

- 9.3.1 All disconnectors and earthing switches shall be designed, manufactured and tested in accordance with the recommendation of IEC PUBLICATION 62271-102.
- 9.3.2 Integral type circuit test facilities shall be provided on all switch-disconnectors.
- 9.3.3 Earth switches shall be rated for the same fault ratings as the circuit breaker and busbars.
- 9.3.4 The busbar earthing shall be interlocked to prevent earthing of an energised busbar.
- 9.3.5 The integral earthing shall be capable of being padlocked in the earthed position.
- 9.3.6 Both the cable circuits as well as busbars shall be provided with fault-make rated earthing switch, unless otherwise approved. Each busbar section shall be provided with its own earthing switch.
- 9.3.7 The type of operation shall be independent manual.
- 9.3.8 The operating mechanism shall be positioned on the front of the panel and be lockable in all switching states. Reliable mechanical indication of these states shall be visible from the front of the panel.
- 9.3.9 Earth switches shall be equipped with mechanical and electrical interlocking to prevent:
- Closing a cable earth switch unless the circuit breaker is open and disconnected from the bus stubs.
 - Reconnection of the circuit breaker to the bus stubs if the earth switch is closed
 - Closing the circuit breaker
- 9.3.10 A notice bearing the following inscription shall be provided adjacent to the operating mechanism:
"DO NOT OPERATE UNDER LOAD"

10. BUSBARS

- 10.1 All busbars shall be designed, manufactured, marked and tested in accordance with BS 159.
- 10.2 The busbars shall be the bolted, modular screened, air Insulated and contained in an isolated compartment.
- 10.3 Busbars shall be made from electrical grade high conductivity hard drawn copper, capable of carrying the continuous rated current as specified in the detail specification, without exceeding the maximum temperature rise specified in the relevant Standard.
- 10.4 The busbars shall be mechanical braced for the asymmetrical ampere rating and duration of the circuit breaker having the highest interrupting rating. There shall be no barriers down the busbar runs except on either side of the busbar section switch. Barriers shall not be used to provide mechanical support for busbars or connections. Entry through barriers between cubicles shall be via purpose-designed bushings.
- 10.5 All joints and tees in busbars shall be made with high tensile stainless-steel bolts, nuts and washers, securely tightened with a torque wrench to the manufacturers specified torque settings. These settings shall aim to minimise contact resistance and avoid distortion and / or hardening of the copper due to overstressing.
- 10.6 Insulated bushings shall comply with SABS 1035.

11. BUSHINGS

- 11.1 All bushings shall be designed, manufactured, and tested in accordance with SABS 1035.

12. CABLE BOXES, GLANDS, AND TERMINATIONS

- 12.1 All cable end boxes shall be suitable to terminate (sizes up to a maximum of 185mm² wire armoured cable). Cable termination compartment shall be suitable for an equal or similar approved to EN50181, inner-cone, pluggable cable termination arrangement.
- 12.2 Cable armouring shall be insulated from the board with insulating material which shall withstand 4 kV or greater for one minute when tested in accordance with IEC PUBLICATION 60071.
- 12.2.1 Insulated gland plates with substantial links or straps connected to the earth terminal shall be provided for bonding the cable sheath and armouring to the earth conductor of the boards.
- 12.3 Cables shall terminate using a plugged type and the switchgear shall be air-insulated compartments and manufactured ready for the arrangement.
- 12.4 Adequate space shall be allowed from the cable terminations to facilitate connecting onto the boards.
- 12.4 The termination box switchgear shall be manufactured with the female plugs to accommodate the screened plugged type termination manufactured to EN50181.

13. INSULATING MEDIUM

- 13.1 The insulation medium will be vacuum or SF6, refer to Annexure 1

14. HIGH-VOLTAGE FUSES

- 14.1 All fuses shall be designed, manufactured and tested in accordance with the recommendation of IEC PUBLICATION 60282.
- 14.2 Integral three pole earthing facilities to earth both sides of the switching device shall be provided unless otherwise approved.
- 14.3 All fuses shall be of the air insulated, cartridge, striker pin type.
- 14.4 Parallel connection fuse cartridges shall not be used unless no single fuse cartridge of the same characteristic is available.
- 14.5 Integral type circuit test facilities must be provided.

15. CURRENT TRANSFORMERS

- 15.1 Current transformers shall comply with the requirements of SABS IEC 60044/1 shall be tested in accordance with the following procedure:
- Each unit must be pre-stressed at 1,04x line voltage and the peak discharge measured at 1,1x the phase voltage.
 - The discharge level shall not exceed 50 pC for a wound primary and 10 pC for a bar primary.
 - A representative from Transnet Group Capital shall witness this test, unless routine test certificates, issued by a recognised independent testing authority, are submitted.
- 15.2 Short circuit ratings and voltage classes shall match the ratings of the associated circuit breaker and the current transformers shall also be rated to ensure the correct operation of the equipment constituting the burden.
- 15.3 Current transformers shall be of accuracy class 3 for measuring purposes be of accuracy class 0,2 for metering purposes and be connected to the cable side and be fitted with a 10 amp test winding. Testing windings shall be fitted on the higher current ratio of multi-ratio transformers.
- 15.4 All current transformers will have a permanent thermal current carrying rating of a minimum of 120% of the maximum specified ratio.
- 15.5 The limits of temperature rise of the windings of the current transformers at the full load continuous primary current rating of the switchgear panel shall comply with SABS IEC 60044.
- 15.6 Ring type current transformers shall have separate insulation between live conductors of the main circuit and inner surface of the current transformers. This insulation shall be capable of withstanding the high voltage test as specified. A rigid system of mounting shall be used to ensure that concentricity is

maintained.

- 15.7 All current transformers shall be naturally air-cooled. Their secondary terminal connections shall be safely and readily accessible with the circuit isolated. The current transformers in a switchgear panel shall be readily accessible with only the circuit-side isolated for removal/replacement without extensive dismantling of primary circuits.
- 15.8 The secondary rating of the transformer shall be either 1 or 5 amp as required by the protection or metering equipment.
- 15.9 All terminals of the current transformers shall be terminated individually into terminals in the LV compartment to facilitate changing of ratio's or the star point. The current transformer neutral earthing point will be taken through an earthing link located in the LV compartment.
- 15.10 Each current transformer shall be connected to test block with shorting strips located on the LV compartment door.
- 15.11 Unless specified, each current transformer shall be equipped with a test winding, terminated in the LV compartment, on terminals equipped with test plugs to allow for easy testing. Test winding terminals shall be clearly marked
- 15.12 Each current transformer rating (VA, ALF, V_{kp} etc) shall be decided and calculated by the manufacturer to meet the protection requirements. Manufacturers shall provide proof of the calculations. The values given on appendix 1 schedule of requirements shall be taken as typical values.

16. VOLTAGE TRANSFORMERS

- 16.1 All voltage transformers shall be designed, manufactured and tested in accordance with SABS IEC 60044/2.
- 16.2 Dry type cast epoxy resin insulated voltage transformers of the withdrawable type shall be provided for protection and metering purposes. When isolated the plug connections on the switchboard shall be fully shrouded by means of automatic shutters with padlocking facilities.
- 16.3 Where directional protection elements are required, voltage transformers shall be of a single phase or five limb construction, star/ star/ residual open delta connected, with primary neutral earthed and secondary neutral earthed via an earthing link in the LV compartment. Ratios shall be:

$$\frac{V_L}{\sqrt{3}} : \frac{110}{\sqrt{3}} : \frac{110}{3}$$

A suitable anti Ferro-resonance device shall be fitted to the open delta winding to prevent any Ferro resonance voltages that may occur.

- 16.4 The voltage transformers shall be successfully tested in accordance with the following procedure:
 - Each unit shall be pre-stressed at 1,04 x line voltage and then the peak discharge measured at 1,1 x the phase voltage. This discharge level shall be less than or equal to 100 pC. A representative from Transnet Group Capital shall witness this test, unless routine test certificates, issued by a recognised independent testing authority are submitted.
- 16.5 Voltage transformers secondary shall have the following minimum accuracy classes :

- 16.5.1 Indicating instruments - 3
- 16.5.2 Protective systems - 6P
- 16.5.3 Metering - 0,2
- 16.6 The primary of the voltage transformer shall be connected to the busbar side through high-voltage fuse-links.
- 16.7 Voltage transformers shall be fitted with three pole moulded case circuit breakers for protection of the secondary winding. The MCB's shall be mounted in the LV compartment of the panel
- 16.8 Phase or neutral earthing of the secondary winding through a removable link shall be provided. No fuses or miniature circuit breakers shall be fitted in this connection to earth.
- 16.9 The burden shall be suitable for the connected load but shall be not less than 25 VA per phase.
- 16.10 Where voltage transformers are fitted these shall be inside the arc proof enclosure. If voltage transformers are fitted outside the arc proof enclosure these shall be fully screened type. The arc capability of the switchgear must not be de-rated due to fitting of voltage transformers. Suitable documentary proof shall be provided for the design to prove compliance to the internal arc capability of the switchgear.
- 16.11 Busbar VT's shall be rackable type from behind a closed door. Busbar VT's can be situated in the bus riser cubicle, and if necessary a dedicated VT cubicle shall be supplied. Cable VT's shall only be accessible once the cable circuit is de-energised and a cable earth applied.

17. INDICATING LIGHTS AND INSTRUMENTS

- 17.1 All indicating instruments shall be designed, manufactured and tested in accordance with IEC 60051.
- 17.2 All indicating instruments shall have the following features:
 - 17.2.1 be flush-mounted and dustproof.
 - 17.2.2 be of minimum accuracy class 2,5.
 - 17.2.3 have a scale length of not less than 85 mm.
 - 17.2.4 be provided with zero adjustment from the front without requiring dismantling of the indicating instrument.
 - 17.2.5 be marked with the ratios of the associated current and/ or voltage transformers.
- 17.3 Ammeter full-scale shall be the first standard value above the normal primary current rating of the associated current transformers.
- 17.4 Voltmeter full-scale deflection shall indicate nominal voltage at approximately 75% of the scale length and shall be marked with a red line.
- 17.5 Maximum demand ammeters shall be of the 15 minute thermal type and shall be integrated with the indicating ammeters.
- 17.6 All panels will be equipped with cluster LED type lights on the panel door indicating:
 - Circuit Breaker Open

- Circuit Breaker Closed

- 17.7 All earth switch position statuses will be clearly indicated with LED type semaphores or on the protection relay LCD graphical display.
- 17.8 All alarms and trip conditions will be clearly indicated via either programmed LED's on the protection relay or an alarm annunciator.
- 17.9 A capacitive integrated voltage indicator for permanent monitoring of all three line voltages for "cable live", and "busbar live" indication shall be provided on each panel.
- 17.10 The voltage indicators shall comply with IEC 61243-5, consisting of flashing LED diodes deriving its power directly from the primary system via capacitive coupling electrodes. Test points shall provide for phasing and phase rotation checks.

