
Transnet Property

an Operating Division **TRANSNET SOC LTD**

[Registration Number 1990/000900/30]

REQUEST FOR PROPOSAL (RFP)

FOR THE SUPPLY, DEVELOPMENT, INSTALLATION, TESTING AND COMMISSIONING OF THE NATIONAL SMART METERING SYSTEM FOR THE ELECTRICITY AND WATER AT TRANSNET PROPERTY

RFP NUMBER	: TP/2023/11/0003/49654/RFP
ISSUE DATE	: 14 December 2023
COMPULSORY BRIEFING	: 22 January 2024
CLOSING DATE	: 31 January 2024
CLOSING TIME	: 14h00
TENDER VALIDITY PERIOD	: 12 Weeks from closing date

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Part C3: Scope of Work

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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	Supply, Development, Installation, Testing and Commissioning of the National Smart Metering System for the Electricity and Water at Transnet Property
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 Tender Clarification Meeting will be conducted at 29th Floor Carlton Centre, Strelitzia Boardroom, 150 Commissioner Street, Johannesburg on the 24th of January 2024, at 10:00am [10 O'clock] for a period of ± 2 (two) hours. [Tenderers to provide own transportation and accommodation].</p> <p>The Compulsory 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. <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>
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	<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>14:00 on (2024/01/31)</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>

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.

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 on T2.2-17], **[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 Activity Schedule

Part C3: Scope of work		C3.1 Works Information
C.1.4	The Employer's agent is:	Contracts Manager
	Name:	Cikizwa Caleni
	Address:	150 Commissioner Street Johannesburg 2000
	E – mail	Cikizwa.Caleni@transnet.net
C.2.1	Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:	<p>1. Stage One - Eligibility with regards to attendance at the compulsory clarification meeting:</p> <p>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 in terms C2.7</p> <p>2. Stage Two - Eligibility in terms of the Construction Industry Development Board:</p> <p>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 of 8EB or higher class of construction work, are eligible to have their tenders evaluated.</p> <p>b) Joint Venture (JV)</p> <p>Joint ventures are eligible to submit tenders subject to the following:</p> <ol style="list-style-type: none"> 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 8EB 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 <p>The tenderer shall provide a certified copy of its signed joint venture agreement</p>

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

3. Stage Three - Eligibility in terms of Registration:

Only those tenderers who submitted Valid Contractor's Registration with the Department of Labour as an Electrical Contractor are eligible to have their tenders evaluated.

4. Stage Four - 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 for 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.

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 offer are as follows:

Identification details:

The tender documents must be uploaded with:

- Name of Tenderer: **(insert company name)**
- Contact person and details: **(insert details)**
- The Tender Number:
- The Tender Description

Documents must be marked for the attention of:

Employer's Agent:

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: **14:00 on the 31 January 2024 (Date)**

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 case of all EMEs and QSEs with 51% black ownership or more together with the tender;
3. A valid CIDB certificate in the correct designated grading;
4. Proof of registration on the Central Supplier Database;
5. Letter of Good Standing with the Workmen's compensation fund by the tendering entity or separate Letters of Good Standing from all members of a newly constituted JV.

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

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

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 criteria	Sub-criteria	Sub-criteria points	Maximum number of points
T2.2-04 Programme	Please provide your proposed programme showing a detailed schedule clearly indicating all activities and their sequence and showing input/engagement required from the Employer and other critical External Stakeholders aligned with the Scope of Works.	10	10
T2.2-05 Management & CVs of Key persons: Please describe the management arrangements for the works. The tenderer is to take note that evaluation of this schedule will be referred to T2.2-04 Management & CV's of Key Personnel, therefore, information submitted in both schedules should match.	Project Manager	4	20
	Electrical Engineer	4	
	Architect	4	
	Installation Electrician	4	
	Licensed Plumber	4	
T2.2-06 Quality Management	Submit a Quality management System document or Certified copy of ISO 9001 certificate. <i>Key Elements:</i> 1. Quality Policy 2. Quality Manual 3. Organizational Structure & Responsibility 4. Internal Process 5. Continuous Improvement Document Control	15	15
T2.2-07 Previous Experience	The reference letter and/or completion certificate must have a description of smart metering project(s) previously undertaken. Letters must also be in the client letterhead and include the following: <ul style="list-style-type: none">o Project description and quantity of smart meterso Email address/ Work phone numberso Signature by referee No reference letter or completion certificate will be accepted	25	25

	unless all the above information is included		
T2.2-08 Method Statement	The bidder must sufficiently demonstrate the approach/methodology that will be employed to undertake the Scope of Works. The method statement must outline the proposed methodology including key elements.	30	30
Maximum possible score for Functionality			100

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

- T2.2-04 Programme
- T2.2-05 Management & CVs of Key Persons
- T2.2-06 Quality Management
- T2.2-07 Previous Experience
- T2.2-08 Method Statement

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

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 and Total Cost of Ownership	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 (90/10)
B-BBEE Level of contributor (1 or 2)	5
30% Black women Owned entities	5
Non-Compliant and/or B-BBEE Level 3-8 contributors	0

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 Cert case of JV, a consolidate scorecard will be accepted as per DTIC guidelines
30% Black Women Owned Entities	B-BBEE Certificate / Sworn-Affidavit / CIPC B-BBEE Certificate (in case of JV, a consolidate scorecard will be accepted) as per DTIC guidelines

The maximum points for this bid are allocated as follows:

<u>DISCRIPTION</u>	<u>POINTS</u>
PRICE	90
B-BBEE STATUS LEVEL OF CONTRIBUTION	
B-BBEE Level of contributor (1 or 2)	5
30% Black Women Owned Entities	5
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) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data and
- f) 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 eligibility and functionality purposes

- T2.2-01 **Stage One as per CIDB: Eligibility Criteria Schedule** - Certificate of attendance at Compulsory Tender Clarification Meeting
- T2.2-02 **Stage One as per CIDB: Eligibility Criteria Schedule** - CIDB Registration
- T2.2-03 **Eligibility in terms of the Registration**

Returnable Schedules:

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

- T2.2-04 **Evaluation Schedule:** Programme
- T2.2-05 **Evaluation Schedule:** Management & CV's
- T2.2-06 **Evaluation Schedule:** Quality Management
- T2.2-07 **Evaluation Schedule:** Previous experience
- T2.2-08 **Evaluation Schedule:** Method Statement

Returnable Schedules :

2.1.3 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
- T2.2-13 Availability of equipment and other resources
- T2.2-14 Schedule of proposed Subcontractors

Agreement and Commitment by Tenderer:

- T2.2-15: CIDB SFU ANNEX G Compulsory Enterprise Questionnaire
- T2.2-16 Non-Disclosure Agreement
- T2.2-17 RFP Declaration Form
- T2.2-18 RFP – Breach of Law
- T2.2-19 Certificate of Acquaintance with Tender Document
- T2.2-20 Service Provider Integrity Pact
- T2.2-21 Supplier Code of Conduct
- T2.2-22 Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")
- T2.2-23 Domestic Prominent Influential Persons (DPIP) Or Foreign Prominent Public Officials (FPPO)



2.1.4 Insurance:

T2.2-24 Insurance provided by the Contractor

2.2 C1.1 Form of Offer & Acceptance

2.3 C1.2 Contract Data Part One and Two (Data by Contractor)

2.4 C1.3 Forms of Securities

2.5 C2.1 Pricing Instructions

2.6 C2.2 Price List

2.7 C3.1 Scope of Work: Service Information

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:	Transnet Property 19 th Floor Strelitzia Boardroom Carlton Centre 150 Commissioner Street Johannesburg 2000	
On (date)	24 January 2024	Starting time: 10:00

Particulars of person(s) attending the meeting:

Name

Signature

Capacity

Attendance of the above company at the meeting was confirmed:

Name

Cikizwa Caleni

Signature

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

Date

T2.2-02: Eligibility Criteria Schedule - CIDB Grading Designation

Note to tenderers:

Tenderers are to indicate their CIDB Grading by filling in the table below. **Attach a copy of the CIDB Grading Designation or evidence of being capable of being so registered.**

CRS Number	Status	Grading	Expiry Date

- 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, for a **8EB** class of construction work, are eligible to have their tenders evaluated.

2. Joint Venture (JV)

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

- every member of the joint venture is registered with the CIDB;
- the lead partner has a contractor grading designation of not lower than one level one level below the required grading designation in the class of construction works under consideration and possesses the required recognition status; and
- 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 **8EB** class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations
- the Contractor shall provide the employer with a certified copy of its signed joint venture agreement;
- and in the event that the joint venture is an 'Incorporated Joint Venture' the Memorandum of Incorporation to be provided within 4 (four) weeks of the Contract Date.



Transnet Property

Tender Number: TP/2023/11/0003/49654/RFP

Description of the Works: Supply, Development, Installation, Testing and Commissioning of the National Smart Metering System for the Electricity and Water at Transnet Property

T2.2-03 Eligibility in terms of the Registration:

Valid Contractor's Registration with the Department of Labour as an Electrical Contractor.

NAME OF COMPANY:

I/We _____

In our capacity as:

do hereby certify that (Name)

is a registered member of the following body

Note: Tenderers without a copy of a valid proof of registration will be disqualified.

T2.2-04: Evaluation Schedule: Programme

Note to tenderers:

The Tenderer provides a proposed programme showing a detailed schedule clearly indicating all activities and their sequence and showing input/engagement required from the Employer and other critical External Stakeholders aligned with the Scope of Works

Programme should include the following key elements:

1. Work breakdown structure
2. Timelines and schedules (with start and finish date)
3. Milestones, deliverables, dependencies
4. Resource plan
5. Procurement plan
6. Stakeholder communication plan

Index of documentation attached to this schedule:

.....

Score 0	No project plan submitted/ High level project plan not covering key elements 1, 2 and 3
Score 20	Bidder has submitted a high-level project plan covering the top 3 key elements i.e., 1, 2, and 3
Score 40	Bidder has submitted a high-level project plan covering the top 4 key elements i.e., 1, 2, 3 and 4
Score 60	Bidder has submitted a detailed project plan addressing top 5 key elements submitted i.e., 1, 2, 3, 4 and 5
Score 80	Bidder submitted a detailed project plan addressing all elements and will complete phase 1 in >6 but </=12 months
Score 100	Bidder submitted a detailed project plan addressing all elements and will complete phase 1 in </=6 months

T2.2-05: Evaluation Schedule - Management & CV's of Key Personnel

Please describe the management arrangements for the works. The tenderer is to take note that evaluation of this schedule will be referred to T2.2-04 Management & CV's of Key Personnel, therefore, information submitted in both schedules should match.

1. The experience of assigned key persons in relation to the scope of work will be evaluated from three different points of view, namely:
 - i. General experience (total duration of construction activity) and positions held of each discipline specific team member.
 - ii. The education, training, and skills of the assigned staff in the specific sector, field, subject, etc. which is directly linked to the scope of work. Proof of education and training must be attached to the C.V.
 - iii. The key staff members' / experts' knowledge of issues which the tenderer considers pertinent to the project e.g., local conditions, affected communities, legislation, techniques etc.
2. Comprehensive CV's should be attached to this schedule:

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

- i. Personal particulars
 - a. Name
 - b. Date and place of birth
 - c. Place (s) of tertiary education and dates associated therewith.
 - d. Professional awards
- ii. Qualifications (degrees, diplomas, certificates, grades of membership of professional societies and professional registrations)
- iii. Name of current employer and position in enterprise
- iv. Overview of post graduate experience (year, organization, and position)
- v. Outline of recent assignments / experience that has a bearing on the scope of work.

3. CV's for personnel for all identified posts should include as a minimum but not limited to:

a. Site Management:

- i. Project Manager X 1,

Project Manager should at least have National Diploma qualification with PrCPM/PMP certificate and experience in installation, testing and commissioning of smart metering or electrical works. The incumbent should demonstrate that he/she has developed

the necessary competencies and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract is necessary.

ii. Electrical Engineer

Electrical Engineer should at least have BEng/ BSC Degree and be registered as Professional Engineer with Engineering Council of South Africa (ECSA) with extensive years of experience in Electrical works including Smart metering System.

iii. Solution Architect

Solution Architect should at least have bachelor's degree in Information Technology (IT) with extensive years of experience in Electrical works including Smart metering System.

iv. Installation Electrician X 1,

Electrician should at least have a trade test certificate and installation Electrician Licence with an experience in Smart metering system or related electrical works.

v. Plumber X 1,

Plumber should at least have Trade test and be registered with Plumbing Industry Registration Board (PIRB) as Licensed Plumber and experience in build environment focusing on installation of smart metering system or related to the works.

List of Key Persons assigned to the above disciplines:

No.	Key Persons	Name and Surname	CV attached (Yes/No)
1	Project Manager		
2	Electrical Engineer		
3	Architect		
4	Installation Electrician		
5	Plumber		

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

Score 0	Failed to provide information - no response.
Score 20	Key staff has limited recommended levels of relevant experience and qualifications or equivalent specialised training. Key staff has less than 1 year experience. .
Score 40	Key staff has limited recommended levels of relevant experience and qualifications. Key staff has more than 1 up to 3 years' experience in build environment focusing on electrical works including Smart metering System
Score 60	Key staff have acceptable levels of relevant experience and qualifications. Key staff has more than 3 up to 4 years' experience in build environment focusing on electrical works including Smart metering System
Score 80	Key staff have acceptable levels of relevant experience and qualifications. Keys staff has more than 4 years but up to 5 years' experience in build environment focusing on electrical works including Smart metering System
Score 100	All Key staff have acceptable levels of relevant experience and qualifications with more than 5 years' experience in build environment focusing on electrical works including Smart metering System

Index of documentation attached to this schedule:

.....

Signed

Date

.....

Name

Position

.....

Tenderer

.....

T2.2-06: Evaluation Schedule – Quality Plan

Submit a Project Quality Plan which satisfies the technical and quality requirements of the works, identifying all procedures, reviews, audits, controls, and records used to control and verify compliance with the Works Information.

Quality Control Plan Specific to the Works Information not limited to the following:

- Quality Policy
- Quality Manual
- Organizational Structure & Responsibility
- Internal Process
- Continuous Improvement
- Document Control

The Tenderer must attach his / her quality plan to this page.

The quality plan 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):

1. General Electrical Works relating to installation, testing, and commissioning of smart metering system for the water and electricity.


Index of documentation attached to this schedule:

.....

.....

.....

.....

.

Score 0	The Tenderer has submitted no information or quality plan does not refer to the electrical works including Smart metering System.
Score 20	The quality plan is not acceptable, as it will not satisfy project objectives or requirements. Quality plan only covers 1 to 2 of the key elements on how the contractor will execute quality in the electrical works including Smart metering System.
Score 40	Tenderer has submitted a quality plan. Quality Plan covers 3 of the key elements on how the contractor will execute quality in the general building maintenance, electrical maintenance, and civil maintenance works.
Score 60	Tenderer has submitted an acceptable quality plan. Quality Plan covers 4 of the key elements on how the contractor will execute quality in the electrical works including Smart metering System.
Score 80	Tenderer has submitted an acceptable quality plan. Quality plan covers 5 of the key elements on how the contractor will execute quality in the electrical works including Smart metering System.
Score 100	<p>Tenderer has submitted an outstanding quality plan:</p> <ol style="list-style-type: none"> 1. Quality Plan is clearly articulated and based on this project; the <i>works</i> are aligned with the scope of works. <p>Quality Plan covers 6 of the key elements on how the contractor will execute quality in the electrical works including Smart metering System.</p>

T2.2-07: Evaluation Schedule: Previous Experience

Note to tenderers:

Tenderers are required to demonstrate performance in comparable projects of similar nature by supplying the following:

- A list of past / current comparable projects.
- Construction of similar works as detailed in the Works Information with reference to:
 - Installation of Metering System
 - General Electrical Works
- Proof of experience in the client letter head in the form of award letters, completion certificates and reference letters to substantiate experience indicated (Proof should include Client name and contact details, project description, duration and contract value)

Index of documentation attached to this schedule

	DOCUMENT NAME
1	
2	
3	
4	
5	
6	
7	

Score	Previous Experience
0	The Tenderer failed to address the question / issue. Has not submitted the required information.
20	The Tenderer's previous experience presented has no relevance to the scope of this project and did not address any of the required categories. Tenderer has completed one (1) to three (3) projects relating to the scope of works. The tenderer has limited or poor evidence of previous experience.
40	The Tenderer's previous experience presented has some relevance to the project but lacks detail i.e. Description of previous projects, value and references. Tenderer has completed more than three (3) to five (5) projects relating to scope of <i>works</i> . The tenderer lacks convincing evidence of knowledge of previous experience, specific to the <i>works</i> .
60	The Tenderer's previous experience presented demonstrates sufficient knowledge and experience to successfully execute this project scope. Tenderers has completed six (6) projects relating to the scope of works. The tenderer has reasonable and relevant previous experience to the requirements of the <i>works</i> .
80	The Tenderer's previous experience presented demonstrates a real understanding and substantial evidence of the ability meet the stated project requirements. Tenderers has completed seven (7) projects relating to the scope of works. The tenderer has extensive previous experience in relation to the <i>works</i> .
100	The Tenderer's previous experience presented demonstrates real confidence extensive understanding in all the categories as required. Tenderer has completed more than seven (7) projects relating to the scope of works. The tenderer has comprehensive previous experience in projects of a similar nature.



T2.2-08: Evaluation Schedule – Method Statement

Submit a method statement which responds to the scope of work and outlines construction methodology including that relating but not limited to quality, safety and an understanding of the project objective.

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 construction sequencing 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.

The Method statement should cover key elements:

- 1. Scope of work as described in the contract/ tender.
- 2. List objectives (SMART) in relation to the Scope of work outputs
- 3. Details of skills/ competencies and training required to deliver the Scope of work.
- 4. How are risks that affect outputs of the processes and overall outcomes of the SoW identified and managed?
- 5. Data and Analysis – what data will be collected from this contract and what analysis will be carried out to assist with decision making.
- 6. Customer Focus - How are Customer needs identified and communicated to affected personnel in the organisation.
- 7. Infrastructure - What PPE, tools and equipment are required to deliver this Scope of work.
- 8. Leadership - How is the organization's mission, vision, strategy, policies, and processes communicated throughout the organization? What are the shared values of this organisation?
- 9. What are the actions taken for improving efficiency and effectiveness of the business processes?
- 10. Relationship Management - For sustained success, organizations manage their relationships with interested parties, such as suppliers. Purchasing/Procurement done including supplier selection criteria and monitoring if any.

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):

1. General Electrical Works relating to installation, testing, and commissioning of smart metering system for the water and electricity.


Index of documentation attached to this schedule:

Score 0	The Tenderer has submitted no information or method statement does not refer to the smart metering system works.
Score 20	The method statement is not acceptable, as it will not satisfy project objectives or requirements. The Bidder has submitted a Project specific Method Statement covering all key elements, i.e., 1 - 2, that indicates a detailed understanding of the objectives of the project, the Scope of work requirements, the issues of importance, and the technical approach
Score 40	Tenderer has submitted a method statement with major omissions and/or irregularities. Tenderers technical approach and / methodology is poor, not realistic, generic, and unlikely to satisfy project objectives or requirements. The Bidder has submitted a Project specific Method Statement covering all key elements, i.e., 1 - 4, that indicates a detailed understanding of the objectives of the project, the Scope of work requirements, the issues of importance, and the technical approach
Score 60	Tenderer has submitted an acceptable method statement with minor omissions and/or irregularities and / or partially complete and does encompass and detail the works objectives and requirements to be undertaken. The Bidder has submitted a Project specific Method Statement covering all key elements, i.e., 1 - 6, that indicates a detailed understanding of the objectives of the project, the Scope of work requirements, the issues of importance, and the technical approach.
Score 80	Tenderer has submitted an acceptable method statement with minor omissions and/or irregularities and / or partially complete and does encompass and detail the works objectives and requirements to be undertaken. The Bidder has submitted a Project specific Method Statement covering all key elements, i.e., 1 - 8, that indicates a detailed understanding of the objectives of the project, the Scope of work requirements, the issues of importance, and the technical approach.
Score 100	Tenderer has submitted an outstanding method statement. The Bidder has submitted a Project specific Method Statement covering all key elements, i.e., 1 - 10, that indicates a detailed understanding of the objectives of the project, the Scope of work requirements, the issues of importance, and the technical approach.

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 *Employer* 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		
5		
6		
7		
8		
9		
10		
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.
- 4.

Name of Company/Members of Joint Venture:

T2.2-12: Risk Elements

Tenderers to identify and evaluate the potential risk elements associated with the Works and possible mitigation thereof. The risk elements and the mitigation as identified thereof by the Tenderer are to be submitted.

If No Risks are identified "No Risks" must be stated on this schedule.

Tenderers are also to evaluate any risk/s stated by the *Employer* in Contract Data Part C1, and provide possible mitigation thereof.

Tenders to note: Notwithstanding this information, all costs related to risk elements which are at the Contractor's risk are deemed to be included in the tenderer's offered total of the Prices.

T2.2-13: Availability of Equipment and Other Resources

The Tenderer to submit a list of all Equipment and other resources that will be used to execute the *works* as described in the Works Information.



T2.2-14: 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:

- In terms of PPPFA Regulation 6 (5), 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.
- In terms of PPPFA Regulation 12 (3), 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"/>	<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"/>	<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"/>						

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"/>	<input type="checkbox"/>	

T2.2-15: 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 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 Broad-Based Black Economic Empowerment [B-BBEE] Status Level of Contribution.

Transnet will award preference points to companies who provide valid proof of their B-BBEE status using either the latest version of the generic Codes of Good Practice or Sector Specific Codes (if applicable).

1. GENERAL CONDITIONS

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

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

1.2 The value of this bid is estimated to **exceed** R50 000 000 (all applicable taxes included) and therefore the **90/10** preference point system shall be applicable. Despite the stipulated preference point system, Transnet shall use the lowest acceptable bid to determine the applicable preference point system in a situation where all received acceptable bids are received outside the stated preference point system.

1.3 Preference points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contribution.

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

	POINTS
PRICE	90
B-BBEE STATUS LEVEL OF CONTRIBUTION	10
Total points for Price and B-BBEE must not exceed	100

1.5 Failure on the part of a bidder to submit proof of B-BBEE status level of contributor together with the bid will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.6 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 defined 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-BBEE 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 defined 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.

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

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

Where

Ps = Points scored for comparative price of bid under consideration
 Pt = Comparative price of bid under consideration
 Pmin = Comparative price of lowest acceptable bid

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

4.1 preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

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

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.



