

NEC3 Engineering and Construction

Short Contract (ECSC3)

A contract between NTCSA SOC Ltd (Reg No. 2021/539129/30)

and

for Simmperpan Energy Performance Certificate Smart Meters
Installation

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Documentation prepared by: TBC

C1 Agreements & Contract Data

C1.1 Form of Offer and Acceptance

Offer

The Employer, identified in the Acceptance page signature block on the next page, has solicited offers to enter into a contract for the procurement of:

Title of the Contract

The tenderer, identified in the signature block below, having examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

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

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

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

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Tenderer's CIDB registration number:

Acceptance

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the conditions of contract identified in the Contract Data. Acceptance of the tenderer's Offer shall form an Agreement between the Employer and the tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the Contract, are contained in:

Part 1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

Part 2 Pricing Data

Part 3 Scope of Work: Works Information

Part 4 Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of Offer and Acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be signed by the duly authorised representative(s) for both parties.

The tenderer shall within one week of receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the Contract Data at, or just after, the date this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the tenderer receives one fully completed and signed copy of this document, including the Schedule of Deviations (if any) together with all the terms of the contract as listed above.

Signature(s)

Name(s)

Capacity

**for the
Employer**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Note: If a tenderer wishes to submit alternative tender offers, further copies of this document may be used for that purpose, duly endorsed, 'Alternative Tender No. _____'

Schedule of Deviations

Note:

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

No.	Subject	Details
1	[•]	[•]
2	[•]	[•]
3	[•]	[•]
4	[•]	[•]
5	[•]	[•]
6	[•]	[•]
7	[•]	[•]

By the duly authorised representatives signing this Schedule of Deviations below, the Employer and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the Offer agreed by the tenderer and the Employer during this process of Offer and Acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

For the tenderer:

For the Employer

Signature _____

Name _____

Capacity _____

On behalf of _____
(Insert name and address of organisation)

Name & signature of witness _____

Date _____

C1.2 Contract Data

Data provided by the *Employer*

Completion of the data in full is essential to create a complete contract.

Clause	Statement	Data
General		
10.1	The <i>Employer</i> is (Name):	NTCSA SOC Ltd (reg no: 2021/539129/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
10.1 & 14.4	The <i>Employer's</i> representative to whom the <i>Employer</i> in terms of clause 14.4 delegates his actions ¹ is (Name):	TBC
	Address	TBC
	Tel No.	TBC
	E-mail address	TBC
11.2(11)	The <i>works</i> are	Simmperpan Energy Performance Certificate Smart Meters Installation
11.2(13)	The Works Information is in	the document called 'Works Information' in Part 3 of this contract.
11.2(12)	The Site Information is in	the document called 'Site Information' in Part 4 of this contract.
11.2(12)	The <i>site</i> is	Simmerpan Complex, Cnr, Power & Refinery Road, Germiston, 1400
30.1	The <i>starting date</i> is.	TBC
11.2(2)	The <i>completion date</i> is.	TBC
13.2	The <i>period for reply</i> is	Twoweeks
40	The <i>defects date</i> is	52weeks after Completion
41.3	The <i>defect correction period</i> is	Two weeks
50.1	The <i>assessment day</i> is the	Between the 25 day of each successive month.
50.5	The <i>delay damages</i> are	0.1% per day up to a limit of 10% of the total contract amount
50.6	The retention is	10%

¹ Except those actions which can only be done by the *Employer* as a Party to the contract.

51.2	The interest rate on late payment is	0% per week of delay has been agreed]
80.1	The <i>Contractor</i> is not liable to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property in excess of	the amount of the deductibles relevant to the event
	Does the United Kingdom Housing Grants, Construction and Regeneration Act (1996) apply?	No
93.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
	Address	TBC
	Tel No.	TBC
	Fax No.	TBC
	e-mail	TBC
93.2(2)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body
93.4	The <i>tribunal</i> is:	arbitration.
	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	Johannesburg, South Africa
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or	the Chairman for the time being or his nominee
	- if the arbitration procedure does not state who selects an arbitrator, is	of the Association of Arbitrators (Southern Africa) or its successor body.
The conditions of contract are the NEC3 Engineering and Construction Short Contract (April 2013) ²³ and the following additional conditions Z1 to Z11 which always apply:		

Z1 Cession delegation and assignment

- Z1.1 The *Contractor* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer*.

² If June 2005 Edition applies, delete April 2013 and insert June 2005

³ State whether attached as a 'PDF' file in terms of NTCSA's licence, or to be obtained from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

- Z1.2 Notwithstanding the above, the *Employer* may on written notice to the *Contractor* cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.