18. ENERGY METERS

- 18.1 Energy meters shall be designed, manufactured, installed and tested in accordance with BS 37.

19. PROTECTIVE SYSTEMS AND RELAYS

- 19.1 Protective relays shall be designed, manufactured, and tested in accordance with IEC Publication 60125.
- 19.2 Protective relays shall have been type tested to verify performance and safety. Proof of these tests in the form of type test certificates shall be included in tender documents.
- 19.3 Standing load calculations for the all the protection schemes as supplied shall be calculated and submitted with the tender to allow for Battery charger sizing.
- 19.4 Unless otherwise stated in Appendix 1, each relay shall:
- 19.4.1 Have an error class index of 5.
 - 19.4.2 Have an operating time class index of 60.
 - 19.4.3 Have a rated number of contact operations with electrical duty class index N3.
 - 19.4.4 Have a mechanical stability class index S2.
- 19.5 Each Relay shall:
- have at least t over current elements
 - be rated in conjunction with its associated current transformer(s), to withstand the over current in the secondary winding of the current transformer/s under fault conditions
 - be continuously rated for any current setting
 - be clearly marked with the current ratio of the current transformer associated there-with
 - Have contacts rated to make and carry the current of their associated circuits. The trip coil current shall be interrupted by auxiliary contacts on the circuit breaker.
 - have manual reset and flag indications for the protection function that operated

- have an additional set of normally open and normally closed contacts, or auxiliary relays, for remote indication of the relay operation. The contacts shall be capable of handling 50 W in the range of 24 to 110 V DC, and shall be wired to a terminal strip at the back of the panel.

19.6 Microprocessor based digital protection relays with the following features

- A graphical display depicting the status of the devices connected to the protection relay
- A delay closing function as part of the CB control
- Clearly labelled LED indication
- Web server functionality
- Local Remote selection
- Disturbance and event recordings
- Time synchronization
- Communication protocol and SCADA requirements shall be in accordance with the TNPA Automation Control Standard.

19.6.2 Digital relays shall incorporate PT100 RTD inputs where required.

19.6.3 Where microprocessor based relays are supplied, communication cables and software will be supplied to configure the protection relays.

19.7 Over-current and Earth Fault Relays

19.7.1 The relays shall have the time/current characteristics as specified below

- IEC Normal inverse.
- IEC Very inverse.
- IEC Extremely inverse.
- IEC Definite Time

19.7.2 The relays shall have current settings adjustable either infinitely or in not less than equal steps in the following ranges:

Overcurrent Low Set	10% to 500%
Overcurrent High Set	10% to 4000%
Overcurrent Instantaneous	100% to 4000%

Earth Fault Low Set	10% to 500%
Earth Fault High Set	10% to 4000%
Earth Fault Instantaneous	100% to 4000%

Where 100% corresponds to the secondary rating of the current transformer specified.

19.7.5 Sensitive earth fault relays shall have at least a current setting of 2% - 3% and an operating time adjustable from 2 - 10 seconds.

19.8 Differential Pilot Wire Feeder Protection

19.8.1 Only to be used where a communication medium (pilot wires or fibre optic) exists or can be installed between the ends of the cable.

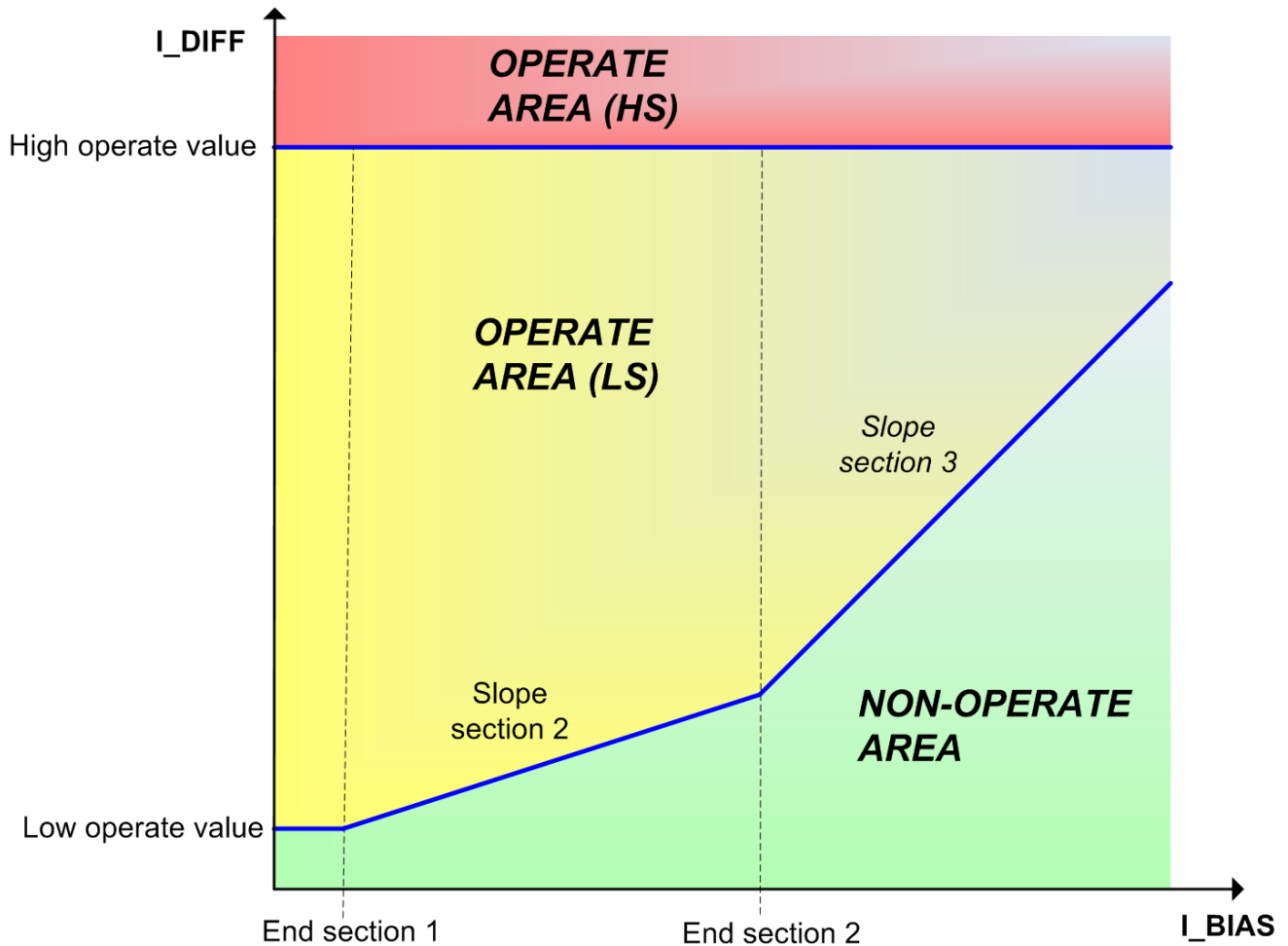


Figure 1

19.8.2 Relays incorporated in this system shall have a setting range of between

- I diff restrained 10% to 500%
- I diff un restrained 10% to 500%
- CT compensation 20% to 500%

They shall be compensated for any inherent out-of-balance in the current transformers supplied and shall be automatically biased against tripping on through-faults.

19.8.3 It shall be the responsibility of the tenderer to ensure that the current transformers and relays supplied will match exactly the equipment installed at the other end of the cable to be protected and that the whole protective system will be stable on through-faults but will operate satisfactorily on feeder faults.

19.9 Arc Protection and Busbar Blocking Scheme.

19.9.1 A combination of Arc Protection and a Busbar blocking scheme shall be used to detect busbar fault under the following 3 conditions:

- Earth faults
- Phase to Phase faults.
- Three Phase faults.

19.9.2 The switchgear protection “Zones” must be split over two sections

19.10 Arc protection

19.10.1 The individual zone relays shall trip all the switching devices in their respective zones to isolate the fault from all sources of supply.

19.10.3 The reaction time of the busbar protection system shall be such as to limit the duration of an internal arc fault to the withstand capability of the board.

19.10.4 Each relay shall:

19.10.4.1 Have its current setting adjustable in not less than seven equal steps

Overcurrent	50% to 600%
-------------	-------------

Earth Fault	5% to 50%
-------------	-----------

where 100% corresponds to the secondary rating of the current transformer specified.

19.10.4.2 Tripping the Incomers and sections directly and loading Input on the feeder breakers to clear to zone

19.11 Transformer Protection - (3 phase, 2 winding power transformers)

19.11.1 Over-current and Earth Fault Protection relays shall consist of the following elements:

The relays shall have the time/current characteristics as specified below

- IEC Normal inverse.
- IEC Very inverse.
- IEC Extremely inverse.
- IEC Definite Time

19.7.2 The relays shall have current settings adjustable either infinitely or in not less than equal steps in the following ranges:

Overcurrent Low Set	10% to 500%
Overcurrent High Set	10% to 4000%
Overcurrent Instantaneous	100% to 4000%
<hr/>	
Earth Fault Low Set	10% to 500%
Earth Fault High Set	10% to 4000%
Earth Fault Instantaneous	100% to 4000%
<hr/>	

Where 100% corresponds to the secondary rating of the current transformer specified.

19.11.2 Relays provided for Restricted Earth Fault Protection of Star Windings shall be of the Low impedance instantaneous type and shall be tuned to 50 Hz.

19.11.2.1 Stability on through faults shall be maintained up to the fault rating of the switchgear.

19.11.2.2 Sensitivity shall be equal to the rated current of the current transformer.

19.11.2.3 The current transformer, to be installed in the neutral connection of the power transformer, shall be supplied and installed.

