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C3.1: EMPLOYER'S WORKS INFORMATION

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1 Description of the works

The scope involves overhaul of 765kV Bus Coupler B blue phase inspect, clean, fit new seals, reassemble test and hand back. Work is outage based.

1.1 Executive overview

Alpha scope of work is as follows:

For the provision of Overhaul of gas Insulated System at Alpha Substation

- Open and isolate Gas Insulated System
- Release hydraulic pressure from mechanism
- Remove SF6 from interrupters to zero pressure
- Remove SF6 from adjacent compartments as per ABB safety requirements
- Open interrupter compartments and insert trolley
- Disconnect interrupters from actuating rods to mechanism
- Disconnect interrupters to other compartments
- Remove interrupters from tanks
- Dismantle interrupters and clean as per ABB procedure
- Re-assemble interrupters and put back into tanks
- Re-connect interrupters to other compartments and mechanism
- Fit new seals/filters on covers and start with vacuum process
- Fill interrupters and other compartments with SF6

1.2 Employer's objectives and purpose of the works

The purpose of this project is the overhaul of Alpha 765kV Bus Coupler B bay breaker as indicated in the scope of work.

1.3 Interpretation and terminology

The following abbreviations are used in this Works Information

Abbreviation	Meaning given to the abbreviation
AFC	Approved for construction
OBL	Outside battery limits
PM	Project Manager
QS	Quantity Surveyor
EA	Engineering Assistant
AFC	Approved for construction
H V	High voltage
kV	Kilo volt
ORHVS	Operating Regulations for High Voltage Systems

2 Management and start up.

2.1 Management meetings

Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Pre-inaugural meeting.	1 week after contract is signed.	Alpha Substation	<i>PM and company Director</i>
Inaugural meeting	As soon as possible after PO has been generated	Alpha Substation	<i>PM, QS, Site Supervisor, EA, Grid safety and environmental representatives and the Contractor.</i>
Toolbox talk and risk assessment	Daily before work begins.	Alpha Substation	<i>Contractor and Site Supervisor.</i>
Risk register and compensation events	As necessary.	Alpha Substation	<i>PM, Contractor and Site Supervisor.</i>
Overall contract progress and feedback	Monthly on site at 10:00.	Alpha Substation.	<i>PM, QS, Contractor, Site Supervisor, EA and Grid representatives.</i>

Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the works. Records of these meetings shall be submitted to the *Project Manager* by the person convening the meeting within five days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the *conditions of contract* to carry out such actions or instructions.

2.2 Documentation control

All correspondence is to be addressed to the *Project Manager* with a sequential numbering system.

2.3 Health and safety risk management

SGB-SMIT POWER MATLA will comply with Eskom's health and Safety rules and requirements, but SGB-SMIT POWER MATLA will not prepare a Health and Safety plan for this contract. SGB-SMIT POWER MATLA will only be responsible for Technical and Quality issues of this job. SGB-SMIT POWER MATLA will therefore work under the Eskom Representative nominated as "Construction Supervisor.

2.4 Environmental constraints and management

The Contractor is required to ensure that all goods, services or works supplied in terms of the tender/contract/order conform to all applicable environment legislation, Authorisations, EPC32-727: Eskom SHEQ Policy, ST32-726: SHE Requirements for the Eskom Commercial Process and Project Specific Environmental Management Plan (EMP).

SGB-SMIT POWER MATLA will comply with Eskom's Environmental rules and requirements but SGB-SMIT POWER MATLA will not be responsible for Environmental management

2.5 Quality assurance requirements

The Contractor shall control his activities and processes in accordance with Eskom's Quality Requirements for Procurement of Assets, Goods & Services QM 58.

2.6 Programming constraints

A comprehensive and fully detailed programme is to be submitted within the seven (7) days after the inaugural meeting and should be in MS Project format, indicating all milestones and critical dates. This programme must first be approved by the Project Manager and must be updated monthly or as requested by the Project Manager.

The following dates shall be clearly reflected on the programme:

Starting and completion dates for all activities as well as relevant key dates for hold or witness points. All relevant significant activities shall be shown in order to monitor the progress on site or in the workshop. The programme shall also reflect a 2-week period for inspection and correcting of Defects before the completion date.

