

PART 3: SCOPE OF WORK

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C3.1	<i>Employer's Works</i> Information	
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C3.1: EMPLOYER'S WORKS INFORMATION

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1 Description of the works

1.1 Executive overview

The line will run in a northerly direction from the Eskom Oranjemond substation near Alexander Bay in the Northern Cape to the remote substation in Namibia. The substation in Namibia, Obib, is approximately 95 km away however Eskom will only be responsible for the design and construction of the first 2 km of the line. The line is a single circuit 400 kV line and will utilise the 517 series strain towers. In addition to this the line will also make use of the 540 B double circuit structure in a semi - delta single circuit configuration.

The Gromis – Oranjemond 1 line will also have to be deviated at Gromis and Oranjemond substations to terminate at the 400 kV yard instead of the 220 kV yard. The deviations at both ends of this line will be included in the scope of work of this project. This deviation will make use of the 518 series towers

1.2 Employer's objectives and purpose of the works

The objectives of the *works* include the following:

- Successfully construct a 2km line from Oranjemond to Obib Substation in Namibia.
- Successfully complete the project scope within specified quality, time, and cost.
- Successfully achieve a 400kV connection on the Eskom network in the area by modifying the newly built Gromis – Oranjemond 1 line was built at 400 kV but is currently operating at 220 kV since there is currently no 400 kV injection at Oranjemond substation
- To achieve a 400 kV injection at Oranjemond substation the Gromis – Juno line, which is currently at the very late stages of its construction phase, will have to be built and energized. Along with this, the Gromis and Oranjemond substations will require new 400 kV yards.
- The *Works* are executed without any environmental contraventions and no safety incidents (in line with the OS&S Act

The proposed *Works* includes the following for the lines:

Step 1: Deviate existing 400 kV Gromis – Oranjemond line at both subs.

- Isolate & Earth existing line
- Build new tower T271 and connect to new Substation Gantry
- Implement correct earthing for the new towers to the Substation as per the ESKOM Earthing Standard (this includes measurements and mitigations).
- At Oranjemond deviate the line from existing T270 to new T271.
- Re-use Side A of tower T270 hardware and insulators.
- Fit new jumpers on new tower T271 and T270
- At Oranjemond, dismantle existing T271.
- Build four new towers T001A-T001D connect to new Substation Gantry.
- Implement correct earthing for the new towers to the Substation as per the ESKOM Earthing Standard (this includes measurements and mitigations).
- String and regulate conductor and earthwire on the new section.
- At Gromis deviate from existing T002, to new tower T001D and onto the new feeder bay.
- Re-use Side B of tower T002 hardware and insulators.
- Fit new jumpers on new towers and existing tower T002.
- At Gromis, dismantle existing T001.
- Scrap biproducts of the decommissioned sections.
- Safely store hardware and insulators at both Gromis and Oranjemond as per Grid requirements.

OPGW summary scope (refer to OPGW SoW document)

- New JB at Gromis gantry and T010
- New JB at Oranjemond gantry and T266
- New JB at T270 and gantry (3 structures including gantry)
- New JB at T002 and 400kV gantry (6 structures including gantry)

- String 1x 16kA Optical-fibre Groundwire (OPGW) and 1x 19/2.7 steel wire (Greased)
- New dead ends for existing T002 and T270
- New phase conductor and hardware from T002 to T001D to T001A up to gantry
- New phase conductor from T270 to T271 to gantry
- New hardware for T271 and gantry
- New earth wire and hardware for T002 to T001D to T001A up to gantry
- New earth wire and hardware from T270 to T271 to gantry

Step 2: Build New 400 kV line to NamPower (Oranjemond to across border – 2 km new line)

- Peg bend points of the new towers as per the Staking Table.
- Perform soil nomination of the new tower.
- Procure and install new towers (5 x towers).
- Perform earth resistance test for new towers.
- Implement correct earthing for the new towers to the Substation as per the ESKOM Earthing Standard (this includes measurements and mitigations).
Dress all tower with new hardware and gantry, for T3 and T4, 540B structure only supply hardware for one circuit
- String and regulate new OPGW and Steelwire as per staking table on the new towers to gantry (1x 12kA OPGW (greased) and 1x 19/2.7 steel wire (greased)).
- String and regulate new Triple Tern (greased) conductor at 60-Degrees Celsius for new towers to gantry. For T3 and T4, 540B structure, only string three phases for one circuit as per the specification.
- Fit vibration dampers on the groundwires
- Fit spacer dampers on the new section and existing conductors being re-used.
- Label entire line.
- Place phasing disks as per the specification.
- Install anti-vandal measures as per specification.
- Install anti-climb devices on all new towers.
- Rehabilitate all construction areas.

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
OPGW	Optical fibre ground wire
E/W	Earth wire
SHERQ	Safety, Health, Environmental, Risk and Quality
AFC	Approved for construction
B-BBEE	Broad Based Black Economic Empowerment
DCP	Dynamic Cone Penetrometer
DOL	Department of Labour
EMP	Environmental Management Plan
HV	High Voltage
NCR	Non-Conformance Report
OBL	Outside battery limits

ROD	Record of Decision
SD&L	Skills Development & Localisation
SHE	Safety Health and Environment
SHEQ	Safety, Health, Environmental & Quality
TMH	Technical Methods for Highways
TOC	Top of Concrete
ARC	Auto re-closing (i.e., and O-CO operation under command of a relay)
BZ	Bus Zone
CB	Circuit breaker
CT	Current transformer
GIS	Gas Insulated Switchgear
I	Amps
KIPTS	Natural ageing and pollution performance test procedure for outdoor insulator products
EMC	Electro Magnetic Compatibility
M	Metering
MCB	Miniature circuit breaker
MR	Multi ratio
MVA	Mega Volt Amps
N/C	Normally Closed
N/O	Normally open
OEM	Original Equipment Manufacturer
OHS Act	Occupational Health and Safety (OHS) Act No 85 Of 1993, as amended, of the Republic of South Africa
P	Protection
FMECA	Failure Modes, Effects and Criticality Analysis
SF6	Sulphur Hexafluoride
T	Turns
TRFR	Transformer
V	Volts
VT	Voltage transformer

2 Management and start up.

2.1 Management meetings

General

Formal routine meetings shall be held twice a month throughout the duration of the contract. Should the requirement arise for any other additional meetings such meetings will be scheduled accordingly, these meetings provide a forum for review of the *Contractor's* operations, assessment of progress and schedule, discussion and resolution of problems facing the *Contractor* and the *Project Manager*, and coordination of the activities of all parties concerned.

All safety meetings shall be held as per attached SHE Specification.

Pre-Construction Kick-off Meeting

The pre-construction kick-off meeting takes place prior to the *Contractor* mobilising to site between *Employer* and the *Contractor*. This meeting will be held at a location to be determined by the *Employer*.

Minutes of Meeting

The *Project Manager* prepares minutes of meeting for all meetings held between *Employer* and *Contractor*.

The Minutes of Meeting contain all significant aspects of the meeting recorded together with any actions placed, and is presented to the *Contractor* for signature within 14 working days after the meeting. The *Contractor* needs to sign off the minutes as acceptance within 3 working days.

After the *Contractor* has signed the minutes of meeting, the minutes are to be officially published.

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:
Risk Reduction Meeting	As per NEC 3 procedure	Site or wherever as instructed by the <i>Project Manager</i>	<p>Employer: <i>Project Manager</i> (<i>Supervisor & SHE officer</i>) optional</p> <p>Contractor: Project Director, Site Manager, Contract Manager, Site <i>Supervisor/s</i>, Scheduler and SHE Manager.</p>
Progress meetings	Monthly or as instructed by the <i>Project Manager</i>	Site or as instructed by the <i>Project Manager</i>	<p>Employer: <i>Project Manager</i> (<i>Supervisor & SHE officer</i>) optional</p> <p>Contractor: Project Director, Site Manager, Contract Manager, Site <i>Supervisor/s</i>, Scheduler and SHE Manager</p>
Integration Meeting	Monthly or as instructed by the <i>Project Manager</i>	Site or as instructed by the <i>Project Manager</i>	<p>Employer: <i>Project Manager</i> <i>Supervisor</i> SHE officer</p>

			Contractor: Project Director, Site Manager, Contract Manager, Site <i>Supervisor/s</i> , Scheduler and SHE Manager
Health, Safety and Environmental meetings	As stipulated in Form 74 (SHE specification)	Site or as instructed by the <i>Project Manager</i>	As stipulated in Form 74 (SHE specification)

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, as may be required due to 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.

The *Project Manager* prepares minutes of meetings for all meetings held between *Employer* and *Contractor*. The minutes of a meeting contain all significant aspects of the meeting recorded together with any actions placed and is presented to the *Contractor* for signature at the next project meeting. After the *Contractor* has signed the minutes of meeting, the minutes are to be officially published.

The *Contractor* shall attend regular site meetings with the *Project Manager* and *Supervisor* where the progress of construction will be reviewed. Such meetings shall be held monthly and may be attended by representatives of the *Employer*.

The *Contractor* shall also attend weekly meetings with the *Supervisor* and provide, prior to each meeting as required by the *Project Manager*, detailed programmes showing separately the various activities of the *Contractor* anticipated over the forthcoming two-week period as well as the progress achieved over the preceding week relative to the programme applicable to that period.