19.11.2.4 The insulation of the neutral current transformer shall be equal to the rated voltage of the switchgear.

19.11.2.5 The tenderer shall advise the maximum load burden.

19.11.2.6 The current transformer for the neutral connection of the power transformer shall be installed by the Tenderer, who shall be responsible for the correct operation of the complete protective system.

19.11.3 Biased Differential Protection relays shall have a high speed characteristic and be biased to provide stability during through faults. They shall not be operated by normal magnetising inrush currents.

19.8.2 Relays incorporated in this system shall have a setting range of between

- I diff restrained 10% to 500%
- I diff un restrained 10% to 500%
- CT compensation 20% to 500%
- Vector group Compensation
- Harmonic restraint

19.11.3.1 Current transformers for the higher voltage winding of the power transformer will be installed by others but the tenderer shall advise the maximum load burden.

19.11.4 Over temperature, Gas Detection and Overpressure Protection shall be provided unless otherwise stated in Appendix 1. All circuit breakers controlling transformers shall be provided with the following instantaneous trip auxiliary relays:

- One relay for over-temperature protection.
- One relay for Buchholz or over-pressure protection.

19.11.5 The circuit-breaker panel shall be provided with an instantaneous type relay for protection against Tank-earth faults.

19.12 Electrical Inter-Trip

19.12.1 When electrical inter-tripping between two circuit-breakers is specified in Appendix 1 and/or on the relevant drawings, tripping of the driving unit shall close a set of contacts, to instantaneously energise the trip circuit of the follower unit.

19.12.2 All circuit breakers, controlling transformers shall be provided with the equipment specified above for driving units.

20. CLOSING AND TRIPPING SUPPLIES

20.1 A battery and battery-charging unit when specified in Appendix 1 shall be supplied, with the switchboard. The battery shall be capable of providing 8 hours standby time in the event of loss of supply. The battery shall be charged via a constant voltage charger that is supplied from a 220VAC supply. The charger shall be sufficiently rated to deliver the average 24hr standing load as well as the battery charging current for a discharged battery. The charger and battery shall have a 20% overcapacity to cater for aging and unforeseen loads. The manufacturer shall provide a preliminary calculation with the tender that shall be finalised on design approval.

21. TEST TERMINAL BLOCKS

21.1 Readily accessible, suitably enclosed test terminal blocks (equal or similar approved to MMLG/MMLB type) shall be provided on the front panel of each switch unit for the purpose of testing all protective systems.

21.2 Test terminal blocks need not be provided for frame protection system if the associated current transformers are mounted externally.

21.3 The test blocks shall be wired to the protective relays and associated current transformers.

22. CONTROL SWITCHES

22.1 All control switches shall be designed manufactured and tested in accordance with the recommendation of IEC PUBLICATION 337.

22.2 Rotary pistol grip type switches shall be used on electrically operated switching devices.

22.3 The electrical and mechanical endurance of the control switches shall not be less than 100 000 operations.

23. MINIATURE CIRCUIT-BREAKERS

- 23.1 Miniature circuit breakers shall be designed, manufactured and tested in accordance with SANS 156 and shall be mounted in the relay compartment and be readily accessible.

24. LOW VOLTAGE WIRING

- 24.1 Internal LV wiring shall be multi-strand copper conductor with PVC insulation having a minimum insulation rating of 600V/1000V to SANS 1411. When subjected to movement, the wiring shall be fully flexible with a minimum of 40 strands (2.5mm²).
- 24.2 Wiring shall be enclosed in a metal conduit when in the high voltage compartments.
- 24.3 Insulated crimp terminal lugs shall be used to terminate all wires. Lugs shall be correctly crimped to the lug manufacturers' specification.
- 24.4 All wiring from heaters to terminals shall be heat resistant.
- 24.5 Wiring shall be suitably strapped and enclosed in flexible conduit when looping from panels to doors and shall be continuous without joints.
- 24.6 Current transformer star points on secondary windings shall be earthed in the immediate vicinity of the transformer as well as onto the main circuit earth.
- 24.7 Terminal blocks or strips shall have a minimum of 10% spare terminals for future additions and be of the box type incorporating a pressure pad between the conductor and clamping screws.
- 27.8 LV wiring shall be colour coded and the ends of every wire shall be numbered as per NWS 1958 and in accordance with the approved schematic diagrams. Wiring shall also be neatly done and suitably strapped or housed in wire channels. Ferrule numbers shall be oil and moisture resistant.
- 24.9 Unless otherwise specified, the following guideline will be followed:
- DC Circuits (Indication and control) 1.5mm² Grey
 - DC Circuit (Spring rewind motor) 2.5mm² Grey
 - AC Circuits (VT) 1.5mm² Colour coded
 - AC Circuits (1A CT) 4mm² Colour coded
 - AC Circuits (5A CT) 4mm² Colour coded
 - AC Circuits (Panel Heaters) 2.5mm² Black
 - AC Circuit (Cable Live Indicators) 1.5mm² Colour coded
 - DC Buswiring (Supply) 4mm² Grey
 - AC Buswiring (Supply) 4mm² Black
 - DC Buswiring (Signalling) 1mm² Screened

25. REMOTE CONTROL

- 25.1 All electrically operated switching devices shall be equipped with circuits for remote operation and indication.

25.2 The circuits shall include the following :

- TWO set of N/O and N/C auxiliary contacts to indicate the "open" or "closed" states of the switching device.
- Relays for remote closing and opening shall require a maximum of 50 watts at 110 Volts DC.

25.3 All remote circuits shall be wired to a terminal strip at the back of the panel.

Selectors switch on the front of the panel to select between "local" and "remote" operation.

25.4 An additional socket shall be allowed for at the front of the panel for remote operation via a handheld pendant type remote control unit (chicken switch).

26. ARC DUCTING

26.1 The switchgear should be fitted with arc ducting to safely vent the gases away from the operator, to the outside of the building.

26.2 The arc ducting can be vented into the sides of the switchgear or two the rear of the switchgear. The manufacturer must determine the most suitable venting arrangement for his switchgear from the substation drawings.

26.3 If arc ducting cannot be vented to the exterior of the building then the arc ducting can vent into the switch-room through an absorber.

26.4 The design of the switchgear arc ducting system must be supported by type test certificates.

26.5 If the arc ducting is fitted with an absorber then the pressure rise within the switch-room must be determined by means of a calculation.

26.6 The maximum height of the arc ducting should be 2600 mm from the floor to the top of the switchgear including the arc ducting.

27. NAMEPLATES AND LABELS

27.1 Labelling shall be done according to NRS 003. Graphic symbols for wiring diagrams shall comply with NRS 002.

27.2 Each switchgear and control gear panel shall be fitted with a nameplate in a conspicuous position indicating:

Maker's name:	Maker's type number
Maker's serial number:	Client contract number
Service voltage:	Number of phases
Continuous rating:	Rating kA seconds

27.3 Identical nameplates as that on all current and voltage transformers shall be mounted in a conspicuous position inside the relay compartment. The phase colour with which each current/voltage transformer is associated shall appear beneath each nameplate.

- 27.4 Interchangeable, engraved labels, showing panel designation (circuit breaker number and circuit name), shall be fitted to the front and the rear of the fixed part of each cubicle and associated withdrawable equipment for easy identification.
- 27.5 Only screws with nuts or rivets shall be utilized to fix label. Self-tapping screws or similar will not be used.
- 27.6 All equipment shall be clearly designated in position in accordance with the wiring and schematic drawings.
- 27.7 Voltmeter labels shall state whether busbar or cable voltage is indicated.
- 27.8 All labels shall be made of composite sandwich type plastic material with black lettering on white background. Letters must be of sufficient size to be clearly legible. All nameplates and labels shall be in English.
- 27.9 Danger Notices: White lettering on red background. Letters must be of sufficient size to be clearly legible.

28. PAINTING

- 28.1 All surfaces of the distribution board shall be light orange to SANS 1091 colour No. B26.
- 28.2 All surfaces shall be cleaned according to the appropriate method described in SANS 064 for the particular surface to be cleaned, the contamination to be removed and the primer to be applied.
- 28.3 Blast cleaning of components shall be in accordance with clause 4.3 of SANS 064 to a degree of cleanliness of at least Sa2 for inland exposure components and Sa 1/2 for coastal exposure components. See Table 1 of SANS 064 for the appropriate profile.
- 28.4 Sheet metal that cannot be blast cleaned shall be cleaned by pickling according to clause 4.6 of SANS 064.
- 28.5 Components that will be powder coated shall be cleaned and prepared by the surface conversion process according to clause 5 of SANS 064 to a medium-weight classification of table 2 of that specification.
- 28.6 Oil and accumulated dirt on steel components where no rusting is present shall be removed according to clause 3 of SANS 064.
- 28.7 The powder-coating process shall be in accordance with SANS 1274 type 4: Corrosion-resistant coatings for interior use and using the thermosetting type high gloss coating.
- 28.8 All specified coatings shall be applied according to the relevant specification and the manufacturer's instructions shall be followed.
- 28.9 Coatings shall not be applied under conditions that may be detrimental to the effectiveness of the coating or the appearance of the painted surface.
- 28.10 When examined visually the finished products shall have a uniform appearance as far as gloss is concerned and shall show no sign of damage. Damaged areas shall be repaired coat for coat to obtain the desired finish.

29. TESTS

- 29.1 All prescribed tests as referred to in the standard specifications may be called for at the discretion of Transnet Group Capital.
- 29.2 Transnet Group Capital also reserves the right to carry out any check tests on the equipment.
- 29.3 Notwithstanding the successful completion of tests, the tenderer will still be responsible for the efficient operation of the equipment.
- 29.4 The tenderer shall bear all costs for any tests that will be required.

30. INSPECTION

- 30.1 The successful tenderer shall advise Transnet Group Capital at least four (4) weeks in advance of panel testing to enable Transnet Group Capital to witness the testing at the manufacturer's premises once Switchboards are 100% ready before shipment.
- 30.2 All transport cost to enable Transnet Group Capital personnel to attend such test must be included in the tenderers price (Max. 2 persons)
- 30.3 In the event of major faults ie; wiring discrepancies, VCB'S failed to trip; busbar earthing device not demonstrated on the day, the successful tenderer shall again arrange for a retest at the tenderer cost.