Z2 Change of Broad Based Black Economic Empowerment (B-BBEE) status

- Z2.1 Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor's* B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.
- Z2.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Employer* within thirty days of the notification or as otherwise instructed by the *Employer*.
- Z2.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the *starting date* the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Works.
- Z2.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *works*.

Z3 Confidentiality

- Z3.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to others except where required by this contract. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to others where required by this contract the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z3.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Employer*.
- Z3.3 In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the *Contractor* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.
- Z3.4 The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Employer*. All rights in and to all such images vests exclusively in the *Employer*.
- Z3.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z4 Waiver and estoppel: Add to clause 12.2:

- Z4.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties or their delegates or the *Adjudicator* does not constitute a waiver of rights, and does not

give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.

Z5 Health, safety and the environment

- Z5.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *works*. Without limitation the *Contractor*:
- accepts that the *Employer* may appoint him as the "Principal Contractor" (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) ("the Construction Regulations") for the Site;
 - warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of *works*; and
 - undertakes, in and about the execution of the *works*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.
- Z5.2 The *Contractor*, in and about the execution of the *works*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

Z6 Provision of a Tax Invoice and interest. Add to clause 50

- Z6.1 The *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the Works Information, showing the correctly assessed amount due for payment.
- Z6.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z6.3 The *Contractor* is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer's* VAT number 4710303126 on each invoice he submits for payment.

Z7 Notifying compensation events

- Z7.1 Delete from the last sentence in clause 61.1, "unless the event arises from an instruction of the *Employer*."

Z8 *Employer's* limitation of liability; Add to clause 80.1

- Z8.1 The *Employer* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand).

Z9 Termination: Add to clause 90.2, after the words "or its equivalent":

- Z9.1 or had a business rescue order granted against it.

Z10 Addition to Clause 50.5

Z10.1 If the amount due for the *Contractor's* payment of *delay damages* reaches the limits stated in this Contract Data (if any), the *Employer* may terminate the *Contractor's* obligation to Provide the Works.

If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *works*.

Z11 Ethics

For the purposes of this Z-clause, the following definitions apply:

Affected Party	means, as the context requires, any party, irrespective of whether it is the <i>Contractor</i> or a third party, such party's employees, agents, or Subconsultants or Subcontractor's employees, or any one or more of all of these parties' relatives or friends,
Coercive Action	means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,
Collusive Action	means where two or more parties co-operate to achieve an unlawful or illegal purpose, including to influence an Affected Party to act unlawfully or illegally,
Committing Party	means, as the context requires, the <i>Contractor</i> , or any member thereof in the case of a joint venture, or its employees, agents, or Subcontractors or the Subcontractor's employees,
Corrupt Action	means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,
Fraudulent Action	means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,
Obstructive Action	means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and
Prohibited Action	means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action.

Z11.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

Z11.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.

Z11.3 If the *Employer* terminates the *Contractor's* obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.

Z11.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z12 Insurance

Z _12.1 Replace core clause 82 with the following:

Insurance cover 82

- 82.1 When requested by a Party, the other Party provides certificates from his insurer or broker stating that the insurances required by this contract are in force.
- 82.2 The *Contractor* provides the insurances stated in the Insurance Table A, from the *starting date* until the earlier of Completion and the date of the termination certificate.

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity	Cover provided until
Loss of or damage to the works	<p>The replacement cost where not covered by the <i>Employer's</i> insurance</p> <p>The <i>Employer's</i> policy deductible as at contract date, where covered by the <i>Employer's</i> insurance</p>	The <i>Employer's</i> certificate of Completion has been issued
Loss of or damage to Equipment, Plant and Materials	<p>The replacement cost where not covered by the <i>Employer's</i> insurance</p> <p>The <i>Employer's</i> policy deductible as at contract date, where covered by the <i>Employer's</i> insurance</p>	The Defects Certificate has been issued
The <i>Contractor's</i> liability for loss of or damage to property (except the works, Plant and Materials and Equipment) and for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor's</i> Providing the Works	<p><u>Loss of or damage to property</u></p> <p><u>Employer's property</u></p> <p>The replacement cost where not covered by the <i>Employer's</i> insurance</p> <p>The <i>Employer's</i> policy deductible as at contract date where covered by the <i>Employer's</i> insurance</p> <p><u>Other property</u></p> <p>The replacement</p>	

	cost	
	<u>Bodily injury to or death of a person</u>	
	The amount required by the applicable law	
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law	

82.3 The *Employer* provides the insurances as stated in the Insurance Table B

INSURANCE TABLE B

Insurance against or name of policy	Minimum amount of cover or minimum of indemnity
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z13 Nuclear Liability

Z13.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.