As a result of travel restrictions and other measures to curb the COVID 19 pandemic some meetings will be convened via MS Teams.

2.2 Documentation control

The *Contractor* shall submit all required documents to the *Project Manager*. All relevant documentation and drawings, including revisions required by the *Contractor* will be issued, but control, maintenance and handling of these documents will be the *Contractor's* sole responsibility and at the *Contractor's* expense.

2.2.1) Contractual correspondence.

- Properly compiled letters on official Company letter head or forms attached to an e-mail and not as a message in an e-mail itself.
- Alpha numeric identification – Reference: Date / NamPower 2nd 400kV Line Project/ Communication number e.g., 20221130/NamP/02.
- All correspondence to be addressed to the *Project Manager*.

Contractual forms to be used.

- ECC – instructions by the SS (*Supervisor*)
- ECC _ Instruction by the PM (*Project Manager*)
- ECC _ Notification of Defects
- ECC _ Risk Register
- ECC _ Early warning by PM
- ECC _ Early warning by *Contractor*

ECC _ Notification of CE (Compensation Event) by the *Contractor*
ECC _ Submission by *Contractor* for acceptance by the PM
ECC _ Completion Certificate
ECC _ Quotation for the proposed instruction of changed decisions

2.2.2) Site communication.

Site instructions issued by the *Supervisor*.
Site Memorandums addressed to the *Supervisor*.
Contractor Daily Site Diary (Minimum *Employer* requirements on *Contractor* Daily Site Diary are);
Contract No.
Date
Work Hours – Start, Finish and Overtime
Rainfall (mm)
Temperature
Visitors to site
Contractor employees on site and description (Site Agent, Foreman, Skilled, etc.)
List of Plant and Equipment
Brief description of the day's activities
Toolbox talk topic
Diary signed daily by *Employer* Site Manager/*Supervisor* and *Contractor* – Contract Manager/Site Agent
Daily *Contractor* attendance register to be attached to the Daily Site Diary

Summary of the documentation required from the Contractor before and during construction includes the following:

DOCUMENT	Before	During
Programme	X	X
Resource Schedule	X	X
Health and Safety Plan	X	
Quality Assurance Plan	X	
Method Statements	X	
Materials Inventory		X
Drawing Register		X
Progress Schedule		X
Application for Payment		X
Geotechnical and Foundation design reports	X	
Soil Test Results	X	
Concrete Batching note		X
Cube Test Reports		X
Weather Data		X
Monthly Safety Report		X
Inventory list of all materials		X
Foundation photographs		X

Communication

- All correspondence from the *Contractor* is signed by the *Contractor's* authorised representative.
- Correspondence from the *Project Manager* is issued and signed in the name of the *Project Manager* or his authorised representative.
- All formal correspondence from the *Contractor* is addressed to the *Project Manager* or his authorised representative and delivered to the *Project Manager* or his authorised representative.
- Emails and other forms of electronic communication (collectively referred to herein as *emails*) between the *Contractor* and the *Project Manager* are for the expedient transfer of preliminary technical data and non-contractual information only.
- The *Contractor* provides all contractually required submittals, notifications, and the like by means of official correspondence or formal document transmittal.

- Emails or documentation included therein, sent from the *Project Manager* to the *Contractor* do not, in themselves, constitute either acceptance of a proposal from the *Contractor* or an instruction under the terms of the contract either of which may be or may result in a compensation event to the contract.
- The *Contractor* does not act on any email that the *Contractor* believes results in a compensation event to the contract whether the email by the *Project Manager* stated that it constituted a compensation event. The *Contractor* requests formal written confirmation of any instruction that may be or may result in a compensation event and receives this confirmation through formal correspondence, document transmittal, and *Project Manager's* instruction or compensation event, before acting on such an instruction.
- Signature authorities
- The *Contractor* provides, a "Signature Authorization Form", the names and specimen signatures of those individuals within the *Contractor's* organization authorized to sign documents on behalf of the *Contractor*. The *Contractor* also specifies the financial or other limits of authority for everyone.
- The *Contractor* delegate's authority within its organization to home office and field office personnel as required for effective performance of the work.
- The *Contractor's* Contract Signatory signs the "Signature Authorization Form".

Drawings and Document Transmittals Documentation Requirements

The *Contractor* submits all documentation conforming to the requirements of the *Employer and / or the Project Manager* applicable standards and specifications with the following specific requirements:

- When required, the *Contractor* transmits to the *Employer / Project Manager*, technical submissions, sketches or drawings, calculations and other pertinent data, in sufficient detail to enable the *Employer / Project Manager* to review the information and determine that the *Contractor* clearly understands the requirements of the contract.
- Documents and data provided by the *Contractor* under the contract are subject to the *Employer / Project Manager* review and accept prior to *Contractor's* start of procurement.
- Review and acceptance of drawings, documents and / or data, etc. by the *Employer / Project Manager*, does not absolve the *Contractor* from any responsibilities under this contract.
- The review by the *Employer / Project Manager* with or without comments does not relieve the *Contractor* of any obligations or requirements under the contract nor be construed as an authorization of, or consent to, any deviation from the contract. If the *Contractor* considers that the *Employer / Project Manager* comments constitute a compensation event to the contract, the *Contractor* requests a formal instruction.
- All drawings and other documents are in English and are sized in accordance with metric standard sizes and carry titles to indicate equipment numbers or any other identification number of the portion of work covered on the particular drawing and / or document.
- The revision number marks changes or additions to any document, at the point of a revision, and the revision is reflected in its title block or drawing number by an appropriate revision indication.
- An Aconex transmittal summarizing the content of the set accompanies multiple sheets with the same drawing number.
- The format of electronic documentation conforms to the following requirements:

Document	Native Format	Issued to <i>Employer</i>
Specifications	MS Word 2007	Native & PDF
Manuals	MS Word 2007	Native & PDF
Datasheets	Microsoft Excel 2007	Native & PDF
Programs	Primavera P6 or MS Projects	Native & PDF
Spreadsheets	MS Excel 2007	Native & PDF
Drawings	AutoCAD Release 2004 or later	Native & PDF
Other	Microsoft Office 2007compliant	Native & PDF

Document	Native Format	Issued to <i>Employer</i>
Documentation		

- The *Contractor* is, in interpreting the drawings and specifications, bound by the figures marked thereon and not by scaled measurements.
- If the *Contractor* believes that new or revised IFC (issued for construction) documents constitute a change to the Contract, the *Contractor* notifies *Employer / Project Manager* of the change and does not proceed with the changes until officially instructed to do so by the *Employer / Project Manager*.
- The *Employer / Project Manager* reviews engineering information or queries raised and returns comments to the *Contractor* within the period of reply. This review by the *Employer / Project Manager* does not relieve the *Contractor* of his responsibility to ensure that the package is in accordance with the requirements.
- The *Contractor* submits a written signed off as built as final issue of the “Handover” documentation.

Design Specifications

The following is a list of specifications and standards applicable for the execution of the NamPower 2nd Interconnector 400kV Line project.

Specification document	Specification number	Title
Line		
1 LES 1626	1	Scope of Work Document
2 LES 1500	0	OPGW Hardware and Scope of work
3 TRMSCAAC	5.2	The standard for the construction of overhead powerlines

2.3 Health and safety risk management

The *Contractor* shall comply with the health and safety requirements contained in (Form 074-SHE Specification NamPower 2nd Interconnector 400kV Line) to this *Works* Information and all the other documents that the specification refers.

The *Contractor* shall also ensure and allow for in his pricing structure that all Personal Protective Equipment (PPE) issued to his employees are in accordance with the *Employer's* Personal Protective Equipment Specification (240-44175132).

In accordance with Eskom internal procedure and wherever Health and Safety Issues are concerned:

- **The Executive projects manager, Mr Johan Bornman will induct the *Contractor* MD before commencement of work, on site.**
- This will assist in ensuring that the MD gets first-hand information of requirements etc.
- Site managers, Site *Supervisors*, including site representatives shall be required to conduct 1 VFL per day.
- The *Contractor* shall include 2 hours stoppage time every month in the schedule for any safety related issue, which will not constitute compensation.
- The MD is required to conduct 2 Visible Felt Leadership per month.
- Site *Supervisors* shall conduct behaviour based safety observation. The client will provide training on request.
- The *Contractor* shall present all lost time incident and medical incidents to the Cape Grids team, the presentation of all incidents shall be done within 30days of the incident. All incidents shall be presented by the *Contractor's* MD to the Cape Grids team.

The *Contractor* shall comply with the health and safety requirements as prescribed in the Project SHE specification.

In addition to the above, the following shall apply:

During construction, all workers on structures shall use the following:

- Full body harnesses
- Double Lanyards
- Double climbing hooks, alternatively fall arrest system approved by Eskom.

- The fall arrest system is to be installed and used prior to any dressing or stringing operations. On cross-rope structures where the system is to be installed before the tower is erected, it will be used during the entire construction period.
- When working on towers, only head protecting helmets with chin straps that conform to Standard Reference Number EN 12492:2000 - Mountaineering equipment - Helmets for mountaineers - or EN 397:2000 Industrial Safety Helmets are acceptable. In addition, the requirements of SABS 0333:1999 part 3 and SABS 1833:1999 shall apply.

The *Contractor* shall supply his Health and Safety Plan in accordance with the Occupational Health and Safety Act and the latest revised Construction Regulations prior to the commencement of work on Site.