- 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 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

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 proprietor
- Close corporation
- Company
- (Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

SCAMANDE

COMPANY CLASSIFICATION

□ Manufacturer

Supplier

8.6 COMPANY CLASSIFICATION

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

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

2.2.1 If so, furnish particulars:

.....
.....

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.

2.3 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, in submitting (name)..... 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 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

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.

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 Property

Tender Number: TP/2023/11/0003/49654/RFP

Description of the Works: For the supply, development, installation, testing and commissioning of the national smart metering system for the electricity and water at Transnet Property



T2.2-16 NON-DISCLOSURE AGREEMENT

[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] or Request for Quotation [RFQ], 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.



Transnet Property

Tender Number: TP/2023/11/0003/49654/RFP

Description of the Works: For the supply, development, installation, testing and commissioning of the national smart metering system for the electricity and water at Transnet Property

- 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.

Transnet Property

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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

T2.2-17: 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 Property

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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 T2.2-19 "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.

T2.2-18: 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

T2.2-19 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

T2.2-20 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 (UNG) 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:
 - has been requested to submit a Tender in response to this Tender invitation;
 - could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
 - 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:
 - prices;
 - geographical area where Goods or Services will be rendered [market allocation];
 - methods, factors or formulas used to calculate prices;
 - the intention or decision to submit or not to submit, a Tender;
 - the submission of a Tender which does not meet the specifications and conditions of the RFP; or
 - 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 to 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:

- Private gain or advancement; or
- 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:

- must disclose the interest and its general nature, in the Request for Proposal ("RFX") declaration form; or
- 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:

- Vexatious proceedings:** these are frivolous proceedings which have been instituted without proper grounds;
- Perjury:** where a Tenderer / Service Provider / Contractor make a false statement either in giving evidence or on an affidavit;
- 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

T2.2-21 : 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



T2.2-22 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 (.....)(Name of 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	
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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/inforeg/>, 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: _____

Name of Contractor:

(Operator)

Authorised signatory for and on behalf of who warrants that he/she is duly authorised to sign this Agreement.

AS WITNESSES:

1. Name: _____

Signature: _____

2. Name: _____

Signature: _____



T2.2-22 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 (.....)(Name of 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	
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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/inforeg/>, 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: _____

Name of Contractor:

(Operator)

Authorised signatory for and on behalf of who warrants that he/she is duly authorised to sign this Agreement.

AS WITNESSES:

1. Name: _____

2. Name: _____

Signature: _____

Signature: _____



T2.2-23 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:

<p>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 reasonably be withheld.</p>					
<p>Is the Respondent (Complete with a "Yes" or "No")</p>					
<p>A DPIP/FPPO</p>		<p>Closely Related to a DPIP/FPPO</p>	<p>Closely Associated to a DPIP/FPPO</p>		
<p>List all known business interests, in which a DPIP/FPPO may have a direct/indirect interest or significant participation or involvement.</p>					
<p>No</p>	<p>Name of Entity / Business</p>	<p>Role in the Entity / Business (Nature of interest/Participation)</p>	<p>Shareholding %</p>	<p>Registration Number</p>	<p>Status (Mark the applicable option with an X)</p>
					<p>Active</p>
1					
2					
3					

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

2. SERVICE LEVELS

- 2.1 Transnet reserves the right to request that any member of the Service provider's team involved on the Transnet account be replaced if deemed not to be adding value for Transnet.
- 2.2 The Service provider guarantees that it will achieve a 95% [ninety-five per cent] service level on the following measures:
 - a) Random checks on compliance with quality/quantity/specifications
 - b) On-time delivery
- 2.3 The Service provider must provide a telephone number for customer service calls.



Transnet Property

Tender Number: TP/2023/11/0003/49654/RFP

Description of the Works: For the supply, development, installation, testing and commissioning of the national smart metering system for the electricity and water at Transnet Property

2.4 Failure of the Service provider to comply with stated service level requirements will give

Transnet the right to cancel the contract in whole, without penalty to Transnet, giving 30 [thirty] calendar days' notice to the Service provider of its intention to do so.

Acceptance of Service Levels:

YES		NO	
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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.			
Insurance in respect of loss of or damage to own property and equipment.			
(Other)			

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:

Supply, Development, Installation, Testing and Commissioning of the National Smart Metering System for the Electricity and Water at Transnet Property

The tenderer, identified in the Offer signature block, has

either	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.
or	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
Contractor:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

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).

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
150 Commissioner Street
Johannesburg
2000

Name &
signature of
witness

Date

Schedule of Deviations

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 *Contractor*:

For the *Employer*

Signature

Name

Capacity

On behalf of

(Insert name and address of organisation)

Transnet SOC Ltd
150 Commissioner Street
Johannesburg
2000

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	
	dispute resolution Option and secondary Options	A: Priced contract with activity schedule W1: Dispute resolution procedure X2: Changes in the law 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: Transnet Corporate Centre 138 Eloff Street Braamfontein Johannesburg 2000
	Having elected its Contractual Address for the purposes of this contract as:	Transnet Property 150 Commissioner Street Johannesburg 20000
10.1	The <i>Project Manager</i> is: (Name)	Obed Mmbengeni
	Address	150 Commissioner Street Johannesburg 2000



11.2(13)	The <i>works</i> are	The supply, development, installation, testing and commissioning of the national smart metering system for the electricity and water at Transnet Property	
11.2(14)	The following matters will be included in the Risk Register	None	
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.	
13.1	The <i>language of this contract</i> is	English	
13.3	The <i>period for reply</i> is	2 weeks	
2	The Contractor's 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	31 March 2027	
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	Condition to be met	key date
		1 Completion of Phase 1:	31 March 2025
		2 Completion of Phase 2:	31 March 2026
		3 Completion of Phase 3:	31 March 2027
30.1	The <i>access dates</i> are	Part of the Site	Date
		1 Phase 1	11 March 2024
		2 Phase 2	11 March 2024
		3 Phase 3	11 March 2024
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	01 March 2024	
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	4 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 minimum air temperature less than 0 degrees Celsius
		the number of days with snow lying at 08:00 hours South African Time
		and these measurements: Not Applicable
	The place where weather is to be recorded (on the Site) is:	The <i>Contractor's Site establishment area</i>
	The <i>weather data</i> are the records of past <i>weather measurements</i> for each calendar month which were recorded at:	Johannesburg
	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	
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 works, 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
	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."
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 <i>Contractor</i> provides these additional Insurances	1 Where the contract requires that the design of any part of the works shall be provided by the <i>Contractor</i> the <i>Contractor</i> shall satisfy the <i>Employer</i> 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 <i>Contractor</i> shall satisfy the <i>Employer</i> 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 <i>Employer</i> have an insurable interest in such items during manufacture, and/or fabrication, such interest shall be noted by endorsement to the <i>Contractor's</i> 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.
		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>.

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	Whatever the <i>Contractor</i> requires in addition to the amount of insurance taken out by the <i>Employer</i> for the same risk.
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:	Principal Controlled Insurance policy for Contract
9	Termination	There is no additional Contract Data required for this section of the <i>conditions of contract</i>.
10	Data for main Option clause	
A	Priced contract with Activity Schedule	No additional data is required for this Option.
60.6	The <i>method of measurement</i> is	The Bill of Quantities have been measured in accordance with SANS 1200 unless indicated otherwise.
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:	The Chairman of the Association of Arbitrators (Southern Africa)
	If no <i>Adjudicator nominating body</i> is entered, it is:	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	Johannesburg, South Africa
	The person or organisation who will choose an arbitrator	

	<ul style="list-style-type: none"> - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is 	The Chairman of the Association of Arbitrators (Southern Africa)		
12	Data for secondary Option clauses			
X2	Changes in the law	No additional data is required for this Option		
X5	Sectional Completion			
X5.1	The <i>completion date</i> for each <i>section</i> of the <i>works</i> is:	Section	Description	Completion date
		1	Phase 1	31 March 2025
		2	Phase 2	31 March 2026
		3	Phase 3	31 March 2027
X5 & X7	Sectional Completion and delay damages used together			
X7.1 X5.1	Delay damages for late Completion of the <i>sections</i> of the <i>works</i> are:	Section	Description	Amount per day
		1	Phase 1	R5000
		2	Phase 2	R5000
		3	Phase 3	R5000
	Remainder of the <i>works</i>			R0
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	5% 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:	Nil		
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 cost of correcting the Defect		

X18.4	<p>The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to:</p> <p>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:</p>	The Total of the Prices
X18.5	<p>The <i>end of liability date</i> is</p>	5 years after Completion of the whole of the works
Z	<i>Additional conditions of contract</i> are:	
Z1	Additional clause relating to Performance Bonds and/or Guarantees	
Z1.1		<p>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 <i>Employer</i> by a financial institution reasonably acceptable to the <i>Employer</i>.</p>
Z2	Additional clauses relating to Joint Venture	
Z2.1		<p>Insert the additional core clause 27.5</p> <p>27.5. In the instance that the <i>Contractor</i> is a joint venture, the <i>Contractor</i> shall provide the <i>Employer</i> 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:</p> <ul style="list-style-type: none"> • A brief description of the Contract and the Deliverables;

	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> i. of their joint and several liabilities to the <i>Employer</i> 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 <i>Contractor's</i> representative; iii. Identification of the roles and responsibilities of the constituents to provide the Works. • Financial requirements for the Joint Venture: <ul style="list-style-type: none"> 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.
--	--



Z2.2		Insert additional core clause 27.6 27.6. The <i>Contractor</i> shall not alter its composition or legal status of the Joint Venture without the prior approval of the <i>Employer</i>.
Z3	Additional obligations in respect of Termination	
Z3.1		The following will be included under core clause 91.1: In the second main bullet, after the word 'partnership' add 'joint venture whether incorporate or otherwise (including any constituent of the joint venture)' and Under the second main bullet, insert the following additional bullets after the last sub-bullet: <ul style="list-style-type: none">• commenced business rescue proceedings (R22)• repudiated this Contract (R23)
Z3.2	Termination Table	The following will be included under core clause 90.2 Termination Table as follows: Amend "A reason other than R1 – R21" to "A reason other than R1 – R23"
Z3.3		Amend "R1 – R15 or R18" to "R1 – R15, R18, R22 or R23."
Z4	Right Reserved by the <i>Employer</i> to Conduct Vetting through SSA	
Z4.1		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: 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.
		<p>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.</p> <p>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.</p>
Z5	Additional Clause Relating to Collusion in the Construction Industry	
Z5.1		<p>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.</p>
Z6	Protection of Personal Information Act	
Z6.1		<p>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.</p>

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:	



		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			
A	Priced contract with activity schedule			
11.2(20)	The <i>activity schedule</i> is in			
11.2(30)	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>		
A	Priced contract with activity schedule	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

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.

Transnet Property

Tender Number: TP/2023/11/0003/49654/RFP

Description of the Works: For the supply, development, installation, testing and commissioning of the national smart metering system for the electricity and water at Transnet Property



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 Property
 Transnet Corporate Centre
 138 Eloff Street
 Braamfontein
 Johannesburg
 2000

Date:

Dear Sirs,

Performance Bond for Contract No. TP/2023/11/0003/49654/RFP

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} (the *works*).

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 Excusione 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 _____ 201_____

Signature(s) _____

Name(s) (printed) _____

Position in Guarantor company _____

Signature of Witness(s) _____

Name(s) (printed) _____

PART 2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing instructions: Option A	2
C2.2	Activity Schedule	3



C2.1 Pricing Instructions: Option A

1. The *conditions of contract*

1.1. How the contract prices work and assesses it for progress payments

Clause 11 in NEC3 Engineering and Construction Contract, June 2005, (with amendments June 2006 and April 2013) (ECC) Option A states:

Identified 11 and defined 11.2 terms

- (20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.
- (22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether work is subcontracted or not excluding the cost of preparing quotations for compensation events.
- (27) The Price for Work Done to Date is the total of the Prices for
 - each group of completed activities and
 - each completed activity which is not in a group
 A completed activity is one which is without Defects which would either delay or be covered by immediately following work.
- (30) The Prices are the lump sums for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

1.2. Measurement and Payment

- 1.2.1 The Activity Schedule provides the basis of all valuations of the Price for Work Done to Date, payments in multiple currencies, price adjustments for inflation and general progress monitoring.
- 1.2.2 The amount due at each assessment date is based on **completed activities and/or milestones** as indicated on the Activity Schedule.
- 1.2.3 The Activity Schedule work breakdown structure provided by the *Contractor* is based on the Activity Schedule provided by the *Employer*. The activities listed by the *Employer* are the minimum activities acceptable and identify the specific activities which are required to achieve Completion. The activity schedule work breakdown structure is compiled to the satisfaction of the *Project Manager* with any additions and/or amendments deemed necessary.
- 1.2.4 The *Contractor's* detailed Activity Schedule summates back to the Activity Schedule provided by the *Employer* and is in sufficient detail to monitor completion of activities related to the Accepted Programme in order that payment of completed activities may be assessed.
- 1.2.5 The short descriptions in the Activity Schedule are for identification purposes only. All work described in the Works Information is deemed included in the activities.



- 1.2.6 The Activity Schedule is integrated with the Prices, Accepted Programme and where required the forecast rate of payment schedule.
- 1.2.7 Activities in multiple currencies are separately identified on both the Activity Schedule and the Accepted Programme for each currency.
- 1.2.8 The tendered total of the prices as stated in the Contract Data is obtained from the Activity Schedule summary. The tendered total of the prices includes for all direct and indirect costs, overheads, profits, risks, liabilities and obligations relative to the Contract.

C2.2 Activity Schedule

The Tenderer details his Activity Schedule below or makes reference to his Activity Schedule and attaches it to this schedule.

The details given below serve as guidelines only and the Tenderer may split or combine the activities to suit his particular methods.

N.B. Sites correspond to precincts that are billed in an account. Each site for assessment comprises of:

- *An electricity bulk metering point where two smart meters shall be installed to include the redundancy feeder, and various assets being fed from the precinct account shall be submetered.*
- *A water bulk metering point where a smart meter shall be installed and, various assets being fed from the precinct account shall be submetered.*
- *Cellular coverage shall be assessed at each point of smart meter installation and reported on for each site holistically.*

1. SUPPLY, DEVELOPMENT, DELIVERY, INSTALLATION, TESTING & COMMISSIONING					
Activity No	Activity Description	Unit	Quantity	Rate	Price of each activity
1.1	Site Establishment and de-establishment	Sum	1	R	R
1.2	Site assessments – Northern Region (33 areas)				
1.2.1	Electricity infrastructure at Points of Installation and condition assessment of cellular coverage at each Point of Installation	Each	191	R	R
1.2.2	Water infrastructure at Points of Installation and condition assessment of cellular coverage at each Point of Installation	Each	191	R	R
1.3	Site assessments – Eastern Cape (31 areas)				
1.3.1	Electricity infrastructure at Points of Installation and condition assessment of cellular coverage at each Point of Installation	Each	210	R	R
1.3.2	Water infrastructure at Points of Installation and condition assessment of cellular coverage at each Point of Installation	Each	210	R	R



1.4	Site assessments – Western Cape (32 areas)				
1.4.1	Electricity infrastructure at Points of Installation and condition assessment of cellular coverage at each Point of Installation	Each	201	R	R
1.4.2	Water infrastructure at Points of Installation and condition assessment of cellular coverage at each Point of Installation	Each	201	R	R
1.5	Site assessments – KZN (33 areas)				
1.5.1	Electricity infrastructure at Sites of Installation and condition assessment of cellular coverage at each Point of Installation	Each	162	R	R
1.5.2	Water infrastructure at Sites of Installation and condition assessment of cellular coverage at each Point of Installation	Each	162	R	R
1.6	Site assessments – Inland Region (45 areas)				
1.6.1	Electricity infrastructure at Points of Installation and condition assessment of cellular coverage at each Point of Installation	Each	276	R	R
1.6.2	Water infrastructure at Points of Installation and condition assessment of cellular coverage at each Point of Installation	Each	266	R	R
1.7	Development, Supply, and deployment of Software – Online Data Management Platform				
1.7.1	Backend Development of Online Data Management Platform	Each	1	R	R
1.7.2	Frontend Development of Online Data Management Platform	Each	1	R	R

1.7.3	Onboarding (Provisioning of modules and connection of SIM cards) of Smart Meters to Online Data Management Platform	Each	2244	R	R
1.8	Supply, Delivery, Installation, Testing & Commissioning of Smart Bulk Electrical Meters & Meters for EPC Buildings (at all sites specified)				
1.8.1	KZN Region	Each	68	R	R
1.8.2	Western Cape Region	Each	68	R	R
1.8.3	Inland Region	Each	98	R	R
1.8.4	Northern Region	Each	71	R	R
1.8.5	Eastern Cape Region	Each	68	R	R
1.9	Supply, Delivery, Installation, Testing & Commissioning of Smart Sub Electrical Meters (at all sites specified)				
1.9.1	KZN Region	Each	129	R	R
1.9.2	Western Cape Region	Each	169	R	R
1.9.3	Inland Region	Each	231	R	R
1.9.4	Northern Region	Each	158	R	R
1.9.5	Eastern Cape Region	Each	179	R	R

PART C3: SCOPE OF WORK

Document reference	Title	No of page
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	<i>Employer's Works Information</i>	2 - 94
	Total number of pages	94

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SECTION 1

1 Description of the *works*

1.1 Interpretation and terminology

1.1.1 Abbreviations

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
AIA	Authorised Inspection Authority
APN	Access Point Name
ASTM	American Society for Testing and Material
AWS	American Welding Society Standards
BBBEE	Broad Based Black Economic Empowerment
BS	British Standards Institute Specifications
CEMP	Construction Environmental Management Plan
CD	Compact Disc
CDR	<i>Contractor</i> Documentation Register
CDS	<i>Contractor</i> Documentation Schedule
CIRP	Constructor's Industrial Relations Practitioner
CRL	<i>Contractor</i> Review Label
CSHEO	<i>Contractor's</i> Safety, Health, and Environmental Officer
CM	Construction Manager
DTI	Department of Trade and Industry
DWG	Drawings
EO	Environmental Officer
FAT	Factory Acceptance Tests
FEQ	Field Engineering Query
GSM	General System for Mobile Communications
GPRS	General Packet Radio Services
HAW	Hazard Assessment Workshop
HAZOP	Hazard and Operability Study

HSSP	Health and Safety Surveillance Plan
INC	Independent Nominated Consultant
IoT	Internet of Things
IP	Industrial Participation
IP	Internet Protocol
IR	Industrial Relations
IPP	Industrial Participation Policy
IPO	Industrial Participation Obligation
IPS	Industrial Participation Secretariat
IRCC	Industrial Relations Co-ordinating Committee
ISO	International Standard Organisation
ISTQB	International Software Testing Qualifications Board
JSA	Job Safety Analysis
CIRP	<i>Contractor's</i> Industrial Relations Practitioner
MSISDN	Mobile Station International Subscriber Directory Number
Native	Original electronic file format of documentation
NCR	Non-conformance request
NDE	Non-destructive examination
NEMA	National Electrical Manufacturing Association
OTA	Over The Air
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
PQP	Project Quality Plan
PQR	Procedure Qualification Record
PSIRM	Project Site Industrial Relations Manager
PSPM	Project Safety Program Manager
PSSM	Project Site Safety Manager

ProgEM	Programme Environmental Manager
ProjEM	Project Environmental Manager
QA	Quality Assurance
QCP	Quality Control Plan
R&D	Research and Development
SAT	Site Acceptance Tests
SANS	South African National Standards
SASRIA	South African Special Risks Insurance Association
SES	Standard Environmental Specification
SHE	Safety, Health and Environment
SHEC	Safety, Health and Environment Co-ordinator
SIM	Subscriber Identification Module
SIP	Site Induction Programme
SMP	Safety Management Plan
SMS	Short Message Service
SSRC	Site Safety Review Committee
TP	Transnet Property
TFR	Transnet Freight Rail
TNPA	Transnet National Ports Authority

1.1.2 Definitions

- Specifications: Means the document (s) forming part of the *Works* Information in which are described the methods of executing the various items of works to be done, and the nature and quality of the plant and materials to be supplied.
- Reference in *Works* Information and standard specifications to equipment means the equipment as defined in the scope of works or the plant fitted on the equipment as defined in the scope of works, depending on the context.
- Utilities: The services provided to Transnet Properties by an external supplier (Municipality, Eskom, Water Boards) such as Electricity, Water, Rates and Taxes, Sewer, and Refuse. These services can also be provided by Transnet Property to its internal and external clients.

- Utilities Supplier(s): External supplier of electricity and water (Municipality, Eskom, Water Boards), who might also invoice on services such as Electricity, Water, Rates and Taxes, Sewer, and Refuse.
- Point of delivery (POD)/point of supply: Either a single point of supply, or a specific group of points of supply from where electricity is supplied to TP by the Utilities Supplier, or from where the customer supplies electricity to the Utilities Supplier located within a single substation, at which electricity is supplied/delivered at the same declared voltage and tariff.
- Tariff structure/schedule: A combination of different monthly charges, each at particular rates that are usually escalated annually and are applied to recover measured quantities, such as consumption and capacity costs, and unmeasured quantities, such as service costs, and their relationship to each other.
- Smart Meters: a type of meter that is installed to measure the consumption of electricity, gas, or water at the point of installation that is able to communicate this information using a wireless connection. In the context of this document, the terms "bulk meter", "check meter" and "submeter" means Smart Meter.
- Utilities Account Invoice Billing Verification: refers to the *Employer's* internal process of using Bulk Meters as check meters to verify the tariff charges billed by the Utilities Suppliers in accordance with the consumption recorded by the Bulk Meters and the tariff structure applied to the account.
- Tenant Consumption Allocation Billing: refers to the *Employer's* internal process of using Submeters as the baseline for invoicing tenants in accordance with their consumption recorded by the Submeters. The term "allocation" refers to the division of cost charged to the Utility Account from which payments to the Utilities Suppliers are recovered from the tenants under the Account.