31. TOOLS AND APPLIANCES

- 31.1 One set of any special tools and appliances required for normal operation and maintenance shall be supplied with each board.

32. SPARES

- 32.1 The tenderer shall state whether their local representatives hold a complete range of spares in stock as and when required.
- 32.2 The tenderer shall submit a separate quote for recommended spares for maintenance purposes of supply a detailed description of each item including manufacturer's catalogue number.
- 32.3 A complete spare parts list, including parts location diagrams or drawing and prices, which the manufacturer recommends for the first two years' operation, shall be submitted with the tender.
- 32.4 A separate list detailing items likely to be used in a 10-year period shall also be submitted with the tender.

33. PACKING

- 33.1 The equipment shall be packed in such a manner that it will be protected during handling and transport by road, rail or sea as applicable. The movements of instruments, meters and relays shall be protected against vibration damage during transit.
- 33.2 When sea transport is involved, a dehydrating agent shall be provided where necessary.

34. GUARANTEE

- 34.1 The tenderer shall guarantee the equipment supplied by him in terms of this specification for a period of one year after successful completion of hot commissioning of the plant. The tenderer shall state his compliance herewith.
- 34.2 This guarantee shall cover all materials, parts, workmanship, performance and efficiency (normal wear and tear excluded). The guarantee shall include all equipment supplied.
- 34.3 If any part/equipment fails during the 12-month guarantee period, the supplied shall immediately replace such part/equipment free of charge.

WITNESSES

1.
TENDERER
2.
DATE

Transnet Projects
Design Services

ANNEXURE 1(1a)
SCHEDULE OF REQUIREMENTS

SUBSTATION 1A (11kV)						
Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, &6a	1 &7	5 & 5a	2, 3, 8, 9 &9a	
	Panel Designation	4- Incomer 1 6- Incomer 2 6a- Spare incomer	1 –Transformer Feeder 7 – Transformer Feeder	5 - Bus section 5a - Busbar ES & VT	2 – STS 01 Feeder 3 – Equipped Spare 8 – STS 02 Feeder 9 – STS 03 Feeder 9a – Stored Spare	
1.1	General					
	Type of panel	316 stainless steel	316 stainless steel	316 stainless steel	316 stainless steel	
	Number of switching devices	Three	Two	One	Five	
	Neutral Earthing: Unearthed: _____ Solidly Earthed: _____ Reactance Earthed: _____ Resonant Earthed: _____	Solidly Earthed				

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, &6a	1 &7	5 & 5a	2, 3, 8, 9 &9a	
	Arrangement drawing reference of the switchboard with details of each panel and its components and accessories	To be submitted by tenderer				
	Cable trench or basement layout to be agreed with the supplier (Yes/No)	No Existing Building				
1.2	Ratings of switchgear panels					
	Rated voltage kV	11 kV				
	Rated frequency 50 Hz	50 Hz				
	Busbars Rated normal current (amps) Type of Material: Copper..... Insulation	1250A Copper Air Insulated	1250A Copper Air Insulated	1250A Copper Air Insulated	1250A Copper Air Insulated	
	Rated insulation level kV	95kV				
	Max. Three phase and earth fault current kA / 3 seconds	31.5				
	Internal Arc Classification (IAC) Rating	AFLR				
	Max Internal arc Fault rating kA / 1 second	31.5				

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, &6a	1 &7	5 & 5a	2, 3, 8, 9 &9a	
	Rated normal current for Circuits A	1250A	800A	1250A	800A	
	Anticondensation Heaters: Yes/No	Yes. In cable and CB compartment.				
	Switchboard Colour	TBA (Tenderer to be advised or as per spec)				
1.3	Enviromental conditions					
	a) altitude m	0 to 1800m				
	b) max. daily temperature °C	+45				
	c) min. daily temperature °C	-5				
	d) average daily temperature °C	+35				
	e) humidity %	96				
	f) exposure conditions	Salt laden and industrial atmosphere				
	g) Lightning Conditions	Severe: 11flashes/ km ² /annum				
1.4	Circuit-breakers					
	Circuit-breaker type required (Withdrawable)	Vacuum				
	Closing mechanism if other than a stored energy type	Stored Energy, spring or Capacitor				
	Rating according to IEC 62271-100	E2, M2, C2				
	Closing Supply: Rated Voltage: _____ Peak Power: _____	110 Volts, Battery Peak Power 750W				

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, &6a	1 &7	5 & 5a	2, 3, 8, 9 &9a	
	Tripping Supply: Rated Voltage: _____ Peak Power: _____	110 Volts, Battery Peak Power 750W				
	Stored Energy Mechanism Type: Motor/Capacitor Voltage : _____ Peak Power: _____	110 Volts, Battery Peak Power 750W				
	Number of spare auxiliary contacts required on circuit-breakers					
	- “Normally open ” contacts	5	5	5	5	
	- “Normally Closed” contacts	5	5	5	5	
1.5	Safety earthing					
	Are earthing facilities required on main circuits? Yes/No	Yes	Yes		Yes	
	Are earthing facilities on busbars required? Yes/No			Yes one per busbar section 1 x ES in Bus Section or Bus Riser		

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1 & 7	5 & 5a	2, 3, 8, 9 & 9a	
	Are these facilities to be rated for fault making? Yes/No	Yes	Yes	Yes	Yes	
	Interlock BB E/S capability required. (Yes/No)	Yes, via Key Type Interlock and SCADA automation		Yes, via Key Type Interlock and SCADA automation		
1.6	Cable Terminations					
	Type and size of cable	As per existing installation	As per existing installation		As per existing installation	
	Cable termination compartments	Yes	Yes		Yes	
	Type of cable boxes required	Air Insulated, EN50181, inner-cone, pluggable	Air Insulated. EN50181, inner-cone, pluggable		Air Insulated. EN50181, inner-cone, pluggable	
	Type of filling required: XLPE Air insulated Cables.	EN50181, pluggable Termination kits to be provided.	EN50181, pluggable Termination kits to be provided.		EN50181, pluggable Termination kits to be provided.	
	Are gland plates or arrangement for clamping required? Yes/No	Yes, as per design for the pluggable termination.	Yes, as per design for the pluggable termination.		Yes, as per design for the pluggable termination.	.

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1 & 7	5 & 5a	2, 3, 8, 9 & 9a	
	Cable trifurcation for three-core cable to single cores ? Yes/No	Yes	Yes		Yes	
1.7	Current transformers (CTs)					
	Current transformer specification applicable.	Yes	Yes	Yes	Yes	
	a) Class type: Protection per panel:	1	1	1	1	
	- quantity	3	6	6	42	
	Class X	Yes 630/1 0.03 A RCT < 2.8 Ohm	Nil	Nil	Nil	
	- ratios	630/1	100/1	630/1	100/1	
		5P20 7.5VA RCT < 6.4 Ohm	5P20 2.5VA RCT < 1 Ohm	5P20 7.5VA RCT < 6.4 Ohm	5P20 2.5VA RCT < 1 Ohm	
	b) Metering CTs					
	Where required?	Incomer				
	Class type (per panel):	1	1		1	
	- quantity	3	3		3	
	- ratio (Multi ratio)	630/1	100/1		100/1	
	- accuracy %	Cl 0.5 - 7.5VA	Cl 0.5 - 7.5VA		Cl 0.5 - 7.5VA	
	c) Differential protection					

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1 & 7	5 & 5a	2, 3, 8, 9 & 9a	
	Where required?	Incomers	N/A	N/A	N/A	N/A
	- quantity	2 (Bidder to price for a duplicate for substations feeding the proposed sub)				
	Test Blocks Yes/No	Yes RXTP type On LV Door				
1.8	Voltage Transformers (VTs)					
	Panel to which VTs are to be fitted			Bus section, Busbar riser / BB VT Panel.		
	VT requirements					
	Connected to			Busbar		
	Quantity			3 x Single Phase		
	a) Class type / VA: Indicating Instruments / Meters			Class 0.5 / 50VA		
	b) Class type / VA: Protection			6P / 150VA		
	- quantity			1 per busbar section		
	- ratios			11000v3/110v3/110/3 Volts		
	VT Protection device			Loading resistor or VT guard.		

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, &6a	1 &7	5 & 5a	2, 3, 8, 9 &9a	
	Connection of VT primary to: Busbar side/circuit side			Busbar Side, Withdrawable/fixed		
	Are HV fuse-links required? Yes/No			Yes		
1.9	Live circuit indication					
	According to IEC 61243-5	Yes	Yes	Yes	Yes	
	Is live circuit indication required Yes/No	Yes	Yes	Yes	Yes	
	If Yes, on which panels?	Incomer	Feeders	Bus section	Feeders	
1.10	Control, protection and alarm circuitry					
	Drawing number, if applicable, for all panels	To be submitted by Manufacturer				
	Are control wires to be terminated with crimped lugs? Yes/No	Yes				
	Colour of auxiliary wires, if not grey	As per specification.				
	Requirements for alarm circuits					

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, &6a	1 &7	5 & 5a	2, 3, 8, 9 &9a	
	Protection of d.c. circuits Fuses/MCCBs	MCB's				
	Are Ammeter required? Yes/No	Yes via IED				
	Are Voltmeters required? Yes/No	Yes via IED				
C.11	Battery, battery charger and d.c. supplies					
	Are a battery and battery charger to be supplied? Yes/No	Yes				
	If Yes, details of the battery V A.h capacity suitable for 8hour standby	110 Volt (gel type, maintenance free batteries) Manufacturer to calculate the Ah capacity required				
	Auxiliary supply	Yes 380/220V Local AC DB existing				

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, &6a	1 &7	5 & 5a	2, 3, 8, 9 &9a	
1.12	Protection Relays Overcurrent and Earth Fault Relays (All IEC-61850 compliant): Overcurrent: Number of elements IDMT Inverse IDMT Extremely Inverse High Set Instantaneous Instantaneous Definite Time Earth Fault: Number of elements IDMT Inverse IDMT Extremely Inverse High Set Instantaneous Instantaneous Definite Time	Yes Three Yes Yes Yes Yes Yes Three Yes One Yes	Yes Three Yes Yes Yes Yes Three Yes One Yes	Yes Three Yes Yes Yes Yes Three Yes One Yes	Yes Three Yes Yes Yes Yes Three Yes One Yes	Yes Three Yes Yes Yes Yes Three Yes One Yes
	Auto-reclosing	No	No	No	No	
	Cable Differential Protection	Yes	No	No	No	
	Power Factor Protection	No	No	No	No	
	Busbar Blocking	Yes	Yes	Yes	Yes	
	Details of indication functions required					
	Current Indication	Yes in IED	Yes in IED	Yes in IED	Yes in IED	