Updated programmes must be available at all site meetings reflecting progress to date.

2.7 Contractor's management, supervision and key people

The Contractor is to submit an organogram showing all key people involved in the contract 7 days after contract award.

All key personnel must be appointed in writing, must be current for the specific site and area of work and must be kept on file.

2.8 Invoicing and payment

Within one week of receiving a payment certificate from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice showing the amount due for payment equal to that stated in the *Service Manager's* payment certificate.

The *Contractor* shall address the tax invoice to

Eskom
Transmission Finance
PO Box 31809
2017 Braamfontein

and include on each invoice the following information:

- Name and address of the *Contractor* and the *Service Manager*;
- The contract number and title;
- *Contractor's* VAT registration number;
- The *Employer's* VAT registration number 4740101508;
- Description of service provided for each item invoiced based on the Price List;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- (add other as required)

Add procedures for invoice submission and payment (e. g. electronic payment instructions)

2.9 Insurance provided by the Employer

As stated in "Format A" available on http://www.eskom.co.za/live/content.php?Item_ID=9248. (See Annexure B for basic guidance).

2.10 Contract change management

The contractor is not allowed to commence with additional work until a quotation for compensation events has been submitted, evaluated and approved by Project Manager.

2.11 Provision of bonds and guarantees

The form in which a bond or guarantee 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.

The *Employer* may withhold payment of amounts due to the *Contractor* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Contractor* by the *Project Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Contractor* does not affect the *Employer's* right to termination stated in this contract.

2.12 Records of Defined Cost, payments & assessments of compensation events to be kept by the Contractor

The *Contractor* is to keep proof/invoices of all costs incurred for a compensation event and submit them to the *Project Manager* if requested.

2.13 Training workshops and technology transfer

Not applicable for this contract.

3 Engineering and the *Contractor's* design

3.1 *Employer's* design

All designs is to be according to Employer's specifications.

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

The *Contractor* is to design any temporary works required to construct the *works*.

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

Not applicable.

3.4 Other requirements of the *Contractor's* design

Not applicable.

3.5 Use of *Contractor's* design

Not applicable.

3.6 Design of Equipment

Not applicable.

3.7 Equipment required to be included in the *works*

None.

3.8 As-built drawings, operating manuals and maintenance schedules

The Contractor is to provide Eskom with detailed "as built" records where deviations have been made from construction drawings within 14 days after Completion.

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed on the Site

All people employed on site by the Contractor shall have Police clearance before work on site can commence.

The Contractor's employees shall at all times be sober on site and may be subjected to random breathalyser tests. All workers must wear seat belts at all times when travelling in their vehicles while on Eskom business. All workers to adhere to Covid-19 protocols.

4.1.2 BBBEE and preferencing scheme

BBBEE requirements are stated in the Invitation to Tender letter and preference will be given to Contractor's complying with levels 1 to 4.

4.1.3

BBBEE and CIDB level requirements are stated in the Invitation to Tender letter.

The following conditions will apply to supplier during the contract period:

- The supplier must submit the name of the company that has been selected for incubation and indicate the activities together with the percentage of incubation on prescribed template provided by SD&L.
- The supplier must submit the Implementation Schedule, which must indicate how the supplier intends to meet the SD&L commitments, within 30 days of signing the contract. The completed Implementation Schedule should be forwarded to SD&L via the project manager. The template for the schedule is attached as Annexure 1.
- The supplier shall submit SD&L quarterly reports to the project manager on a prescribed template provided by ESKOM
- Non-compliance with regard to submission of SD&L Quarterly reports by suppliers will result in ESKOM withholding 2.5% of the invoice submitted for that month
- A total of 2% of the contract value will be retained to ensure compliance to SD&L obligations. In an event of non-compliance at the end of the contract, the supplier will forfeit this amount.

