PART C3: SERVICE INFORMATION

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C3.1 Service Information

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1 Description of the *service*

1.1 Executive overview

The *service* that the *Contractor* is to perform *includes:*

1.1.1 Design, Supply/Repairs/Modification, Installation, Testing and Commissioning of 3 kV DC, 25kV and 50kV AC Traction substation equipment.

1.1.2 Design, Supply/Repairs/Modification, Installation, Testing and Commissioning of 11 kV AC and 6.6 kV AC distribution substation equipment.

1.1.3 The service will be performed within Cape and Ore Corridors:

Corridor	Depot	Traction Subs	Distribution Subs	Total Subs
Cape	Bloemfontein	N/A	27	27
	Kimberley North	38	29	67
	Kimberley South	16	14	30
	East London	4	7	11
	Port Elizabeth	18	25	43
	Bellville	32	27	59
Ore	Saldanha	8	5	13
	Total Number of Western Region Substations			**250**

1.1.4 The service provides for emergency and urgent repair work of Traction and Distribution substations commencing on the date of notification and acceptance of tender with Transnet Rail Infrastructure Manager (TRIM) for a period of 24 months on “As and When” contract for breakdowns / urgent maintenance work.

1.1.5 Implementation requirements will differ from site to site, depending on the scope of required service per site. However, adherence to the project’s technical specification is mandatory.

1.1.6 CIDB BUILD PROGRAM REQUIREMENTS

Standard for Developing skills through Infrastructure Contracts CIDB Grade 7 – 9

The Contractor shall determine the CSDG, expressed in Rand, which shall not be less than the sub-total multiplied by a percentage (%) factor of 0,25 for Civil Engineering. The percentage (%) factor is stated in the Final Tender Summary section of C2.2 Pricing List.

1.2 Employer’s objectives

The *Employer*’s objectives are

1.2.1 That the "As and When" contract for Traction and Distribution substation repairs will serve as a proactive strategy that enables Network Asset Maintenance (NAM) to speedily respond to costly unavailability of the electrical infrastructure due to substation failures

1.3 Access to the Affected Property

1.3.1 It is the contractor's responsibility to conduct route survey prior to delivery of equipment to affected property, where necessary the contractor shall further make arrangements with affected municipalities and other parties.

1.4 Provisions

1.4.1 The Contractor shall provide all necessary Plant and Equipment, Security of the affect property, ablution facilities, etc. until the affected property is handed over back to Transnet.

1.5 Tests and inspections before and during the Provision of the Service as per Service Information

1.5.1 Factory Acceptance Tests shall be conducted on equipment prior delivery to site as per applicable inhouse specifications and Engineering standards. Transnet representative/s shall be present as a witness when these tests are performed

1.5.2 Site Acceptance Tests shall be performed on site to ensure that no damages happened on the equipment during transportation

1.5.3 Testing and Commissioning shall be performed upon completion of all installation activities as a quality assurance that the whole service rendered is adequate and complies will all Engineering and Safety Standards.

1.6 Interpretation and terminology

The following abbreviations are used in this Works Information (Complete at the end)

Abbreviation	Meaning given to the abbreviation
TRIM	Transnet Rail Infrastructure Manager
TFR	Transnet Freight Rail
AC	Alternating Current
DC	Direct Current
kV	Kilo Volt
SCS	Supply Chain Services
PFMA	Public Finance Management Act
SANS	South African National Standard
IP	Intellectual Property
SMP	Safety Management Plan
QA	Quality Assurance

2 Engineering and the Contractor's design

2.1 Employer's design

2.1.1 The *Employer*'s designs are already contained in relevant Transnet specifications. Should the contract need to use the relevant specifications, reference will be made as and when required.

2.1.2 Section 4, below, contains the specifications the contractor can use.

2.1.3 The *Employer* grants the *Contractor* a licence to use the copyright in design data presented to the *Contractor* for the purpose of the *services*.

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

2.2.1 The *Contractor* is to design the outdoor yard equipment and indoor substation equipment as specified in relevant Transnet specifications listed in clause 4, below. Latest applicable SANS and IEC standards shall also be adhered to, however where they conflict with Transnet specifications, the contractor shall seek for approval from Transnet before application.