1.1.3 Interpretation of incorporated documentation

Wherever the following words or phrases are used in the listed or referenced documentation, they are interpreted in this contract as follows:

Word or Phrase	Interpretation
'Transnet SOC Limited' in the context of: Owner, occupier or user of the new facility; insurer of works; paymaster (i.e., Transnet Shall pay);	the <i>Employer</i>

a party to the contract	
'Transnet SOC Limited' in the context of: a duty or procedure to be performed in the administration of the contract	the <i>Project Manager</i> or <i>Supervisor</i> as determined by the conditions of the contract
'Transnet Property' in the context as operator and owner, occupier, or user of the new facility	the <i>Employer</i>
'The successful bidder' in the context of the tenderer/bidder that receives the Letter of Award	the <i>Contractor</i>
'Main specification' as referenced in the <i>Employer's</i> standard specification	This Works Information
accepted by (or to the satisfaction of) the <i>Project Manager</i> , Engineer or Architect	accepted by the <i>Project Manager</i> or the <i>Supervisor</i>
a duty, procedure, decision or action of the Engineer or Architect and or the Superintendent, client representative, <i>Site Supervisor</i> or Clerk of works	an action of the <i>Project Manager</i> or the <i>Supervisor</i> depending on the context, Clause 14 of the core clauses determines what actions of each are. Either may delegate terms of Clause 14.2

1.2 Executive overview

1.2.1 Background:

Transnet Property (TP) manages a large portfolio of commercial and residential properties across South Africa. The majority of these properties occupied by tenants are not metered for electricity and water consumption. TP is responsible for settling the consumption bills with the Utilities Suppliers across the portfolio. The utility bills received from the Utility Suppliers are typically sourced from bulk meters for each account, owned by the Utility Supplier, that feeds multiple buildings with various tenants in the precinct. TP recovers the utility consumption cost from the tenants through lease agreements. In the absence of metering infrastructure, the tenants are charged at a flat rate for utilities leading to substantial discrepancies between the actual consumption and billed invoices. Currently, the recovery of utilities consumption costs has not been successful, due to:

- The absence of metering infrastructure (flat rate method applied),
- Non-payment of utilities by tenants (especially mass housing) and,
- No existing metering/consumption recovery systems.

Most of the remaining properties that are metered have outdated meters with basic accumulated energy consumption displayed. A minority of properties have smart meters installed but are still subject to manual readings and on-site connection of meters for historical data download. The metered properties require excessive travel to the various sites where manual readings are recorded.

Overall utilities costs constitute 46% of operational expenses. Energy costs make up approximately 18% of TP's operating expenses and water costs are 13% from YTD. Energy costs in South Africa have inflated by more than 300% over the past decade and is projected to continue increasing for the foreseeable future. The South African electricity system has also been experiencing capacity constraints since late 2007, resulting in frequent implementation of rotational load shedding to avoid total grid collapse. This has caused serious energy security concerns for the country as well as Transnet. In the South African grid network, coal accounts for approximately 72% of electricity generation DMRE (2019) and it is one of the leading sources of carbon emissions. Transnet developed an Energy Strategy, in support of the South African Government initiatives and commitments to curb carbon emissions, to manage its electricity consumption and reduce its own carbon footprint. TP is required to align with the Transnet Group Energy Strategy to address the 3 main drivers which are to:

- Reduce energy costs,
- Improve energy security and,
- Curb carbon emissions

The availability of energy consumption data is imperative to perform the function of energy management. Energy management refers to the process of monitoring, controlling, and optimizing the use of energy with the primary goal of achieving improved energy efficiency, reducing energy consumption, and minimising energy costs while minimising environmental impact. Energy management begins with the collection of data on energy consumption and usage patterns. This often involves installing energy meters and sensors to measure electricity, natural gas, water, or other energy sources. Once data is collected, it is analysed to identify trends, patterns, and areas where energy efficiency improvements can be made. In addition, energy data collected over a minimum of 12 months is a basic requirement to acquire Energy Performance Certificates (EPC). On the 8th of December 2020 it became mandatory for accounting officers and building owners to display and submit an Energy Performance Certificate (EPC) for their building, with an effective end date of 07 December 2025.

Similarly, TP has adopted a Water Strategy which seeks to ensure continual reliable supplies for the workforce and promote good stewardship by being a water saving organisation. The Water Strategy is a proactive approach that ensures that the water, on which our quality of life depends, is managed to ensure its long-term sustainability, while providing for economic growth and development within the organisation.

The Water Strategy in addition provides a framework for the protection, use, development, conservation, management, and control of water (from all sources of water, i.e., supplied by a Water Services Institution, surface water and groundwater) within TP through water management strategies which define projects and activities to restore, sustain, and enhance water usage as Regulated by Water Acts and defined by the Transnet Water Policy. The National Smart Metering project is one of projects and activities identified by the strategy to develop a water usage profile and initiate water billings based on trends from live data.

The advanced metering infrastructure therefore remains the pivotal step for achieving this goal.

1.2.2 Project Overview:

The National Smart Metering Project will be carried out over three (3) phases with the current Scope of Works covering all phases of the project.

Table 1: National Smart Metering Project Phased Approach

	Commercial Portfolio		Residential Portfolio		EPC	Software System
PHASE 1	Bulk Meters		Submeters		EPC	Online Data Platform
	Electricity	Water	Electricity	Water		
	120	50	673	673		Development, deployment
					25	Smart Meter integration
PHASE 2	Bulk Meters		Submeters		Online Data Platform	
	Electricity	Water	Electricity	Water		
	100	50	260	260	Smart Meter integration	
PHASE 3	Bulk Meters		Submeters		Online Data Platform	
	Electricity	Water	Electricity	Water		
	100	50	55	55	Smart Meter integration	

Each phase correlates to a new financial year. The *Contractor* is required to ensure that the *works* carried out during Phase 1 allows for expansion to the next two (2) phases of the project.

The locations of installation of Smart Meters are spread nationally across five (5) regions:

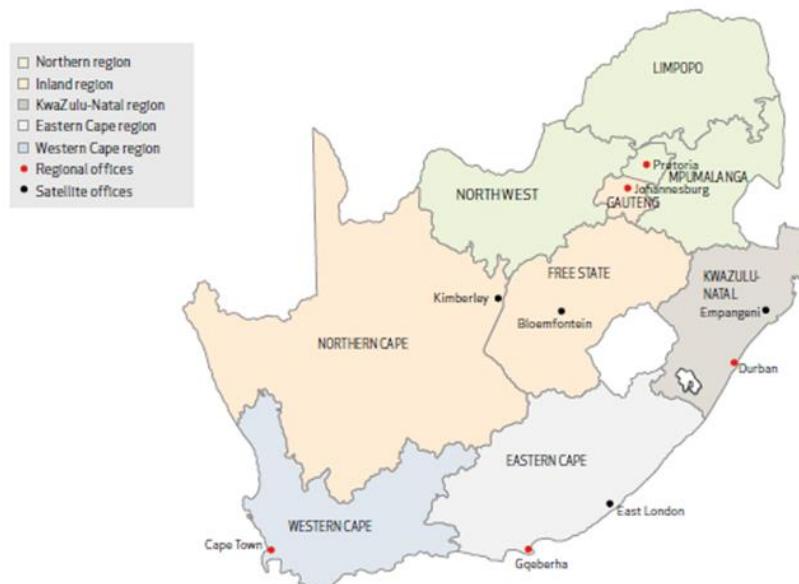


Figure 1: TP's Regional and National Footprint

Table 2: National Smart Metering System Phase 1

	Commercial				Residential		EPC
	Bulk Meters		Submeters		Bulk Meters		
	Electricity	Water	Electricity	Water	Electricity	Water	Electricity
KZN Region	20	10	83	83	6	3	2
Western Region	20	10	112	112	4	2	4
Inland Region	40	10	138	138	10	5	8
Northern Region	20	10	115	115	6	3	5
Eastern Region	20	10	225	225	2	1	6
Total	120	50	673	673	28	14	25

Phase 1 will cover the Top 10 commercial electricity and water accounts per Region, 14 residential hostels and 25 EPC buildings.

Table 3: National Smart Metering System Phase 2

	Commercial			
	Bulk Meters		Submeters	
	Electricity	Water	Electricity	Water
KZN Region	20	10	36	36
Western Region	20	10	50	50
Inland Region	20	10	73	73
Northern Region	20	10	43	43
Eastern Region	20	10	58	58
Total	100	50	260	260

Phase 2 will cover the Top 11 to 20 commercial electricity and water accounts per Region.

Table 4: National Smart Metering System Phase 3

	Commercial			
	Bulk Meters		Submeters	
	Electricity	Water	Electricity	Water
KZN Region	20	10	10	10
Western Region	20	10	7	7
Inland Region	20	10	20	20
Northern Region	20	10	0	0
Eastern Region	20	10	18	18
Total	100	50	55	55

Phase 3 will cover the Top 21 to 30 commercial electricity and water accounts per Region.

The *Employer* shall provide SIM cards to the *Contractor* to enable GSM communication of the installed Smart Meters via the *Employer's* cellular network provider in accordance with the *Employer's* ICT policies.

1.2.3 The Scope of Works:

The *works* that the *Contractor* is to perform will be as follows and further detailed in the Works information:

- The *Contractor* shall be an integration of the following two categories:
 - Multidisciplinary professional team and his areas of responsibility as included in the Engineering Professions Act 2000, Published by the Engineering council of South Africa (and not limited to), and
 - Multidisciplinary construction contractors registered with the Construction Industry Development Board (CIDB) as included in Act of Parliament (Act 83 of 2000).
- Consultation with respective local municipalities where meters will be installed prior to the designing and installation of the metering system,
- Surveying of the properties where the meters will be installed to ensure all requirements are taken into consideration to ensure the project is successful, including GSM coverage surveying,
- Site assessments for the installation of Electricity Smart Meters that provide meter voltage, current specifications,

- Site assessments for the installation of Water Smart Meters that provide meter sizing specifications,
- Removal and decommissioning of the existing meters to be replaced,
- Supplying, installing, testing, and commissioning of **348** Electricity Smart Meters (bulk/check meters) at each commercial point of delivery/consumption nationally,
- Supplying, installing, testing, and commissioning of **25** Electricity EPC Smart Meters at each commercial point of delivery/consumption nationally,
- Supplying, installing, testing, and commissioning of **164** Water Smart Meters (bulk/check meters) at each commercial point of delivery/consumption nationally,
- Supplying, installing, testing, and commissioning of **998** Electricity Smart Meters (submeters) at each commercial point of consumption nationally,
- Supplying, installing, testing, and commissioning of **998** Water Smart Meters (submeters) at each commercial point of consumption nationally,
- Supplying, installing, testing, and commissioning of **28** Electricity Smart Meters (bulk/check meters) at each residential point of consumption nationally,
- Supplying, installing, testing, and commissioning of **14** Water Smart Meters (bulk/check meters) at each residential point of consumption nationally,
- Perform accurate real-time water and electricity data reading, capturing, monitoring, and storage of the electricity and water Smart Meters at the installed on-site location,
- Integration of all Smart Meters with SIM cards that enables GSM communication authenticated to transmit data to a centralised Online Data Platform via a device manager,
- Develop and deploy a centralised Online Data Platform to capture, process and visualize the electricity and water smart meters' data,
- Authenticate and provision installed Smart Meter SIM cards to connect and communicate with the Online Data Platform.
- Perform data transmission of Electricity Smart Meter Four Quadrant measurements at 15-minute intervals:
 - Apparent Power Demand (kVA)
 - Active Power Demand (kW)
 - Reactive Power Demand (kVAR)
 - Power Factor (PF)
 - Apparent Energy Consumption (kVAh)

- Active Energy Consumption (kWh)
- Reactive Energy Consumption (kVARh)
- Perform data transmission of Electricity Smart Meter Power Quality at 15-minute intervals:
 - Total Harmonic Distortion (THD)
 - Harmonics (up to the 31st)
 - Unbalance
- Perform data transmission of Water Smart Meter measurements at 30-minute intervals:
 - Current water flow rate (m³/h)
 - Water consumption (kl)
 - Water pressure (kPa)
- Provide data transmission of Smart Meter notifications required in the event of:
 - Tamper detection
 - Fault detection
 - Low Battery detection
 - Leakage detection
- Provide live and historical kVA, kWh, PF, kVAR, kVAh, kVARh and kWh energy statistics on the online platform,
- Provide live and historical m³/h, kl, and kPa water statistics on the Online Data platform,
- Visualise energy and water data represented by concise graphs, tables, and charts on the online platform,
- Provide energy and water load/consumption profiles and trends on the online platform,
- Provide login credentials for end users to access online platform, view, edit, import and/or export data according to authorised system access.
- Provide national and regional management users management of the accounts linked to a manager user's profile.
- Provide customised display of national and regional metering data for Utility Managers and Utilities Administrators,
- Provide customised display of national and regional metering data for Finance Managers,
- Provide customised display of national and regional metering data for Energy & Sustainability Managers,
- Provide customised display of national and regional metering data for Data Analysts,

- Create database(s) of Utilities Accounts, Utility Suppliers tariff structures, Tenant Leases, SAP Cost Centres and derive their relationships with the Smart Meters,
- Provide electricity and water consumption information converted into cost (ZAR) using the relevant Utilities Supplier's tariff structure.
- Provide water and electricity Utilities Account bill verification using the relevant Utilities Supplier's tariff structure.
- Provide consumption and cost over a selected period for each utility, thus, day(s), week(s), month(s), year(s) with calendar plot.
- Provide interface between Utilities Manager dashboard and Finance Manager dashboard to send verified bills for payment.
- Provide interface between Utilities Manager dashboard and Finance Manager dashboard to send tenant billing for invoicing.
- Integrate Finance Manager dashboard with *Employer's* SAP system where Utility bills are paid, and tenant invoices are generated.
- Provide Smart Metering tamper detection alerts on the online platform and via provided cell phone numbers and email addresses.
- Provide Smart Metering fault detection alerts on the online platform and via provided cell phone numbers and email addresses.
- Provide Smart Metering fault detection logging on the online platform and SAP system.
- Provide Offline Meter alerts on the online platform and via provided cell phone numbers and email addresses.
- Provide Water Leak Detection alerts on the online platform and via provided cell phone numbers and email addresses.
- Provide Low Battery alerts for Water Smart Meters on the online platform and via provided cell phone numbers and email addresses.
- Provide event logging for activities performed and events triggered on the Online Data Platform.
- Provide Utilities Consumption forecast that can be used for budgeting purposes.

1.3 ***Employer's objectives***

The *Employer's* objective is to appoint a competent and capable service provider for design, development, installation, testing and commissioning purposes i.e., to obtain a *Contractor* to

undertake site surveys, engineering, project development with implementation plans, produce detailed designs for approval by the *Contractor's* professional personnel and accepted by the *Employer's* representative, compile the construction and final as-built drawings, front-end and back-end development of an Online Data Platform, produce detailed designs of the Online Platform for approval by the *Contractor's* professional personnel and accepted by the *Employer's* representative, implementation, and administration of the contract.

The *Contractor's* team must include but not limited to the following professional registered key personnel: engineering, information technology and project management.

2 Engineering and the *Contractor's* design

2.1 *Employer's* design

2.1.1 The *Employer's* design for the *works* the following:

None

2.2 Parts of the *works* which the *Contractor* is to design

The *Employer's* Concept of Operations document for the NSM system will be shared and discussed with the *Contractor* upon Letter of Award to indicate the envisioned system operation in accordance with the Scope of Works.

2.2.1 The *Contractor* is to design the following parts of the *works* as per paragraph 1.1 above:

Hardware design:

- Detailed Smart Metering system from the field to the point of interface with Transnet Server.
- Detailed drawing of each Smart Meter to be installed.
- Layout of the location of the Smart Meter(s) in each property
- Detailed hardware manuals
- Distribution board connection of electrical meters showing circuit breakers, CT's, VT's, etc.

All hardware designs shall be signed-off and approved by the competent discipline professional person.

Software design:

- Frontend dashboard development for the following national and regional end-user views:
 - Utilities Management
 - Finance Managers

- Energy and Sustainability Managers
- Data Analysts
- Backend analytics and calculations:
 - Costs associated with Utilities consumption and electricity demand using Utilities Suppliers tariff structures,
 - GHG emissions associated with energy consumption using coefficients from the latest UN Assessment Report (AR),
- Interface design between components, subcomponents, systems, and subsystems.

All software designs shall be signed-off and approved by representatives of the end-users and the competent discipline professional person.

2.2.2 Unless expressly stated to form part of the design responsibility of the *Employer* as stated under 2.1 *Employer's* design above and whether or not specifically stated to form part of the design responsibility of the *Contractor* under this paragraph 2.2, all residual design responsibility and overall responsibility for the total design solution for the *works* rests with the *Contractor*.

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

2.3.1 The *Contractor* shall address the following procedures for the installation of hardware in the National Smart Metering system:

a) Consultation with respective municipality

Prior to the design and installation, the *Contractor* must consult the respective municipality for alignment, support, tariffs, compatibility with existing infrastructure/meters, etc.

b) Verify the existing infrastructure on site.

The *Contractor* is to conduct the comprehensive site assessment prior designing to ensure that the designs are compatible with the infrastructure on site, e.g., property GPS coordinates and physical address, etc. It is imperative that the Contractor determines and verifies:

- Voltage and current requirements, whether it's a 3 or single phase, main switch rated current, etc. for the sites of Electricity Smart Meters installation.
- Meter sizes in accordance with the existing water pipe size for the sites of Water Smart Meters installation.

c) Verify the cellular network coverage on site.

The *Contractor* is required to conduct a comprehensive assessment of the cellular network coverage alongside the verification of existing infrastructure at each site of installation for all

Smart Meters. In the event of no cellular coverage the *Contractor* must propose alternative communication methods for affected sites.

d) Installation of Smart Meters

Upon approval of the electrical smart meters and water smart meters installation design from the *Employer*, the *Contractor* shall undertake the on-site works of the Smart Meters installations. The *Contractor* must install the SIM cards provided by the *Employer's* Network Service Provider into each Smart Meter.

e) Testing and Commissioning

The *Contractor* must perform testing and commissioning of installed Smart Meters under the supervision of the *Employer's* representative who shall also sign-off the testing and commissioning documents.

f) 'As-Built' Records

The *Contractor* shall record all amendments and deviations from the drawings issued at the start of the Contract. This shall be done on a set of drawings especially issued for this purpose. These shall be handed to the *Employer* on the completion of Works. The Certificate of Completion will not be issued without this information having been submitted to the *Employer*.

2.3.2 The *Contractor* shall address the following procedures for the software design of the National Smart Metering system:

a) Configuration of a Device Manager to facilitate communication between Smart Meters and Online Data Platform

The end-to-end connectivity solution is envisaged to have; Subscriber Identification Module (SIM) Cards, Network Connectivity, Access Point Name (APN), Authentication, Billing, Security and Management Portal provided by the *Employer's* Network Service Provider. The *Contractor* shall, in consultation with the *Employer's* ICT representative and Network Service Provider, provide Device Manager software offering a user-friendly and intuitive onboarding process that enables the addition, configuration of Smart Meter devices to the system and as such, provide OTA updates enable ICT administrators to push updates and patches to devices automatically. The Device Manager software should enable remote troubleshooting to reduce manual efforts and resolve user issues effectively. The Device Manager should enable ICT administrators to view and manage each Smart Meter's metadata, e.g., the serial number, make, model and current version of the firmware. The SIM cards connected to the Smart Meters require connection to and be authenticated to the Data Center which hosts the *Employer's* services. The Device Manager must provide access control, encryption, and authentication, to prevent

data breaches and unauthorized access. The Device Manager must satisfy the ICT cybersecurity requirements in alignment with the *Employer's* ICT policies.

Upon installation of hardware for the Smart Metering infrastructure, the Contractor must provision and authenticate the SIM cards to communicate with the Online Data Platform.

b) Online Data Platform Back-end Development

Representatives from the *Employer's* end-user groups shall provide the *Contractor* with information relevant to the back-end databases and calculations required. The databases are:

- Utilities Accounts
- Utilities Suppliers and tariff structures
- Tenant Lease Agreements
- SAP Cost Centres

The *Contractor* shall create grouping and subgrouping of Smart Meters to link:

- Submeters with their Bulk Meters
- Bulk Meters with their Utilities Account
- SAP Cost Centres with their Utilities Account
- Submeters with their Tenant Lease Agreement

The *Contractor* is required to provide the *Employer* with the:

- Data Platform Logical Architecture establishing the structure of data elements and the relationships among them.
- Data Platform Physical Architecture indicating different layers or components incorporated into the management of the data that must cover Data Ingestion, Data Storage, Data Processing, User Interface, and Data Pipeline Layers
- Data Platform Taxonomy detailing the hierarchy of categories and subcategories that can be used to classify and organise data consistently and logically.

Design and implementation information created by the *Contractor*, such as system or software architecture diagrams or documents, design specifications, call flow graphs, modelling diagrams, interface specifications, or similar work products that specify component or system structure must be provided to the *Employer*.

c) Consultation with end-users to verify understanding of Dashboard Views Required

The *Contractor* is required to provide Concept Designs of Dashboard Views to the *Project Manager* and representatives of End-User groups to verify that all requirements are clearly and unambiguously understood prior to development activities. All calculations and data used to

perform data analysis must be verified with the *Project Manager* and representatives of End-User groups for correctness.

d) Testing Throughout the Software Development Lifecycle

The *Contractor* is required to implement a combination of the V-model and Agile software development approach to integrate the test process throughout the development process and implement the principle of early testing while ensuring collaboration and communication between the *Contractor* and the *Employer*. System testing should focus on the overall, end-to-end behaviour of the system as a whole, both functional and non-functional. Acceptance testing to assess the system readiness for deployment and use by the end-users must involve:

- User Acceptance testing (UAT)
- Operational Acceptance testing (OAT)
- Contractual Acceptance testing
- Alpha and beta testing

Testing and Commissioning of the software must be performed by an ISTQB Certified Tester.

2.3.3 The *Contractor* undertakes and is responsible for design safety reviews.

2.3.4 Documentation Submission

Each drawing and document shall be identified with the following information:

- Project Name and Number
- Contract Number or Purchase Order Number
- Equipment Tag Number (s) (if applicable)
- Official Name of the *Contractor's* Company
- Project Document or Drawing Number
- Electronic File Name (identical to the *Employer's* Document or Drawing Number and not the *Contractor's* Document or Drawing Number)
- Identification and Signature of the Originator, checker, Approver, PR Eng, etc.
- Complete Descriptive Title
- Revision

2.4 Review and Acceptance of *Contractor* Documentation

The *Contractor* submits documentation as the 'Works Information' requires to the *Project Manager* for review and acceptance.

2.5 Other requirements of the *Contractor's* design

2.6 Use of *Contractor's* design

2.6.1 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*.

2.6.2 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*.

2.7 Design of Equipment

2.8 Equipment required to be included in the *works*

2.9 As-built drawings, operating manuals, and maintenance schedules

2.9.1 The *Contractor* provides the following:

'As-Built' Records:

- The *Contractor* shall record all amendments and deviations from the drawings issued at the start of the Contract. This shall be done on a set of drawings especially issued for this purpose.
- The *Contractor* shall submit all operating schedules and maintenance manuals and installed product guarantees at the end of the Contract.