The *Contractor* shall supply the *Project Manager* with a monthly safety report indicating the total number of employees on site, the number of hours worked, the number of hours lost due to injury and details of any incidents/accidents.

Minutes of Safety Meetings are forwarded to the *Project Manager*.
Reporting of incidents shall be in accordance with *Employer's* procedure.

Unsafe working condition

Where the instruction relates to health and safety matters or is in relation to a *Contractor* default, the instruction is not a "compensation event".

Termination due to Non-Compliance.

Eskom reserves the right to terminate the contract in the event that the *Contractor* is found to be consistently non-compliant to any SHEQ related issue.

Penalty for Health and Safety statistics.

Should the LTIR at any stage during the contract exceed the ESKOM target of 0, 4 a penalty of R100, 000.00 shall be imposed by the client. This penalty shall be refunded in the event that the LTIR drops below 0, 4 at contract completion.

Penalties Health and Safety violations

The following penalties shall apply for Health and Safety violations and are non – refundable:

- Life Saving rule violation (1st Violation): Removal of offender from site and R5, 000.00 per event, payable by the *Contractor*.
- Life Saving rule violation (2nd Violation): Removal of offender from site and R10, 000.00 payable by the *Contractor*.
- Risk assessment and / or method statement not in place or available at activity: R10,000.00 per event
- Non-compliance to Legislation: R10,000.00 per event

Penalties for Sub – Contractor management

- Sub-*Contractors* are to be managed in accordance with the requirements of Form 74. Failure to comply shall result in a fine of R10, 000.00 per non-compliance.

All the above penalties shall be implemented at the discretion of the Project Manager.

The Divisional Safety Risk Managers who will be responsible for the allocation of resources to assist P&SCM with the above processes are as follows:

Generation:	Marc Lebea
Transmission:	Rochelle Chetty
Distribution:	Amanda Qithi
GCD:	Jace Naidoo
Corporate:	Miranda Moahlodi

The *Contractor* shall comply with the health and safety requirements contained in the SHE Specification annexed to this *Works* Information (provided as part of the enquiry documentation).

2.4 Environmental constraints and management

The *Contractor* shall comply with the environmental criteria and constraints stated in SHE specification, **EMP, EA and PDPMAN – ST 37** to this *Works* Information.

The following penalties will apply for Environmental non-compliance and are non-refundable:

Penalties for Environmental related issues

- Legal contravention and non-compliance: R20, 000.00 per event.

Campsite Layout

- Campsite establishment and de-establishment is to be managed in accordance with the SHE specification.
- The layout should be such that it facilitates a circular traffic route that eliminates the need to reverse when loading and offloading. There must be one point of entry and exit
- The *Contractor* shall comply with the environmental criteria and constraints stated in Annexures as per EMP.
- The *Contractor* must also comply with the following environmental procedures: Environmental requirements for *Contractors* and suppliers TPDMAN-ST-37.

2.5 Quality assurance requirements

The *Contractor* and all sub-*Contractors* shall comply with the requirements listed in the *Employer's* Quality requirement standard, 'Supplier Contract Quality Requirements Specification', document identifier 240-105658000 Supplier Quality Management Specification

The following penalties will apply for Quality and are non – refundable:

Penalties for Quality related issues

- NCR's not closed out satisfactorily within 30 days: R10, 000.00 per event.

In addition to the above, the following shall apply:

- The *Contractor* shall have a fully documented, implemented and maintained quality management system, which complies with the requirements of the ISO 9001:2015 or their quality management system shall carry valid certification from an acceptable QMS Certification body as indicated in the applicable PDP invitation. In addition, the *Contractor* is to meet the requirements of "Quality Requirements for the Procurement of Assets, Goods and Services". In this regard the *Supervisor* may instruct the *Contractor* to perform quality inspections prior to his own inspections, or to assist in inspections.
- The *Contractor* ensures that his staff and sub-*Contractors* are conversant with the content of the scope of work, quality control plans and work instructions.
- The involvement of the *Contractor's* Appointed Inspection Authority (AIA) is a requirement to ensure that all the conditions of the code are met, but this does not absolve the *Contractor* from any of his responsibilities for quality.
- The *Contractor* compiles, in conjunction with the *Project Manager* and his AIA, a product inspection and test plan. This document shows at which stages during the contract the AIA is required, and what types of inspection, testing, witnessing etc. are carried out to ensure that the requirements of the *Works* information are met.
- The *Contractor* ensures that the *Works* is carried out in accordance with the inspection and test plans, acceptance test procedures and other specifications in the *Works* information.
- The *Contractor* ensures that all specifications and requirements are communicated to the relevant parties in his organisation. Copies of all relevant specifications and drawings must be available on site.

- All documentation has a clearly stated revision number and previously similar documentation is revoked.
- Any quality-related problems/issues are to be reported to the *Supervisor* immediately and resolved as soon as possible.
- All completed work is signed-off on inspection and test plans and control sheets on a daily basis and all the relevant signatures are on the documentation.

The *Contractor* must comply with the following quality procedure: 240-105658000 Supplier Quality Management Specification.

2.6 Project Programme constraints

The programme is to be submitted for acceptance in accordance with Core Clause 31 in the Engineering and Construction Contract, in terms of which resources to complete each activity must be clearly identified. The *Contractor* will allow two weeks of the starting date for compiling a schedule to be reviewed by Eskom every two weeks to ensure accuracy. The *Contractor* will be expected to use the allowed time from start date to prepare a proper schedule by interfacing with all relevant stakeholders. It is suggested that Gantt or bar chart formats be used for project planning, while progress graphs/schedules be submitted at monthly project meetings to monitor progress.

The programme is to include all the requirements of clause 31.2 of the Engineering and Construction Contract.

Progress

Eskom will monitor the process of compiling a schedule in the first three months of the contract on a weekly basis by means of a report from the *Contractor*. A weekly progress report is to be submitted to the *Project Manager* every Friday.

The *Contractor* monitors progress weekly in conjunction with the *Supervisor*. A weekly progress report is to be submitted to the *Project Manager* every Friday.

The *Contractor* submits his record of Work Done to Date (verified by the *Supervisor*) to the *Project Manager* on the 20th of each month. (The application is to have the same format as the relevant Activity Schedule, and show present, previous, and total quantities to date).

The *Contractor* must allow for 10 days of rain above the average rain fall per annum and the effects of rain on the critical path of the foundation activities. Allow a further 10 days for rain above the average rain fall and the effects of rain on the critical path of the tower assembly and erection activities. Lastly, allow a further 10 days for rain above the average rain fall and the effects of rain on the critical path of the stringing activities.

The *Contractor* must allow an additional 10 days for mist and fog per annum. No compensation event will be considered before this period has lapsed.

The *Contractor* should obtain a weather data from SA weather services for the following areas: Kleinsee & Vredendal. The *Contractor* should familiarise himself/herself with the minimum and maximum temperatures, monthly average rain fall, wind, fog and snow fall around the area using the 10 year weather data from SA Weather Services and price or make allowance in his tender quotation

Only the difference between more adverse weather recorded and the equivalent measurement given above is taken into consideration when assessing the compensation event

The above allowance must run sequentially and should be priced as part of tender submission in the applicable rates

No compensation will be considered for rain, wind fog and snow fall outside the ten-year average (2012 to 2022). Should there be a claim the *Contractor* will need to prove conclusively that this is over and above the norm, should they not be able to do so, any claim will be declined.

In addition to clause 64.1 assessment

2.7 Contractor's management, supervision, and key people

The *Contractor* shall submit an organizational structure showing his human resources and their lines of authority/communication.

The *Contractor* shall ensure that they comply with the registration of identified personnel as per the requirements of the South African Council for the Project and Construction Management Professions (SACPCMP) as gazetted in Project and Construction Management Professions Act No. 48 of 2000, Section 18(1) (a) or (b) and (c).

The following are the categories that must be registered and their certificates be downloaded from privyseal (www.privyseal.com) and be submitted:

- Construction Manager (CM), reference to Construction Regulation GNR. 84 of 7 February 2014 section 8(1), in terms of appointment and registration in terms section 18(1) (c) of the Act 48 of 2000.
- Construction Health and Safety Manager (CHSM), registration in terms section 18(1) (c) of the Act 48 of 2000.
- Construction Health and Safety Officer (CHSO), reference to Construction Regulations GNR.84 of 7 February 2014 section 8(6), and in terms section 18(1)(c) of the Act 48 of 2000.

Note:

- Alternate Construction Manager, reference to Construction Regulations GNR.84 of 7 February 2014 section 8(1), shall be registered with SACPCMP should the person be appointed as Alternate Construction Manager.
- Consideration shall be made to those who are registered as Candidate in any of the categories mentioned above, provided that the individual candidate submits an agreement (appointment) between the candidate and the mentor. Both the candidate and the mentor shall submit their certificates downloaded from privyseal (www.privyseal.com)

The *Contractor* shall provide CVs for acceptance to Eskom for experienced and competent personnel in the following key positions:

Project Manager/s

Minimum competency level: National Diploma Engineering/Construction Management. The resource will have a minimum of 15 years relevant experience. **The Contracts Manager shall be registered as a Professional Construction Project Manager (Pr.CPM) with the South African Council for Project and Construction Management Professions (SACPCMP) (or equivalent internationally recognised body) as the one point of responsibility for the management of the project from conception to completion, which includes the management of related professional services. This registration must remain valid for the duration of the contract. The Contractor must provide proof of registration to the Project Manager.**

Construction Manager/s

Minimum competency level: National Diploma Engineering/Construction Management or a minimum of 10 years relevant construction experience for the approval of the *Project Manager*. **The Site Manager shall be registered as a Professional Construction Manager (Pr.CM) with the South African Council for Project and Construction Management Professions (SACPCMP). This registration must remain valid for the duration of the contract. The Contractor must provide proof of registration to the Project Manager.**

Planner/Scheduler

Minimum competency level: 10 years relevant construction **planning** experience for the approval of the *Project Manager* and Planning Manager. Primavera/MS projects competence.