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, &6a	1 &7	5 & 5a	2, 3, 8, 9 &9a	
	Voltage Indication	Yes in IED	Yes in IED	Yes in IED	Yes in IED	
	Energy Metering	Yes in IED	Yes in IED	NA	Yes in IED	
	Specify	P, Q, Pf	P, Q, Pf	NA	P, Q, Pf	
	Binary Inputs	16 Inputs	16 Inputs	16 Inputs	16 Inputs	
	Binary Outputs	6 Normal + 4 Power Outputs	6 Normal + 4 Power Outputs	6 Normal + 4 Power Outputs	6 Normal + 4 Power Outputs	
	Communications	Ethernet RJ45/multi-mode				
	Communications Protocol	IEC 61850				
	Type of IED	Equal or similar approved to ABB RED615 HBDCACADN HA1BNN1XD (Most recent model to be considered)	Equal or similar approved to ABB REF615 HBFEAEAGNBA1BNA1XD (Most recent model to be considered)	Equal or similar approved to ABB REF615 HBFEAEAGNBA1BNA1XD (Most recent model to be considered)	Equal or similar approved to ABB REF615 HBFEAEAGNBA1BNA1XD (Most recent model to be considered)	
	Pilot wire Modem required Yes/No	Yes, equal, or similar to RPW600AMF or as applicable to the installation.	No	No	No	
	Arc Protection	Ultra-Fast Earthing System including sensors per bay as required				
	Arc Protection system	Tripping the source of the fault current				
	Gas monitoring system Alarm/Trip,		Yes in IED		Yes in IED	
	Winding Temp Alarm/Trip		Yes in IED		Yes in IED	
	Oil Temp/Trip		Yes in IED		Yes in IED	

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1 & 7	5 & 5a	2, 3, 8, 9 & 9a	
1.13	Electrical Interstrip	Remote Cable Differential Signal	No	No	No	
	Driving unit: Breaker No. Follower unit: Breaker No	Cable Differential Trip Signal				
	Where are VT fuses or links located?			On VT		
1.14	Remote Switching	Yes, via socket on panel face and local control LV panel	Yes, via socket on panel face and local control LV panel	Yes, via socket on panel face and local control LV panel	Yes, via socket on panel face and local control LV panel	
1.15	Tests					
	Routine test and type test of metering CTs required	Yes according to IEC 60044-1				
	Routine test and type test of protection CTs required	Yes according to IEC 60044-1				
	Routine Test and Type test of VTs required			Yes according to IEC 60044-2		

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, &6a	1 &7	5 & 5a	2, 3, 8, 9 &9a	
	Number of copies of routine test certificates required	Three				
1.16	Marking/labeling/documentation					
	Are main circuit labels to be engraved? Yes/No	Yes				
	Documentation to be provided with the offer.	General Arrangement and details of equipment offered				
	Quantity of Operational and Maintenance manuals required:	Three copies				
1.17	Accessories					
	Supply of cabinet required	Yes				
	Switchgear Operating Tools	Yes				
	Wall Mounted tool cabinet	Yes				
	CB service trolley					
	Number of as-built drawings and Operating and Maintenance manuals required.	Three				

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, &6a	1 &7	5 & 5a	2, 3, 8, 9 &9a	
	Spares					
	Period required for routine maintenance spares	5 years				
	Minimum availability of spares from date of supply	10 years				
	Delivery					
	Delivery period EXW in Weeks	Tenderer to advise as part of tender returnable				
	Delivery period installation in weeks	Winning tenderer/contractor to advise				
	Delivery period for commissioning in weeks	Winning tenderer/contractor to advise				

ANNEXURE 1(1B)
SCHEDULE OF REQUIREMENTS

SUBSTATION 1B (11kV)						
Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Panel Designation	4- Incomer 1 6- Incomer 2 6a- Spare incomer	1 –Transformer Feeder 7 – Transformer Feeder 10 – 264 RMU 01 Feeder	5 - Bus section 5a - Busbar ES & VT	2 – STS 04 Feeder 3 – RMG 01 Feeder 8 – STS 05 Feeder 9 – STS 06 Feeder 9a – Equipped Spare 9b – Stored Spare	
1.1	General					
	Type of panel	316 stainless steel	316 stainless steel	316 stainless steel	316 stainless steel	
	Number of switching devices	Three	Three	One	Six	

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Neutral Earthing: Unearthed: _____ Solidly Earthed: _____ Reactance Earthed: _____ Resonant Earthed: _____	Solidly Earthed				
	Arrangement drawing reference of the switchboard with details of each panel and its components and accessories	To be submitted by tenderer				
	Cable trench or basement layout to be agreed with the supplier (Yes/No)	No Existing Building				
1.2	Ratings of switchgear panels					
	Rated voltage kV	11 kV				
	Rated frequency 50 Hz	50 Hz				
	Busbars Rated normal current (amps) Type of Material: Copper..... Insulation	1250A Copper Air Insulated	1250A Copper Air Insulated	1250A Copper Air Insulated	1250A Copper Air Insulated	
	Rated insulation level kV	95kV				

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, &6a	1, 7 &10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Max. Three phase and earth fault current kA / 3 seconds	31.5				
	Internal Arc Classification (IAC) Rating	AFLR				
	Max Internal arc Fault rating kA / 1 second	31.5				
	Rated normal current for Circuits A	1250A	800A	1250A	800A	
	Anticondensation Heaters: Yes/No	Yes. In cable and CB compartment.				
	Switchboard Colour	TBA (Tenderer to be advised or as per spec)				
1.3	Enviromental conditions					
	a) altitude m	0 to 1800m				
	b) max. daily temperature °C	+45				
	c) min. daily temperature °C	-5				
	d) average daily temperature °C	+35				
	e) humidity %	96				
	f) exposure conditions	Salt laden and industrial atmosphere				
	g) Lightning Conditions	Severe: 11flashes/ km ² /annum				
1.4	Circuit-breakers					
	Circuit-breaker type required (Withdrawable)	Vacuum				

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Closing mechanism if other than a stored energy type	Stored Energy, spring or Capacitor				
	Rating according to IEC 62271-100	E2, M2, C2				
	Closing Supply: Rated Voltage: _____ Peak Power: _____	110 Volts, Battery Peak Power 750W				
	Tripping Supply: Rated Voltage: _____ Peak Power: _____	110 Volts, Battery Peak Power 750W				
	Stored Energy Mechanism Type: Motor/Capacitor Voltage : _____ Peak Power: _____	110 Volts, Battery Peak Power 750W				
	Number of spare auxiliary contacts required on circuit-breakers					
	- “Normally open ” contacts	5	5	5	5	
	- “Normally Closed” contacts	5	5	5	5	
1.5	Safety earthing					

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Are earthing facilities required on main circuits? Yes/No	Yes	Yes		Yes	
	Are earthing facilities on busbars required? Yes/No			Yes one per busbar section 1 x ES in Bus Section or Bus Riser		
	Are these facilities to be rated for fault making? Yes/No	Yes	Yes	Yes	Yes	
	Interlock BB E/S capability required. (Yes/No)	Yes, via Key Type Interlock and SCADA automation		Yes, via Key Type Interlock and SCADA automation		
1.6	Cable Terminations					
	Type and size of cable	As per existing installation	As per existing installation		As per existing installation	
	Cable termination compartments	Yes	Yes		Yes	
	Type of cable boxes required	Air Insulated, EN50181, inner-cone, pluggable	Air Insulated. EN50181, inner-cone, pluggable		Air Insulated. EN50181, inner-cone, pluggable	
	Type of filling required: XLPE Air insulated Cables.	EN50181, pluggable Termination kits to be provided.	EN50181, pluggable Termination kits to be provided.		EN50181, pluggable Termination kits to be provided.	

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Are gland plates or arrangement for clamping required? Yes/No	Yes, as per design for the pluggable termination.	Yes, as per design for the pluggable termination.		Yes, as per design for the pluggable termination.	.
	Cable trifurcation for three-core cable to single cores ? Yes/No	Yes	Yes		Yes	
1.7	Current transformers (CTs)					
	Current transformer specification applicable.	Yes	Yes	Yes	Yes	
	a) Class type: Protection per panel:	1	1	1	1	
	- quantity	3	6	6	42	
	Class X	Yes 630/1 0.03 A RCT < 2.8Ohm	Nil	Nil	Nil	
	- ratios	630/1	100/1	630/1	100/1	
		5P20 7.5VA RCT < 6.4 Ohm	5P20 2.5VA RCT < 1 Ohm	5P20 7.5VA RCT < 6.4 Ohm	5P20 2.5VA RCT < 1 Ohm	
	b) Metering CTs					
	Where required?	Incomer				
	Class type (per panel):	1	1		1	
	- quantity	3	3		3	

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	- ratio (Multi ratio)	630/1	100/1		100/1	
	- accuracy %	Cl 0.5 - 7.5VA	Cl 0.5 - 7.5VA		Cl 0.5 - 7.5VA	
	c) Differential protection					
	Where required?	Incomers	N/A	N/A	N/A	N/A
	- quantity	2 (Bidder to price for a duplicate for substations feeding the proposed sub)				
	Test Blocks Yes/No	Yes RXTP type On LV Door				
1.8	Voltage Transformers (VTs)					
	Panel to which VTs are to be fitted			Bus section, Busbar riser / BB VT Panel.		
	VT requirements					
	Connected to			Busbar		
	Quantity			3 x Single Phase		
	a) Class type / VA: Indicating Instruments / Meters			Class 0.5 / 50VA		
	b) Class type / VA: Protection			6P / 150VA		
	- quantity			1 per busbar section		