3 Construction

3.1 Temporary *Works*, Site services & construction constraints

3.1.1 *Employer's* Site entry and security control, permits, and Site regulations

The contractor will be required to install meters in various properties nationally and the *Contractor* shall always ensure the safety is adhered to at all times. This shall entail the provision of protective barriers, lanterns, signs, etc. for protection, direction, and control of traffic.

The *Contractor* shall organise the work to cause the least possible inconvenience to the tenants and other activities or operations within the properties. Access for Others to adjacent areas shall always be maintained.

The *Contractor* shall obtain the necessary entry permits for all staff working within the area in accordance with the access control requirements of the *Employer* and shall issue each personnel member with an appropriate identification card.

Identification cards shall be made by the *Contractor* to a standard acceptable to the *Project Manager* and shall include at least the following information:

- Company Name and Logo
- Employee Name and ID Number
- Date of Issue and period of Validity
- Company Details
- Telephone Number
- Fax Number
- E-mail address

All costs incurred in providing construction personnel with ID cards and access permits shall be borne by the *Contractor*.

The site establishment area shall be clearly site posted and compliant with the relevant safety regulations and restrictions that might be in place until the *Contractor* has de-established from site.

The *Contractor* is responsible for the security of the works until completion and hand-over and must make his own arrangements security and the safekeeping of his property. The *Contractor's* watchmen are allowed on Site for this purpose.

If the working area is situated within the Customs controlled area, the *Contractor* and his people shall observe all Customs regulations within the operations area.

The fullest collaboration between the *Contractor*, the Facilities Managers, Utilities & Energy team, and the *Project Manager* is essential regarding the working of the operations area.

Housing of the *Contractor's* people on site is not permitted.

All work on, over, under or adjacent to railway lines and near high voltage equipment shall comply with Transnet Specifications.

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

As per paragraph 3.1.1 above.

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

The working hours shall be in accordance with the requirements of the Department of Labour or with 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.

The *Contractor's* staff shall be confined to the working area and defined access routes. Staff found disobeying these instructions will be subjected to disciplinary action.

The *Contractor* shall keep daily records of his people engaged on the site and *Working Areas* (including *Sub-Contractors*) with access to such daily records available for inspection by the *Project Manager* at all reasonable times.

3.1.4 Health and safety facilities on Site

At all times during installation, assembly and testing of the equipment the *Contractor* is responsible for the safety all persons on site and on the equipment and a shall have the necessary system and procedures in place to effectively manage this in full accordance with paragraph 6.3.

3.1.5 Environmental controls, fauna & flora, dealing with objects of historical interest

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. All work shall comply with the requirements of paragraph 6.4.

Under no circumstance shall spoil, rubble, materials, equipment, or unfinished operations be allowed to accumulate unnecessarily.

All discarded/spoiled materials shall be disposed of at an approved dumpsite and the *Contractor* shall furnish the *Project Manager* with receipts and disposal certificates from a legal dumpsite.

It will be the *Contractor's* responsibility to ensure that the area he/she is working in is kept neat, clean, and tidy at all times and that no health or safety hazards are created.

The *Contractor* shall make good all damages to the environment to the satisfaction of the *Project Manager*.

3.1.6 Title to Materials from demolition and excavation

All redundant plant and material removed from the existing building will remain the property of the *Employer* and will be disposed of by the *Employer*.

3.1.7 Cooperating with and obtaining acceptance of others

During the course of the contract, departments of the *Employer* and other *Contractors* may be working in the general area surrounding the Working Area. The *Contractor* must make allowance for the necessity to interface with the activities of Others, and to allow for safe access and working conditions.

The success of the project depends on the effective co-operation of all *Contractors* on site and the *Contractor*, if necessary, must discuss his program on a day-to-day basis with the *Project Manager* to ensure effective co-ordination.

3.1.8 Publicity and progress photographs

The *Contractor* shall obtain the permission and approval of the *Employer* before erecting any notice boards or using the details of the contract in any advertising media.

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*.

3.1.9 *Contractor's Equipment*

All Equipment supplied and used by the *Contractor* on Site shall be selected and operated in such a way that design loadings of the particular areas are not exceeded and that damages to all existing surfaces and services are avoided. The *Contractor* will be required to repair, at his own cost and to the satisfaction of the *Project Manager*, any such damages caused by him.

The *Contractor* shall keep daily records of his Equipment used on site and *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.

3.1.10 Equipment provided by the *Employer*

No Equipment will be provided by the *Employer*.

3.1.11 Site services and facilities:

When required in terms of the delivery methodology, a Site will be made available to the *Contractor* as erection Site and for all his *Working Areas*. This working area will only be available to the *Contractor* from the date indicated on the Programme.

The *Contractor* shall make his own arrangement for the supply of electricity when working on site.

The *Contractor* must make available potable water for consumption and make provision for construction water from appropriate licenced water bodies. The *Contractor* will be required to submit proof of the appropriate licensing of water sources.

The *Contractor* shall make his/her own arrangement for the supply of other services such as ablution facilities, fire protection, lighting, and all other services required to undertaking the works. The *Contractor* shall provide, maintain, and finally remove, proper portable latrines of sufficient number at his own cost. Latrines shall be properly constructed and placed in suitable positions and maintained in a clean and sanitary working condition.

Whenever the *Employer* provides facilities for the *Contractor's* use within the *Working Areas* and the *Contractor* adapts such facilities for use, then the *Contractor* shall make 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*.

3.1.12 Facilities provided by the *Contractor*:

The *Contractor* shall provide necessary site offices, storage, and other associated facilities as required by him to complete the works effectively and efficiently.

Establishment of the working area, fencing and other work required to make the working area fit for use is entirely the *Contractor's* responsibility.

The *Contractor* must ensure that the working area is well lit at night and that all fences, obstacles, and hazards are marked.

Project Manager's approval must be obtained for the use of any temporary lighting on site due to the impact that this may have on road and rail traffic in the interface with the surrounding properties.

The *Contractor* must maintain the working area in a neat and tidy condition to the satisfaction of the *Project Manager*.

The *Contractor* must make his own arrangements for the disposal of the sewage and wastewater. Sewage may not be wasted on site. Transnet Facilities may not be used.

The *Contractor* must make his own arrangement for telecommunication facilities, if required, for his use during the execution of the works.

The *Contractor*, within fourteen days after completion, must completely remove from site all his plant, materials, Equipment, stores and temporary accommodation or any other asset belonging to him and leaves the site in a tidy condition to the satisfaction of the *Project Manager*. No excess or discarded materials, plant or stores may be buried or dumped within the precinct.

Unless expressly stated as a responsibility of the *Employer* as stated under 3.1.11. Site services and facilities, all residual requirements for the provision of facilities and all items of the Equipment necessary for the *Contractor* to provide remains the responsibility of the *Contractor*.

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.

3.1.13 Existing premises, inspection of adjoining properties and checking work of Others

The *Contractor* will be held responsible for any damage to existing structures and services caused by him during the execution of this Contract, fair wear and tear excluded, and shall repair damage to the satisfaction of the *Project Manager* before completion of works.

For this purpose, a joint inspection with the *Project Manager* will be carried out prior to occupation of the works and any existing damage noted. Repair works to damaged existing structures and services may be carried out during the contract period or during the defect correction period of authorised. The *Contractor* may be required to conduct a photographic site survey of the occupied area showing existing structures and services. This report must be submitted to the *Project Manager* for approval and will be used in assessing the damages to the structures and services if applicable.

3.1.14 Survey control and setting out of the *works*

Immediately after the starting date, and prior to final design, the *Contractor* shall survey the buildings, existing capacity for bulk wet services, electrical supply, etc. This survey serves to confirm dimensions and relative positions of all infrastructure, existing or to be supplied by Others, that will interface with the *Contractor's* designs and installations. It is the *Contractor's* responsibility to ensure that the equipment supplied in terms of the contract interfaces successfully with the existing things.

Any deviation from the data supplied by the *Employer* in the Works Information must be brought to the attention of the *Project Manager* and discussed and finalised with the *Project Manager* prior to final design of the equipment.

3.1.15 Excavations and associated water control

Excavation and backfilling of in the residential and commercial areas shall be done in such a way as to ensure the least possible disruption to the public and entrances to properties.

3.1.16 Underground services, other existing services, cable, and pipe trenches and covers.

In the absence of the As-Built drawings, the *Contractor* is required to provide detectors and spotters on site to probe for any hidden services prior to any excavation on site. Where there is a high possibility of existing services being disturbed, at his professional discretion, the *Contractor* shall use hand excavations.

3.1.17 Control of noise, dust, water, and waste

All site activities must comply with the relevant parts of the *Employer's* construction Environmental Management Plan.

3.1.18 Sequences of construction or installation

All work shall be staged and planned to best meet the sectional and/or final completion dates as stipulated in the Contract Data, while making optimal use of the available *Working Areas*.

3.1.19 Giving notice of work to be covered up

As per Quality Management Procedure (**Section 6.5**)

3.1.20 Hook ups to existing *works*

Not applicable

3.2 Completion, testing, commissioning, and correction of Defects

3.2.1 The *work* to be done by the Completion Date

On or before the Completion Date the *Contractor* shall have done everything required to Provide the Works including all incidental work and services before the Completion Date and in any case before the dates stated. The *Project Manager* cannot certify Completion until all the work listed below has been done and is also free of Defects, which would have, in his opinion, prevented the *Employer* from using the works and Others from doing their work.

3.2.2 Commissioning

A complete and detailed Test Inspection Plan (TIP) for testing of pre-assembled modules, as well as the commissioning of the complete work, shall be submitted by the *Contractor* for approval by the *Project Manager*, two months before the start of testing and/or commissioning. The TIP shall list all tests and inspections deemed necessary by the *Contractor* to prove to the *Employer's* satisfaction that the equipment complies with the Works Information and must include the following:

- Verification certification for the connections and CT/VT ratios for all meters.
- Location of meters in applicable reticulation diagrams.
- An infrared photo of the installation and colour photo of each meter are required.
- Comprehensive commissioning file including drawings showing the location of meters in the reticulation diagram, CT ratios and summation details shall be supplied.
- Design and implementation information created by the *Contractor*, such as system or software architecture diagrams or documents, design specifications, call flow graphs, modelling diagrams, interface specifications, or similar work products that specify component or system structure.
- The following must be supplied on commissioning:
 - Electrical Certificate of Compliance (CoC)
 - Performance test
 - Certification of Calibration

- Electrical schematic drawings for all components
- Operational and maintenance instruction and schedule for all components supplied.
- Parts catalogue
- Operator and maintenance staff training for less than three people.
- All required Smart Meter software (Soft copies).
- Software test work products created as part of the test process including test plans, analysis, design, implementation, and reports.

The *Contractor* will be required to show practically and analytically that the installations and their controls can repeat the duty cycle continuously at rated capacity, without breaking down.

Modules assembled off site shall be trial assembled as fully tested as far as practical and be accepted by the *Supervisor* prior to delivery to site. All tests performed off site shall be repeated as part of commissioning once the work has been completed at site.

Before issuing the Request for Inspection (RFI) to the *Supervisor*, the *Contractor* shall satisfy himself that the work is complete in all respects and shall carry out his own upfront tests of the equipment. During this period the *Supervisor* may carry out the visual inspection of the work. After receipt of the RFI, the *Supervisor* will conduct the full inspection of the work and issue his inspection report with punch list as applicable. If any part of the work is rejected during his inspection, it shall be repaired or replaced to the satisfaction of the *Project Manager*. It will then be subjected to another inspection by the *Supervisor*.

After all nut minor defects on the *Supervisor*'s punch list have been corrected and the TIP has been approved by the *Project Manager*, the *Project Manager* will issue a Mechanical Completion (MC) Certificate to the *Contractor*.

After receipt of the MC, the *Contractor* shall fully test the equipment in the presence of the *Supervisor* and Engineer according to the approved TIP. These tests shall not commence until all works has been completed which is essential for safe operation of the equipment.

During these tests, the equipment must perform all its functions and operate throughout the range it was designed for. As far as practical, the equipment shall be fully tested prior to it being moved into the operational area.

Before the commencement of any tests the *Contractor* shall provide the initial fill of diesel, oil, grease, etc. for components which requires such.

All simulation devices required shall be provided by the *Contractor*.

3.2.3 Putting works into operation (acceptance testing)

On completion of commissioning but before the start of acceptance testing, the *Contractor* shall supply triplicate, the performance test certificates and conformance certificates that the equipment is in complete working order and safe for use. Where required by law, these certificates shall be issued by local authorities.

Once satisfied that all required certificates have been supplied and that commissioning has been concluded successfully, the *Project Manager* will issue the Take-Over and Care (TC) Certificate.

After Receipt of the TC, the equipment shall be moved into the operational area and be subjected to acceptance testing i.e., actual live operation of the equipment.

During acceptance testing the equipment will be operated by the *Employer's* operators, but the *Contractor* shall provide at his own cost the personnel and all equipment necessary for the acceptance testing, including sufficient number of suitably qualified people to assist the *Employer's* operators for the duration of acceptance testing.

3.2.4 Take over procedures

Once satisfied that the acceptance testing has been concluded successfully, the *Project Manager* will issue the Take-Over, Care and Control (TCC) which signifies take-over of the particular part of the works as per clause 35.3 of the contract.

The *Contractor* ensure that the documentation as described under of the Works Information is presented to the *Project Manager* four (4) weeks after take-over.

The *Contractor* ensures that the *Project Manager* has a full and accurate dossier of As-Built documents that represent the status of the completed Works (to include plant within the works) to present to the *Employer*.

The *Contractor* ensures that the *Project Manager* has a full and accurate dossier of Maintenance and Operating Manuals at the earlier of take-over or Completion.

Where the *Contractor* has presented Maintenance and Operating Manuals to the *Project Manager* at take-over, the *Contractor* modifies and updates As-Built documents as necessary prior to Completion.

3.2.5 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:

As per paragraph 3.2.1 above

3.2.6 Performance tests after Completion

Where acceptance tests as per paragraph 3.2.3 cannot take place before Completion due to operational constraints or other failure on the part of the *Employer*, the *Project Manager* may agree that these tests be performed after Completion.

3.2.7 Training and technology transfer

Effective maintenance personnel training is critical to the long-term performance of the equipment and plant. The *Contractor* will assist the *Employer* in organising the training sessions by identifying the appropriate staff for each session and creating an overall training plan.

For each training session, the *Contractor* is to provide a detailed agenda for each piece of equipment or system for which training is required. The agenda describes the scope, duration, and method statements along with the name and qualifications of the trainers. The *Contractor* develops the plan for including in the training session *Contractors*/trainers from different disciplines, when appropriate. The trainer documents each training session (duration, general subjects covered, and attendees).

4 Plant and Materials Standards and Workmanship

4.1 Investigation, Survey and Site Clearance

4.1.1 The provision of all services described this Works Information document:

Guideline for defining the Scope of services and for determining the Professional Fees for Persons Registered in terms of the Engineering Professional Act, 2000 (Act 46 of 2000) as amended upon in the project brief below:

- Engage with the *Employer's* representative to establish and confirm the interfacing of the field equipment outputs with the Transnet Server.
- Assess the current status quo of the buildings and utilities supply.
- Verify the required Smart Meter voltage application per Electricity Smart Meter site of installation.
- Assess the sites of installation for Water Smart Meters and provide required meter size per site.
- Assess the current status quo of the cellular network coverage at the installation sites.
- Produce relevant documentation for implementation phase.
- Attend all site meetings, project meetings, design coordination meetings and relevant client meetings.
- Prepare commissioning, pre-commissioning and handover reports.

4.2 Building works

Not applicable

4.3 Civil Engineering and Structural Works

The *Contractor* must take care that no unnecessary damage is caused to Civil- i.e, roads, pavements, etc. and Structures – i.e., buildings, concrete, carports, etc. during installations nearby buildings.

Where it becomes necessary to cut Civil or Structural elements, the permission of the Project Manager shall be obtained in writing. The *Contractor* will be held responsible for any damage to a Civil or Structural infrastructure due to unauthorised works.

The Contractor shall take care that all authorised materials which are to be built in, are firmly fixed in position and that disturbed infrastructure is reinstated to its original form.

4.4 Electrical & Mechanical engineering works

- The *Contractor* procuring the machine or material shall ensure that the information below is complied with. The information or requirement is binding and must be supplied by the *Contractor* in consultation with the *Employer* and must ensure that mutual agreement is reached between the two parties (the *Contractor* and the *Employer*) before the supply of the equipment or material.
- The works entails designing, supplying, installing, testing, and commissioning of the online National Smart Metering system for the electricity and water at various commercial and residential buildings owned by the *Employer* nationally (South Africa).
- The *Contractor* shall depict the position of the meters and connection on the single line schematic drawings (where available).
- The *Contractor* shall provide the detailed verification method to be utilised to ensure the system is reliable and accurate.
- The *Employer* reserves the right to cancel the contract if it appears after award that the system is not performing as per requirements.
- The verification shall include detailed calculations where virtual summations are done, justifying reliability of the method.
- The *Contractor* shall guarantee that the rating and size, etc. of the equipment offered will be adequate to perform the duties required.
- The equipment shall be offered complete in all respects, including standard components normally offered by the manufacturers, all of which shall be specified in detail.

- The equipment as made and supplied shall be complete in every respect of modern design using the most advanced proven technology extensively supported by reputable local companies and built to good engineering practices.
- The *Contractor* shall supply a list of all main components (mechanical and electrical, etc.) proposed as well as the addresses of the local support companies.
- All parts and components shall be adequately protected against damage and corrosion during shipping, transport, and storage.
- Where meters are daisy chained, a clear charging system shall be provided.
- The *Contractor* shall check all installations for possible over burden to existing CT's and VT's and based on likelihood supply and fit dedicated CT's and VT's to maximize meter accuracy. For these, a separate quote shall be submitted to the *Project Manager* prior to implementation.
- The *Contractor* shall check the correctness of the existing installations in terms of wire sizes, polarities, and ratios.

4.5 Software Development Works

4.5.1 The *Contractor* is required to undertake software development activities to ingest, consolidate and analyse Utilities consumption data, both electricity and water, from the on-site Smart Meters on a national Online Data Platform.

- **Use Device Manager software to facilitate communication between the Smart Meters and the Online Data Platform.**
 - The *Contractor* shall ensure that each Smart Meter SIM card provided by the *Employer's* Network Service Provider is securely authenticated to transmit data to the Online Platform via fixed IP addresses connection to the *Employer's* APN in alignment with the *Employer's* ICT policies.
 - Server must run on Virtual Environment; server specifications and application must be provided for configurations by the *Employer*.
 - The Device Manager shall provide access control, encryption, and authentication, to prevent data breaches and unauthorized access.
 - The Device Manager shall offer a user-friendly and intuitive onboarding process that enables the addition, configuration of Smart Meter devices to the system and as such, provide OTA updates enable authorised personnel to push updates and patches to devices automatically.
- **Uniquely identify Smart Meters and link identity to site location**

- The *Contractor* is required to maintain a database of installed Smart Meters with their unique SIM card ID code/number and details e.g., property GPS coordinates and physical address, existing water pipe size, whether it's a 3 or single phase, main switch rated current, etc. that can be viewed via the Online Platform.

- **Design customised dashboards to meet the requirements of End-Users.**

- The *Contractor* shall consult with representatives from each of the *Employer's* end-user group to perform front-end development of the Online Data Platform to provide the end-users with the required User Interfaces. The end-user groups are:
 - Utilities Management
 - Finance Managers
 - Energy and Sustainability Managers
 - Data Analysts

- **Provide authorised login credentials for End-Users.**

- The *Contractor* shall ensure that any and all access to the Online Data Platform is controlled using authenticated login credentials.
- Customised access to the Online Data Platform shall be provided using the end-user's login credentials according to their user group and area jurisdiction (national or regional).
- National and regional management users shall be provided with management control of the accounts linked to a manager user's profile.

- **Smart Meters Data Ingestion and Processing**

- Electricity Smart Meters, including both Bulk Meters and Submeters, shall ingest four quadrant power and energy data transmitted at 15-minute intervals:
 - Apparent Power Demand (kVA)
 - Active Power Demand (kW)
 - Reactive Power Demand (kVAR)
 - Power Factor (PF)
 - Apparent Energy Consumption (kVAh)
 - Active Energy Consumption (kWh)
 - Reactive Energy Consumption (kVARh)
- Water Smart Meters, including both Bulk Meters and Submeters, shall ingest water data transmitted at hourly intervals:
 - Current water flow rate (m³/h)
 - Water consumption (kl)
 - Water pressure (kPa)

- The Online Data Platform must provide Utilities consumption and cost for each Smart Meter over a selected period for each utility, thus, day(s), week(s), month(s), year(s) with calendar plot.
- The Online Data Platform shall receive alerts from installed Smart Meters and provide alert notifications via the Online Data Platform as well as cell phone numbers and email addresses provided by the *Employer* in the event of:
 - Tamper detection
 - Offline Meter
 - Fault detection
 - Leakage detection (Water Smart Meters only)
 - Low Battery (Water Smart Meters only)
- All alerts shall be recorded and tracked via an event logger provided by the Online Data Platform where Utilities Management personnel can record updates on the resolution of the alerts.
- **Link Bulk Smart Meters with their associated Utility Suppliers Account number**
 - The *Contractor* shall be supported by the *Employer's* Utility Management personnel to perform the exercise of creating a database of Utility Accounts that correspond to the Bulk Smart Meters at their Point of Delivery from which Utilities Suppliers bill the *Employer* for consumption.
 - The Utility account details include, but are not limited to:
 - Utilities Supplier,
 - Utilities Account number,
 - Applicable tariff structure and their billable line items,
 - *Employer's* cost center number from which account is paid.
- **Link Submeters with their associated Bulk Meters**
 - The *Contractor* shall be supported by *Employer's* Utility Management personnel to perform the exercise of creating a database of Lease Agreements that correspond to the Submeter at the Point of Supply from which tenants will be billed for their Utilities consumption.
 - Each Submeter shall be linked with their corresponding Bulk Meter Utilities Account details for verification of tenant invoicing (allocation of Utilities Account cost associated with their consumption) and Utilities recovery management.
- **Provide Utilities Account Invoices Bill Verification Capability**

- The *Contractor* is required to provide the capability to verify consumption billing of invoices received from Utilities Suppliers for each Account on the Utilities Management User Interface.
- Utilities management personnel performing this function must be allowed to specify invoice billing period over a selected period for each utility, thus, day(s), week(s), month(s), year(s) using consumption recorded by the Account's Bulk Meter.
- Utilities management personnel must have the capability of loading Utilities Account Invoices by:
 - importing Microsoft excel files detailing itemised billing, and/or
 - automated generation of tariff structure line items where cost associated can be inputted to the Online Platform.
- Utilities management personnel must have the capability of manually adding irregular billed items not typically included in the tariff structure, e.g., interest, deposits.
- Each billed item on the invoices must be verified via back-end calculations where discrepancies must be flagged for dispute with the Utilities Suppliers.
- In the event of a dispute, average payment of the invoice must be calculated to be sent to Finance Managers.
- Disputes must be logged and tracked on the Online Data Platform.
- In the absence of flagged disputes, the Online Data Platform must allow verified bills to be sent to Finance Managers.