Z13.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z13.3 Subject to clause Z13.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or

that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z13.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.

Z13.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z14 Asbestos

For the purposes of this Z-clause, the following definitions apply:

AAIA	means approved asbestos inspection authority.
ACM	means asbestos containing materials.
AL	means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
Ambient Air	means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
Compliance Monitoring	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
Standard	means the <i>Employer's</i> Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.
SANAS	means the South African National Accreditation System.
TWA	means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

Z14.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.

- Z14.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor's* expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
- Z14.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z14.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.
- Z14.5 The *Contractor's* personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.
- Z14.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.
- Z14.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

Data provided by the *Contractor* (the *Contractor's Offer*)

The tendering contractor is advised to read both the NEC3 Engineering and Construction Short Contract (April 2013) and the relevant parts of its Guidance Notes (ECSC3-GN)⁴ in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on page 31 of the ECSC3 April 2013 Guidance Notes.

Completion of the data in full is essential to create a complete contract.

10.1	The <i>Contractor</i> is (Name):	[•]
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	E-mail address	[•]
63.2	The percentage for overheads and profit added to the Defined Cost for people is	[•]%
63.2	The percentage for overheads and profit added to other Defined Cost is	[•]%
11.2(9)	The Price List is in	the document called 'Price List' in Part 2 of this contract.
11.2(10)	The offered total of the Prices is [Enter the total of the Prices from the Price List]:	R[•] excluding VAT [in words] [•] excluding VAT

⁴ Available from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

C2 Pricing Data

C2.1 Pricing assumptions

Entries in the first four columns in the Price List are made either by the *Employer* or the tendering contractor

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tenderer enters the amount in the Price column only; the Unit, Quantity and Rate columns being left blank.

If the *Contractor* is to be paid an amount for the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters the rate which is then multiplied by the expected quantity to produce the Price, which is also entered.

All Prices are to be shown excluding VAT unless instructed otherwise by the *Employer* in Tender Data or in an instruction the *Employer* has given before the tenderer enters his Prices.

If there is insufficient space in the Price List which follows, state in which document the Price List is contained.

C2.2 Price List

The Price List is as follows / contained in _____ (delete the text which does not apply and this note)

Item no.	Description	Unit	Quantity	Rate	Price
	See attached Unpriced BOQ				
	The total of the Prices (excluding VAT):				

C3: Scope of Work

C3.1 Works Information

This document outlines the technical specification and standard compliance requirements for the procurement of commercial building electricity smart meters installation. The specifications aim to ensure that the smart meters are accurate, reliable, durable, and capable of supporting advanced metering infrastructure (AMI) functionalities for purpose of achieving energy consumption data recording for analysis of utilisation of electricity to achieve energy efficient for combatting climate change and reduction carbon footprint.

1. Description of the works

Give a detailed description of what the *Contractor* is required to do and of any work which the *Contractor* is to design.

Contractor ensures that all Smart meters are installed, interfaced with Eskom GSM/fibre network and all meters located in the National Control Building are connected to Data concentration as shown in the overview of the smart meter architecture (see figure 1).



Figure 1: Simplified Smart Meter Architecture

Contractor shall ensure that Advance Metering Infrastructure (AMI) Smart meters are wired to the Data concentration which will concentrate all data information from all smart meter located in each floor of the building for the management of energy consumption data, actual energy utilised and billing for the purpose of Energy Performance Certification data collection. *Contractor* ensures that user can be able to read and download energy consumption at the master mart meter that is located at the meter kiosk.

Hardware Specifications:

Contractor shall 3-phase Smart Split Meters with External GSM Modem, 400V, Current 100A, 3-phase, Smart AMI meter, with Low-Power Wide Area Network communication between meters using GSM. *Contractor* ensures that meter incorporates integra 100A load switch, RTC, Time-of-Use, and external GSM modem. Smart meters shall be provided with modem with any network provide to ensure that easy flow communication of all the meters in the building and to the master meter and data concertation. *Contractor* ensures that Smart Meter can monitor active energy (kWh) and Reactive Energy (kVarh).

Software and Firmware

Contractor shall provide the latest software application operating system, application software, firmware updates, and the management of data for reporting and analysis.

Communication Protocols:

Contractor shall ensure that all Smarter Meters can communicate with one another using external GSM modem using Low-Power Wide Area Network (LPWAN) of which cellular Internet of Things (IoT) technologies and provide communication standards supported by the smart meter, including both wired and wireless options, network security protocols, and compatibility with utility communication networks.