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	- ratios			11000v3/110v3/110/3 Volts		
	VT Protection device			Loading resistor or VT guard.		
	Connection of VT primary to: Busbar side/circuit side			Busbar Side, Withdrawable/fixed		
	Are HV fuse-links required? Yes/No			Yes		
1.9	Live circuit indication					
	According to IEC 61243-5	Yes	Yes	Yes	Yes	
	Is live circuit indication required Yes/No	Yes	Yes	Yes	Yes	
	If Yes, on which panels?	Incomer	Feeders	Bus section	Feeders	
1.10	Control, protection and alarm circuitry					
	Drawing number, if applicable, for all panels	To be submitted by Manufacturer				
	Are control wires to be terminated with crimped lugs? Yes/No	Yes				

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Colour of auxiliary wires, if not grey	As per specification.				
	Requirements for alarm circuits					
	Protection of d.c. circuits Fuses/MCCBs	MCB's				
	Are Ammeter required? Yes/No	Yes via IED				
	Are Voltmeters required? Yes/No	Yes via IED				
C.11	Battery, battery charger and d.c. supplies					
	Are a battery and battery charger to be supplied? Yes/No	Yes				
	If Yes, details of the battery V A.h capacity suitable for 8hour standby	110 Volt (gel type, maintenance free batteries) Manufacturer to calculate the Ah capacity required				

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Auxiliary supply	Yes 380/220V Local AC DB existing				
1.12	Protection Relays Overcurrent and Earth Fault Relays (All IEC-61850 compliant): Overcurrent: Number of elements IDMT Inverse IDMT Extremely Inverse High Set Instantaneous Instantaneous Definite Time Earth Fault: Number of elements IDMT Inverse IDMT Extremely Inverse High Set Instantaneous Instantaneous Definite Time	Yes Three Yes Yes Yes Yes Yes Three Yes One Yes	Yes Three Yes Yes Yes Yes Three Yes One Yes	Yes Three Yes Yes Yes Yes Three Yes One Yes	Yes Three Yes Yes Yes Yes Three Yes One Yes	Yes Three Yes Yes Yes Yes Three Yes One Yes
	Auto-reclosing	No	No	No	No	
	Cable Differential Protection	Yes	No	No	No	
	Power Factor Protection	No	No	No	No	
	Busbar Blocking	Yes	Yes	Yes	Yes	

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Details of indication functions required					
	Current Indication	Yes in IED	Yes in IED	Yes in IED	Yes in IED	
	Voltage Indication	Yes in IED	Yes in IED	Yes in IED	Yes in IED	
	Energy Metering	Yes in IED	Yes in IED	NA	Yes in IED	
	Specify	P, Q, Pf	P, Q, Pf	NA	P, Q, Pf	
	Binary Inputs	16 Inputs	16 Inputs	16 Inputs	16 Inputs	
	Binary Outputs	6 Normal + 4 Power Outputs	6 Normal + 4 Power Outputs	6 Normal + 4 Power Outputs	6 Normal + 4 Power Outputs	
	Communications	Ethernet RJ45/multi-mode				
	Communications Protocol	IEC 61850				
	Type of IED	Equal or similar approved to ABB RED615 HBDCACADN HA1BNN1XD (Most recent model to be considered)	Equal or similar approved to ABB REF615 HBFEAEAGNBA1BNA1XD (Most recent model to be considered)	Equal or similar approved to ABB REF615 HBFEAEAGNBA1BNA1XD (Most recent model to be considered)	Equal or similar approved to ABB REF615 HBFEAEAGNBA1BNA1XD (Most recent model to be considered)	
	Pilot wire Modem required Yes/No	Yes, equal, or similar to RPW600AMF or as applicable to the installation.	No	No	No	
	Arc Protection	Ultra-Fast Earthing System including sensors per bay as required				
	Arc Protection system	Tripping the source of the fault current				

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Gas monitoring system Alarm/Trip,		Yes in IED		Yes in IED	
	Winding Temp Alarm/Trip		Yes in IED		Yes in IED	
	Oil Temp/Trip		Yes in IED		Yes in IED	
1.13	Electrical Interstrip	Remote Cable Differential Signal	No	No	No	
	Driving unit: Breaker No. Follower unit: Breaker No	Cable Differential Trip Signal				
	Where are VT fuses or links located?			On VT		
1.14	Remote Switching	Yes, via socket on panel face and local control LV panel	Yes, via socket on panel face and local control LV panel	Yes, via socket on panel face and local control LV panel	Yes, via socket on panel face and local control LV panel	
1.15	Tests					
	Routine test and type test of metering CTs required	Yes according to IEC 60044-1				

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Routine test and type test of protection CTs required	Yes according to IEC 60044-1				
	Routine Test and Type test of VTs required			Yes according to IEC 60044-2		
	Number of copies of routine test certificates required	Three				
1.16	Marking/labeling/documentation					
	Are main circuit labels to be engraved? Yes/No	Yes				
	Documentation to be provided with the offer.	General Arrangement and details of equipment offered				
	Quantity of Operational and Maintenance manuals required:	Three copies				
1.17	Accessories					

Item	Description	Incomers	11kV Transformer Feeders	Bus Section, VTs & Riser	11kV Feeders	
	Panel No	4, 6, & 6a	1, 7 & 10	5 & 5a	2, 3, 8, 9, 9a & 9b	
	Supply of cabinet required	Yes				
	Switchgear Operating Tools					
	Wall Mounted tool cabinet					
	CB service trolley	Yes				
	Number of as-built drawings and Operating and Maintenance manuals required.	Three				
	Spares					
	Period required for routine maintenance spares	5 years				
	Minimum availability of spares from date of supply	10 years				
	Delivery					
	Delivery period EXW in Weeks	Tenderer to advise as part of tender returnable				
	Delivery period installation in weeks	Winning tenderer/contractor to advise				
	Delivery period for commissioning in weeks	Winning tenderer/contractor to advise				

ANNEXURE 2

TECHNICAL DATA SHEET To be completed by the Tenderer

SUBSTATIONS (11kV) Submissions for separate switchgear						
Item	Description					
	Panel No.					
1.1	General					
	Details of provisions for lifting/slinging					
	Type of transporting device if not an integral device					
1.2	Circuit-breakers					
	Circuit-breaker type offered					
	Rating of the closing device					
	a) rated control voltage V					
	b) rated current A					
	c) rated power kW					
	d) time lag fuses or MCCBs?					

Item	Description					
	Panel No.					
	e) alternative methods of tripping if any					
	Number of spare auxiliary contacts offered on circuit-breakers					
1.3	Safety Earthing					
	Details of earthing facilities offered					
	Details of earthing busbars in bus-section and/or bus-coupler panels					
1.4	Cable termination compartments					
	Type of compartment offered					
1.5	Current transformers (CTs)					
	Current transformer specification offered					
	Type of CT offered					
	Are separate CTs used for indications?					

Item	Description					
	Panel No.					
	Is approval for connection of protection or indicating instruments to metering CTs required? Yes/No					
1.6	Voltage transformers (VTs)					
	Type of VTs offered					
1.7	Live circuit indication					
	Type of indication offered					
	Voltage divider bushing details					
	- manufacturer					
	- type					
	- dielectric					
	- rating					
1.8	Battery, Battery Charger, and dc supplies					
	Type of battery offered					
	Type of battery charger offered					
	Battery load					
	Peak current from all switchgear A					

Item	Description					
	Panel No.					
	Standby current A					
1.9	Protection relays and instruments					
	Details of protection equipment offered					
1.10	Terminals for auxiliary circuits					
	Type of test block offered					
1.11	Painting/Coating					
	Paint/coating system offered					
1.12	Tests					
	Summary of type test certificates available					
	Test authority for type certificates					
	Are any test certificates overseas products?					
	If Yes, is the South African product identical?					

Item	Description					
	Panel No.					
	How many units installed in South Africa?					
1.13	Accessories					
	Details of the accessories supplied					
1.14	Spares					
	Is a complete range of spares held in stock by the local representative?					
	Yes/No					

Applicable Standards for Relays

	Requirement description	Fulfill the requirement [yes/no]	Comments
	General		
1.	Type test according IEC 61850-3		
	Climatic Requirements		
2.	Ambient temperature operation (according IEC 60068-2-1, Test A and IEC 60068-2-2, Test B) -10 °C to +55 °C		
3.	Ambient temperature transport and storage (according IEC 60068-2-1, Test Aa and IEC 60068-2-2, Test Ba) -40 °C to +80 °C		

	Requirement description	Fulfill the requirement [yes/no]	Comments
4.	Relative humidity (RH) 93 %		
	Mechanical Requirements IEC 60870-2-2, class BM:		
5.	Bump acc. IEC 60068-2-29 Acceleration 10 g, pulse duration 16 ms Number of directions: 6 Test duration 600 shocks (100 shocks per direction)		
6.	Shock acc. IEC 60068-2-27 Acceleration 10 g, pulse duration 11 ms Number of directions: 6 Test duration 18 shocks (3 shocks per direction)		

	Requirement description	Fulfill the requirement [yes/no]	Comments
7.	Vibration acc. IEC 60068-2-6 Number of axes: 3 Test duration 10h (20 cycles per axis), 2 - 500 Hz		
	EMC Interference Immunity		
8.	EN 61000-4-2		
9.	EN 61000-4-3		
10.	EN 61000-4-8		
11.	EN 61000-4-4		
12.	EN 61000-4-5		
13.	EN 61000-4-6		
14.	EN 61000-4-11		
15.	ANSI C37.90.1 / IEC 61000-4-12		

	Requirement description	Fulfill the requirement [yes/no]	Comments
16.	ANSI C37.90.1 / CFE		
17.	ANSI C37.90.2		
18.	ANSI C37.90.3 / CFE		
19.	IEC 60255-5		
	EMC Electromagnetic Emission		
20.	IEC CISPR 16-2-3		
21.	EN 61000-3-2		
22.	EN 61000-3-3		
23.	EN 61000-3-11/12		
24.	IEC CISPR 16-2-1		
25.	IEC CISPR 22		
26.	FCC Part 15/18		

	Requirement description	Fulfill the requirement [yes/no]	Comments
27.	EM 61000-2-3		
28.	CFE / IEC 60255-11 IEC 61000-4-11 IEC 61000-4-29		

Requirements / standards for IEDs (Separate submissions to be provided for 11kV and 3.3kV switchgear)

The following table is the summary of the requirements described.

Functional Requirements:

	Requirement description	Fulfill the requirement [yes/no]	Comments
	Hardware		
29.	Numeric keypad shall be possible		
30.	9 function keys shall be possible		
31.	16 LEDs with two different colours shall be possible.		
32.	Flush-mounting and surface mounting devices shall be possible.		
33.	The complete device should be equipped with pluggable terminal blocks which guarantee easy connection, pre wiring and safe exchange of the device or modules.		