- **Provide Tenant Consumption Allocation Billing Capability**

- The *Contractor* is required to provide the Utilities Management User Interface the capability to bill tenants with their consumption costs over a selected period for each utility, thus, day(s), week(s), month(s), year(s) using the consumption data recorded by the tenant's Submeter on the Online Platform.
- The Online Data Platform must allow tenant billing allocation cost to be sent to Finance Managers User Interface.
- The *Contractor* shall provide the capability to reconsolidate tenant billing upon receipt of the linked Account invoice for the selected period in the event of discrepancies.

- **Integration of the Employer's SAP system with the Online Platform**

- The *Contractor* shall provide Finance Managers with the capability to send verified Utility invoices to the *Employer's* SAP system where payments can be actioned.
- Finance Managers must also be provided with the capability to record payments made for each account on the Online Platform for reporting purposes.

- The *Contractor* shall provide the User Interface for Finance Managers with the capability to send tenant billing allocations to the *Employer's* SAP system where invoices can be generated.
- The User Interface for Finance Managers must also be provided with the capability to record payments received for each tenant/lease on the Online Platform for reporting purposes.

- **Provide historical and live Smart Meter data logging and visualisation.**

- The *Contractor* must provide visualised historical data transmitted for each Smart Meter over a selected period for each utility, thus, day(s), week(s), month(s), year(s) with calendar plot via profile graphs, tables, etc., on the Online Data Platform.
- The Online Data Platform must provide live data views for each Smart Meter.
- The Online Data Platform must provide the capability for end-users to perform remote downloading and exporting of data from the Smart Meters over a selected period for each utility, thus, day(s), week(s), month(s), year(s) with calendar plot.
- Profile data in graphical form with date and time stamps refreshed in 15-minute intervals.
- Profile graphs shall display the following information for electricity consumption:
 - Electricity consumption (kWh)
 - Power demand
 - Time-of-use patterns of specific TOU tariffs
 - Phasor Diagrams, displaying the Voltage (V), Current (A) and energy consumption (kWh) going through each individual phase at any specific given time.
 - Power factor calculator indicating Rand value savings if Power Factor had been in accordance with Utilities Supplier required Power Factor.
- Profile graphs shall display the following information for water consumption:
 - Water consumption (kl)
 - Maximum Demand (kl)
 - Average consumption per day (l)
 - Predicted consumption per months (kl)

- **Provide Smart Metering Data Analysis**

The *Contractor* must consult with the *Employer's* Data Analysts to provide required calculations and subsequent views of analysed data according to consumption, expenditure and carbon emissions that is both visualised on the Online Platform and downloadable for reporting purposes.

- **Provide Event Logger for Online Platform**

The *Contractor* is required to log events performed by the Online Data Platform including, but not limited to:

- Smart Meter Alert/Alarm notifications
- The Utilities Invoice Billing Verification process
- The Tenant Consumption Billing Allocation process

4.5.2 **Technical Requirements**

The following regulations and standards shall be complied with:

- Occupational Health and Safety Act, Act No. 85 of 1993
- SANS 10142-1: The wiring of premises: Low voltage installations
- SANS 10142-2: The wiring of premises: Medium Voltage installation above 1 kV AC not exceeding 22 kV AC and up to and including 3000 kW installed capacity.
- NRS 000-2: NRS definitions Part 2: Electricity Pricing
- NRS 029: Current Transformers (CT's)
- NRS 042: Guide for the protection of the electronic equipment against damaging transients.
- NRS 048: Electricity supply – quality of supply part 2: Voltage characteristics, compatibility levels, limits, and assessment methods.
- NRS 048-9: Electricity supply – quality for supply part 9: Load reduction practices, system restoration practices, and critical load and essential load requirements under system emergencies.
- SANS 474/NRS 057: Code of practice for electricity metering
- SANS 62052-11/IEC 62052-11: Electricity metering equipment (s) – General requirements, tests, and test conditions – Part 11: Metering equipment.
- NRS 049: Advanced metering infrastructure (AMI) for residential and commercial customers.

4.5.3 **12 Months Maintenance Period**

- The successful bidder shall provide 12 months planned and corrective maintenance to the installation, free of charge, after date of Practical Completion during the guarantee period.
- Maintenance is to be carried out according to a pre-programmed schedule by competent maintenance personnel. All parts required to be furnished free of charge except where proof has been submitted that the failure of such parts or components are due to negligence, misuse, or accidents. The Project Manager may require additional examinations or action to rectify faults should he deem it necessary.

- Maintenance and repairs are to be carried out during normal working hours. In addition, the Contractor is to provide a call-out service 24 hrs/day, 7 days/week. The maximum response time for breakdowns is not to exceed 2 hours.
- The Contractor shall provide the list of critical spare parts for the equipment.
- Provide operating manuals, maintenance manuals, keys and passwords for the controllers to the Project Manager upon handover.

4.5.4 **Ongoing Maintenance**

- The Contractor is to submit a price with their tender for ongoing maintenance of the installation after expiry of the 12-month guarantee period, is to apply.

5 **List Of Drawings**

5.1 **Drawings issued by the *Employer***

Not Applicable

SECTION 2

6 Management and start-up

6.1 Management meetings

- 6.1.1 The *Contractor* shall hold regular design review meetings with the *Project Manager* during the initial phase planning and design phase of the contract. The *Contractor* shall attend management meetings at the *Project Manager*'s request. It is envisaged that at least 1 monthly contract management meeting, plus weekly site meetings will be held. The *Contractor* will also be required to attend safety meeting once a month. The *Contractor* will also attend risk kick off meeting and a close-out meeting. The *Contractor* will be required to present all relevant information including Quality plans, schedules, progress reports, subcontractor management details, and health, security, environmental and safety issues at each meeting.
- 6.1.2 The *Contractor* shall attend risk reduction meetings as and when called by the *Project Manager*.
- 6.1.3 Other meetings of a specialist nature may be conveyed by persons and at times and locations to suite Parties, the nature and progress of the *Works*. Records of these meetings shall be submitted to the *Project Manager* by persons conveying the meeting within five days of the meeting.
- 6.1.4 All meetings shall be recorded using minutes or a register prepared and circulated by the person who conveyed the meeting. Such minutes of register shall not be used for the purpose of confirming actions or instructions under the contract as they shall be done separately by the person identified in the conditions of contract to carry out such actions or instructions.

6.2 Documentation Control

- 6.2.1 The *Contractor* shall submit all documentation (including correspondence and drawings) to the *Employer* and to the *Project Manager*'s requirements in accordance with the *Project Manager*'s document control procedure.
- 6.2.2 The *Contractor*'s documentation shall be issued to the *Project Manager* under cover of the *Contractor*'s Transmittal Note Indicating all Contract references (Project No., Contract No., etc.) as well as the *Contractor*'s Project Document Number, Revision Number, Title, Chronological listing of transmitted documentation.

Formats of Contractor data submitted is dependent on the project procedure and content and shall be specified by the *Project Manager*, upon the notified request of the *Contractor* i.e.

- Both Adobe Acrobat (.pdf) and native files
- Only a native file
- Only a hard copy
- Only a.pdf file

6.2.3 The *Contractor* shall deliver both hardcopies and electronic copies (CD Rom) to the *Project Manager* at the address stated within the Contract Data.

6.2.4 The documentation to be submitted for reviews shall be submitted on or before the dates specified in the Documentation Register under cover of the *Contractor's* Transmittal Note, and the Transmittal Note must state the purpose of the submission. Documentation for different purposes must be sent on separate transmittals. The *Contractor* shall note that documentation will be rejected if this requirement is not met.

6.2.5 Acceptance of the documentation by the *Project Manager* will in no way relieve the *Contractor* of his responsibility of the correctness of information, or conformance with his obligation to provide the *Works*. This obligation rests solely with the *Contractor*.

6.2.6 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 hard copy shall be return to the *Contractor* under cover of the *Project Manager's* Transmittal Note for revision or resubmittal as instructed.

6.2.7 The code resulting from the reviews is as follows:

- Code C1 – “Proceed, No Exception Taken”
- Code C2 – “Proceed, with Exception as Noted, Revise and Resubmit”
- Code C3 – “Do no Proceed, Revise as Noted and Resubmit”
- Code C4 – “Information Only – Accepted as Submitted”
- Code C5 (FN) – “Certified Final – No Further Submittal Required”
- Code C6 (AB) – “Certifies As-Built – No Further Submittal Required”

6.2.8 Initially hard copy documentation shall be returned to *Contractor* outside the Gauteng Area by Courier. *Contractors* in the Gauteng area will be advised by e-mail or fax (accompanied by a copy of the project's Transmittal Note) that documentation is available for their collection.

6.2.9 The *Contractor* shall allow the *Project Manager* two (2) weeks to review and respond to the *Contractor's* submission of their documentation, i.e., from the time of receipt to the time of dispatch. However, works 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*.

6.2.10 On receipt of the reviewed documentation, the *Contractor* shall make any modifications requested/marked-up and re-submit the revised documentation to the *Project Manager* within two (2) weeks. Queries regarding comments/changes should be addressed with the *Project Manager* prior to re-submittal.

6.2.11 All revised data shall be submitted by the *Contractor* in its entirety and shall reflect the revision control numbers and shall also indicate which documentation and the revised documentation supersedes, if applicable. In the case of drawings every sheet has its own revision number and is revised as an individual document. In the case of documents, all sheets under cover of one document number shall be under the same revision number and resubmitted, even if the revision is a minor one.

6.3 Safety risk management

6.3.1 Health and Safety Standard

The *Contractor* shall comply with the requirements of the *Employer's* Project Site Specific Health and Safety Specification and Occupational Health & Safety Guidelines as per the Act.

6.3.2 *Contractor's* General Requirements for Health and Safety

The *Contractor* is solely responsible for carrying out the work under the Contract having the highest regard for the health and safety of its employees, the *Employer's* employees, and persons at or in the vicinity of the Site, the *Works*, temporary work, materials, the property of third parties and any purpose relating to the *Contractor* carrying out its obligations under this Contract.

The *Contractor* must initiate and maintain safety precautions and programs to conform to all applicable Health and Safety laws or other requirements, including requirements of any applicable government instrumentality and client corporate, business unit and site requirements. The *Contractor* must, at its own cost, erect and maintain safeguards for the protection of workers and the public. The *Contractor* must manage all reasonably foreseeable hazards created by performance of the work. The *Contractor* must:

- Provide all things and take all measures necessary for maintaining proper personal hygiene, ensuring safety of persons and property, and protecting the environment at or near the Site.

- Avoid unnecessary interference with the passage of people and property at or near the Site.
- Prevent nuisance and excessive noises and unreasonable disturbances in performing the Services.
- Be responsible for the adequacy, stability, and safety of all of its site operations, of all its methods of design, construction and work and be responsible for all of the work, irrespective of any acceptance, recommendation or consent by the *Employer*, its subcontractors, employees, agents and invitees, or any Government Body.
- Costs for the above are borne by the *Contractor*.

The *Contractor* must comply and is responsible for ensuring that all of its Sub-contractors comply with the relevant legislation(s) and statutory regulations for health and safety, the *Employer's* Health and Safety requirements included in the Contract and other document pertaining to health & safety contained in the Programme Health & Safety Management System and include standards, policies, procedures, guidelines, and safe work instructions.

6.3.3 ***Contractor's Health and Safety Management Plan***

The *Contractor* must prepare, implement, and maintain a project-specific Health and Safety Management Plan. The plan must be based on the requirements set out in this specification as well as all applicable legislation. It must cover all activities that will be carried out on the project site(s), from mobilisation and set-up through to rehabilitation and decommissioning.

The plan must demonstrate the *Contractor's* commitment to health and safety and must, as a minimum, include the following:

- A copy of the *Contractor's* Health and Safety Policy; in terms of the OHS Act section 7,
- Procedures concerning Hazard Identification and Risk Assessment, including both Baseline and Task-Based Risk Assessments,
- Arrangements concerning the identification of applicable Legal and Other Requirements, measures to ensure compliance with these requirements, and measures to ensure that this information is accessible to relevant personnel,
- Details concerning Health and Safety Objectives – a process must be in place for setting objectives (and developing associated action plans) to drive continual improvement,
- Details concerning Resources, Accountabilities and Responsibilities – this includes the assignment of specific health and safety responsibilities to individuals in accordance with legal or project requirements, including the appointment of a Project Manager, Health and Safety Officers, Supervisors, Health and Safety Representatives, and First Aiders,

- Details concerning Competence, Training and Awareness – a system must be in place to ensure that each employee is suitably trained and competent, and procedures must be in place for identifying training needs and providing the necessary training,
- Communication, Participation and Consultation arrangements concerning health and safety, including Safety Observations and Coaching, Toolbox Talks, Daily Safe Task Instructions, project health and safety meetings, and notice boards,
- Documentation and Document Control – project-specific documentation required for the effective management of health and safety on the project must be developed and maintained, and processes must be in place for the control of these documents,
- Processes and procedures for maintaining Operational Control, including rules and requirements (typically contained in Safe Work Procedures) for effectively managing health and safety risks, particularly critical risks associated with working at heights, confined spaces, mobile equipment, and light vehicles, lifting operations, hazardous chemical substances, etc.,
- Emergency Preparedness and Response procedures,
- Management of Change – a process must be in place to ensure that health and safety risks are considered before changes are implemented,
- Sub-contractor Alignment procedures – a process must be in place for the assessment of sub-contractors and suppliers with regard to health and safety requirements and performance (before any contract or purchase order is awarded),
- Measuring and Monitoring plans, including a plan for the measuring and monitoring of employee exposure to hazardous substances or agents (e.g., noise, dust, etc.) in order to determine the effectiveness of control measures,
- Incident Reporting and Investigation procedures describing the protocols to be followed with regard to incident reporting, recording, investigation, and analysis,
- Non-conformance and Action Management procedures concerning the management of corrective actions,
- Performance Assessment and Auditing procedures concerning health and safety performance reporting, monthly internal audits to assess compliance with the project health and safety requirements, and daily site health and safety inspections, and
- Details concerning the Management Review process followed to assess the effectiveness of health and safety management efforts.

6.3.4 ***Site Supervision***

The *Contractor* shall comply with OH&S Act – Section 8, 9, 13 and 16 and the Construction Regulations 2014.

The *Contractor* must nominate and appoint a responsible person on site to whom the *Project Manager* may refer in connection with the *Works*. Persons are nominated for all shifts worked or whilst any activity relating to the Contract is being performed on site and must have the authority to bind the *Contractor* with respect to the Contract. (OH&S Act - 16 Sections (2)).

The *Contractor* must ensure that the performance of all specified *Works* is supervised throughout by a sufficient number of qualified and competent appointed representatives of the Contractor, who have experience in the type of work specified. (OH&S Act – Construction Reg. 8 (1) and 8 (2).)

Note: No work may commence and or continue without supervisory Appointees present on site. The *Contractor's* Site Supervisor must be equipped with a mobile telephone with message bank and/or pager or an equivalent communication device so that communication throughout the Contract can be maintained at all times.

The *Contractor's* Site Supervisor must provide a list of names and contact telephone numbers of all *Contractors* and Sub-Contractor's contact persons on Site. This list is updated as a new *Contractor* or Sub-Contractor employee commences on Site.

The *Contractor's* Site Supervisor must keep a record of all employees, including date of induction, relevant skills, and licences, and be able to produce this list at the request of the *Supervisor*.

The *Contractor's* Site Supervisor must complete manning sheets describing the day's activities, labour numbers and classifications and issue these to the Supervisor prior to 9.00 am on a daily basis.

The *Project Manager's* Site Safety Representative is notified of any new starter with evidence of induction and site-specific induction prior to commencement of work.

6.3.5 ***Contractor's* Health and Safety Manager**

The *Contractor's* Health and Safety Manager specific tasks are:

- Design the health and safety management systems specific to the need of the project, organisational and specific construction project management system.
- Facilitate and coordinate the preparation of a site-specific construction health and safety plan.

- Manage the process for the assessments and approval of sub-contractor's health and safety plan in line to the Client requirements.
- Facilitate monthly health and safety meetings.
- Ensure identification of the hazards and risks relevant to the construction project through regular coordinated site inspections.
- Attend and participate in all project meetings
- Use of trends analysis to identify systems deficiencies and incident trends, outline relevant improvements
- Manage the necessary changes to the health and safety plans
- Manage the reporting and investigation of project related incidents
- Manage and maintain health and safety and communication structures and systems, distribution of health and safety specific documents to contractors
- Monitor, measure and report on health and safety system performance through facilitating compliance health and safety audits
- Analysing of audit results and trends to ensure continual improvement
- Evaluate the levels of compliance of contractors to the project health and safety plan and Transnet Property site specific health and safety specifications.
- Manage and evaluate processes for reporting of non-compliance issues and implementation of identified appropriate corrective and preventative action
- Manage site health and safety during defects liability period
- Prepare a health and safety close-out report as per Client requirements

Health and Safety Manager must register with SACPCMP to be allowed to practise construction safety in the *Employer's* managed projects.

Before placing a Health and Safety Manager on the project site(s), the *Contractor* must forward a copy of the person's CV to the nominated project management representative or to the *Employer's* Stream Health and Safety Manager for review and acceptance. A proposed candidate may be rejected should he/she not meet the experience and / or qualification requirements, or due to poor work performance on previous projects.

6.3.6 **Contractor's Safety Officer**

The *Contractor* must appoint a full-time Health and Safety Officer for the duration of the contract that is registered with the SACPCMP (The South African Council for Project Construction

Management Professions). If more than 100 employees are deployed on the project site(s) (directly or through sub-contractors), at least two full-time Health and Safety Officers must be appointed, with an additional Health and Safety Officer appointed for every 100 additional employees thereafter.

The Health and Safety Officer 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. A Health and Safety Officer must be present during all shifts, so if work is carried out over more than one shift per day, the Contractor must make provision for an additional Health and Safety Officer.

Each *Contractor's* Health and Safety Officer shall be responsible for:

- Reviewing all applicable legal and project health and safety requirements and providing guidance to Contractor and sub-contractor personnel (particularly the Contractor's Project Manager) to help ensure compliance at all times,
- Assisting with the implementation of effective hazard identification and risk management processes for all work to be carried out by the *Contractor*,
- Participating in the Baseline Risk Assessment for the *Contractor's* scope of work (prior to site establishment) and ensuring that identified control measures are implemented,
- Participating in all Task-Based Risk Assessments conducted for the work to be carried out by the *Contractor* and ensuring that identified control measures are implemented,
- Conducting *Contractor's* health and safety induction training for all *Contractors* and sub-contractors' personnel,
- Compiling and maintaining all health and safety related documents and records required of the *Contractor*,
- Communicating relevant health and safety information to *Contractor* and sub-contractor personnel (e.g., incidents and lessons learnt, leading practices, hazards, risks, and control measures, etc.),
- Carrying out Safety Observations and Coaching (one per day),
- Evaluating (on a daily basis) the content of the Daily Safe Task Instructions (DSTI's) conducted by the *Contractor's* appointed supervisors, and attending at least one DSTI each day,
- Attending monthly *Contractor* and Site Health and Safety Meetings,

- Assisting with the implementation of the *Contractor's* Health and Safety Management Plan and associated Safe Work Procedures,
- Carrying out Planned Task Observations on an ad hoc basis,
- Assisting with the implementation, testing and maintenance of an effective Emergency Response Plan for all Contractor and sub-contractor activities,
- Responding to workplace incidents (as appropriate),
- Participating in incident investigations,
- Maintaining accurate health and safety statistics (for the *Contractor* and all sub-contractors), and compiling health and safety performance reports as required,
- Auditing the health and safety management system and workplace activities of the *Contractor* and each sub-contractor on a monthly basis to assess compliance with the project health and safety requirements, and
- Tracking and reporting on the implementation of corrective actions (arising from incident investigations, audits, inspections, etc.).
- The *Contractor* must ensure that they have made adequate provision of safety officers as per the works information works packages i.e. (construction of mechanical and electrical works) Health and Safety Officer is adequately equipped to enable him to perform his duties effectively. Before placing a Health and Safety Officer on the project site(s), the *Contractor* must forward a copy of the person's CV to the nominated project management representative or to the Programme Health and Safety manager for review and acceptance. A proposed candidate may be rejected should he not meet the experience and/or qualification requirements, or due to poor work performance on previous projects.

6.3.7 ***Contractor's Safety Manual***

The *Contractor* must provide a hard copy of its safety manual, policies, and procedures to the *Project Manager* for acceptance prior to the commencement of any site work. The *Contractor* must ensure that his personnel, at all times, strictly observe and comply with the procedures set out therein. The *Project Manager* or the *Project Manager's* nominated Representative may from time-to-time request safety procedures applicable to the area of operations. The *Contractor* must forward to the *Project Manager* any updates or revisions to its safety manuals, policies or procedures as soon as practicable following revision or update.

The *Project Manager* may require the *Contractor* from time to time to supplement its safety manual, policies, and procedures with guidelines and/or operating standards provided to the *Contractor* by the *Project Manager*. The *Contractor* must comply with such requests where the

request is consistent with the requirements of the Contract. The *Contractor* must give prompt written notice to the *Project Manager* of any objection to the requested supplement, including the reasons for objection. The *Project Manager's* rights under this Clause are not intended, and must not be construed, to relieve the *Contractor* from any obligations to ensure compliance with all provisions of this Contract.