Metering functions

Contractor shall ensure that all smart meters are equipped with two-way communication between master smart meters and meters allocated in the building and data concentrations. Meters shall be able to measure energy consumptions, accurately to meet standard and compliance with relevant measurement standards.

Installation Requirements

Contractor shall provide pre-installation checks, the installation procedure itself, and post-installation verification. Contractor provides installation of smart meters as outlined in below as per the meter kiosk and its corresponding buildings.

National Control Building

- 1 x Smart Meter is required at the national control centre ground floor to metering, measuring, and monitoring of energy consumptions for National Control Offices and Grid Access. The smart meter will send data to the master smart meter on the meter kiosk located adjust to the National control centre mini substation.
- 1 x Smart Meter is required for metering, measuring, and monitoring of energy consumptions for National Control Operation Performance Office on the 1st floor.
- 1 x Smart Meter is required for metering, measuring, and monitoring of energy consumptions for National Control Support System Office on the 2nd floor.
- 1 x Smart Meter is required for metering, measuring, and monitoring of energy consumptions for National Control Centre Support on the 3rd floor.
- 1 x Smart Meter is required for metering, measuring, and monitoring of energy consumptions for National Control Centre Support on the 4th floor.



Figure 2: National Control LPU Meter Kiosk

- 1 x Master Smart meter and a Data concentrator DC 450 G3 PLC DC 230V shall be installed at the Meter Kiosk shown in figure 2 in accordance with Appendix B and C.

Regional Control Centre

- 2 x Smart Meters are required for the distribution regional office building within national control centre, the building has floors namely ground floor and 1st floor.
- 1 x Smart meter will be located on the ground floor to monitor, measure energy consumption, and send data to the master smart meter located in the National Control Centre Mini-Sub Meter kiosk (See Appendix B and C)
- Install 3-ph PVC cabling and Earthing Cabling (See Appendix B and C)

Ackerman Building

- Ackerman Building is supplied from the Security Office Substation 11 as seen in figure 3.
- Security Office Substation meter kiosk shall be used for installation of master smart meter.
- All 5 distribution boards (DB) in Ackerman are supplied from Security Office Substation.
- 5 x Smart Meters is required for measuring and monitoring of energy consumption for Ackerman ground floor and 1st floor. Ackerman building consist of ground floor and 1st floor hosting Distribution Plant Maintenance Department.
- 1 x Master Smart Meter shall be installed at the Ackerman Security Office Mini-substation Meter Kiosk. Energy consumption data shall be collected from the two Smart meters to be located at ground floor and 1st floor and all the energy consumptions data from both meters shall be send to Data concentrator via wireless GSM modem.
- Communication will be via meters will be done with provision of Eskom IT and NMC telecommunication to ensure smooth configuration and interface with communication schemes architecture and IP address allocation for cybersecurity purposes and remote reading of the meter data.
- 1 x Interface Data concentrate DC 450 G3 PLC DC 230V will be installed at the Security Office Mini-substation 11kV Meter Kiosk (See Appendix B and C)
- 1 x Internal GSM Modem
- Install LV circuit Breaker at Data centre kiosk (See Appendix B and C)



Figure 3: Security Office Mini-Substation 11kV Meter Kiosk

Simmer Centre Building

- 2 x Smart Meters for Simmer Centre Central Grid Block A Ground floor.
- 2 x Smart Meters for Simmer Centre Central Grid Block B 1st Floor
- 2 x Smart Meters for Simmer Centre Central Grid Block C, ground floor and 1st floor.

- 2 x Smart Meters for Simmer Centre Energy Planning and Market and Finance, one meter ground floor and other on the 1st floor.
- 1 x Master Smart meter and a Data concentrator DC 450 G3 PLC DC 230V shall be installed at the Simmer Centre new Meter Kiosk (See Appendix B and C)
- 1 x Internal GSM Modem
- Install 3-ph PVC cabling and Earthing Cabling (See Appendix B and C)
- Install Data Concentrator kiosk (D-DT-1878)

Matumi Building

- Matumi building is supplied from substation as (see figure 4)
- Matumi Meter kiosk 500kVA LPU Meter Kiosk will be used for the installation of Master Smart Meter.
- 2 x Smart Meters for Matumi Building ground floor and 1st floor.
- 1 x Master Meter with Data concentrator will be installed at Matumi LPU Meter Kiosk 500kVA at the mini sub located adjust to the Matumi building or supplying Matumi building as shown below in figure 4.
- Install 3-ph PVC cabling and Earthing Cabling (See Appendix B and C)
- Install LV circuit Breaker at Data centre kiosk (See Appendix B and C)
- 1 x Internal GSM Modem
- Install Data Concentrator kiosk (See Appendix B and C)