2.2.2 The *Contractor* is responsible in his design for the overall integration of the design of the works with the design of the *Employer*.

2.2.3 Unless expressly stated to form part of the design responsibility of the *Employer*, 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, before installation or implementation, supply the *Employer* with the design to be reviewed.

2.3.2 The *Contractor* undertakes design safety reviews

2.3.3 In undertaking the 'Services' (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the 'Contractor Document Submittal Requirements'

2.4 Review and Acceptance of Contractor's Design

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

3 SERVICE

The *Contractor*'s design shall comply with Transnet's latest specifications of BBB 5452, CEE-0111_ISS_2019 and BBD 6774.

3.1 Temporary *service*, Affected Property & constraints on how the Contractor Provides the Service

3.1.1 Affected Property entry and security control, permits, and Affected Property regulations - the *Contractor* complies with the Employer's Affected Property entry and security control, permits and Affected Property regulations.

3.1.1.1 The contractor shall only use entrances and exits specified on site access certificate and/or those agreed with the *Employer*.

3.1.2 Restrictions to access on Affected Property, roads, walkways and barricades:

3.1.2.1 The *Contractor* is specifically excluded from entering the Employer's Operational Areas which are adjacent to the Affected Property. The *Contractor* plans and organises his work in such a manner so as to cause the least possible disruption to the Employer's operations.

3.1.2.2 The *Contractor* ensures safe passage of his team, to traffic and around the Affected Property working areas at all times which includes providing flagmen.

3.1.2.3 There may be other restrictions once on site, plus rules relating to roads, walkways and the provision of barricades.

3.1.2.4 The *Contractor* ensures that all his Service staff, labour, and Equipment remains within his allocated and fenced off working Area.

3.1.3 People restrictions on Affected Property; hours of work, conduct and records: The *Contractor* keeps daily records of his people engaged on the Affected Property with access to such daily records available for inspection by the *Service Manager* at all reasonable times.

3.1.4 The *Contractor* shall only work on and/or occupy space/area within the *Employers* boundaries.

3.1.5 Any property outside what the *Employer* allowed the contractor to work on shall be deemed off limits, to the *Contractor*, his people and/or his sub-contractors.

3.1.6 The hours of work for the *Contractor* on site shall be as agreed with the *Employer*.

3.1.7 The *Contractor* keeps daily records of his people engaged on the Affected Property and Working Areas (including Subcontractors) with access to such daily records available for inspection by the *Service Manager* at all reasonable times.

3.1.8 Health and Safety compliance will be evaluated as per the Tenderer Safety Plan.

3.1.9 All material arising from excavation and demolition shall be dealt with in accordance with Transnet specification E7/1.

3.1.10 The *Contractor* performs the *services* and co-operates with the *Employe*r, and/or *Others (third parties)* where the Contractor's work may affect or interfere with their activities.

3.1.11 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 *Service Manager*.

3.1.12 *Contractor*'s Equipment shall be handled in accordance with the Transnet specification E7/1.

3.1.13 The *Contractor* keeps daily records of his Equipment used on the Affected Property and the Working Areas (distinguishing between owned and hired Equipment) with access to such daily records available for inspection by the *Service Manager* at all reasonable times.

3.1.14 The *Contractor* shall handle his/her equipment in accordance to specification E4E.

3.1.15 The *Employer* shall provide no equipment for the *Contractor* to use.

3.1.16 The *Contractor* under any conditions shall not use *Employer*'s Equipment

3.1.17 The contractor shall ensure he/she makes provision for power, water, waste disposal, telecoms, ablutions, fire protection, lighting etc.

3.1.18 The *Contractor*, will provide no facilities to the employer, except the services agreed upon as stipulated in the contract.

3.1.19 Unless expressly stated as a responsibility of the *Employer*, all residual requirements for the provision of facilities and all items of equipment necessary for the *Contractor* to Provide the *Services* remains the responsibility of the *Contractor*.

3.1.20 The *Contractor* inspects and surveys the buildings / premises / facilities adjacent to the Site in accordance with and in conjunction with the *Service Manager.*

3.1.21 The *Contractor* provides the following information and survey controls:

3.1.21.1 site instruction book, and

3.1.21.2 site diaries.