6.3.8 Performance Measurement and Reporting

a) Health and Safety Statistics

The *Contractor* and each of its Sub-contractors must complete and submit Health and Safety statistics to the *Project Manager* or the *Project Manager's* nominated representative, or as amended by the *Project Manager*, before mid-day on the Friday of each week. The *Contractor* must submit monthly Health & Safety Statistics before mid-day on the last day of each month to the *Project Manager's* nominated representative.

b) Safety Management Records

The *Contractor* must submit to the *Project Manager* for acceptance a schedule of the specific Health and Safety records it intends to maintain for the Contract. As a minimum, such records are as specified by applicable legislation. Copies are provided to the *Project Manager* or the *Project Manager's* nominated Representative if requested.

c) Field Technical/Safety Audit by the *Project Manager*

The *Project Manager* or the *Project Manager's* nominated Representative has the right to conduct audits/inspections of the Consultant, Professional Service Provider (PSP) and *Contractor* Safety Management Plan implementation, operations, equipment, emergency procedures, etc., at any time, and the *Contractor* must fully cooperate with the *Project Manager* or the *Project Manager's* nominated Representative during such audits/inspections. The *Project Manager's* rights under this clause does not, must not and will not relieve the Consultant, Professional Service Provider (PSP) and *Contractor* of its own obligations to conduct audits and reviews of its own Health and Safety performance.

Where such audits/inspections reveal deficiencies in the *Contractor* procedures, drills, training or equipment, or non-conformities with the *Contractor* accepted project Safety Management Plan, of a minor nature (Risk Rating of 6 or less), the *Contractor* must investigate the cause of the nonconformity and initiate corrective and preventive action to rectify such deficiencies and non-conformities and prevent recurrence as soon as practicable.

Where such audits/inspections reveal deficiencies of a major nature (Risk rating of 7 or greater), the *Contractor* must stop work on the operation/activity concerned, immediately investigate the

cause of the nonconformity, and initiate corrective actions to rectify such deficiencies and non-conformities and to prevent recurrence. These corrective action plans is submitted to the *Project Manager* for review and comment within 24 hours of the audit finding.

Where such deficiencies include an unsafe practice or a breach of the statutory or the Contract's requirements, the *Project Manager* or the *Project Manager's* nominated Representative may in accordance with the General Conditions of Contract suspend the work associated with the unsafe practice or breach until the deficiency is rectified.

The *Project Manager* or the *Project Manager's* nominated Representative will establish a schedule of regular field safety audits which will be based on an audit tool aligned to the *Contractor* Safety Management Plan and site operations and activities. The *Contractor* audit conformance will be assessed as a percentage and where conformance is better than 90% it will be considered satisfactory and the *Contractor* must develop and implement an action plan within 4 weeks, to be reviewed at the next regular audit. Where the *Contractor* level of conformance is between 75 – 90%, a corrective action plan will be required to be developed and implemented within 2 weeks, and a follow up audit will be carried out. Where the *Contractor* conformance is less than 75% the *Contractor* must stop work until an investigation of the cause/s has been completed and corrective actions have been developed and implemented by the *Contractor*.

The *Contractor* must provide to the *Project Manager* or the *Project Manager's* nominated Representative, at a time to be agreed, but not to exceed monthly intervals, a regular status report on all outstanding corrective actions until they are successfully closed out.

d) **Unsafe Act/Condition Auditing**

The *Contractor* must implement a system to recognize, correct, and report unsafe acts/conditions (Unsafe Act/Condition Auditing) associated with all Site activities.

All such observations must be recorded and delivered to the TCP Health and Safety Manager.

6.3.9 **Involvement, Communication and Motivation**

The Contractor and subcontractor's workforce must, through their supervision, safety notice boards, toolbox meetings and daily pre-start meetings be kept aware of safety related matters.

a) **Safety Meetings**

The *Contractor* must implement and comply with OH&S Act, Section 19

The *Contractor* must conduct weekly safety meetings with his employees to foster safety awareness. Copies of minutes and action items arising from such Toolbox meetings is submitted

or otherwise made available for review by the *Project Manager* or the *Project Manager's* nominated Representative.

Such meetings should at least address:

- Accident / safety incidents
- Hazardous conditions
- Hazardous materials / substances
- Work procedures
- Protective clothing / equipment
- Housekeeping
- General safety topics
- Job or work look-ahead issues
- Safety statistics
- Significant Safety Occurrences (SSO)

The *Contractor* must conduct at least one formal safety meeting per month and must maintain appropriate records of attendance and meeting content. Such records are made available to the *Project Manager's* Representative. In addition to Daily Safe Task Instructions, the *Contractor* must conduct at least weekly "toolbox" meetings to discuss safety issues and procedures.

b) Pre-Start Safety Briefings

The *Contractor* must hold documented Daily Safe Task Instructions with each work team before the start of each shift. Attendance records and brief topic notes is kept for auditing and record purposes.

c) Safety Review Meetings

The *Contractor's* Site Manager and a Site Safety Representative must take part in weekly safety review meetings between the *Contractor* and the *Project Manager* or the *Project Manager's* nominated Representative.

The *Contractor* must attend all project safety meetings as outlined in the Project Safety Management Plan.

d) Site Safety Review Committee

The *Contractor* complies with the requirements of the SSRC with respect to his own activities and others on the Site and Working Areas.

e) HAZOP Review

The *Contractor* participates in HAZOP reviews upon the instruction and direction of the *Project Manager*.

The reviews may include, but not be limited to, studies to ensure that the plant is built and operated as designed and that personal safety, employee health and environmental protection systems conform to the *Employer's* and legislative requirements.

f) Job Safety Analysis

The *Contractor* completes a JSA prior to carrying out any operation on the Site and/or Working Area to the approval of the *Project Manager*.

g) Lines of Communication

The following personnel act on behalf of the *Project Manager* and may communicate directly with the *Contractor* and his key persons with respect to the SMP:

- Construction Manager (CM)
- Project Site Safety Manager (PSSM)

6.3.10 Roles and responsibilities

The roles and responsibilities of the various personnel acting on behalf of the *Project Manager* with respect to the SMP and health and safety issues are as stated in the paragraphs following:

a) Construction Manager

The CM is responsible (in the context of the SMP only) for health and safety on the Site and Working Areas and reports to the *Project Manager*.

The CM specific tasks (in the context of the SMP) are:

- Implement the safety management system
- Monitor compliance to the established safety management system
- Ensure risk is at an acceptable level
- Ensure Consultant Construction Management Team are competent
- Provide for:
- Planning, organisation, leadership, and control

- Particular technical competencies for critical work
- Supervision and control on each shift
- Regular monitoring and assessment
- Workplace inspections

b) Project Site Safety Manager

The PSSM is responsible for ensuring that the Contractor complies with the SMP. The PSSM acts on behalf of the Project Manager.

The PSSM specific tasks (in the context of the SMP) are:

Define, in accordance with the HSSP, the:

- Safety program (instructions, training, meetings, inspections, incentive)
- Health and medical program
- Checks that Contractors have issued their Health and Safety plans, PPSPS and procedures before the beginning of work
- Organizes safety awareness campaigns
- Promotes communication on all health and safety matters (awards, incentives, meeting/inspections/audits reports)
- Checks conformance of equipment to technical requirements and regulations.
- Issues and address the site EHS activities reports
- Promotes everybody's best efforts to keep accident frequency and severity ratios at their lowest level
- Promotes a proper and continuous housekeeping of plant and temporary facilities in order to create the most suitable conditions for workers to work and to be encouraged to follow HSE requirements.
- Conducts worksite EHS walks with all Contractors, and directs appropriate corrective actions
- Monitors that all factors likely to improve health and safety are taken into consideration, particularly those which lead to:
 - Promoting personnel protection as an absolute requisite
 - Investigating, identifying, and neutralizing potential hazards

- Close coordination with all parties involved in construction in order to avoid overcrowded areas and dangerous operations.
- Thorough preparation of work critical phases
- Close contacts to local EHS authorities
- Continuous follow-up in order to correct immediately unsafe acts and situations.
- In case of accident, he takes actions necessary to:
 - Initiate quick interventions of the emergency means.
 - Check that first aid and evacuation of injured persons are properly carried out.
 - Obtain a clear accident report from the sub-contractor concerned.
 - Report immediately to the Construction Manager.
 - Investigate to identify the root causes of all incidents and near misses.

6.3.11 Commissioning Safety Study

The *Project Manager*, through his Construction Management Team, will facilitate and coordinate a formal Commissioning Safety Study and ensure that required procedures are prepared prior to the commencement of the commissioning phase.

The Commissioning Safety Study will provide a final checkpoint for the completed work and is part of the process for ensuring that all necessary actions have been completed. The elements to be considered include:

- Mechanical and electrical integrity systems are in place (e.g., equipment tests and inspections of critical equipment, quality control procedures, etc.) which will confirm that construction, equipment and materials are in accordance with design specifications.
- Formal hazard analyses for pre-commissioning and commissioning activities have been completed, appropriately documented, and communicated, and are available to all personnel.
- Punch-list work has been sufficiently completed so that installations are safe to apply hazardous energy.
- Documentation relevant to any modifications has been created/updated.
- Safe operating, maintenance and emergency procedures are in place.
- Operating and maintenance manuals are available, and training of commissioning employees has been completed.
- Red Line drawings are available.

- A Commissioning Permit (to apply hazardous energy) is developed and implemented.
- The *Project Manager* will ensure that after commissioning there is a formal documented hand over to operations and maintenance personnel and others who will be impacted by hazards that have been identified during project activities. This will involve communication of any changes to the process hazards, procedures, and operating philosophy. Safe systems of work will be established and updated throughout the Project. Safe systems of work will be subject to on-going review to ensure their effectiveness. Site-wide Permits to Work will be used as the basis of safe systems of work for specified hazardous activities.

6.3.12 **Working at Night**

A site-specific health and safety management plan should be well documented and structured so that both employers and employees can benefit from its use. The following are recommended components of a safety management plan for night example works.

a) Site personnel responsibility

It should be determined and stated clearly in the site-specific health and safety management plan the responsibility of each individual at construction site for night-time works. *Project Manager*, Engineers, Designers, Safety Officer and Site Supervisors as well as workers each have their specific responsibility to make sure the highest level of priority is given towards safety and health issues.

The *Contractor* must ensure adequate provision of safety officer personnel are present whenever working at night activities are taking place.

b) Permission to work at night

The *Contractor* shall apply in writing for permission to work at night and should be obtained from the relevant authority in this case the *Employer's Project Manager*, before construction works at night is carried out. The *Contractors* should submit their application for work at night permit to the *Employer's* Client representative and it is advisable to follow all requirements enforced by the authority to executing night-time construction works. It is recommended that the *Employer's* representative should also notified TNPA responsible personnel about intended night shift work. Dredging works in particular shall be a 24hr activity.

c) Housekeeping

Accidents can occur as a result of poor housekeeping. Hazards at construction site are the same for both day and night shift while the risks of injury are much higher during night works because of the inherent poor illumination. It is essential that the workplace is kept clean and tidy to ensure safety and prevent accidents.

d) Emergency Preparedness and Response (EPR)

The *Contractor* should develop and implement the EPR that is specifically night-time environment and submit for approval before work at night is carried out. A well-established EPR can help both Contractors and employees to prepare; response and recover should a disaster occurs.

e) Public safety

When construction works involves public area, it is important to make sure the safety of the public. The *Contractor* must consider the following when planning for night-time work; identify the hazards for example construction vehicle movement or too much glare from lighting equipment and plan for vehicular movement to not interrupt peak hours and make sure adequate supervision is provided for such movement.

The *Contractor* must provide sufficient signage to warn the public and put barriers at a safe distance to keep the public away.

Set up safe walkways where it is unavoidable to work near or in public vicinity.

Arrange noisy equipment or machinery at farthest point from the public or adopt an engineering control to reduce the noise.

When overhead crane is operating near the public, clear off the area and make sure adequate supervision is in place.

Schedule for daily cleaning of the adjacent public road and filling up holes as well as uneven surfaces.

f) Types of Risks and factors affecting night-time work.

In order to decide when to conduct night-time work, factors (parameters) affecting night-time work must be identified. The *Contractor* must ensure the following factors are identified:

- Risk
- Illumination
- Nuisances
- Productivity
- Cost
- Safety

The *Contractor* must ensure that they implement the following step in an effective risk management program as to identify possible risks. Specific concerns related to night-time work zones include poor visibility and work quality, staffing issues, unwanted noise and glare,

decreased worker and driver alertness, impaired drivers, higher vehicle speeds, increased labour costs, materials and traffic control, and problems in logistics and supervision. These risks are categorized broadly as safety, cost/production and schedule, quality, organizational relationships, technical, construction, economic, and environmental.

g) Risk

Night-time construction introduces numerous risks to a construction project. One clear set of examples is driver and worker fatigue and reduced visibility, which are factors that could increase safety risks. Other major factors contributing to the risks of night-time work are human factors such as sleep, stress, work, social or domestic issues, and psychological characteristics, such as appetite and safety. Additional factors associated with the risks of night-time construction work zones are reduced workspace for machinery and equipment movement, inadequate lighting, high speed of traffic during the night, and long working hours. Working at night does not supersede the requirements of the *Employer's Project Health and Safety Specification* (HAS-SP-01) that enforces compliance during day shift.

h) Document Control

All safety documents shall comply with the Project Document Control Procedures.

6.4 Environmental constraints and management

6.4.1 The *Contractor* complies with the following CEMP:

The *Contractor* performs the *works* and all construction activities within the Site and *Working Areas* having due regard to the environment and to environmental management practices as more particularly described within the SES and PES.

The SES describes the minimal acceptable standard for environmental management for a range of environmental aspects commonly encountered on construction projects and sets environmental objectives and targets, which the *Contractor* observes and complies.

The PES describes more particularly the environmental standards applicable to the *works*, the Site and the *Working Areas* and sets out variance (including additions) to the SES. The PES may require higher minimal standards than those described in the SES as may be required by the *Project Manager* or Others.

The overarching obligations of the *Contractor* under the CEMP before construction activities commence on the Site and/or *Working Areas* is to provide an environmental method statement for a particular construction operation at the Site and/or Working Area by the *Contractor* and were requested by the CM and to comply with the following:

Where relevant, method statements, as detailed in the SES and PES, shall be provided by the *Contractor*. These include, but are not limited to, the following where applicable:

- Establishment of construction lay down area
- Hazardous and non-hazardous solid waste management
- Storm water management
- Contaminated water management
- Prevention of marine pollution
- Hydrocarbon spills
- Diesel tanks and refuelling procedures
- Dust control
- Spoil dumping
- Sourcing, excavating, transporting and dumping of fill material
- Noise and vibration control
- Removal of rare, endemic, or endangered species
- Removal and stockpiling of topsoil
- Rodent and pest control
- Environmental awareness training
- Site division
- Emergency procedures for environmental incidents
- *Contractor's* SHE Officer
- Closure of construction laydown area

The *Contractor* shall ensure that his management, foremen and the general workforce, as well as all suppliers and visitors to Site have attended the Induction Programme prior to commencing any *work* on Site. If new personnel commence work on the Site during construction, the *Contractor* shall ensure that these personnel undergo the Induction Programme and are made aware of the environmental specifications on Site.

Where required, one of the first actions to be undertaken by the *Contractor* shall be to erect and maintain a temporary fence along the boundaries of the Site and Working Areas as applicable, and around any no-go areas identified on the layout plans, to the satisfaction of the *Project Manager*.

The plant search and rescue (if applicable) must be undertaken and completed prior to any Site clearance or any other construction activity that may damage the vegetation can commences on Site.

The *Contractor* must appoint an Environmental Officer (EO)/Safety, Health and Environmental (SHE) Officer to undertake environmental management on site. The EO/SHE officer should have relevant environmental qualifications and experience, and this must be approved by TCP before commencement of work on site.

During the construction period, the *Contractor* complies with the following:

A copy of the SES, and the relevant PES shall be available on Site, and the *Contractor* shall ensure that all the personnel on Site (including Subcontractors and their staff) as well as suppliers are familiar with and understand the specifications contained in the SES (as amended by the PES).

Method statements that are required during construction must be submitted to the *Project Manager/Construction Manager* for approval at least 20 days prior to the proposed commencement of the activity. Emergency construction activity method statements may also be required. The activities requiring method statements cannot commence if they have not been approved by the *Project Manager/Construction Manager*.

Where applicable, the *Contractor* shall provide job-specific training on an *ad hoc* basis when workers are engaged in activities, which require method statements.

The *Contractor* shall ensure that any Materials delivery drivers are informed of all procedures and restrictions (e.g., which access roads to use, no go areas, speed limits, noise, etc.) required by the CEMP before they arrive at Site and off load any Materials.

The *Contractor* shall be responsible for rehabilitating and re-vegetating all areas to the satisfaction of the *Construction Manager* as detailed in the SES and PES.

The *Contractor* shall clear and clean the Site and Working Areas and ensure that everything not forming part of the *works* is removed from the Site and Working Areas and that all rehabilitation has taken place in accordance with the PES and or relevant method statement. An Environmental Closure Certificate will then be issued by the Environmental Department and signed off by the *Project Manager*.

The *Contractor* complies with environmental inspections and audits as contained within Annexure ENV-STD-001.

The *Contractor* makes copies of the CEMP, SES and PES available at the offices of the *Contractor* on Site. The *Contractor* ensures that all personnel on Site (including Subcontractors) are familiar with and understand the requirements of the CEMP.

6.4.2 **The *Contractor* complies with the following:**

The Contractor shall identify the kinds of environmental impacts that will occur as a result of his activities and then prepare separate method statements describing how each of those impacts will be prevented or managed so that the standards set out in this document are achieved. These method statements will be prepared in accordance with the requirements set out in the CEMP.

To ensure that environmental issues are considered in the establishment of the Site offices and all other facilities on Site.

6.4.3 **The *Contractor* complies with the following PES:**

- a) The lines of communication of the various personnel acting on behalf of the *Project Manager* who communicate to the *Contractor* and his key persons with respect to the CEMP are contained in Section 5.2 of the CEMP.
- b) The roles and responsibilities of the various personnel acting on behalf of the *Project Manager* with respect to environmental issues are stated in Section 5.1 of the CEMP.
- c) The ProjEM is responsible for ensuring that the *Contractor* complies with the CEMP. The ProjEM acts on behalf of the *Project Manager*.
- d) The CM is responsible (in the context of the CEMP only) for environmental management on the Site and Working Areas and reports to the *Project Manager*. The CM acts on behalf of the *Project Manager*.
- e) The CSHEO submits daily, weekly, and monthly to the TP EO.
- f) The *Contractor* complies with the CEMP, SES and PES. The *Contractor* abides by the instructions of the *Project Manager* regarding the implementation of the CEMP.

6.4.4 **The *Contractor* complies with the following SES:**

The *Contractor* shall identify the kinds of environmental impacts that will occur as a result of his activities and then prepare separate method statements describing how each of those impacts will be prevented or managed so that the standards set out in this document are achieved. These method statements will be prepared in accordance with the requirements set out in the CEMP.

To ensure that environmental issues are considered in the establishment of the Site offices and all other facilities on Site.

Scope

The standard applies to all activities relating to the planning of the Site, Site establishment, operation of the Site and closure of the Site.

Site plan

The *Contractor* shall establish his construction camps, offices, workshops, staff accommodation and any other facilities on the Site and *Working Areas* in a manner that does not adversely affect the environment. However, before construction can begin, the *Contractor* shall submit to the *Project Manager* for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the *Contractor* proposes to put in place.

The plans shall detail the locality as well as the layout of the waste treatment facilities for litter, kitchen refuse, sewage, and workshop-derived effluents. The Site offices should not be sited in close proximity to steep areas. It is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course as possible. Regardless of the chosen Site, the *Contractor's* intended mitigation measures shall be indicated on the plan.

Sewage

Particular reference in the Site establishment plan shall be given to the treatment of sewage generated at the site offices and staff accommodation and at all localities on the Site where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of the CM.

Safe and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak-aways, dry-composting toilets such as "enviro loos", or the use of chemical toilets which are supplied and maintained by a *Subcontractor*. The type of sewage treatment will depend on the location of the Site and the surrounding land uses, the duration of the contract and proximity (availability) of providers of chemical toilets. Should a soak-away system be used, it shall not be closer than 800 metres from any natural watercourse or water retention system. The waste material generated from these facilities shall be serviced on a regular basis.

Toilets and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the *works*. Use of the veld shall not, under any circumstances, be allowed.

Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. The toilets shall also be placed outside areas susceptible to flooding. The *Contractor* shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly, and sanitary condition to the satisfaction of the *Project Manager*.

Effluent Management

All effluent water from the camp / office Sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, pans dams etc). Only domestic type wastewater shall be allowed to enter this drain.

Waste Management Objective

To ensure that all waste generated during construction and commissioning of the facilities is properly disposed of.

Examples of typical construction waste which, could be expected on the Site are indicated in the following table:

TABLE 2: EXAMPLE OF CONSTRUCTION WASTE CLASSIFICATION

WASTE	CLASSIFICATION	
	HAZARDOUS	NON-HAZARDOUS
Clean soil		X
Construction debris contaminated by oil or organic compounds	X	
Empty drums (depends on prior use)	X	X
Empty paint and coating containers		X
Waste paint and/or solvent	X	
Waste oil	X	
Phenolic waste	X	
Waste concrete		X
Rubble (not contaminated by oil or organic compounds)		X
Waste containing appreciable properties of fibrous asbestos	X	
Sewerage sludge	X	
Scrap metal		X
Explosive waste	X	
Waste timber		X
Waste Cable		X
PCB waste	X	

Waste plastic		X
Aerosol containers	X	
Batteries, light bulbs, circuit boards, etc.	X	X
Domestic waste		X

Scope

The standard applies to all construction, commissioning and Site activities that may lead to the generation of waste.

Approach

Waste is grouped into general or hazardous, depending on its characteristics. The classification determines handling methods and the ultimate disposal of the Material.

General waste to be expected during construction includes the following:

- Trash (wastepaper, plastics, cardboard, etc.) and food waste from offices, warehouses, and construction personnel.
- Uncontaminated construction debris such as used wood and scrap metal.
- Uncontaminated soil and non-hazardous rubble from excavation or demolition.

Hazardous waste is waste, which has the potential, even in low concentrations, to have a significant adverse effect on public health and/or the environment. This would be on account of its inherent chemical and physical characteristics, such as toxic, ignitable, corrosive, carcinogenic or other property.

Waste avoidance and minimisation

A ladder approach to waste management is encouraged. Waste should preferably be managed in the following order:

- Prevent: by waste avoidance and minimisation during production
- Recycle: waste recycling, recovery, and utilisation
- Treat: waste treatment in order to reduce toxicity and to minimise the quantities of waste
- Disposal: waste disposal, probably by incineration, destruction, or landfill

Waste Management

The *Contractor* is responsible for the removal from Site of all waste generated through the *Contractor's* activities. The *Contractor* shall ensure that all waste is removed to appropriate licensed waste management facilities.