Figure 4: Matumi Building 500kVA LPU Meter Kiosk

Engineering Building: PTM&C Engineering Building

- Existing Tupli Substation as shown in figure 5, shall be equipped with the following equipment.
- 6 x Smart Meters shall be installed for measuring, metering, and monitoring energy performance for ground floor and upper floors (See Appendix B and C).
- 1 x Master Smart meter with data concentrator will be installed at the Mini-substation LPU meter kiosk located behind the Engineering Building.
- 1 x DC 450 G3 PLC DC 230V Data concentrator shall be installed at the existing Tupli Mini-substation Metter Kiosk as shown in figure 5.
- 1 x Internal GSM Modem

- Install 3-ph PVC cabling and Earthing Cabling (see Appendix B and C).
- Low Voltage Circuit Breaker at Data centre kiosk (See Appendix B and C).
- Install Data Concentrator kiosk (See Appendix B and C)



Figure 5: Tulip Substation 5 Meter Kiosk

Hume Building

- Hume building requires 6 x Smart Meter, 5 x smart meter for both ground floor, first floor and second floor and a master meter with data concentration.
- 1 x Master Smart meter with Data concentrator will install at the Main distribution board room (See Appendix B and C)
- 1 x DC 450 G3 PLC DC 230V Data Centre wired to the Master smart meter at the Hume Building Distribution Board (Appendix B)
- 1 x Internal GSM Modem
- Install 3-ph PVC cabling and Earthing Cabling (See Appendix B and C)
- Install Data Concentrator kiosk (see Appendix C)

Switchgear Building

- 1 x Smart meters will be installed at the 1st floor at the distribution board room.
- 1 x Smart meter will be installed at the 2nd floor at the distribution board room.
- 1 x DC 450 G3 PLC DC 230V Data Concentration (see Appendix B)
- 1 x Internal GSM Modem
- Install 3-ph PVC cabling and Earthing Cabling (see Appendix B & C)
- Low Voltage Circuit Breaker at Data centre kiosk (See Appendix B & C)
- 1 x Master smart meter wired to the Data Concentrator at the kiosk (see Appendix C)
- Install a new Data Concentrator kiosk as show in Appendix B

Compliance to legislation, standard and procedures

The *Contractor* complies with the latest revisions of the legislations, standards and procedures listed in the subsection below.

The *Employer* provides the Eskom standards and procedures to the *Contractor*.

All other legislations and standards will not be supplied by the *Employer*. It is the *Contractor's* responsibility to source all other standards for the purposes of this project.

Legislations

- Occupational Health and Safety Act, Act 85 of 1998.
- National Building Regulations and Building Standard Act No. 103 of 1977
- SANS 10400 The application of the National Building Regulations – All Parts.
- Engineering Professional Act, 2000 (Act No. 46 of 2000)
- Department of Employment and Labour (DOL) mandate to the South African Qualifications Certification Committee (SAQCC) Fire

Standards and Codes

Technical Standards

- 140-170000189 Standard for Current and Future Metering Implementation
- SANS 10400-XA Building Occupancy Classes
- SANS 1544 Energy Performance Certificate
- 240- 170000540 National Contractor for Smart Meters
- 240-77224541 Standard for the operation of the metering data acquisition system

Quality

- 240-105658000 Supplier Quality Management: Specification
- QM58 Quality Management Standard

Warranty and Support

- The system shall carry a minimum local (South African) warranty of 36 months with the provision of 24-hour telephonic support from the commissioning date.
- Supplier spares holding should include minimum replacement spares to restore service of the system in its entirety within 8 working hours.
- Upon request, the supplier to provide list of reference sites with contact details where the product on offer has been successfully installed and the year of implementation.

Equipment environmental condition specification

The *Contractor* provides equipment that is rated for the environment that is suitable for the equipment. The *Contractor* incorporates factors such as ambient temperature, relative humidity, dust ingress, water ingress, wind, oil, access for maintenance and theft when selecting the equipment and its siting. The operating conditions where equipment will be installed must not reduce the life expectancy of the equipment.

Quality control and quality assurance specifications

The *Contractor* is required to comply with the Eskom 240-105658000 Supplier Quality Management Specification.

Detailed Scope of work

General Requirements

- The *Contractor* shall supply, deliver, off-load, install, and test and commission the Smart meters.
- The *Contractor* shall re-use the existing Meter Kiosk to Install the Master smart meter and Data concentrators.