	Requirement description	Fulfill the requirement [yes/no]	Comments
34.	Current inputs thermal rating: 20 A continuously 150 A for 10 s 500 A for 1s 1250 A for 10 ms		
35.	There should be the option of device trip relays, which can be wired directly to the CB trip coils without any interposing relay. For this purpose these device contacts should have the switching capacity of on/off 1000 W/VA		
36.	Voltage thresholds for the binary inputs of the device shall be settable on site by SW without opening the device or changing jumpers.		

	Requirement description	Fulfill the requirement [yes/no]	Comments
37.	<p>Binary inputs shall have three different thresholds:</p> <ul style="list-style-type: none"> $V_{low} \leq \text{DC } 10 \text{ V}$, $V_{high} \geq \text{DC } 19 \text{ V}$ $V_{low} \leq \text{DC } 44 \text{ V}$, $V_{high} \geq \text{DC } 88 \text{ V}$ $V_{low} \leq \text{DC } 88 \text{ V}$, $V_{high} \geq \text{DC } 176 \text{ V}$ 		
38.	<p>Secondary rated current (1 A, 5 A) shall be settable on site by SW without opening the device or changing jumpers.</p> <p>For special application the full scale dynamic range shall be settable.</p> <p>(20 Irated or 100 Irated)</p>		
39.	<p>It should be no need to open the devices and expansion modules at any time.</p>		

	Requirement description	Fulfill the requirement [yes/no]	Comments
	Communication general		
40.	The device shall have protocol independent communication modules for increasing the flexibility and availability.		
41.	The device shall have built in switches for Ethernet communication to support ring and star communication structures		
42.	Multiple protocols like IEC 60870-5-103 / DNP3 / DNP3 IP / IEC 61850 TCP shall be made available in the device		
43.	The device architecture shall be open for further protocols.		
44.	Compliance to cyber security regulations - NERC CIP, BDEW Whitepapers – enabling to make the Ethernet networks safe and secured		

	Requirement description	Fulfill the requirement [yes/no]	Comments
45.	The manufacturer shall supply a security blue print with the device delivery.		
	Communication IEC 61850		
46.	The user shall be able to create user specific IEC 61850 structures on his own without the vendor support (Flexible Engineering).		
47.	Internal data structure of the device shall be designed according IEC 61850		
48.	Logical Device (LD) names and prefix und suffix of all Logical Nodes (LN) shall be changeable.		
49.	User defined signals shall be assigned to any Logical Node		

	Requirement description	Fulfill the requirement [yes/no]	Comments
50.	Logical nodes shall be editable (copied/deleted/moved) in the IEC 61850 structure.		
51.	New and user defined Logical Nodes shall be supplied from a library		
52.	Device settings shall be changeable by IEC 61850 protocol		
53.	The device shall be IEC 61850 Edition 1 and 2 compatible.		
54.	The engineering tool shall be able to handle IEC 61850 Edition 1 and Edition 2 devices		
55.	Open interfaces according to IEC61850 have to guarantee user independent system configuration (ICD, IID, CID, SCD, MICS ...)		

	Requirement description	Fulfill the requirement [yes/no]	Comments
56.	The tool shall represent the rooting to BI, BO, LED and communication in a matrix form.		
57.	The engineering tool shall connect via USB or Ethernet to the device.		

	Requirement description	Fulfill the requirement [yes/no]	Comments
58.	Open and scalable architecture should allow the user to add-on new hardware and software functions to accommodate emerging technologies like PMU, grid monitoring etc		

	Requirement description	Fulfill the requirement [yes/no]	Comments
59.	The device should be suitable for an intelligent, green and smart grid with high sampling rate integrating protection, control, automation, monitoring, auto testing with the test suite and communication.		
60.	The device should guarantee necessary functions to establish network stability using state of the art techniques like grid monitoring using synchro phasors, powerful algorithms for power swing etc.		

	Requirement description	Fulfill the requirement [yes/no]	Comments
61.	The manufacturer should support equipment/condition monitoring to improve the network stability, availability and reliability.		
62.	Intelligent functionalities for grid operation analyzing faults as per standards		
63.	The device should have a integrated CFC with a graphical editor.		

	Requirement description	Fulfill the requirement [yes/no]	Comments
64.	<p>The device should provide several operational logs:</p> <ul style="list-style-type: none"> Operational log for 2000 indications Log for up to 128 faults with 1000 indications each Ground-fault log for up to 10 ground faults and 100 indications per fault Inerasable log for recording of all parameter changes and configuration downloads with 200 indications Recording of successful and unsuccessful access attempts to areas of the device with restricted access rights in a security log. (500 indications) Recording and display of concrete instructions for action in case of necessary maintenance (e.g. battery monitoring), detected hardware defects or compatibility problems in a dedicated diagnostic log. 		

	Requirement description	Fulfill the requirement [yes/no]	Comments
65.	<p>Easily interchangeable CT inputs with different accuracies at site.</p> <p>Processing via the protection-input transformer:</p> <ul style="list-style-type: none"> • $I \leq \text{Cl. } 0.5$ (0.5 % accuracy) • $P, Q \leq \text{Cl. } 1$ (1 % accuracy) <p>Processing via the measuring-input transformer:</p> <ul style="list-style-type: none"> • $I \leq \text{Cl. } 0.2$ (0.2 % accuracy) • $P, Q \leq \text{Cl. } 0.5$ (0.5 % accuracy) 		

Standards:

	Requirement description	Fulfill the requirement [yes/no]	Comments
	Climatic Requirements		
66.	Ambient temperature operation (in compliance with IEC 60068-2-1 and IEC 60068-2-2, test bd for 16 h) -25 °C to +85 °C		
67.	Ambient temperature transport and storage -25 °C to +70 °C		
68.	Relative humidity (RH) 93 %		

	Requirement description	Fulfill the requirement [yes/no]	Comments
	Mechanical Requirements: Vibration and Shock Stress in Stationary Use		
69.	Oscillation IEC 60255-21-1, class 2 and IEC 60068-2-6		
70.	Shock IEC 60255-21-2, class 1		
71.	Oscillation in an earthquake IEC 60255-21-3, class 2 and IEC 60068-3-3		

	Requirement description	Fulfill the requirement [yes/no]	Comments
	Mechanical Requirements: Vibration and Shock Stress During Transport		
72.	Oscillation IEC 60255-21-1, class 2 and IEC 60068-2-6		
73.	Shock IEC 60255-21-2, class 1 and IEC 60068-2-27		
74.	Continuous shock IEC 60255-21-2, class 1 and IEC 60068-2-29		

	Requirement description	Fulfill the requirement [yes/no]	Comments
	Insulation Test according IEC 60255-27 and IEC 60870-2-1		
75.	Voltage test (component testing), current-measuring inputs, voltage - measuring inputs, relay outputs AC 2.5 kV, 50 Hz		
76.	Voltage test (component testing), Auxiliary voltage, binary inputs DC 3.5 kV		
77.	Voltage test (component testing), AC 500 V/50 Hz or DC 700 V		

	Requirement description	Fulfill the requirement [yes/no]	Comments
78.	Surge immunity test, BI and BO 5 kV (peak value) 1.2 μ s/50 μ s 0.5 J 3 positive and 3 negative impulses at intervals of 1 s		
	EMC Interference Immunity		
79.	Electrical disturbance tests – 1 MHz burst immunity tests, IEC 60255-22-1, class III		
80.	Electrostatic discharge tests IEC 60255-22-2, class IV IEC 61000-4-2, class IV		

	Requirement description	Fulfill the requirement [yes/no]	Comments
81.	Radiated electromagnetic field immunity IEC 60255-22-3, class III IEC 61000-4-3, class III		
82.	Radiated electromagnetic field immunity Spot frequencies IEC 60255-22-3 IEC 61000-4-3, class III		
83.	Electrical fast transient/burst immunity IEC 60255-22-4, class A IEC 61000-4-4, class IV		
84.	Surge immunity test class III IEC 60255-22-5, IEC 61000-4-5		

	Requirement description	Fulfill the requirement [yes/no]	Comments
85.	Immunity to conducted disturbances induced by radio frequency fields, class III IEC 60255-22-6, IEC 61000-4-6		
86.	Power frequency magnetic field immunity test IEC 60255-1 IEC 61000-4-8, Class IV		
87.	Standard for Surge Withstand Capability (SWC) IEEE Std C37.90.1		

	Requirement description	Fulfill the requirement [yes/no]	Comments
88.	Standard for Fast Transient Surge Withstand Capability IEEE Std C37.90.1		
89.	Standard for Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers (Keying test) IEEE Std C37.90.2		
90.	Damped oscillatory wave immunity test IEC 61000-4-18		

	Requirement description	Fulfill the requirement [yes/no]	Comments
	EMC Electromagnetic Emission		
91.	Radio noise voltage to lines, only auxiliary voltage IEC-CISPR 11, class A		
92.	Interference field strength IEC-CISPR 11, class A		
	Degree of Protection According to IEC 60529		
93.	For the equipment front and rear IP50		
94.	For the front in case of flush mounting IP51		
95.	For operator protection IP2X for current terminals IP1X for voltage terminals		

	Requirement description	Fulfill the requirement [yes/no]	Comments
96.	Degree of pollution, IEC 60255-27: 2		
	Supply voltage		
97.	Stored-energy time on outage or short circuit of the auxiliary voltage: At least 50 ms		

Contractor:.....

Date:

Witness 1:

Witness 2:

ANNEXURE 3

TEST REQUIREMENTS

1. TYPE TESTS

- 1.1 Type testing shall be carried out in accordance with the Recommendations, Standards, or Specifications referred to in this specification.
- 1.1.1 Type test certificates shall be submitted with tender documents.

2. ROUTINE TESTS

- 2.1 The following additional routine tests shall be carried out on the completed switchgear or control gear at the Manufacturers works prior to delivery.
- 2.2 The ratio, polarity and magnetism curve of each current transformer after their installation in the board.
- 2.3 The characteristic curves of each protection relay where applicable.
- 2.4 The ratio of each voltage transformer.
- 2.5 The errors of all indicating instruments.