3.1.22 The *Contractor*'s deep foundations and controlling of water from excavations will be dealt with in accordance with Transnet specification E7/1.

3.1.23 Underground services, other existing services, cable and pipe trenches and covers will be dealt with in accordance with Transnet specification E7/1.

3.1.24 Where the *Contractor* encounters existing underground services / existing services cables / pipe trenches. The Contractor shall not block, obstruct or damage any existing drains either above or below ground level unless he has made adequate prior arrangements to deal with such**.**

3.1.25 Control of noise, dust, water and waste, shall be dealt with in as per the Transnet specification E4E.

3.1.26 For sequences of construction or installation, the *Contractor* shall comply with all Transnet specifications and instructions provided to him/her.

3.1.27 The Constraints will be site specific and will be determined between the *Contractor* and the *Employer* or *Service Manager* for the project.

3.2 Completion, testing, commissioning and correction of defects.

3.2.1 Commissioning and Testing of substations shall be as per the Transnet specification BBF 8128.

3.2.2 The *Contractor* ensures that the documentation of the *commissioning and testing* is presented to the *Service Manager* before Completion.

3.2.3 The *Contractor* ensures that the *Service Manager* has a full and accurate dossier of As-built documents that represent the status of the completed *works* to present to the *Employer*.

3.2.4 The *Contractor* ensures that the *Service Manager* has a full and accurate dossier of maintenance and operating manuals before take-over or Completion.

3.2.5 The *Contractor* performs *performance tests* after completion of the *works* as specified in specification BBF8128.

3.2.6 The *Contractor* facilitates training *works*hops after completion of *works* where an equipment the *Employer* is not familiar with is installed

4 LIST OF REFERENCE SPECIFICATIONS

4.1 Specifications and Drawings issued by the *Employer*

This is the list of specifications issued by the *Employer* at or before the Contract Date, which apply to this contract.

Specification/Drawing number	Revision/Latest Version (where applicable)	Title
BBC0198	2	REQUIREMENTS FOR THE SUPPLY OF ELECTRIC CABLES
BBB0496	15	3 KV RECTIFIER FOR TRACTION SUBSTATIONS
BBB0845	4	REQUIREMENTS FOR METAL OXIDE SURGE ARRESTERS WITHOUT GAPS FOR TRACTION AND POWER DISTRIBUTION SUBSTATIONS IN ACCORDANCE WITH SANS 60099-4
BBB0937	4	REQUIREMENTS FOR OUTDOOR POST TYPE CURRENT TRANSFORMERS FOR TRACTION AND DISTRIBUTION SUBSTATIONS
BBB0938	9	CONNECTION OF HIGH VOLTAGE SURGE ARRESTER INSTALLED ON CROSS ARM
BBB1267	10	REQUIREMENTS FOR OUTDOOR ALTERNATING-CURRENT CIRCUIT BREAKERS FOR TRACTION AND DISTRIBUTION SUBSTATIONS
BBB1616	3	450 VOLT GAS ARRESTER SPARKGAP FOR TRACTION POWER SUPPLIES
BBB2502	6	REQUIREMENTS FOR BATTERY CHARGERS FOR 3 kV DC TRACTION SUBSTATIONS
BBB2721	11	AC PRIMARY CIRCUIT BREAKER CONTROL PANEL AND AC/DC DISTRIBUTION PANEL FOR 3 KV TRACTION SUBSTATIONS
BBB3005	2	3 KV DC UNDER VOLTAGE RELAY MANUFACTURING SPECIFICATION
BBB3139	2	WAVE FILTER CAPACITOR FOR 3 KV DC TRACTION SUBSTATIONS
BBB3162	2	WAVE FILTER INDUCTORS FOR 3 KV DC TRACTION SUBSTATIONS
BBB3483	1	WAVE FILTER HARMONIC COIL CARRIER ASSEMBLY 3 KV DC SUBSTATIONS
BBB3620	6	3 KV DC EARTHING ARRANGEMENT FOR HIGH VOLTAGE OUTDOOR YARDS
BBB3890	3	REQUIREMENTS FOR A 1.8 Milli Henry DC REACTOR FOR 3 KV DC TRACTION SUBSTATIONS
BBB4182	5	INDOOR, MEDIUM VOLTAGE METAL ENCLOSED SWITCHGEAR AND CONTROL GEAR IN ACCORDANCE WITH IEC-62271-200
BBB5019	7	REQUIREMENTS FOR TRACTION TRASNFORMERS FOR 3 KV DC TRACTION SUBSTAIONS IN ACCORDANCE WITH SANS 60076
BBB5452	7	TRANSNET FREIGHT RAIL'S REQUIREMENTS FOR THE INSTALLATION OF ELECTRICAL EQUIPMENT FOR 3 KV DC TRACTION SUBSTATIONS