- The Contractor shall provide the Meter Kiosk where there is no existing Meter Kiosk to install Master Smart Meter and Data concentrators.
- The *Contractor* shall provide the tests to verify certificates indicating characteristics of Smart meter communication such as type tests, routine tests, and any special test in accordance with SANS/IEC 62056.
- The Contractor is to ensure that all type test carried out by the manufacturer, in his workshop or at any suitable laboratory of his choice is handed over to the Employer after commissioning.
- The *Contractor* shall ensure that the type test includes the following requirements as specified in table 1.
- The *Contractor* ensures that characteristics of the metallic screen include resistance with the calculation for the prospective fault current in the fusible element circuit.
- The *Contractor* is to provide the Test procedure for connecting additional devices including Modbus device.
- The *Contractor* shall provide the Test report for Smart meter reading in accordance with SANS/IEC 62056.
- The *Contractor* is to ensure that mechanical operation circuit-breaker satisfy tripping of the circuit-breaker with the closing release energize and checked under no-load condition.
- The *Contractor* shall provide circuit-breaker with Thermal-magnetic trip units for overload and short-circuit protection.
- The *Contractor* shall deliver, off-load, test and commission and produce test report, checklist, and issue CoC certification at the Meter Kiosk.

Location of the Works / Area to be covered.

The works shall be performed at Simmerpan DEC National Control

Drawings and Tables Applicable to the Project

- Tables are included into the Works Information
- Construction drawings will be issued to the successful contractor on contract award.

Key Personnel Requirements

Project Manager

- The *Project Manager* shall be allocated to the project for management of the project and providing regular feedback to the *Employer's* Project Manager.
- The *Project Manager* shall also attend all required meetings and be responsible for all correspondence between the *Employer* and the *Contractor*.

Project Site Supervisor

- The *Project Manager* shall also attend all required meetings and be responsible for all correspondence between the *Employer* and the *Contractor*.
- This individual shall also serve as the on-site interface between the *Employer's* representative and the *Contractor*.

Accredited Access Equipment Personnel

- The *Contractor* shall indicate the method of accessing certain areas and the equipment to be used, especially for accessing work areas above ground level.
- Should scaffolding be used by the *Contractor*, the Contractor shall suitably qualified personnel for the erection, use, dismantling and inspection of access scaffolding.
- Use of all other access equipment shall be subject to approval from the *Employer* prior to such equipment being allowed on site.
- Personnel handling and inspecting all access equipment shall be in possession of the respective valid accredited training certificates for the respective equipment.

Accredited Technology / Product Specific Technical Personnel

- The *Contractor* shall ensure that provision is made for OEM accredited lab installation & commissioning Technicians for the duration of the project.
- All personnel shall be in possession of valid accreditation documents from the respective OEM in this regard.

Additional Personnel Requirements

- All other scope requiring accredited personnel in that field shall be provided for the respective portion of work.
- All specialist personnel shall have the valid accreditation / training certificates for their respective fields of work.
- The *Contractor* is required to provide an organogram of the crew that they intend deploying on the project.

Component Power Supplies

- All components shall be powered by OEM specified power supplies capable of providing the recommended power to each component / module in the system.

Factory Acceptance Testing (FAT)

- The *Contractor* shall fully rig the system and configure it at their premises for Factory Acceptance Testing by the Employer. The system must be rigged in a manner that would indicate how it appears once installed on site.
- The *Contractor* shall submit the FAT criteria documents together with supporting drawings /schematics to the Employer 14 working days prior to the FAT exercise for review and acceptance.
- The *Employer* may request amendments to the criteria prior to it being approved.
- The *Contractor* shall use the pre-approved FAT criteria documentation and associated schematics / drawings to conduct the FAT exercise.
- All defects identified during the FAT exercise shall be corrected with 72 hours and feedback provided to the Employer's representative.
- The *Employer's* representative shall confirm whether the defects have been corrected before permission is granted to transport the system to site.
- FAT documents shall be signed by all relevant stakeholders and included in the Quality File of the project as part of the document records.
- The *Employer* may opt to engage with the Contractor in one or more pre-FAT sessions prior to the main FAT exercise to enable a smooth testing exercise.
- FAT documents are together with architectural schematics for all equipment racks are to be submitted to the Employer's representative within 21 working days of the contract being entered into.