Supervisors

Minimum competency level: As specified in Form TPDMAN-FM-074 (SHE Specification) and the documents it is referring to.

Required SHE personnel

Minimum competency level: As specified in Form TPDMAN-FM-074 (SHE Specification) and the documents it is referring to. **Including but not limited to SACPCMP, registered as a Construction**

Health and Safety Manager (CHSM) & Construction Health and Safety Officer (CHSO). The Contractor shall discuss these appointments and the number of appointments with the Project Manager.

2.8 Invoicing and payment

Within one week of receiving a payment certificate 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 payment certificate.

The *Contractor* shall address the tax invoice to:

**Eskom Holdings SOC Limited
P O Box 1091
Johannesburg
2000**

and include on each invoice the following information:

- Name and address of the *Contractor*.
- 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.
- Previous, present and to date values per payment certificate.
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT.
- Any other information as may be required.

-An original invoice must be sent to the Accounts Payable Department and a copy to the *Project Manager*.

-The *Contractor* must submit an FRI within 1 week of contract award.

-Details on how to submit invoices and additional information:

-The *Contractor* must ensure that the Eskom order number is clearly indicated on your invoice together with the line number on the order you are billing for.

-All Electronic invoices must be sent in PDF format only.

-Each PDF file should contain one invoice; or one debit note; or one credit note only as Eskom's SAP system does not support more than one PDF being linked into workflow at a time.

-The *Contractors* E-mail may contain more than one PDF file (e.g., 2 invoices on 2 separate PDF files in one e-mail)

Send all invoices in PDF to the following email addresses:

1. For local invoices: invoiceseskomlocal@eskom.co.za
2. For foreign invoices: Invoicesgrpcapital@eskom.co.za

The *Contractor* can request a park invoice from the Finance Shared Services (FSS) contact center which can then be followed up and corrected. The *Contractor* is welcome to forward the details of invoices to the FSS contact center.

All queries and follow up on local invoice payments should be made by contacting the FSS contact center
Tel: 011 800 5060
e-mail: fss@eskom.co.za

For Foreign invoices, the *Contractor* will still be required to physically deliver hard copies of original documents to the respective documentation management centers even though you have e-mailed those invoices (Eskom is still seeking clarity from the South African Reserve Bank regarding e-invoicing for Foreign Invoices or invoices in foreign currency. Current requirements are that these manual invoices should still be submitted.

The *Contractor* can send the invoice copy to the email addresses indicated below).

Tax Requirement

A PDF file that was created directly from a system meets the definition of original document and is allowed (including saving documents from excel to PDF, word to PDF etc.)

An Invoice that was printed and then scanned to PDF by the Vendor is not acceptable as this is not an original tax invoice by SARS definition but a copy.

The following wording needs to appear on the invoice: "Your invoice is encrypted in order to comply with SARS requirements that invoices, and statements sent electronically are tamperproof."

If there is Cost Price Adjustment (CPA) on your invoice, we recommend that the *Contractor* issue a separate invoice for CPA so that if there are any issues on the CPA the rest of the invoice can be paid while resolving the CPA issues.

Introduction of electronic invoicing does not guarantee payment but will ensure visibility of all invoices and ensure that no invoices get lost. If the goods receipt is not done the invoice will be parked and the system will automatically send an e-mail to the end user to do the goods receipt. This is also tracked by Eskom through the park invoice report.

The *Contractor* can request a park invoice report from the Finance Shared Services (FSS) contact center which can then be followed up and corrected. The *Contractor* is welcome to forward the details of invoices corrected to the FSS contact center.

Email addresses for invoice submission:

Group Capital Power Delivery Projects (PDP): invoicesgrpcapitalPDP@eskom.co.za

Procedure for invoice payment:

Work done is assessed by Quantity Surveyor (QS), after which the Eskom QS and the *Contractor* agree on the assessment and the amount to be invoiced. The Eskom QS will then generate an assessment and payment certificate aligning to the *Contractor's* invoice that was agreed based on the assessment.

Assessment is scanned and sent to project officer and *Project Manager*. Originals to be filed in project file. Ensure that *Project Manager* signs off or approves the payment certificate before a Good Receipt (GR) is created. Goods receipt will be created on SAP and the goods receipt number emailed to the supplier. For work done GR number will be on payment certificate sent to supplier. Invoice is recorded and receipted as per the finance invoice receipting procedure.

2.9 Insurance provided by the *Employer*

As stipulated in the Contract Data.

2.10 Contract change management

As prescribed by the NEC.

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*

A risk register is to be kept by the *Contractor* in which all events are recorded. Records of events that could give rise to Compensation events are to be kept up to date, for inspection by the *Supervisor* and/or *Project Manager* always and this is to be kept in a risk register. This is not for inspection purposes but for management as per core clause 16.

In order to facilitate payment for work done, the *Contractor* is to submit his Schedule of Work Done (verified by the *Supervisor*) for payment to the *Project Manager* by the 20th day of each month, in a similar format to the bill of quantities. Payment for Preliminary and General Items will be proportional to the duration of the contract.

- Payment for foundations shall be due upon completion of backfilling and completion of compaction.
- Payment for tower steel shall be due after the successful release inspection from the manufacturer's plant, delivery to site and verification by both Eskom and the *Contractor Supervisor's*.
- Payment for tower assembly and erection shall be due as per the *Supervisor's* verification.
- Payment for stringing shall be due upon regulation, clamping, installation of line hardware, accessories, jumpers, anti-climbing devices, latchways and line inspection complete and accepted by the *Supervisor*.
- Payment for minor *Works*, access and environmental work items shall be due as per the verification.
- One half of retention money shall be paid on the satisfactory completion of groundwork rehabilitation (including bush clearing), to be completed no later than four weeks after the issue of the Take-Over Certificate.
- The balance of retention shall be paid on the defects date i.e. on the issue of the Completion Certificate.
- Weather Data is recorded in accordance with the Contract Data, and submitted to the *Supervisor* daily.

2.13 Training workshops and technology transfer

The supplier shall provide training of an international standard on the supplied equipment by OEM accredited instructors. The training shall be in accordance with the Eskom training standard 240-56065202, and organised on the following levels:

- Orientation and basic functioning
- Operational and first line maintenance

3 Engineering and the *Contractor's* design

3.1 *Employer's* design

The *Contractor* shall comply with the design criteria stated in the *Works* Information..

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

The *Contractor* is required to appoint a geotechnical specialist to investigate soil / rock conditions and apply suitable foundations designs including earthing system, in various soil conditions, at each foundation position for all towers, in accordance with the loading conditions given in the Line Specification (in *Works* Information Appendices). The *Contractor* shall submit foundation designs for acceptance well in advance of construction (see TRMSCAAC1 Rev 5.2).

Standard conventional foundation designs for the 6 soil / rock types shall be supplied by Eskom. The *Contractor* is required to investigate soil / rock conditions and apply suitable modified foundation designs including earthing system, in various soil conditions, at each foundation position for all towers, in accordance with the loading conditions given in the Line Specification. The *Contractor* shall submit foundation designs for acceptance for all designs well in advance of construction (see TRMSCAAC1 Rev 5.2).

Upon acceptance of the *Contractor's* foundation designs, copyright shall pass to the *Employer*. The *Contractor* shall provide geotechnical report or other foundation related information required by the

Employer. This does not relieve the *Contractor* of the responsibility to investigate the soil / rock conditions, design, test and install suitable foundation systems.

The *Contractor* is responsible for the design of temporary *Works* such as temporary access roads, formwork, excavation support, special scaffolding and any other safety requirements to ensure safe execution of *Works*, and etc.

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

Where foundations or hardware are to be designed or supplied by the *Contractor*, a Drawing Register for all foundation designs and hardware assemblies is to be compiled and submitted for acceptance prior to installation.

A Soil Nominations Register is updated by the *Contractor* in conjunction with the *Supervisor* and submitted to the *Project Manager*. The *Supervisor* verifies the nomination of each foundation excavation.

Prior to the casting of concrete, a suitable mix design, according to procedure in the document Titled TX Tower and Line Construction (TRMSCAAC1 Rev 5.2), is to be submitted to the *Project Manager* for acceptance. Each concrete batch delivered to site is to be accompanied by a Concrete Batching Note containing dispatch date & time, batch volume, slump test result, total amount of cement and total amount of water in the mix. Four test cubes are to be made of each concrete batch at the batching plant and tested at 7 and 28 days

A minimum of one set of cubes should be cast per day at the work site. They are to be clearly marked as to the position in which they were placed. Where the *Contractor* uses his own testing equipment, or whether use is made of an independent facility, Cube Test Reports must be completed by the *Contractor* to ensure correct timing of tests and tracing of defective concrete. Results are made available weekly.