BBB7842	1	OUTDOOR, HIGH VOLTAGE, ALTERNATING CURRENT DISCONNECTORS COMBINED WITH EARTHING SWITCHES
BBB8205	4	HIGH VOLTAGE SUPPLY OF TRANSFORMERS IN ARCCORDANCE WITH IEC 60076 AND BS 171 (FOR NOMINAL SYSTEM VOLTAGE 33KV UO TO 132KV)
BBC330	2	REQUIREMENTS FOR ISOLATION TRANSFORMERS
BBD6774	1	DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF A NEW 88 KV TO 11 KV INTAKE DISTRIBUTION SUBSTATION AND NETWORK CHANGES AT ERMELO
BBF8128		HANDBOOK FOR TESTING AND CALIBRATION OF RAILWAY ELECTRICAL PROTECTION EQUIPMENT
BBF3690	3	ELECTRICAL SAFETY INSTRUCTIONS
CEE0023	2012	INSTALLATION OF LOW AND MEDIUM VOLTAGE CABLES
CEE045	2014	PAINTING OF STEEL COMPONENTS OF ELECTRICAL EQUIPMENT
CEE0099	2013	3 KILO VOLTS DC HIGH SPEED CIRCUIT BREAKERS FOR TRACTION SUBSTATIONS
CEE0111	2019	25 KV AC TRACTION SUBSTATIONS
CEE0224	2002	DRAWINGS, CATALOGUES, INSTRUCTION MANUALS AND SPARES LISTS FOR ELECTRICAL EQUIPMENT SUPPLIED UNDER CONTRACT
CEE0227	2018	THE MANUFACTURE OF 3 KV DC BREAKER CELLS AND TRUCKS
CEE-TBD-1	12	3 KV DC EARTHING ARRANGEMENT SYSTEM FOR TRACTION SUBSTATIONS
E4E	2	TRANSNET FREIGHT RAIL SAFETY HEALTH AND ENVIRONMENT (SHE) SPECIFICATION FOR CONTRACTORS
BBD8210	1	E7/1 –SPECIFICATION FOR GENERAL WORK AND WORKS ON, OVER, UNDER OR ADJACENT TO RAILWAY LINES AND NEAR HIGH VOLTAGE EQUIPMENT
BBB0414	3	YARD LAYOUT, 25 KV AC TRACTION SUBSTATION

5 Health and Safety Information

5.1 Safety risk management

5.1.1 The safety management plan (SMP) will be site specific and will be dealt with in accordance with Transnet's specification E4E.

5.1.2 The *Contractor* ensures that its Subcontractors comply with the requirements of the SMP.

5.2 Environmental constraints and management

5.2.1 Environmental constraints and management shall be dealt with in accordance with Transnet specifications E7/1 and E4E.

6 Procurement

6.1 The Contractors' Invoices

6.1.1 The invoice states the following:

- Invoices addressed to Transnet SOC Limited
- Transnet SOC Limited's VAT No: 4720103177;
- Invoice Number;
- The Contractor's VAT Number; and

6.1.2 The invoice contains the supporting detail:

A bill format as per the tender document indicating previously paid, paid to date and amount due for the month.

The Invoice is presented either by post or email or by hand delivery

6.1.3 Invoices submitted by post are addressed to:

Mr. Nkanyiso Mhlongo
4th Floor, North Wing – Transnet Rail Infrastructure Manager
138 Eloff Street,
Braamfontein, JHB
2017

6.1.4 Invoices submitted by hand are presented to:

Mr. Nkanyiso Mhlongo
4th Floor, North Wing – Transnet Freight Rail
138 Eloff Street,
Braamfontein, JHB
2017

The invoice is presented as an original.