- The classification of waste determines handling methods and the ultimate disposal of the Material. The *Contractor* shall manage hazardous wastes that are anticipated to be generated by his operations as follows:
 - Characterise the waste to decide if it is general or hazardous
 - Obtain and provide an acceptable container with label
 - Place hazardous waste material in container
 - Inspect the container on a regular basis as prescribed by the *Contractor's* waste environment management plan
 - Track the accumulation time for the waste
 - Haul the full container to the disposal Site
 - Provide documentary evidence of proper disposal of the waste

The EO will work in conjunction with the *Contractor's* construction safety and industrial hygiene personnel to create a *Contractor's* Hazardous Materials Management Program. This program will establish the necessary protocol for proper handling and removal of hazardous Materials on the Site.

Information on each hazardous substance will be available to all persons on Site with the EO. Training and education about the proper use, handling, and disposal of the material will be available to all workers who will be handling the Material.

The EO must be informed of all activities that involve the use of hazardous substances to facilitate prompt response in the event of a spill or release.

The *Contractor* shall manage NON-HAZARDOUS / GENERAL WASTE that are anticipated to be generated by operations as follows:

- Determine if waste is non-hazardous and obtain containers for waste storage
- Notify waste hauler when container is full so that it can be removed and replaced with an empty

On the Project, however, waste generating entities are directed to control the generation of non-hazardous waste by:

- Eliminating waste generation or reducing the total volume
- Reducing the degree of contamination of waste generated
- Reclaiming materials otherwise considered waste

The *Contractor* shall therefore recycle NON-HAZARDOUS / GENERAL WASTE that are anticipated to be generated by its operations as follows:

Obtain and label recycling containers for:

- Office Waste
- Aluminium and steel cans
- Glass Bottles
- Scrap Metals
- Waste Timber
- And locate them within temporary office building and trailers
- Establish recycled material collection schedule
- Arrange for full bins to be hauled away

Spent batteries, circuit boards, and bulbs, while non-hazardous, require special collection and handling.

Vehicle and Equipment Refuelling Objective

To eliminate / control fuel and oil spillage at refuelling facilities

Scope

The standard applies to all refuelling, lubrication and oil changing requirements on all vehicles and machinery.

Refuelling

Engine driven compressors, pumps, air conditioners, and arc welders can have small leaks (usually oil) that can accumulate to become spills, which require clean up. These leaks become more evident if the equipment remains in the same place for an extended period of time. Damaged fuel tanks, fuel hoses, and fuel pumps can be sources of significant fuel leaks. Hydraulic systems can blow gaskets or hoses resulting in large quantities of hydraulic fluid spilled to the ground and under lock and key arrangements.

Control

No vehicles or machines shall be serviced or refuelled on Site except at designated servicing or refuelling locations, no oil or lubricant changes shall be made except at designate locations, or in case of breakdown or emergency repair.

The *Contractor* shall store fuel and oil at a secure area, which shall be bunded and designed with a liner or paved surface to prevent spillage from entering the ground.

The *Contractor* shall provide details of its proposed fuel storage and fuelling facility to the EO for approval, the design shall comply with the regulations of the *Water Act* (Act 36 of 1998), the *Hazardous Substances Act* (Act 15 of 1973), and the *Environment Conservation Act* (Act 73 of 1989).

Spill Response

The *Contractor* shall comply with the regulations of the *Water Act* (Act 36 of 1998), the *Hazardous Substances Act* (Act 115 of 1973), and the *Environment Conservation Act* (Act 73 of 1989).

The *Contractor* shall provide details for approval of its spill response plan in the event of any spills of fuel, oils, solvents, paints or other hazardous Materials. The plan will show measures to be taken to remove contaminated soils from Site and demonstrate complete removal of contamination.

The *Contractor* shall instruct construction personnel on the following spill prevention and containment responsibilities:

- Repair all leaks of hydrocarbons or chemicals as soon as possible
- Take all reasonable means to prevent spills or leaks
- Do not allow sumps receiving oil or oily water to overflow
- Prevent storm water run-off from contamination by leaking or spilled drums of oil or chemicals
- Do not discharge oil or contaminants into storm sewer system

If a spill to land occurs, the *Contractor* is responsible for:

- Immediate action to stop or reduce the spill and contain it
- Actions necessary to prevent the spill from contaminating groundwater or off-Site surface water
- Disposal of contaminated Material to location designated thereto
- Any spill to water has the potential to disperse quickly; therefore, the spill must be contained immediately using appropriate containment Equipment.

If a spill to water occurs, the *Contractor* is responsible for:

- Immediate action to stop or reduce the spill and contain it
- Notifying the appropriate on-Site authorities
- Actions necessary to prevent the spread of the contamination by deploying booms and/or absorbent Material

- Proper disposal of spilled Material

Spray Painting and Sandblasting

Objective

To ensure that all spray painting and sandblasting on Site is done in a controlled manner where appropriate measures are taken to prevent paint contamination of the soil and to ensure that sandblasting grit/media is properly disposed of.

Scope

All spray painting and sandblasting on Site.

Spray Painting and Sandblasting

Spray painting and sandblasting should be kept to a minimum. All painting should as far as practicable be done before Equipment and Material is brought on Site. Touch up painting is to be done by hand painting or by an approved procedure. A method statement shall be submitted to the SHEC for approval.

The *Contractor* will inform the EO of when and where spray painting or sandblasting is to be carried out prior to commencement of *work*. The EO will monitor these activities to ensure that adequate measures are taken to prevent contamination of the soil.

NB: If the area is in confined or high areas then a protection plan is to be issued for approval.

Dust Management

Objective

The *Contractor* (associated with activities such as earthworks, geotechnical surveys, piling, storm water drainage, construction of roads and railways, foundations, brick building, operating workshops, fencing, erecting construction camps, and batch plant activities, etc.) shall submit a dust control plan for approval by the EO.

Scope

Control of dust on the construction Site and access roads

Dust Management

Material in transit should be loaded and contained within the load bin of the vehicle in such a way as to prevent any spillage onto the roads and the creation of dust clouds. If necessary, the load bin of the vehicle shall be covered with a tarpaulin to prevent dust.

Dust to be controlled on unsurfaced access roads and Site roads using sprayed water. The *Contractor* is responsible for managing dust generated as a result of his activities. The CM will be responsible for the dust control of the Site and *Working Areas*.

Some dust control measures, which are normally applied during construction, are presented in this section for inclusion by the *Contractor* in the *Contractor's* dust control method statement.

These dust-mitigating procedures include the following:

- Limit vehicle speeds on unpaved roads to 20 km/h
- Wash the paved surfaces within the construction area twice a week
- Minimise haulage distances
- Apply water to gravel roads with a spraying truck when required

Environmentally friendly soil stabilisers may be used as additional measures to control dust on gravel road and construction area

- Dust suppression measures will also apply to inactive construction areas. (An inactive construction Site is one on which construction will not occur for a month or more.)
- Construction Material being transported by trucks must be suitable moistened or covered to prevent dust generation.
- Strip and store topsoil in separate stockpiles with mounds not exceeding 2m in height to, among other things, to prevent wind-blown dust.
- Minimise disturbance of natural vegetation during right-of-way construction (e.g., transmission lines and erection of fences) to reduce potential erosion, run-off, and air-borne dust.
- Implement a system of reporting excessive dust conditions by construction personnel (as instructed through Environmental Awareness Training).

Water for dust control shall be taken only from approved sources.

Storm Water and Dewatering Management

Objective

To ensure that storm water and dewatering drainage across the Site occurs in a manner that will negate contamination by oils, fuels, litter, and other waste and that will prevent erosion of the construction terrace.

Scope

All dewatering activities

Storm Water and Dewatering Management

Water is a valuable resource in the area. Both the quality and quantity of water used by the *Contractor* should be considered in making resource conservation plans.

Potential construction phase impacts on surface water and groundwater are associated with construction are run-off and percolation, dewatering activities, and miscellaneous liquid wastes associated with construction activities.

In general, construction activities may affect water quality and/or quantity of ground water and/or surface water of the area.

The *Contractor* shall be aware that, apart from run-off from overburden emplacements and stockpiles, storm water can also be contaminated from batch plants, workshops, vehicle wash-down pads, etc., and that contaminates during construction can include hydrocarbons from fuels and lubricants, sewerage from Employee ablutions, even excess fertiliser from rehabilitation areas, etc.

The *Contractor* shall take cognisance of the fact that discharges to controlled waters such as the sea, rivers, or groundwater or to sewerage systems are controlled under the South African Water Legislation.

Surface run-off

Construction activities such as surface grading and excavation will disturb surface areas on Site. This will increase the potential for soil erosion and subsequent sediment transport during periods of precipitation run-off or when excavation dewatering is required. Construction activities also have the potential to change local surface drainage and sediment transport patterns, Site floodplain delineation, and percolation rates into the soil.

Dewatering

Dewatering during the groundwork produces a surface water discharge that may require collection and sedimentation. Dewatering has also the potential to effect groundwater quality and quantity.

Wastewater

Liquid wastes including used solvents, used lubricating oils, chemical flushing agents, spill clean-up wastes, painting wastes, and concrete mixing drum washings, etc., have the potential to affect surface water and groundwater quality.

General

- Temporary drainage must be established on Site during the construction period and until permanent drainage is in place. *Contractors* are responsible for maintaining the temporary drainage in their areas. The *Contractors* must provide secondary drainage that prevents erosion
- *Contractors* must ensure good housekeeping in their areas to prevent contamination of drainage water
- The *Contractor* shall clear stagnant water

Specific water Management measures (surface and groundwater) for incorporation by the *Contractor* in the CEMP include the following:

- The *Contractor* shall ensure that no contaminated surface water shall flow off Site as a result of *Contractor* operations. Silt traps shall be constructed to ensure retention of silt on site and cut-off ditches shall be constructed to ensure no run-off from the SITE except at points where silt traps are provided.
- If applicable, the *Contractor* shall be responsible for collection, management, and containment within the Site boundaries of all dewatering from all general Site preparation activities. The dewatering water shall be contained within the Site boundaries by sequentially pumping or routing water to and from sub-areas within the Site as the construction activities proceed. No discharge of dewatering water to off Site land or surface water bodies will be allowed
- On Site drainage shall be accomplished through gravity flow. The surface drainage system shall consist of mild overland slopes, ditches, and culverts. The graded areas adjacent to buildings shall be sloped away with a 5% slope. Other areas shall have a minimum slope of 0,2% or as otherwise indicated.
- Ditches shall be designed to carry a 25-years storm event with velocities in accordance to minimise erosion. Erosion protection shall consist of suitable stabilising surfaces in all ditches
- Culverts shall be designed to ensure passage of the 25-year storm peak run-off flow.
- Both structural and non-structural (vegetative) erosion control measures will be designed, implemented, and properly maintained in accordance with best management practices which will include the following:
 - Scheduling of activities to minimise the amount of disturbed area at any one time
 - Implementation of re-vegetation as early as feasible
 - Limiting construction traffic and/or avoidance thereof on access roads and areas to be graded to the extent feasible at drainage ditches.
 - Compacting loose soil as soon as possible after excavation, grading, or filling

- Using silt fences, geo-textiles, temporary riprap, soil stabilisation with gravel, diversionary beams or swales, small sedimentation basins, and gravelled roads to minimise transport of sediment.
- Implementing the erosion and sedimentation control plan and ensuring that construction personnel are familiar with and adhere to the plan
- Managing run-off during construction
- The *Contractor* shall be responsible for checking and maintaining all erosion and sedimentation controls

Rehabilitation

Objective

To ensure that all areas affected by the project are appropriately rehabilitated and revegetated in a manner congruent with the surrounding biophysical environment. The prevention of the spread of alien invasive species.

Scope

All areas affected by the project including laydown areas.

Rehabilitation

The *Contractor* shall rehabilitate their laydown area upon Completion of work on Site. A rehabilitation plan will be submitted to the EO for approval at least six weeks before Completion. The following are critical issues to be included in that rehabilitation plan:

- Details of soil preparation procedures including proposed fertilisers or other chemicals being considered for use.
- A list of the plant species that will be used in the rehabilitation process. Note that these should all be indigenous species, and preferably species that are endemic to the area. The assistance of an appropriately qualified botanist should be sought in developing this list.
- Procedures for watering the planted areas (frequency of watering, methodology proposed).
- An indication of the monitoring procedures that will be put in place to ensure the successful establishment of the plants (duration and frequency of monitoring, proposed criteria for declaring the rehabilitation successful).
- Procedures for the prevention of the establishment and spread of alien invasive species.

Noise Management

Objective

To maintain construction noise at the Site within required limits.

Scope

Construction noise at the construction Site.

Noise Management

- Keep all Equipment in good working order
- Operate Equipment within its specification and capacity and don't overload machines
- Apply regular Maintenance, particularly with regards to lubrication
- Operate Equipment with appropriate noise abatement accessories, such as sound hoods

Noise control measures for incorporation by the *Contractor* in its noise control plan shall include the following:

- Ensure that the potential noise source will conform to the South African Bureau of Standards recommended code of practice, *SABS Code 0103:1983*, so that it will not produce excessive or undesirable noise when it is released.
- All the *Contractors'* Equipment shall be fitted with effective exhaust silencers and shall comply with the South African Bureau of Standards recommended code of practice, *SABS Code 0103:1983*, for construction plant noise generation.
- All the *Contractors'* vehicles shall be fitted with effective exhaust silencers and shall comply with *Road Traffic Act* (Act 29 of 1989) when any such vehicle is operated on a public road.
- If on Site noise control is not effective, protect the victims of noise (e.g., earplugs) by ensuring that all noise-related occupational health provisions are met. (*Occupational Health and Safety Act* (Act 85 of 1993)).
- Normal machine working hours will be 06:00 – 22:00 Monday to Saturday. Outside these hours machine operations will be subject to approval. This does not define shift hours

Protection of heritage resources

Objective

To ensure the protection of archaeological, historical artefacts, or heritage resources discovered during construction activities.

Scope

Archaeological, historical artefacts or heritage resources discovered on or near the Site.

Archaeological Sites

If an artefact on Site is uncovered, work in the immediate vicinity shall be stopped immediately. The *Contractor* shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the engineer of such discovery. The South African Heritage Resources Agency is to be contacted who will appoint an archaeological consultant. The *work* may only resume once clearance is given in writing by the archaeologist.

Discovery of an item of historical value or stopping the works would fall under compensation events 60.1(4) and/or (7), despite the manner in which the Works Information is written here.

Graves and middens

If a grave or midden is uncovered on Site, or discovered before the commencement of *work*, then all *work* in the immediate vicinity of the graves/middens shall be stopped and the engineer informed of the discovery. The National Monuments Council should be contacted and in the case of graves, arrangements made for an undertaker to carry out exhumation and reburial. The undertaker will, together with the National Monuments Council, be responsible for attempts to contact family of the deceased and for the Site where the exhumed remains can be re-interred.

Fire prevention

Objective

To minimise the risk of uncontrolled fires.

Scope

All activities on or near the Site that could initiate an uncontrolled fire.

Fire control

Fires shall only be allowed in facilities or Equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office Sites. All conditions incorporated in the requirements of the Occupational Health and Safety Act shall also be implemented.

Supply of water for human use

Objective

To ensure that there is an adequate, safe water supply for all personnel on Site.

Scope

Managing the water supply on Site and controlling the abstraction of water from natural resources in the area.

Collection of water from natural resources

No water for domestic use (drinking water or for bathing or washing) shall be abstracted from any water resource (stream, river, or dam) without the express permission of the *Project Manager*. Such permission shall only be granted once it can be shown that the water is safe for use that there is sufficient water in the resource to meet the demand, and once permission has been obtained from the Department of Water Affairs in accordance with the requirements of the Water Act.

Provision of drinking water

Water for human consumption shall be available at the Site offices and at other convenient locations on site. The generally acceptable standard is that a supply of drinking water shall be available within 200m of any point on the construction Site.

Protection of livestock or game and the collection of firewood

Objective

To prevent illegal activities potentially perpetrated by Site staff and to prevent the killing of any animals trapped in construction *works* or discovered on the construction Site or surroundings.

Scope

Managing the activities of Site staff during and after hours

Poaching of livestock or game

On no account shall any hunting or fishing activity of any kind be allowed. This includes the setting of traps, or the killing of any animal caught in construction *works*.

Killing of animals

On no account shall any animal, reptile or bird of any sort be killed. This specifically includes snakes or other creatures considered potentially dangerous discovered on Site. If such an animal is discovered on Site an appropriately skilled person should be summoned to remove the creature from the Site. Consideration should be given to selection and nomination of such a person prior to Site establishment. Where appropriate, training should be provided to at least two Site staff members.

Collection of firewood

The *Contractor* shall provide adequate facilities for all his staff so that they are not encouraged to supplement their comforts on Site by accessing what can be taken from the natural surroundings. The *Contractor* shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

Environmental Awareness Training

An Environmental Awareness Program is considered a necessary part of the Construction Environmental Management Plan for the Project. Training of the appropriate construction personnel will help ensure that all environmental regulations and requirements are followed to be defined in the relevant Method Statement to be prepared by the *Contractor*.

Objectives of environmental awareness training are:

- Environmental Management – protecting the environment from the effects of construction by making personnel aware of sensitive environmental resources
- Regulatory compliance – complying with requirements contained in project – specific permit conditions, also complying with requirements in regional and local regulations
- Problem recognition and communication – training personnel to recognise potential environmental problems, i.e., spills, and communicate the problem to the proper person for solution
- Liability control - non-compliance with regulatory requirements can lead to personal and corporate liability.

All individuals on the Project construction Site will need to have a minimum awareness of environmental requirements and responsibilities. However, not all need to have the same degree of awareness. The required degree of knowledge is greatest for personnel in the Safety, Health, and Environmental Sections and the least for the manual personnel.

The *Contractor* shall keep a record of all the environmental related training of the personnel.

6.5 Quality assurance requirements

6.5.1 The *Contractor* shall have, maintain, and demonstrate its use to the *Project Manager* (and/or the *Supervisor* as appropriate) the documented Quality Management System to be used in the performance of the works. The *Contractor's* Quality Management System shall conform to International Standard ISO 9001 (or an equivalent standard acceptable to the *Project Manager*).

6.5.2 The *Contractor* submits his Quality Management System documents to the Project Manager as part of his programme under ECC Clause 31.2 to include details of:

- Quality Plan for the contract
- Quality Policy
- Index of Procedures to be used; and
- A schedule of internal and external audits during the contract

6.5.3 The *Contractor* develops and maintains a comprehensive register of documents that will be generated throughout the contract including all quality related documents as part of its Quality Plan.

6.5.4 The *Project Manager* indicates those documents required to be submitted for either 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 with the *Project Manager* responding to documents submitted by the *Contractor* for review or acceptance within the *period for reply* prior to such documents being used by the *Contractor*.

6.5.5 The Quality Plan means the *Contractor's* statement, which 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*.

6.5.6 Where specified, the *Contractor* shall submit a project quality plan to Transnet Property within 14 working days after the Contract start date. The quality plan shall detail how the *Contractor's* Quality System will be applied to the Scope of Work specified in the Contract, and shall address the following:

- Satisfying the technical and quality requirements of the Contractor's Scope of Work, and relevant elements of the applicable ISO 9001 standard,
- Include all quality activities relevant to the Scope of Work, identifying all procedures, reviews, audits, controls, and records used to control and verify compliance with the specified Contractual requirements,
- List of all applicable codes, standards, and specifications,
- 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,
- Include all proposed method statements (for site-based work activities),

- 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,
- Include a listing of all Quality Control Plans (QCP's), and associated Field Inspection Checklists (FIC's), as applicable,
- Identify in the Project Quality Plan any Sub-Contractor work,
- Include the proposed Authorised Inspection Authority (where applicable - for pressurised equipment and systems),
- Include a schedule / index of proposed quality records.

6.5.7 The Project Quality Plan shall be controlled and re-submitted for approval when required to incorporate any change necessary during the Contract duration to ensure that the document is maintained as an effective control, change management and records. The change management will be done to an agreed policy or procedure.

6.5.8 The Quality Policy mean the overall intentions and directions of the *Contractor* related to quality as formally expressed by top management.

6.5.9 The Index of Procedures means a list or schedule of the *Contractor's* Quality Control procedures that will be employed during the contract.

6.5.10 The *Contractor* shall provide material certificates for all materials supplied under this contract, in addition test certificates for all lifting and rigging equipment which is part of the gravity take up unit shall be provided. Certificates recording the balancing of the pulleys shall be provided.

6.6 Programming Constraints

6.6.1 The *Contractor* presents his first programme and all subsequently revised programmes (see ECC Clauses 31.2 and 32.1) in hard copy format printed in full colour in A3 size and in soft copy 'Native' format with activity layout files (Note that PDF soft copy versions are not acceptable). Within seven days of award of contract, the *Contractor* submits his Level 4 Programme to the *Project Manager* for acceptance, together with the associated works method statements and a supporting Basis of Schedule document.

6.6.2 The *Contractor* shows on each programme he submits to the *Project Manager*, the requirements as outlined in the ECC (Clause 31 and associated contract specific clauses). Additionally, the *Contractor* shows on each programme he submits all internal

procurement activities conducted by himself as well as associated works and/or deliveries of materials and/or services the *Contractor* procured via external parties.

6.6.3 The *Contractor* uses Primavera version 6 for his programme submissions or a similar programme software package equivalent to Primavera version 6 subject to the prior written notification and acceptance by the *Project Manager*.

6.6.4 The *Contractor* shows on his Accepted Programme and all subsequently revised programmes schedules showing the critical path or paths and all necessary logic diagrams demonstrating sequence of operations.

6.6.5 The *Contractor's* programme shows duration of operations in working days. A normal working week comprises five working days, each of eight working hours. Alternative working hours are to be submitted to the *Project Manager* for approval.

6.6.6 The *Contractor's* programme shows the following levels:

Level 1 Master Schedule – defines the major operations and interfaces between engineering design, procurement, fabrication and assembly of Plant and Materials, transportation, construction, testing and pre-commissioning, commissioning, and Completion.

Level 2 Project Schedule – summary schedules 'rolled up' from Level 3 Project Schedule described below

Level 3 Project Schedule – detailed schedules generated to demonstrate all operations identified on the programme from the starting date to Completion. Individual operations will be assigned codes as agreed with the *Project Manager*, this will be agreed post Contract award. The *Project Manager* notifies any subsequent layouts and corresponding filters on revised programmes

Level 4 Project Schedule – detailed discipline speciality level developed and maintained by the *Contractor* relating to all operations identified on the programme representing the daily activities by each discipline

6.6.7 The *Contractor* shows on each revised programme he submits to the *Project Manager* a resource histogram showing planned progress versus actual, deviations from the Accepted Programme and any remedial actions proposed by the *Contractor*.