During stringing operations, the *Contractor* keeps a suitably detailed Stringing Record indicating the location of drums, joints, and duration of stringing. Clearances over railways, roads, power lines, telephone lines etc. are to be measured and submitted to the *Project Manager*, when sagging of that section is complete.

Where OPGW is installed, documentation indicating test results for joints is to be submitted by the *Contractor* performing OPGW jointing in accordance with NRS 061-2:2002. The records consist of

- a) Pre-Installation Drum Tests – performed upon delivery
- b) Post-Installation Joint Tests – performed during installation, and
- c) End-to-end power and light source tests – performed after installation

The *Contractor* compiles and submits a Tower Footing Resistance Schedule before commencement of stringing.

3.4 Other requirements of the *Contractor's* design

In accordance with the *Employer's* specifications which are provided to the *Contractor*.

INTELLECTUAL PROPERTY RIGHTS

The following provisions pertaining to the intellectual property rights regarding the *Works* will be applicable:

- "Intellectual Property" means (a) patents, trademarks, service marks, rights in designs, trade names, copyrights and topography rights, in each case whether registered or not; (b) applications for registration of any of them; (c) rights under licences and consents in relation to any of them; (d) all forms of protection of a similar nature or having equivalent or similar effect to any of them which may subsist anywhere in the world.
- All Intellectual Property rights, contained in any developed materials which are created by the *Contractor* or on behalf of the *Contractor*, for the purposes of and in support of the provision of the *Works* vests with the *Contractor*. The *Contractor* retains the Intellectual Property rights in and to the *Contractor's* Intellectual Property made by or on behalf of the *Contractor* as part of the *Works*.
- The *Contractor* gives to the *Employer* a non-terminable, transferable, non-exclusive, royalty-free licence, to copy, use and communicate the *Contractor's* documents containing Intellectual Property relating to the *Works* (the "IP Documents"), including making and using modifications of them.

- This licence (a) applies throughout the actual or intended working life (whichever is longer) of the *Works*; (b) entitles any person in proper possession of the relevant part of the *Works*, to copy, use and communicate the IP Documents for the purposes of completing, operating, using, maintaining, altering, adjusting, repairing, refurbishing and demolishing the *Works* (the "Purposes"); and (c) in the case of IP Documents which are in the form of computer programs and other software, permit their copying, use and communication for the Purposes.
- The IP Documents are not, without the *Contractor's* written consent, used, copied or communicated to a third party by or on behalf of the *Employer* for any purpose other than the Purposes.
- The *Contractor* procures that each Sub*Contractor* executes all and any IP Documents and take all and any other actions as may be required, in order to give effect to this licence. The *Employer* retains all Intellectual Property rights in all documents made by or on behalf of the *Employer* including all documents and requirements provided prior to or during the execution of the *Works*. The *Contractor* does not, without the written consent, of the *Employer*, copy, use or issue to a third party any of these document and requirements except for the purposes of executing the *Works*.
- Either party procures that any third party executes confidentiality undertakings not to disclose to any other third parties, any of the *Employer's* documents and requirements at all, in respect of the *Employer*, or the IP Documents other than for the Purposes, in respect of the *Contractor*.

3.5 Use of *Contractor's* design

Upon acceptance of the *Contractor's* foundation designs, copyright will pass to the *Employer*. The provision of geotechnical or other foundation related information by the *Employer* does not relieve the *Contractor* of the responsibility to investigate the soil/rock conditions, design, test and install suitable foundation systems.

3.6 Design of Equipment

The *Contractor* submits particulars of the design of an item of equipment for the *Project Manager* for acceptance if the *Project Manager* instructs him to.

A reason for not accepting is that the design of the item will not allow the *Contractor* to provide the *Works* in accordance with;

- The *Works* Information
- The *Contractor's* design which the *Project Manager* has accepted or
- The applicable Law.

3.7 Equipment required to be included in the works

The *Contractor* shall submit a list of all vehicles, machinery and equipment.

3.8 As-built drawings, operating manuals and maintenance schedules

In accordance with the *Employer's* specifications which are provided to the *Contractor*.

Upon Completion the *Contractor* is to provide final "as built" records in accordance with the requirements as laid out below.

Two copies of Construction Records are to be compiled by the *Contractor* at the end of the project in a hard copy format. In addition, the *Contractor* is to supply a Compact Disk of the records to the *Project Manager*.

The Construction Records consists of the following information which originates from various parties as indicated below:

ITEM	DATA	INFORMATION SUPPLIED BY
0.	Cover and Index	<i>Project Manager</i>
1.	General line data	<i>Project Manager</i>
2.	Summary of Project	<i>Project Manager</i>
3.	Foundation and Tower Schedules	<i>Contractor</i>
4.	Stringing records	<i>Contractor</i>
5.	OPGW Installation	<i>Contractor</i>
5.1	Schematic Layout	
5.2	Cable Colouring and Fibre Coding	
5.3	Power Meter and Light Source Results	
5.4	Splice Performance <i>Summary</i> (detailed report submitted separately)	
6.	Drawings	
6.1	Foundation Drawings	<i>Contractor</i>
6.2	Tower Outline Drawings	<i>Project Manager</i>
6.3	Hardware Drawings incl. OPGW hardware	<i>Supplier/Contractor</i>
6.4	Insulator Drawings	<i>Supplier/Contractor</i>
7.	Line Profiles	<i>Project Manager</i>

The *Project Manager* submits relevant information as detailed above to the *Contractor* within two weeks of Take-over.

The *Contractor* compiles the document and submits copies to the *Employer* within four weeks after receipt of the relevant information.

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed on the Site

People employed on site shall have all relevant documents as required by law for employment within the country, i.e. relevant work permits and Identifications.

4.1.2 BBBEE and preferencing scheme

The table below will be used as a scoring mechanism with regards to B-BBEE compliance which will account for 10% of the weightings for each package associated with this project.

B-BBEE	Number of Points (90/10 system)
1	10
2	9
3	8
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

4.1.3 SUPPLIER DEVELOPMENT LOCALISATION AND INDUSTRIALISATION (SDL&I)

SDL&I mandate is to achieve maximum and sustainable local development impact through leveraging Eskom's procurement spend in a manner that allows flexibility within the business in order to accommodate government local development initiatives and policies.

As a State-Owned Enterprise, ESKOM supports Government's socio-economic development initiatives that it addresses through Supplier Development and Localisation objectives, which include enterprise development, transfer of skills, job creation, incubation, localisation of procurement initiatives and industrialisation.

For the purposes of tendering, the *tenderer* must demonstrate the manner in which the SD&L requirements will be met in due course in an implementation program. If the *tender* is awarded all SD&L undertakings (the *Contractor's* SD&L Obligations) must be made by the *Contractor* at the time of contracting.

SDL&I Undertaking

- The SDL&I undertaking generally identifies the following areas for SDL&I evaluation. These are procurement from EMEs, QSEs, LMEs (Generic); local content of the tender as a whole; Job creation and Skills Development commitments of the *tenderer*.
- Targets and weighting are set for each individual project.
- Tenderers who complete and submit the undertaking as required, but who do not meet Eskom's targets, will not be disqualified. SDL&I undertakings do not form part of scoring but commitments will form part of contractual obligations.

Definitions and Interpretation

The definitions below shall be referred to in the interpretation of this document. The targets for EMEs, and QSEs are a percentage of the local content portion of the tender only.

Exempted Micro Enterprise (EME)

- In terms of the Generic Codes of Good Practice, an enterprise including a sole propriety with annual total revenue of R10 million or less qualifies as an EME.
- In instances where Sector Charters are developed to address the transformation challenges of specific sectors or industries, the threshold for qualification as an EME may be different from the generic threshold of R10 million. In such instances, the relevant Sector Charter thresholds will therefore be used as a basis for a potential bidder to qualify as an EME. (For example the approved thresholds for EMEs for the Tourism and Construction Sector Charters are R2.5 million and R1.5 million respectively).
- An EME automatically qualifies as a level 4 contributor with B-BBEE recognition level of 100% in terms of the Codes of Good Practice.
- An EME with at least 51% black ownership qualifies as Level 2 Contributor with B-BBEE level of 125% in terms of the Codes of Good Practice.
- An EME with 100% black ownership qualifies as a Level 1 contributor with B-BBEE level of 135% in terms of the Codes of Good Practice.
- An EME that is regarded as a specialized enterprise with at least 75% black beneficiaries qualifies as Level 1 contributor with B-BBEE level of 135% in terms of Codes of Good Practice.
- An EME that is regarded as a specialized enterprise with at least 51% black beneficiaries qualifies as a Level 2 contributor with B-BBEE level of 125% in terms of the Codes of Good Practice.

- An EME is required to submit a sworn affidavit confirming their annual total revenue of R10 million or less and level of black ownership to claim points as prescribed by regulation 6 and 7 of the Preferential Procurement Regulations 2017.