Site Acceptance Testing

- SAT criteria documents together with supporting drawings/schematics documents are to be submitted to the Employer together with the FAT documents (14 days prior to FAT) for review and acceptance.
- The *Employer* may request amendments to the criteria prior to it being approved. The *Contractor* shall use the pre-approved SAT criteria documentation and associated schematics / drawings to conduct the SAT exercise.
- SAT shall involve permanent intended power supplies and permanent speaker lines.
- All defects identified during the SAT exercise shall be corrected with 72 hours and the system re-checked with the Employer's representative.
- SAT documents shall be signed by all relevant stakeholders and included in the Quality File of the project as part of the document records.

Warranty and Support

- The *Contractor* shall be suitably accredited in all aspects for the product being proposed.
- A Letter of Accreditation is required to be submitted in this regard.
- The tenderer shall be able to offer all technical, spares, and for the product being proposed.
- The tenderer shall have a history of supplying products of this nature for a period of 5 years or have personnel experienced in this field for a period of no less than 5 years.
- The tenderer shall supply a minimum of 5 traceable reference sites with contact person details where the proposed product has been successfully installed by them.

Commissioning

- The *Contractor* is required to comply with the Eskom 240-105658000 Supplier Quality Management Specification.

Handover

- The *Contractor* shall handover the works after commissioning procedure standards has been confirmed and issuing of Certificate of Compliance has been made signed and approved by accredited lab Master Installation Electrician.

Configuration Management

- All name coding shall be supplied by the *Employer*.
- Labels shall be manufactured as per configured data by the Contractor and affixed.
- *Employer* shall provide the *Contractor* with a Labelling Standard which provides a guideline on the manufacture of the labels.

As built/ floor plan drawings

- As-built and Floor plan drawings shall be supplied to the successful Contractor for the areas in which installation is required.
- Terminal equipment locations and proposed cable routes shall be indicated on these drawings.
- The *Contractor* shall red-line drawings to depict and clearly show the revision mark-up and latest revision as per Eskom convention depicting installed cable, junction boxes and terminal equipment.

Documentation

The following documents are to be supplied by the Contractor within the pre-determined schedule:

- Functional description of the system
- Electrical Schematic diagrams, including loop diagrams.
- General Arrangement drawings of the panels
- Component lists per panel and per section.
- Termination diagrams for each Enclosure, DB, and Maintenance DB box.
- Operation and Maintenance Instruction manual.
- Original Manufacturers product documents
- SAT & FAT Procedure
- Commissioning procedure
- Handover certificates
- Inspection and Test Procedures

Re-measurable items

- Notwithstanding that practical care was exercised in preparing the BOQ, but all quantities given herein shall be deemed to be estimated quantities of the work to be done but they are not to be taken as actual and correct quantities of the work to be executed and they are not to absolve the Contractor of his obligations under the *Contract*.

- All work shall be re-measurable.

Tender returnable (technical)

The following documents shall form part of the required documents to be submitted with the tender.

Method Statements

The Contractor shall provide detailed method statements on how he intends to conduct the Works; this shall apply to all, and any part of the Works as provided in the conditions of contract. The Contractor's comprehensive Method Statements shall demonstrate the following:

- Sound understanding of the whole of the Works,
- Understanding of the required competencies in executing all activities of the whole of the Works,
- The logical sequencing in which the Works are to be executed and,
- The Safety, Health, Environmental and Quality considerations in execution of the Works.

Sample Inspection and Test Plans (ITPs) and Quality Acceptance Documents

- The Contractor shall provide sample ITPs & QA documents for all activities of the scope. These documents shall demonstrate the following:
- The Contractor's understanding of the key Witness, Hold, Inspection and Verification points of the exercise.
- The Contractor's expectation in terms of an acceptable standard of workmanship.

Draft Schedule

- The Contractor shall submit a draft schedule depicting all activities for the entire scope. The draft schedule shall indicate the various aspects of each area of installation and the duration per activity.
- The schedule shall be based on a 5-day work week excluding any public holidays and weekends.

Data / Specification sheets

- The Contractor shall provide data / specification sheets for all components of the system inclusive of terminal equipment and cabling.
- Where the data sheet includes several variants of a product or several products, the proposed product shall clearly be marked.
- System brochures shall also form part of this requirement.

Product Certification / Conformity Documents

- Where requested, all product conformity /certification documents shall be provided for all components, inclusive of Battery charger cabling, wiring, terminal equipment, and installation equipment including earthing and lighting suitable for zone classification.
- Where test certificates have been requested, these shall be submitted.

Left Over and Recovered Material

- All left over material that formed part of the BoQ shall remain the property of the Employer and be left on site.

Guarantees

- The Contractor shall guarantee the equipment to be supplied under this contract against faulty design, materials, and workmanship at the manufacturer's works within the defect liability period (DLP).