Prospect refurbishment				
Site TABLE 1: SUPPLIER DEVELOPMENT AND LOCALISATION COMPLIANCE MATRIX FOR SUPPLIERS AND CONTRACTOR				
Criteria	Weight (%)	Total Target (%)	Proposed Target	Total Overall Weighted Score
Local Content to SA	100%	100%	0%	0.00%
Total	100%			0.00%
Total Supplier Development and Localisation Score				0.00%

To be completed by Tenderer

Number of jobs to be created as a result of this contract	
Number of jobs to be retained as a result of this contract	

To be completed by Tenderer

Company:
Designation:
Signature:
Date:

Supplier Development and Localisation Representative

Name:
Signature:
Date: 2

4.2 Subcontracting

4.2.1 Preferred subcontractors

The *Contractor* submits the names of each proposed subcontractor to the *Employer* for acceptance. The *Contractor* does not appoint a subcontractor until the *Employer* has accepted him.

4.2.2 Subcontract documentation, and assessment of subcontract tenders

The NEC system is compulsory for all subcontract documentation.

4.2.3 Limitations on subcontracting

Not applicable for this contract.

4.2.4 Attendance on subcontractors

The *Contractor* is responsible for providing the Works as if he had not subcontracted.

4.3 Plant and Materials

4.3.1 Quality

The *Contractor* shall control his activities and processes in accordance with Eskom's Quality Requirements for Procurement of Assets, Goods & Services QM58, as amended. Any non-conformance must be corrected before handing over.

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

Not applicable for this contract

4.3.3 *Contractor's* procurement of Plant and Materials

Not applicable for this contract

4.3.4 Spares and consumables

Not applicable for this contract

4.4 Tests and inspections before delivery

Inspection of all material to be done by the *Contractor* before being delivered to site and should ensure compliance to Employer specification.

4.5 Marking Plant and Materials outside the Working Areas

Not applicable.

4.6 *Contractor's* Equipment (including temporary works).

Not applicable.

5 Construction

5.1 Temporary works, Site services & construction constraints

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

Entry to the site is governed by the Grid's Engineering Assistant and the Contractor shall adhere to all regulations given.

All employees are to sign the Workers declaration on entering and leaving the working area.

The Contractor is to have an Eskom certified and authorized ORHVS person available on site at all times in accordance with Eskom's Construction Safety, Health and Environmental Management 32-136.

The authorized ORHVS person is to have a valid first aid level 2 certificate.

The authorization procedure for a permit to work shall be done before the Contractor commences work on site.

It is the Contractor's responsibility to ensure that the authorization procedure for a permit to work is obtained before access to the work can be given. Please contact Mr Pg De Jager +27 83 990 3901 to arrange for an interview for authorization.

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

Access on site is restricted to the area in which the Contractor is working and which has been barricaded. Strictly no movement outside the barricaded working area unless escorted by authorized HV Plant personnel.

The majority of the work is to be performed in the live HV Yard and the contractor will take all necessary precautions and work in conjunction with Eskom personnel.

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

The Contractor is to supply Eskom with Police clearance for all the employees on site before Work commences.

The normal working hours shall be from 07:30 am to 04:30 pm. Any work done outside this duration must be arranged through the senior HV Plant supervisor.

The maximum speed limit on site is 40 km/h.

5.1.4 Health and safety facilities on Site

Due to the fact that ABB will only provide one supervisor for this job, toilet facilities should be made available for the supervisor.

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

Not applicable for this contract

5.1.6 Title to materials from demolition and excavation

Not applicable for this contract

5.1.7 Cooperating with and obtaining acceptance of others

Not applicable for this contract

5.1.8 Publicity and progress photographs

Warning signs and notices must be clearly displayed at all sites where work is taking place. It is the responsibility of the Contractor to ensure that all its workers and visitors adhere to all signs.

No photographs are to be taken without the permission of the E.A.

5.1.9 Contractor's Equipment

All equipment must be registered in the equipment register and as per 32-136. The Contractor is responsible for his own insurance of his equipment. The Contractor is to take stock of his material and equipment on a regular basis and any shortage to be reported to the Project Manager immediately, stating if it is hired or owned.

5.1.10 Equipment provided by the Employer

Will be defined at the inaugural meeting

5.1.11 Site services and facilities

Not applicable for this contract

5.1.12 Facilities provided by the *Contractor*

Not applicable for this contract

5.1.13 Existing premises, inspection of adjoining properties and checking work of others

Not applicable for this contract

5.1.14 Survey control and setting out of the *works*

The *Contractor* is responsible for setting out the works as shown on the drawings.