Qualifying Small Enterprises (QSE)

- The Codes define a QSE as any enterprise with annual total revenue of between R10 million and R50 million.
- A QSE with at least 51% black ownership qualifies as a Level 2 contributor.
- A QSE with 100% black ownership qualifies as a Level 1 Contributor.
- A QSE that is regarded as a specialized enterprise with at least 75% black beneficiaries qualifies as a Level 1 contributor with B-BBEE level of 135% in terms of the Codes of Good Practice.
- A QSE that is regarded as a specialized enterprise with at least 51% black beneficiaries qualifies as a Level 2 contributor with B-BBEE level of 125% in terms of the Codes of Good Practice.
- A QSE is required to submit a sworn affidavit confirming their annual total revenue of between R10 million and R50 million and level of black ownership or a B-BBEE level verification certificate to claim points as prescribed by regulation 6 and 7 of the Preferential Procurement Regulations 2017.

Large Measured Entity (LME) /Generic

- A generic Enterprise's B-BBEE compliance is measured using the Generic Scorecard. The Generic scorecard is based on five elements each of which has an assigned weighting which correlates with the importance of that specific element and a set target.
- A generic Enterprise has a annual turnover that is more than R 50 million rands.

SDL&I Progress Report

Means the *Contractor's* SDL&I progress report contemplated in clause 7 of this annexure.

Local Content

- Goods made in South Africa (from local raw materials).
- Only good that are made within the borders of SA can be claimed to be local content.
- Local Content (is mainly based on local manufacturing, there must be value addition to the product.
- LC is measured on the product which must be manufactured in South Africa at a specified minimum threshold (LC).
- LC percentage is determined based on the availability of input materials.
- Assembly of products is considered to have some level of local content.
- Example where 100 local content is required, no imports are allowed all materials including the production process must be local.
- If local content is less than 100 imported raw materials can be used without any Exemption.
- Key to protect local industry against imports, build industrial capacity, create jobs and contribute to the economic growth in South Africa.

Local Procurement

- Goods and services purchased locally irrespective of where they were made or produced.
- It is based on geographical area, may be a region/district/province.
- Local procurement is based on the location of the business.
- Imported goods are considered.
- Using local resources to stimulate growth and development.

- Simply buying from a local supplier.

Imported Goods and Services

"Imported goods and services" means, but is not limited to:

Goods and services directly imported into South Africa;

Goods which although stored in South Africa are produced and/or wholly manufactured outside the borders of South Africa and/or have a minimum of 50% (fifty percent) of production costs (including labour) incurred outside of South Africa and payable to foreign residents and/or foreign registered entities;

Goods that have been "substantially transformed" outside of South Africa. Substantially transformed refers to the irreversible incorporation of imported components in the goods, with the labour costs and profit content earned by foreign residents and/or foreign registered entities exceeding 50% (fifty percent) of the Contract Amount and/or the significant assembly and manufacture of the goods occurring outside of South Africa's borders; and/or

Services with at least 50% (fifty percent) of the labour cost incurred outside of South Africa's borders and/or with at least 50% (fifty percent) of the service fee payable to foreign residents and/or foreign registered entities, regardless of whether the service involves domestic capital goods or other domestic costs

Final Review

Final Review means the review (to be conducted at the *completion* date of the whole of *Works* by the *Project Manager*) of the *Contractor's* performance in respect of the *Contractor* SDL&I Obligations.

Skills Development

This is the requirement that *tenderers* commit to train certain individuals in specified trades.

The requirement is that the targeted numbers of individuals are trained and complete practical tasks to achieve the outcome of passing a trade test and qualifying as an artisan, or the equivalent for any other required skill.

Contractor's SDL&I Commitments

Means those commitments regarding local content, skills development, Job creation and procurement from EMEs and QSEs made by the *Contractor* in his tender submission and used by the *Employer* for the purposes of calculating the *Contractor's* SD&L score in the tender evaluation process.

Contractor's SDL&I Obligations

Means those obligations of the *Contractor* regarding local content, skills development and procurement from QSEs and EMEs derived from *Contractor's* SDL&I Commitments and agreed between the *Contractor* and the *Employer*.

Certificate of Fulfilment

Means the certificate issued by the *Employer* after the Final Review as evidence of the *Contractor's* successful fulfilment of the *Contractor* SDL&I Obligations.

SDL&I Progress Reports

The *Contractor* shall submit monthly SDL&I progress reports to the *Project Manager*. SDL&I progress reports shall be submitted by the 7th (seventh) day of the month following the months to which the report relates. Each report shall include:

An executive summary;

Charts and detailed descriptions of the progress in narrative format, including each stage of progress of the *Contractor* SDL&I Obligations, the meeting (or delay in the meeting) of anticipated dates and targets (as set out in the program) and any documents, statistics or other form of verification of the dates and targets to be provided in respect thereof;

Percentage progress and the actual or expected dates of commencement of any of the major stages making up the *Contractor* SDL&I Obligations;

Schedule of forecast and actual, together with a 3 (three) month look-ahead of major activities and events;

Comparisons of actual and planned progress in terms of the Implementation Program;

Details of actual and planned resources;

An Affidavit from the sub-*Contractors* stating the work that has been subcontracted to meet the *Contractor's* SDL&I obligations;

A schedule identifying all details of persons in the process of undergoing or who have successfully completed the Skills Transfer for the relevant period (including details of their personal information and certified copies of their test results and certificates received);

A risk register and assessment dealing with all areas of concern which may cause delays to the fulfilment of the SDL&I obligations and details of the corrective or other measures being adopted, or to be adopted to mitigate or overcome such delay; and such other matters and information (including schedules and charts) as the *Project Manager* may require to be included in the SDL&I progress report from time to time.

An electronic copy and two hard copies of each SDL&I progress report shall be submitted to the *Project Manager*.

Additional Reports

The *Project Manager* shall be entitled to request the *Contractor* to provide additional reports when in his opinion they are warranted to monitor the progress of the fulfilment of the *Contractor* SD&L obligations.

The Final Review

The parties' record that the purpose of the final review is for the *Project Manager* to determine whether the *Contractor* has fulfilled the *Contractor's* SDL&I obligations as at *completion date*.

The *Contractor* shall provide the *Project Manager* with the following documentation to be used by the *Project Manager* as a basis for the final review:

A consolidated SDL&I progress report recording all steps taken to meet the *Contractor's* SD&L obligations from the *starting date* to the *completion date* including all information and documentation referred to in clause 8.1 above;

All of the SDL&I progress reports provided by the *Contractor* during the course of the contract and any other additional report, documentation or information that the *Project Manager* deems to be reasonably relevant to the conduct of the final review (to be provided by the *Contractor* at least 21 (twenty one) business days prior to the final review). The *Project Manager* shall notify the *Contractor* of such request by way of written notice at least 30 (thirty) business days prior to the final review.

The *Employer* shall, in its reasonable discretion, conduct the final review by comparing those *Contractor's* SDL&I obligations actually fulfilled by the *Contractor* as at the time of the final review against with the *Contractor's* SDL&I obligations as a whole.

The *Project Manager* shall notify the *Contractor* of its findings on the final review by way of written notice within 30 (thirty) business days of the final review. The notice shall contain the *Project Manager's* reasons for its findings.

Should the final review reveal that the *Contractor* has not fulfilled and/or complied with any of the *Contractor's* SD&L obligations as at the *completion date*:

The *Contractor* shall be in breach of a material obligation under the contract and the *employer* shall be entitled to have immediate recourse to and make a claim against the whole of the retention as the penalty for the *Contractor's* breach of the *Contractor* SD&L obligations.

Should the final review reveal that the *Contractor* has fulfilled and/or complied with all of the *Contractor's* SD&L obligations as at the *completion date*, the *employer* shall issue a certificate of fulfilment.

SD&L Penalty and Performance Security

As security for the fulfilment of all SD&L obligations, Eskom will apply a penalty of 2.5% of every invoice amount (excluding VAT) for failure to submit SD&L performance reports every quarter; or failure to meet the SD&L obligations in a contract.

The retention will be released if the promised SD&L, Project Stability and CSI commitments were achieved. However, in the event that the *Contractor* failed to fulfil its SD&L, Project Stability and CSI obligations, the portion not met would be quantified and withheld from the final payment. The penalty is deducted from the assessment made at completion of the whole of *works*.

4.2 Subcontracting

4.2.1 Preferred subcontractors

The *Contractor* shall manage his sub-*Contractors* in the same way that the *Employer* manages the *Contractor*. Special attention must be given to the management of the sub-*Contractors'* SHEQ compliance.

The *Contractor* will be required to subcontract a minimum of 30% of the contract and the following designated groups will be targeted and this will be a condition of tender:

- an EME or QSE which is at least 51% owned by black people;
- an EME or QSE which is at least 51% owned by black people who are youth;
- an EME or QSE which is at least 51% owned by black people who are women;
- an EME or QSE which is at least 51% owned by black people with disabilities;
- an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
- a cooperative which is at least 51% owned by black people;
- an EME or QSE which is at least 51% owned by black people who are military veterans;
- an EME or QSE.

4.2.2 Limitations on subcontracting

Proof of a sub-contract agreement will be required as proof of meeting the 30% minimum requirement.

4.3 Plant and Materials

4.3.1 Quality

Refer to attached quality documents.

4.3.2 Plant & Materials provided “free issue” by the *Employer*

The *Employer* shall supply and deliver to the *Contractor's* camp, the following. The *Contractor* is to take delivery thereof, check for completeness, provide suitable off-loading and secure storage facilities and implement an efficient material management system.