3. FUNCTIONAL TESTS

- 3.1 A functional test of the complete board including all protective relays by primary injection shall be carried out by the manufacturer.
- 3.2 The breaker opening times shall be indicated in these tests.

4. GENERAL

- 4.1 Four copies of all approved routine test certificates shall be supplied, at a date not later than the delivery date of the switchgear or control gear.
- 4.2 All routine testing shall be witnessed and inspection carried out by the Engineer (Electrical) or his duly appointed representative.

ANNEXURE 4

**STATEMENT OF COMPLIANCE
(TO BE COMPLETED BY TENDERER)**

This tender complies with specification TPD: 007-MVSWITCHSPEC in all respects.

SIGNATURE: _____ DATE: _____

This tender complies generally with specification TPD: 007-MVSWITCHSPEC but differs from it on the following points:

SIGNATURE: _____ DATE: _____



Transnet Port Terminals

Contract Number: ICLM PE 746/TPT

Description of the Works: Provision to Refurbishment of Substation 1A & 1B at Ngqura Container Terminal for TRANSNET SOC LTD (Reg No. 1990/000900/30) operating as Transnet Port Terminals (Hereinafter referred as "TPT") for Ngqura Container Terminal as once off.

PART 4: SITE INFORMATION

Core clause 11.2(16) states

"Site Information is information which

- describes the Site and its surroundings and
- is in the documents which the Contract Data states it is in."

In Contract Data, reference has been made to this Part 4 of the contract for the location of Site Information.

1. Description of the Site and its surroundings

1.1. General description

The NCT, since its inception in 2009 has complemented the South African port system as a transshipment hub. It services vessel traffic from the far East, South America, East and West African while promoting international trade for SADC countries. NCT trade activities brings the Eastern Cape Region into the mainstream economy of the country.

NCT boasts a 16,5meter draft, with 4 berths and the state of the art operational equipment such as STS cranes, RMGs, Reach Stackers, ECHs etc. The terminal is designed to handle 1.5 million TEu's with a large section designed to house reefer containers (refrigerated).



Transnet Port Terminals

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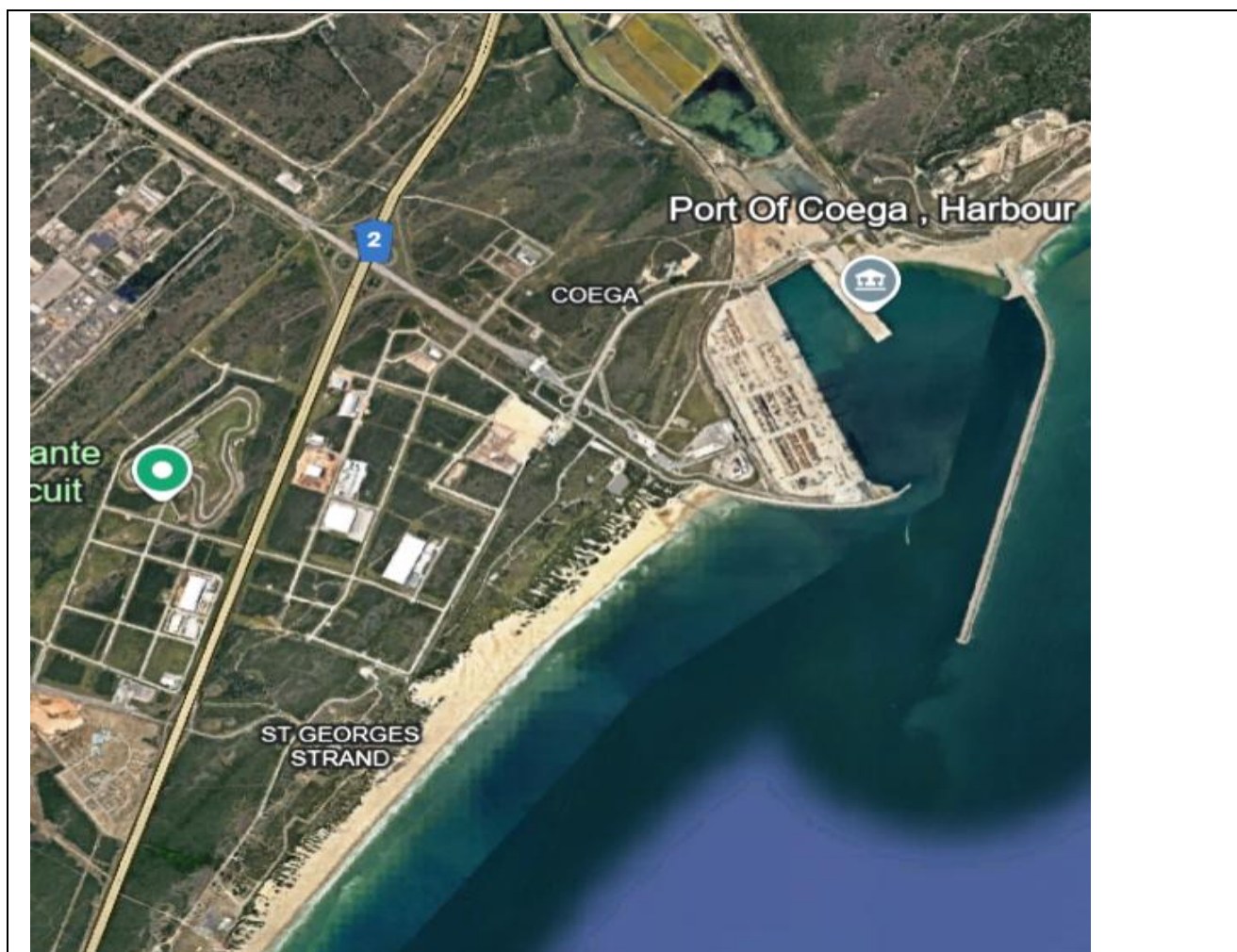


Figure 1: Map view of the Port area and access N2 road



Transnet Port Terminals

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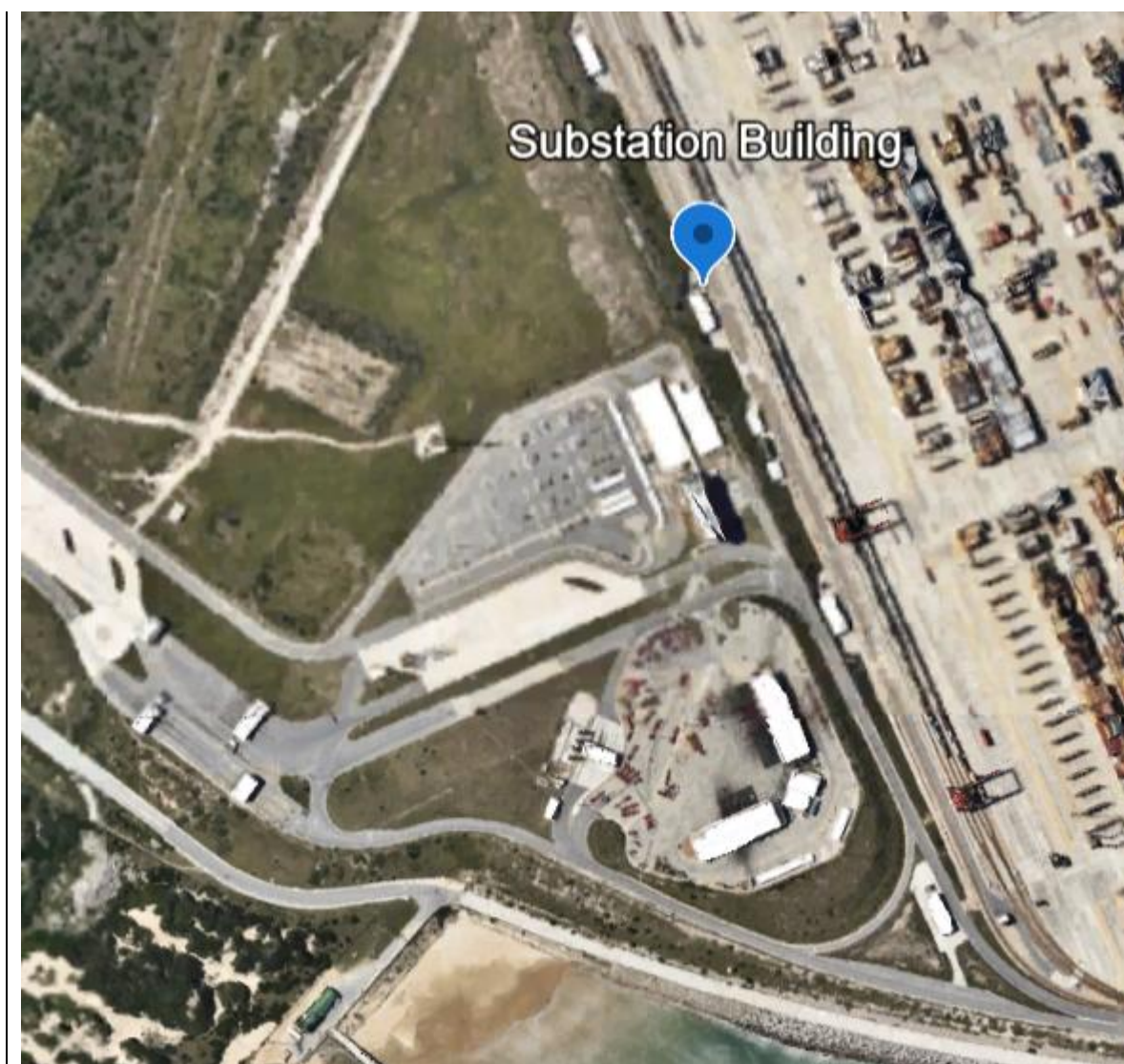


Figure 2: Map view showing the substation building.

1.2. Existing buildings, structures, and plant & machinery on the Site

- Administration Buildings
- Domestic water pipeline
- Substations
- Storm water system
- Sewer system
- ship to shore cranes
- mobile harbour cranes



Transnet Port Terminals

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- Reefer plugs
- Straddle carriers
- Haulers/ mafi

1.3. Subsoil information

Not applicable

1.4. Hidden services

Not Applicable

1.5. Other reports and publicly available information

Bidders are advised to refer to weather services updated predictions and information for climate and weather conditions.