5.1.15 Excavations and associated water control

Not applicable for this contract

5.1.16 Underground services, other existing services, cable and pipe trenches and covers

Not applicable for this contract

5.1.17 Control of noise, dust, water and waste

6 Not applicable for this contract

6.1.1 Sequences of construction or installation

Will be defined at the inaugural meeting

6.1.2 Giving notice of work to be covered up

The *Contractor* is to give the *Site Supervisor* at least 3 days' notice before covering up the work.

6.1.3 Hook ups to existing works

Not applicable for this contract

6.2 Completion, testing, commissioning and correction of Defects

6.2.1 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 except for the work listed below which may be done after the Completion Date but in any case before the dates stated. The *Project Manager* cannot certify Completion until all the work except that listed below has been done and is also free of Defects which would have, in his opinion, prevented the *Employer* from using the *works* and Others from doing their work.

	Item of work	To be completed by
	As build drawings of installation drawings and BOQ	Within 14 days after Completion
	Performance testing of the works in use as specified in paragraph 1.1 of this Works Information	See performance testing requirements

6.2.2 Use of the *works* before Completion has been certified

Not applicable for this contract

6.2.3 Materials facilities and samples for tests and inspections

Not applicable for this contract

6.2.4 Commissioning

Not applicable for this contract

6.2.5 Start-up procedures required to put the *works* into operation

Not applicable.

6.2.6 Take over procedures

The *Contractor* is to arrange an inspection at least 1 week before completion to inspect and identify any outstanding or incorrect items.

6.2.7 Access given by the *Employer* for correction of Defects

Not applicable for this contract

6.2.8 Performance tests after Completion

Not applicable for this contract

6.2.9 Training and technology transfer

Not applicable for this contract

6.2.10 Operational maintenance after Completion

Not applicable for this contract

7 Plant and Materials standards and workmanship

7.1 Investigation, survey and Site clearance

Not applicable for this contract

7.2 Building works

Not applicable for this contract

7.3 Civil engineering and structural works

Not applicable for this contract

7.4 Electrical & mechanical engineering works

Title	Date or revision	Tick if publicly available
Eskom Standard Specifications		

Construction Safety, Health and Environmental Management 32-136	Latest Rev.	✓
Eskom Cardinal Rules 32-421	Latest Rev.	✓
Safety, Health and Environmental (SHE) Policy 32-94	Latest Rev.	✓
32-726 SHE Requirements for Eskom Commercial Process	Latest Rev.	✓
(SHE) Policy 32-727	Latest Rev.	✓
Smoking Procedure 32-36	Latest Rev.	✓
Vehicle and Driver Safety Management 32-93	Latest Rev.	✓
Eskom Vehicle Safety 32-345	Latest Rev.	✓
Working at Heights 32-418	Latest Rev.	✓
TST41-120 Environmental Requirements for the Procurement of Assets, Goods and Services.	Latest Rev.	✓
TST0015 Training, assessment and authorization of persons for the operation & maintenance of the Power System Contractor Safety in a High Voltage Environment	Latest Rev.	✓
TPC41-283 Non Conformance Procedure	Latest Rev.	✓
Occupational Health and Safety Act No. 85 of 1993	Latest Rev.	✓
QM58 Quality Requirements for Procurement of Assets, Goods & Services.	Latest Rev.	✓
Eskom Particular Specifications		
EPS 1 Specification for Earthmat	Attached	
EPS 3 Variations and Additions to Standardised Specifications	Attached	
Standardised Specifications		
SABS 1200 Standardised Specification for Civil/Electrical Engineering Construction		✓
SANS 2001 CC1:2007 Construction Works Part CC1: Concrete Works (structural)		✓
SANS 121 Hot Dip Galvanised Coatings on Fabricated Iron and Steel Articles –Specifications and test methods		✓

7.5 Process control and IT works

Not applicable.

7.6 Other [as required]

Not applicable.

List of drawings

7.7 Drawings issued by the Employer

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

Note: Some drawings may contain both Works Information and Site Information.

Drawing number	Revision	Title

C3.2 *CONTRACTOR'S* WORKS INFORMATION

The required documentation will be defined at the inaugural meeting and issued by the contractor approximately 3 to 5 months after the contract award.

This section could also be compiled as a separate file.