- Phase Conductor

- Earthwire
- OPGW and hardware
- Insulators
- Line hardware and fittings
- All other Plant and Material are to be provided by the *Contractor*

The *Project Manager* supplies the *Contractor* with a Materials Schedule indicating the total material requirement for the project. The *Contractor* verifies and updates the inventory for submission at monthly meetings. The *Contractor* keeps record of all material delivered and kept on site

Upon delivery of material, the *Contractor* verifies each material consignment in terms of quantity and quality. If such verification cannot be performed upon delivery, the *Contractor* indicates on the delivery note the date by which the inspection will be made. This date is not more than seven days after receipt of the material.

The *Contractor* records the results of the inspection on the delivery note, makes two copies of each delivery note, and submits the original plus one copy to the *Supervisor*. The *Contractor* submits detailed material schedule to the *Project Manager* on a monthly basis.

At the end of the project, material to be returned to stores is quantified in conjunction with the *Supervisor* and a detailed schedule submitted to the *Project Manager*.

4.3.3 Contractor's procurement of Plant and Materials

The *Contractor* shall comply to document "Quality Assurance for Procurement of Assets, Goods and Services" in *Works* information during fabrication, supply and delivery of foundation steelwork, reinforcing, earthing devices and all other foundation related material.

Fabrication, galvanising and delivery to site of 517, 528 and 529 series towers complete with leg and body extensions, guy and tower ropes and fittings, anti-climbing devices and av-locks(anti vandal bolts) and tower shackles etc. in accordance with TRMSCAAC1 Rev 5.2.

Supply and delivery of the following line labels in accordance with TRMSCAAC1 Rev 5.2:

- Tower labels
- Line identification labels
- Crossing labels.

Supply, delivery and installation of additional earthing material to towers exceeding maximum earth resistance requirements.

Supply and delivery of servitude gates (including electrification, earthing and access ramps where applicable).

Supply and delivery of bird guards, bird diverters, aerial warning spheres and guy markers.

4.3.4 Spares and consumables

In accordance with the *Employer's* specifications which are provided to the *Contractor*.

The *Contractor* shall supply an extra amount of 10 cable trench covers over and above the amount required per substation for the total of the *Works*.

4.4 Tests and inspections before delivery

The *Contractor* is to provide prototype towers in accordance with TRMSCAAC1 Rev 5.2 upon request by the *Project Manager*. All guy, spacer and cross ropes are to be tested before erection.

4.5 Marking Plant and Materials outside the Working Areas

The *Contractor* shall mark all Equipment, Plant and Material which is outside of the working area destined for the *Works*.

4.6 Contractor's Equipment (including temporary works).

The *Contractor* shall ensure the provision of suitable construction equipment for the construction of the *Works*.

5 Construction

The *Contractor* shall comply with all the requirements of the SHE specification, RoD (EA) and EMP. Temporary *Works*, Site services & construction constraints.

5.1 Temporary works, Site services & construction constraints

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

The *Employer* and *Contractor* representatives shall negotiate access with respective landowners. Written records shall be kept. The *Contractor* is reminded that access shall not necessarily be continuous along the line, both from a physical and negotiated point of view. In addition vehicular access may be restricted, prohibited or impossible in certain areas.

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

Refer to attached EMP, SHE, RoD (EA) and TRMSCAAC1 Rev 5.2.

The *Contractor* undertakes demarcation, construction and rehabilitation of all access roads, construction areas, tower sites etc., in accordance with TRMSCAAC1 Rev 5.2 and the Environmental Management Plan. Wherever possible the *Contractor* is to make use of existing access roads tracks to and in existing adjacent servitudes.

The *Contractor* allows for the implementation of procedures contained in the Environmental Management Plan. Deviation from these procedures resulting in damage to the environment or property shall be regarded as a defect.

Access shall not necessarily be continuous along the servitude. All access routes are to be marked and constructed as agreed by the *Contractor* and the *Supervisor*.

Vehicular access to some tower sites and parts of the servitude may be restricted, prohibited or impossible and might not necessarily be linear. The *Contractor* is to make provision for alternative methods of construction at these positions.

Installation of servitude and game gates shall be in accordance with TRMSCAAC1 Rev 5.2 as required by the *Supervisor*. Where gates are required within the servitude, these are to be installed on the centre line to facilitate stringing, or as directed by the *Supervisor*. Wherever possible, existing servitude gates on adjacent servitudes are to be used. If requested by the *Employer* the *Contractor* shall supply and erect "concertina gates". Concertina gates are to be made with five steel poles and five strands of barbed wire.

The *Contractor* performs bush clearing along the servitude and at tower sites as required for access and construction purposes and/or as instructed by the *Supervisor*. Bush clearing is to be in accordance with ESKASABG3 - "Standard for Bush Clearance and Maintenance within Overhead Power line Servitudes", TRMSCAAC1 Rev 5.2 "Transmission Line Towers and Line Construction" and the Environmental Management Plan.

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

The *Contractor* must clearly indicate its proposed working hours in the Tender and specifically in the programme provided with the Tender. After award the *Contractor* will adhere to these agreed working hours and keep detailed and accurate records of compliance herewith. The *Contractor* ensures that the *Supervisor* must sign these records daily and the *Project Manager* and *Supervisor* must have access to these records at any time.

The *Contractor* indicates any shift work or extended working hours required in order to meet with the required completion dates of the Package Order. The *Project Manager* and SHEQ manager's permission to work these hours are obtained prior to working such hours. Permission will only be granted if the longer hours worked have been accepted in writing by the Department of Labour.

The *Contractor* keeps records of his people on Site, including those of his Sub*Contractors* which the *Project Manager* or *Supervisor* have access to at any time. These records will be needed when assessing compensation events.

5.1.4 Health and safety facilities on Site

Refer to the SHE specification, EMP, South African Government Guidelines and Directions on Management of COVID-19 and other epidemic outbreaks, World Health Organisation Guidelines, the latest Disaster Management Act and applicable government regulations. The *Contractor* shall appoint the security for the site camp and plant and material.

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

The *Contractor* shall comply with all the requirements of the EMP, TPDMAN-FM-57 and all other statutory requirements.

5.1.6 Title to materials from demolition and excavation

The *Contractor* shall make his own arrangements, to the approval of the *Supervisor* and the Local Authorities, for the disposal of all surplus material and construction waste resulting from the *Works*. Disposal of all waste (Building, Hazardous and Domestic) must be in accordance with the EMP and TPDMAN-FM-57. Steel, copper and all other high value materials will be disposed of by the *Employer*

5.1.7 Cooperating with and obtaining acceptance of Others

The *Contractor* will be required to integrate with Eskom personnel during construction. It is expected that cooperation will be given when this happens during the project construction.

5.1.8 Publicity and progress photographs

As agreed with the *Employer's Project Manager*.

5.1.9 Contractor's Equipment

Records are to be kept of Equipment on Site including whether it is owned or hired. This includes any scaffolding, rigs, heavy lifts and cranes.

The *Contractor* shall inform the *Project Manager* prior to the removal of any equipment during the contract period from the Working Areas.

5.1.10 Equipment provided by the Employer

No equipment shall be provided by the *Employer*.

5.1.11 Site services and facilities

The *Contractor* shall conduct site inspection and establish what facilities (i.e. power supply, water, waste disposal, tele-coms, ablutions, fire protection and lighting) are required or necessary for providing the *Works*

The *Contractor* shall provide everything else necessary for providing the *Works*. Any measures which the *Contractor* may require to maintain continuity and quality of supply shall be arranged by him at his own expense.

5.1.12 Facilities provided by the *Contractor*

Contractor shall provide all facilities necessary for providing the *Works*

The *Contractor* is to provide the following items to facilitate the *Employer's* site *Supervisors* and project administration team within four weeks of contract award:

Facilities for *Employer*

- a) Establishment of *Employer* facilities on site i.e. Site office, sheds, toilets including plumbing, electricity, air conditioning, internet connections, copying and printing facilities etc.
- b) Portable water and toilet facilities for sole use of Clients Representatives.

Facilities for the *Contractor*

- c) Establishment of facilities on site ie. Site office, sheds, toilets including plumbing and electricity, including internet connections, copying and printing facilities etc.
- d) Staff accommodation
- e) Access to site & permits
- f) Establishment of equipment, tools and plant
- g) Allow the sum for hiring of standby generator including transport to site, working on site, diesel fuel and removing from site at contract completion. (ON EMPLOYER'S INSTRUCTION)
- h) Name boards
- i) Dealing with water during construction
- j) Removal of the site Establishment

The *Contractor* shall negotiate with landowners for the erection of any construction camp(s) and accommodation for his personnel, and ensuring compliance with all by-laws and requirements of the relevant authorities **after contract award**. All necessary services - water, electricity, sewerage, toilet facilities, telephones, etc. are to be provided by the *Contractor* to suit his needs.

All evidence of construction camp(s), batching plants, etc. are to be removed upon completion, and such areas rehabilitated to the satisfaction of the landowner and the *Supervisor*.

The *Contractor* shall provide sanitary amenities, first aid and firefighting facilities as required by the Occupational Health and Safety Act.

The *Contractor* keeps records of the following and submits copies of these records to the *Supervisor* weekly:

- Number of personnel by category and/or trade on site on a daily basis.
- Detailed list of equipment by category on site on a daily basis with an indication of its working condition i.e. working order, under repair, working but standing idle etc.
- A site diary is to be kept by the *Contractor* in which all events are recorded. Records of events that could give rise to Compensation Events are to be always kept up to date for inspection by the *Supervisor* and/or *Project Manager*.