6.6.8 The *Contractor* submits progress tracker sheet information to the *Project Manager* at least 1 (one) full working day prior to progress meetings at weekly intervals. Tracker reports are to have back-to-back relationships with Fabrication and GA Drawings with the works detailed such that all aspects of the works can be monitored and tracked

through its fabrication/construction sequence. Sheets to have work steps and weight factor percentages utilized to develop the progress tracking sheets. Where necessary multiple tracking sheets may be required to track each assembly member throughout its development.

- The *Contractor* submits programme report information to the *Project Manager* at least 1 (one) full working day prior to progress meetings at fortnightly intervals in addition to the intervals for submission of revised programmes stated under Contract Data Part One.

6.6.9 The *Contractor's* weekly programme narrative report includes:

- Level 4 Project Schedule – showing two separate bars for each task i.e., the primary bar must reflect the current forecast dates and the secondary bar the latest Accepted programme.
- 3-week Look ahead Schedule - showing two separate bars for each task i.e., the primary bar must reflect the current forecast dates and the secondary bar the latest Accepted programme.
- Manpower Histogram – reflecting actual, forecasted and planned activities
- Progress Tracker Sheets for Fabrication, Erection, Installation, Construction & Commissioning.
- S-curves – reflecting the actual percentage complete versus the planned percentage for the overall contract utilising the earned values as calculated by the detailed progress report.
- Detailed narrative status and performance of operations on the Site and Working Areas.
- Detailed narrative status and performance of operations outside the Working Areas.
- Deviation from the Accepted Programme register with associated action plans to rectify.
- Critical action items (Top 10)
- Key Risks (Top 10)
- Others (Will be advised after award) will operate on Site during the course of the Contract.

6.7 *Contractor's* management, supervision, and key people

6.7.1 *Contractor's* Project Manager

- The *Contractor* employs a Project Manager (CPM) as a key person under ECC3 Clause 24.1.
- The CPM is employed on a full-time basis and shall be site-based for the duration of the construction activities.
- The CPM must be familiar with, and have a solid understanding of, the operation of the NEC3 ECC and will have at least eight years' experience gained in a similar position on projects

operating the NEC3 suite of contracts. Where the CPM cannot demonstrate the required level of experience in the NEC3 suite of contracts, the *Contractor* arranges for training to be given by an experienced independent trainer in the understanding and application of those management procedures contained in the NEC Contracts.

6.7.2 ***Contractor's planner***

- The *Contractor* employs a Planner as a key person under ECC3 Clause 24.1.
- The Planner is employed and shall be on-site for progress measurements and in attendance at progress meetings to present programme and tracking sheet updates to the *Project Manager* for the duration of the contract.
- The Planner must be familiar with, and have a solid understanding of, the operation of the NEC3 ECC and Primavera Software Suite with at least five years' experience gained in a similar position on projects operating the NEC3 suite of contracts. Where the Planner cannot demonstrate the required level of experience in the NEC3 suite of contracts or the Primavera Software Suite, the *Contractor* arranges for training to be given by an experienced independent trainer in the understanding and application of those management procedures contained in the NEC Contracts & Primavera Software Suite.

6.7.3 ***Contractor's Safety Health and Environmental Officer***

- The *Contractor* employs a CSHEO as a key person under ECC Clause 24.1
- The CSHEO reports to the SHEC on the Site. The CSHEO ensures that the works (to include any part thereof) are subject to a prior environmental method statement(s) approved by the Construction Manager and ensures that the CEMP is implemented by the *Contractor* in a timely and proper manner. The CSHEO provides the *Project Manager* with all environmental method statements.

6.7.4 ***The CSHEO tasks are:***

- Daily, weekly, and monthly inspections of the Site and Working Areas. The *Contractor* is referred to Annexure 1 and 3 of the CEMP.
- Monitor compliance with the CEMP (to include the SES and PES) and the environmental method statements submitted to the *Project Manager*
- Reporting of an environmental incident (as defined in paragraph 6.4 of the CEMP) to the *Project Manager*.
- Attendance at all SHE meetings, toolbox talks, and induction programmes as envisaged in the Standard Environmental Specification.
- Litter control and ensuring the *Contractor* clears litter from the Site and Working Areas and ensuring that environmental signage and barriers are correctly placed.

- The CSHEO submits daily, weekly, and monthly checklists to the SHEC. Report templates are included in the Starter Pack issued to the *Contractor* at the Kick-off Meeting hours, conditions of employment, work permits, etc. The *Contractor* shall further adhere to the requirements of any Industrial Relations Policy of the *Employer* applicable to the particular area, detail of which would be made available by the *Project Manager* when requested.
- The *Contractor* employs a CIRP as a key person under ECC Clause 24.1.
- The CIRP is based on the Site and ensures that all reports and IR requests are submitted accurately and in a timely manner to *Project Manager*, CM, PIRM, PSIRM or SIRM].
- The CIRP tasks are:
 - Dedicated to human resources, industrial relations, and any other *Contractor's* employee related function,
 - Resolve all human resources and industrial relations matters arising from the *Contractor's* employees,
 - Represent the *Contractor* on the IRCC
- The *Contractor* employs an HSR as a key person under ECC Clause 24.1

The *Contractor* provides an Organogram of all his key people (both as required by the *Employer* and as independently stated by the *Contractor* under Contract Data Part Two) and how such key people communicate with the *Project Manager* and the *Supervisor* and their delegates of C3.1 *Employer's* Works Information.

6.8 Training workshops and technology transfer

6.8.1 Safety and Environmental Awareness

a) Inductions

The *Contractor* facilitates the following requirements for training workshops:

- The *Employer's* Site Induction - All personnel must complete the Project Site Induction prior to working on the site. The purpose will be to ensure that all personnel are made aware of and are conversant with the requirements of this Safety Plan, site rules, environmental requirements, cultural heritage, and community relations.
- *Contractor* Job Specific Induction - All personnel shall complete Job Specific Inductions for the contracted works prior to commencing work. These inductions will be the responsibility of specific contractors

- Visitors - A Visitors Safety Induction program will be established at all sites explaining the site, the conditions applicable to their entry onto site and the necessary PPE they will be required to wear.
- Site Pass - All personnel who attend and satisfactorily complete each induction shall be issued with a photo identification site pass. The site pass will record information in acknowledgment that they have attended the induction program. The site pass is to be carried at all times on site.

b) Contractor's Training Programs

Contractor's training programs will include coverage of the following where relevant to individual's duties:

- The Project's Safety Plan
- Contractor's Safety Plans
- Fitness for Work
- Operating mobile plant
- Slinging and moving loads and using lifting devices
- Manual handling
- Working at height
- Purpose of inspections and inspection reports
- Contractor's site-specific inductions
- Confined space
- Hot work
- Prestart checks
- PPE use and training
- Isolation
- Scaffolding; and
- Hazardous substance handling, storage, and use

At the completion of all training, competency of individuals shall be validated by the trainer. This will be by means of an examination (written, oral or practical) or an assessment of the trained person's performance during the training. A record of safety training undertaken by each employee will be documented and retained permanently on a database and the employee's site identification and security card.

c) Competency

All personnel engaged to carry out work on the Project must have the necessary skills and knowledge and be competent to perform the tasks for which they have been employed. *Contractors* and new employees will be required to furnish proof by way of licences, permits, certificates or by recognition of prior learning (RPL) or by written certification by a qualified assessor of their skills, competencies, and knowledge of their work tasks.

No person may carry out any work on the Project unless proof of competency has been provided to the *Project Manager*.

d) Training Workshops and Technology Transfer for the Owner's personnel

The installation of the new plant will make a significant change in the operation and maintenance requirements. Both Operations and Maintenance personnel will be exposed to new technology

- 6.8.2 It is therefore essential that the *Contractor* provides comprehensive training (both theoretical and practical) to the *Employer's* staff members in the operation and maintenance of the works. On completion of the training, it is expected that the *Employer's* personnel will be able to deal competently with any out-of-course situation that may arise during daily operation
- 6.8.3 The *Contractor* compiles a Training Manual containing easy-to-understand notes on all the subject matter covered in the training courses. Separate manuals may be prepared for Operations training and Maintenance training. Each Learner must receive a copy of the Training Manual for the course that he/she has attended. In addition, three copies of the Training Manual must be handed to the *Employer* for reference purposes.
- 6.8.4 All training must be completed before the commencement of hot commissioning. The *Employer* will not accept responsibility for the Operation and Maintenance of the conveyor until the training has been satisfactorily completed.
- 6.8.5 The *Contractor* submits a Training Programme to the *Project Manager* for review no later than two weeks before the commencement of the cold commissioning. Because the *Employer's* personnel are engaged on shift work, it may be necessary to schedule a number of training courses at different times in the day.
- 6.8.6 The *Contractor* maintains an accurate record of the training given and is to submit a report on completion of the training. The report will include, but not be limited to, details of the Trainer, the scope of the training, the duration of training on each topic and the *Employer's* personnel who received training.

6.9 Insurance provided by the *Employer*

6.9.1 Insurance provided by the *Employer* is contained in the Contract Data – Part 1.

6.10 Contract change management

6.10.1 No additional requirements apply to ECC Clause 60 series.

6.11 Provision of bonds and guarantees

6.11.1 The form in which a bond required by the conditions of contract (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

6.11.2 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.

6.12 Records of Defined Cost, payments & assessments of compensation events kept by Contractor

6.12.1 The *Contractor* keeps the following records available for the *Project Manager* to inspect:

- Records of design employee's location of work (if appropriate); and
- Records of Equipment used, and people employed outside the Working Areas (if applicable).

6.13 Procurement

6.13.1 Code of Conduct

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 the *Employer* must understand and support. These are:

- The Transnet Procurement Procedures Manual (PPM),
- 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 (B-BBEE), and
- The Anti-Corruption Act.

This code of conduct has been included in this contract to formally apprise the *Employer's* Suppliers of the *Employer'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 will not participate in corrupt practices and therefore 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, 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 decision stakeholders 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 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.
- Transnet does not engage with non-value adding agents or representatives solely for the purpose of increasing B-BBEE spend (fronting)

3. Transnet's relationship with suppliers requires us to clearly define requirements, 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, B-BBEE 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

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 Transnet.*

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

6.13.2 The Contractor's Invoices

a) When the *Project Manager* certifies payment (see ECC Clause 51.1) following an assessment date, the *Contractor* complies with the *Employer's* procedure for invoice submission.

b) The invoice must correspond to the *Project Manager's* assessment of the amount due to the *Contractor* as stated in the payment certificate.

c) The invoice states the following:

Invoice addressed to Transnet SOC Ltd,

Transnet SOC Limited's VAT No: 4720103177,

Invoice number,

The *Contractor's* VAT Number, and

The Contract number.

The invoice contains the supporting detail.

6.13.3 The invoice is presented either by post or by hand delivery.

6.13.4 Invoices submitted by post are addressed to:

Transnet SOC Ltd

Level 200,

Carlton Centre,

150 Commissioner St, Cbd,

Johannesburg,

2001

For the attention of The Contract Administrator, Transnet Property

6.13.5 Invoices submitted by hand are presented to:

Transnet SOC Ltd

Level 200,

Carlton Centre,

150 Commissioner St, Cbd,

Johannesburg,

2001

For the attention of The Contract Administrator, Transnet Property

6.13.6 The invoice is presented as an original.

6.14 People

6.14.1 Minimum requirements of people employed on the Site:

- a) Direct employment of all labour is preferred.
- b) Wherever possible, general labour shall be recruited from the communities that are local to the Port of Richards Bay.
- c) Recruitment of labour in and around the site is not permitted.
- d) Recruitment of personnel already employed within the Port of Richards Bay is expressly prohibited.
- e) All personnel shall provide proof of competency appropriate to their appointment.
- f) All personnel shall undergo medical examination prior to undergoing site induction and be certified fit to work on the site, with particular reference to working at heights.

6.14.2 The *Contractor* complies with the following PIRPMP

a) Contractor Liability

1. The *Contractor* warrants that it will be liable to Transnet 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.
2. The *Contractor* warrants that no negotiations or feedback meetings by the *Contractor's* employees shall take place on Transnet premises, whether owned or rented by Transnet.
3. The *Contractor* shall give notice to Transnet 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 Transnet's premises, whether owned or rented, and shall notify Transnet of all matters associated with such action that may potentially affect Transnet.

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.
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 Transnet with this plan and all updates to the Plan. The *Contractor* is responsible to communicate with its employees on site details of the plan.

b) Industrial Action by Contractor Employees

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.
2. The *Contractor* warrants that it will compensate Transnet for any costs Transnet incurs in providing additional security to deal with any industrial action by the *Contractor's* employees.
3. In the event of any industrial action by the *Contractor's* employees, the *Contractor* is obliged:
 - o To prepare and deliver to Transnet, 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.
 - o The Industrial Action Report must provide at least the following information:
 - Industrial incident report,
 - Attendance register,
 - Productivity / progress to schedule reports,
 - Operational contingency plan,
 - Site security report,
 - Industrial action intelligence gathered.
 - o The final Industrial Action Report is to be delivered 24 hours after finalisation of the industrial action.
 - o The management of the Contractor is required to hold a daily industrial action teleconference with personnel identified by Transnet to discuss the industrial action, settlement of the industrial action, security issues and the impact on delivery under the contract.

4. The resolution of any disputes or industrial action by the Contractor's employees is the sole responsibility of the Contractor.
5. Access to Transnet premises by the Contractor and its employees is only provided for purposes of the Contractor delivering its services to Transnet. Should the Contractor and its employees not, for any reason, be capable of delivering its services Transnet is entitled to restrict or deny access onto its premises and unless otherwise authorized; such person will be deemed to be trespassing.

- c) The Contractor performs the works having due regard to the PLA that are negotiated between the Employer and the appropriate trade unions on this contract.
- d) The Contractor complies with the requirements of the IRCC involving the engineering construction Contractors engaged (including all future Contractors) by the Employer
- e) The roles and responsibilities of the various personnel acting on behalf of the Project Manager with respect to IR issues are stated in the paragraphs following:
- f) The PIRM is responsible for ensuring that the Contractor complies with the PIRPMP. The PIRM acts on behalf of the Project Manager.
- g) The PIRM specific tasks are:
 1. To complete the PLA prior to the Contract Date; and
 2. To assign specific duties to the PSIRM.
 - o The PIRM specific tasks are:
 - The PSIRM is responsible for IR (to include the PLA) on the Site and Working Areas and reports to the *Project Manager*.
 - o The SIRM is responsible, inter alia, for day-to-day IR on the Site and Working Areas through the implementation of the PIRPMP. The SIRM reports directly to the PSIRM and the Project Manager.
 - o The SIRM specific tasks are:
 - 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 under the SIP

6.15 Subcontracting

6.15.1 Preferred subcontractors

There are no preferred sub-Contractors.

6.15.2 Subcontract documentation, and assessment of subcontract tenders

The use of subcontracts from the NEC suite of contracts (i.e., Engineering and Construction Subcontract (ECS) or Engineering and Construction Short Subcontract (ECSS)) is strongly recommended. It is not necessary for subcontracts to be awarded on the basis of competitive tendering. The *Contractor* submits the proposed conditions of contract for each subcontract to the *Project Manager* for acceptance.

6.15.3 Where the aggregate value of a sub-contract (or any other contract) placed by the *Contractor* with a Subcontractor exceeds the project budget in Rands or its equivalent in another foreign currency, the *Contractor* shall procure that the Subcontractor follows the requirements of the National Industrial Participation Programme as described under paragraph 4.1 of the Works Information.

6.15.4 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 CEMP, SES and PES (described under paragraph 6.4 of the Works Information) as appropriate and that the subcontract documentation places back-to-back obligations on the Subcontractor which reflect the *Contractor's* obligations under the CEMP, SES and PES, all within the *Contractor's* Quality Management System as per paragraph 6.5 of the Works Information.

6.15.5 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 (described under paragraph 7.3.2 of the Works Information) 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 paragraph 6.5 of the Works Information. Note from Compiler to reviewers: this is the reference stated in the template.

6.15.6 The *Contractor* requires a Subcontract, where an NEC3 contract is used, to state the same main option A as this contract between the Contractor and the *Employer*. For all elements of the *works*.

6.15.7 Limitations on subcontracting

The *Contractor* may not subcontract more than 25% [twenty-five per cent] of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than

the *Contractor*, unless the contract is subcontracted to an EME that has the capability and ability to execute the subcontract.

6.15.8 Attendance on Subcontractors

- The *Contractor* shall ensure that the quality assurance requirements placed on him under this Contract are transferred into any subcontracts.
- Quality system requirements shall be applied on all subcontracts to the point where the acceptability of supplies can be demonstrated solely by the conduct of inspection and/or examination of goods upon receipt at the designated point of delivery.
- The *Contractor* must notify the *Project Manager* of all inspections at his sub-*Contractors* at least 3 working days in advance of such inspections. The *Contractor* must ensure that his sub-Contractor has the relevant quality management plans available at such inspections. The *Supervisor* will give the Contractor 24-hour notice in writing of his intention to be present at the inspections.

6.16 Plant and Materials

6.16.1 Quality

The *Contractor* provides Plant and Materials for inclusion in the works in accordance with SANS 1200A sub-paragraph 2.1, 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 elsewhere in this Works Information or as may be subsequently instructed by the *Project Manager*.

Where Plant and Materials for inclusion in the works originate from outside the Republic of South Africa, all such Plant and Materials are new and of merchantable quality, to a recognised national standard, with all proprietary products installed to manufacturers' instructions.

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.

6.16.2 Plant & Materials provided "free issue" by the *Employer*

a) The *Employer* provides the following Plant and Materials for the *Contractor* to use in the works:

- Nil

b) The *Contractor* provides all other Plant and Materials necessary for the works

6.16.3 **Contractor's Procurement of Plant and Materials**

The *Contractor* performs the following with respect to Plant and Materials procured for the works:

- a) Submit manufacturers' certificates of origin,
- b) Submit manufacturers' test certificates detailing the international standard or code of practice under which the testing was performed,
- c) Ensure that the English language is used for data plates attached to components
- d) Arrange for all manufacturer and vendor warranties to be vested in the *Employer*,
- e) Any shipment originating from outside the Republic of South Africa is inspected immediately prior to shipment to confirm its condition and a condition report delivered to the *Project Manager*.
- f) All shipments are to be opened on site and inspected for transit damage in the presence of the *Supervisor*. The *Contractor* compiles a damage report, signed and countersigned by the *Contractor* and *Project Manager*, and submits this to the *Contractor's* insurance broker (see notes at Contract Data - Part One) with copies to the *Project Manager* and the *Employer*.
- g) All warranties provided by manufacturers of Plant and Materials procured by the *Contractor*, either directly or through sub-contracts, for incorporation in the works are to be in favour of the *Employer*.
- h) Provides a waiver of lien in respect of goods that have been supplied but not yet incorporated in the *works* and for which the *Contractor* claims payment.

6.16.4 **Schedule of spares and consumables**

The Contractor provides a schedule of recommended spare parts for the complete conveyor system, including ancillary equipment. The recommended spare parts list should cover the anticipated requirement for a minimum of 12 months operation of the plant from hand-over.

The following data is to be listed for each item:

- Part Description,
- Positional Assembly Indication,
- Part/Drawing Number,
- Quantity Used,
- Quantity Recommended,
- Delivery Time and Price,
- Vendor Details.

6.16.5 The *Contractor* identifies on the schedule those spare parts which are regarded as essential for the continuous operation of the plant.

6.16.6 The *Contractor* submits the schedule of spares and consumables as indicated in the CDS.

6.16.7 Provision Of Spare Parts and Consumables

The *Contractor* provides the first fill of lubricants. All lubricants must comply with the Original Equipment Manufacturer's specifications and requirements. Wherever possible, lubricants that are already in use by Transnet Port Terminals should be selected to minimise stock holding and inventory costs.

The *Contractor* provides all spare parts and consumables that may be required during commissioning of the plant, including the performance test.

The *Contractor* does not supply any other spare parts or consumables. However, the *Contractor* must guarantee availability within 24 hours of all parts that may be required for breakdown repairs during the Defect Period.

6.17 Tests and Inspections before Delivery

The Supervisor may, at his discretion, perform surveillance inspection at the *Contractor's* premises, Sub-Contractor's premises or at the location of the Scope of Work.

Dependent on the nature of the Scope of Work and the frequency of inspections the *Supervisor* may elect to have inspection personnel resident at the place of manufacture, fabrication, or assembly.

The *Contractor* shall ensure free entry and access is given to the *Supervisor* (or his representative), certifying authorities and statutory authorities to inspect the Scope of Work and review procedures and quality records at all parts of the *Contractor's* and Sub- Contractor's premises, or at the location of the Scope of Work while any work or test is in progress.

The *Contractor* shall provide the Supervisor with all necessary tools, calibrated measuring equipment, safety equipment and workspace to verify or witness tests in progress.

Where the *Supervisor* cannot easily visit the *Contractor's* or Sub-contractor's premises for any reason, the *Supervisor* may direct that the tests and inspections be undertaken by an approved inspection authority or independent nominated consultant.

Where inspections and test are carried out by such inspection authority, the Contractor submits to the *Supervisor* details to certify that tests and inspections have been carried out on Plant and Materials by Others.

6.18 Marking Plant and Materials outside the Working Areas

The *Contractor* prepares and marks items of Plant and Materials outside the Working Areas with 'Property of Transnet SOC Ltd' and the Contract number.

Plant and Material outside the Working Areas are to be clearly and indelibly marked using hard stamping, or security tags. The *Contractor* provides designated areas sealed off from the rest of the manufacturer's production run in which to store Plant and Material that complete and is awaiting delivery to site.

The *Contractor* delivers digital photographs to the *Supervisor* as proof of marking and storage in designated areas.

6.19 Contractor's Equipment (including temporary works).

The *Contractor* provides all Equipment necessary to provide the works in a safe and efficient manner.

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.

The *Contractor* shall notify the PSSM 24 hours in advance prior to bringing any new mobile equipment on site. All required documentation and certificate of fitness (COF) issued by a competent person shall accompany the equipment.

The *Contractor* shall inspect Equipment on a daily basis prior to use in accordance with statutory regulations and legislation.

The *Contractor* shall ensure that all Equipment complies with statutory requirements (Construction Regulations / Occupational Health and Safety Act) and with the Health and Safety Standards.

ANNEXURES

ANNEXURE 1: TECHNICAL SPECIFICATION FOR THE NATIONAL SMART METERING SYSTEM

ANNEXURE 2: NATIONAL AREA DISTRIBUTION FOR THE INSTALLATION OF SMART METERS