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

Refer to Construction Environmental Management Plan and Site Information.

5.1.14 Survey control and setting out of the *works*

Foundations

The *Contractor* is solely responsible for pegging of bend points and tower positions in accordance with the co-ordinates and line profiles, determining foundation positions, leg extensions and guy rope lengths.

The *Contractor* shall comply with attached document titled "The standard for the construction of overhead powerlines" (TRMSCAAC1 Rev 5.2)

The *Contractor* undertakes to appoint a geotechnical specialist and to conduct geotechnical investigation on all tower foundations, nominate foundation types, design foundations, carry out concrete test and install concrete foundations and earthing system, including setting out, excavation, foundation steelwork,

reinforcement, concrete and reinstatement in various soil conditions, in accordance with TRMSCAAC1 rev 5.2 and TRMASAAJ7.

The *Contractor* informs the *Project Manager* of the nominated soil/rock condition at each foundation position and the design solution for the foundation at least two weeks before installation of the foundation.

Concrete batching and mixing plant(s) established by the *Contractor* shall be solely dedicated to the *Works*. The *Supervisor* shall approve the design, operation and location of the plant(s).

The *Contractor* provides his own equipment for the testing of concrete cubes on site, or, should he make use of an independent testing facility, ensures that test results after 7 days, 14days and 28 days are made available to the *Supervisor* within 5 days of each test.

Where the excavated material of foundations is unsuitable for backfill, the *Supervisor* may instruct the *Contractor* to import suitable material.

All excavated foundation shall be fenced off to prevent animals from falling in.

Towers

The *Contractor* undertakes pegging, assembly and erection of towers, leg and body extensions and installation of anti-climb devices, latchways, bird-guards and line labels.

The *Contractor* manufactures and tests all guy, spacer and cross ropes and supplies all fittings, U-bolts, dead-ends, shackles, etc. necessary for the installation thereof and erection of the masts.

Measurement of earth footing resistances is to be undertaken before the commencement of stringing, in accordance with TRMASAAJ7 and additional earthing installed as required by the *Project Manager*.

Earthwire insulators are to be installed on selected towers as per the staking table and the line design.

Stringing

The *Contractor* undertakes stringing and regulating of phase and earth conductors together with the installation of line fittings and hardware in accordance with TRMSCAAC1 Rev 5.2.

Upon delivery, the *Contractor* assembles one test sample for each hardware assembly to ensure compatibility with the tower.

Adequate provisions are to be made for the protection and safe transport of composite insulators and all other material to the work site and during erection. Strict adherence to the “guide to the storing, transporting and installation of composite insulators” is mandatory. Climbing down or over composite insulators is strictly forbidden – ladders and cradles must be used.

The *Contractor* provides for the making up of samples and testing of compression joints in accordance with TRMSCAAC1 Rev 5.2 before stringing commences.

The *Contractor* determines the location and type of crossings, and compiles a detailed stringing programme, which is to be submitted to the *Supervisor* at least four weeks before stringing commences. The *Supervisor* shall liaise with local representatives of various bodies with regard to outages.

When stringing over existing power-lines, telecommunication lines, railway lines and roads the *Contractor* is to provide and erect suitable crossing solutions and nets as required by the safety regulations (Scaffolding will not be allowed as a possible crossing solution).

Aircraft warning devices, bird-guards and bird-diverters are to be installed where instructed as per EMP and the line design.

5.1.15 Excavations and associated water control

Refer to SHE specification, EMP. *Contractor* to barricade and use suitable system for all foundation to prevent animals and kids/by passers from falling in open excavations. Foundations should be marked with material that can be visible at night. The *Contractor* must select material that cannot be consumed by animals. Refer to the SHE specifications for more information

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

Should there be any underground services that may require relocating; this should be discussed with the *Supervisor* who will discuss it with the *Project Manager* and the designers.

5.1.17 Control of noise, dust, water and waste

Refer to the SHE specification, EMP and any other statutory requirements.

5.1.18 Sequences of construction or installation

As per agreed; Progress Schedule and Method Statements. The *Contractor* shall compile an access plan for all tower position for approval prior to start construction i.e. pegging, bush clearing.

5.1.19 Giving notice of work to be covered up

The *Contractor* must take cognisance of the Environmental Management Plan and TRMSCAAC1 Rev 5.2 in the rehabilitation of damage caused during construction.

After construction the *Contractor* is to rehabilitate any damage caused to the environment to the satisfaction of the *Supervisor* and landowner. The remedial *Works* are to be "signed-off" by both parties before acceptance.

Existing farm roads and tracks are to be maintained throughout the contract and left in at least as good condition as was found before construction commenced. The *Contractor* and *Supervisor* are to agree, using photographic evidence if necessary, as to the state of such roads and tracks before construction commences. Existing berms are to be repaired during and after construction in accordance with TRMSCAAC1 Rev 5.2.

New access roads are to be closed on completion unless otherwise instructed. The *Supervisor* may instruct the *Contractor* to install water erosion control berms and other methods upon closure.

Tower sites are to be rehabilitated to the satisfaction of the landowner and *Supervisor*. In certain circumstances re-vegetation, mulching and erosion control measures etc. may be called for.

5.1.20 Hook ups to existing works

Contractor to confirm, prior to starting of construction.

5.2 Completion, testing, commissioning and correction of Defects

5.2.1 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 built drawings of the NamPower 2 nd 400kV Interconnector	Within 30 days after Completion
	Rehabilitation, installation of retaining walls, ground- <i>Works</i> , removal of temporary <i>Works</i> , removal of construction camps, batching plants	Within 30 days after Completion

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

Not applicable

5.2.3 Materials facilities and samples for tests and inspections

The *Contractor* shall comply with attached document titled "The standard for the construction of overhead powerlines"(TRMSCAAC1Rev5.2).

5.2.4 Commissioning

The *Contractor* shall comply with attached document titled "The standard for the construction of overhead powerlines" (TRMSCAAC1 Rev 5.2).

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

Not applicable

5.2.6 Take over procedures

Take-over of The *Works* shall be in accordance NEC ECC3 hand over Certification and Projects Execution Hand over Document

The *Contractor* advises the *Supervisor* when the line is available for final inspection, and provides assistance if required.

By the completion date in the contract data, the *Contractor* shall complete all work required above the anti-climbing devices. All other work (rehabilitation, installation of retaining walls, ground-*Works*, removal of temporary *Works*, removal of construction camps, batching plants etc.) shall be completed within four (4) weeks of Take-Over. The *Supervisor* and / or landowner prior to the release of any retention moneys held against this contract shall approve such work.

The *Contractor* maintains the *Works* until the defects date with regard to making good erosion caused by his operations, shrinkages, imperfections, settlements, etc.

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

Clause 43.4 of the NEC will apply

5.2.8 Performance tests after Completion

Not applicable

5.2.9 Training and technology transfer

The supplier shall provide training of an international standard on the supplied equipment by OEM accredited instructors. The training shall be in accordance with the Eskom training standard 240-56065202, and organised on the following levels:

- Orientation and basic functioning
- Operational and first line maintenance

5.2.10 Operational maintenance after Completion

The supplier shall provide training of an international standard on the supplied equipment by OEM accredited instructors. The training shall be in accordance with the Eskom training standard 240-56065202, and organised on the following levels:

- Orientation and basic functioning
- Operational and first line maintenance

6 Plant and Materials standards and workmanship

6.1 Investigation, survey, and Site clearance

Refer to the EMP and attached document titled "The standard for the construction of overhead powerlines" (TRMSCAAC1 Rev 5.2)

6.2 Building works

Not applicable for this contract.

6.3 Civil engineering and structural works

Not Applicable

6.4 Electrical & mechanical engineering works

Not Applicable

6.5 Process control and IT works

Not applicable for this contract.

6.6 Report issued by the *Employer*

This is the final design report issued by the *Employer* at or before the Contract Date and which apply to this contract.

Document number	Revision	Title
LES 1626	1	Scope of Work Document
LES 1500	0	OPGW Hardware and Scope of work

7 List of drawings

7.1 Drawings issued by the *Employer*

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

A document transmittal will be signed by both parties during the kick-off meeting.

Drawing number	Revision	Title
Line		

8 Transfer of Real Ownership

- Each item of plant and Material shall become the property of the *Employer*, free from any liens and other encumbrances, upon the earlier occurring of
- The item becoming part of the permanent work: or
- Payment for the item being made in full to the *Contractor*, in which event ownership shall be transferred to the *Employer* by Constitutum possessorium (i.e the *Contractor* retains physical control of the item on behalf of its new owner, the *Employer*)

C3.2 *CONTRACTOR'S* WORKS INFORMATION

This section of the *Works* Information will always be contract specific depending on the nature of the *works*. It is most likely to be required for design and construct contracts where the tendering *Contractor* will have proposed specifications and schedules for items of Plant and Materials and workmanship, which once accepted by the *Employer* prior to award of contract now become obligations of the *Contractor* per core clause 20.1.

Typical subheadings could be

- a) *Contractor's* design
- b) Plant and Materials specifications and schedules
- c) Other

This section could also be compiled as a separate file.