2. Drawings

2.1 Drawings issued by the Employer

No drawings to be issued by the Employer.

2.2 Drawings issued by The Contractor

The creation, issuing and control of all Engineering Drawings are in accordance to 240-86973501 Engineering drawing Standard. All drawings should be in DGN/DXF/DWG format, and scanned drawings in pdf format. No drawings in TIFF, or any other electronic format will be accepted. Drawings submitted to Eskom may not be "Right Protected" or encrypted. Upon acceptance of *The Contractor's* detailed designs, copyright will pass to the *Employer*.

2.2.1 As-built drawings, operating Manuals and maintenance schedules

As-built drawings required, must be marked up by *The Contractor* in conjunction with the Engineer. The final completion certificate for the works will not be issued by *The Project Manager* unless all as-built drawings have been received if required. *The Contractor* should take note that the 50% retention release is subject to the Employer having received the As-built drawings if applicable.

The Contractor is required to comply with the Eskom 240-105658000 Supplier Quality Management Specification

Should there be a requirement for *The Contractor* to provide any operating and maintenance manuals, two full sets must be provided to the Employer within one working day of the handover.

Handover: Contractor shall handover the works after commissioning procedure standards has been confirmed and issuing of Certificate of Compliance has been made available and signed and approved by accredited Lab Master Installation Electrician.

Configuration Management:

All name coding shall be guided by the *Employer*.

- Labels shall be manufactured as per configured data by *The Contractor* and affixed.
- *Employer* shall provide *The Contractor* with a Labelling Standard which provides a guideline on the manufacture of the labels.

Drawing number	Revision	Title
See on Technical Spec		

3. Specifications

Title	Date or revision	Tick if publicly available
-------	------------------	----------------------------

General Specifications:		X
Health and Safety requirements		X
Environmental requirements		X
Site regulations and access control		X
Technical specifications:		
Gateway/ Data Concentrator (DCU_ + External GSM Modem		X
Data Concentrator (DC)		X
Internal GSM Modem		X
Low Voltage Breaker		X
PVC Low Voltage cabling		X

4. Constraints on how the *Contractor* Provides the Works

Tenderers will be evaluated with due consideration to the resources (both personnel and equipment) committed to the project as indicated in the tender programme.

The Contractor shall submit a draft schedule depicting all activities for the entire scope. The draft schedule shall indicate the different aspects of each area of installation and the duration per activity. The schedule shall be based on a 5-day work week excluding any public holidays and weekends.

The programme is to be submitted for acceptance in accordance with Core Clause 31 in the ECSC3, in terms of which resources to complete each activity must be clearly identified. The programme is to be submitted within two weeks of the *starting date*. It is suggested that Gantt or bar chart formats be used for project planning, while progress graphs/schedules be submitted at monthly meetings to monitor progress.

The programme is to include the following information

- Method statements which identify the equipment and other resources which *The Contractor* plans to use for the execution of the various activities of the project.
- *The Contractor* shall provide a detailed method statements on how he intends to carry out the *Works*; this shall apply to all, and any part of the *Works* as provided in the conditions of contract.
- *The Contractor's* comprehensive Method Statements shall demonstrate the following:
 - Sound understanding of the whole of the *Works*,
 - Understanding of the required competencies in executing all activities of the whole of the *Works*,
 - The logical sequencing in which the *Works* are to be executed and,
 - the Safety, Health, Environmental and Quality considerations in execution of the *Works*.
 - Planned sectional completion dates as required as well as the completion date for the whole of the works. The order and timing of the operations which *The Contractor* plans to do in order to provide the works.

provisions for:

- Float
- Time risk allowances
- Health, Safety and Quality requirements
- Environmental compliance requirements

The Contractor shall submit the first programme to *The Project Manager* for acceptance within two (2) weeks of the *starting date*. The programme must be in Primavera or Microsoft Project format.

The Contractor submits the programme as required in accordance to Core Clause 31 of ECSC3. Each time the programme is revised, *The Contractor* is to submit a revised forecast rate of invoicing to *The Project Manager*

4.1 Meetings

The following requirements for conducting Project Site meetings apply to the Works. *The Contractor* shall actively participate in and adhere to the Employer's requirements and other procedures initiated for the purpose of maintaining the Project Site administrative control. *The Contractor* shall attend other Project Site meetings when deemed required by the Employer to coordinate the Works or the Project Works.

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 register, SHEQ, technical clarification and compensation events	To be advised by <i>The Project Manager</i>	Simmerpan and/or Microsoft Teams	<i>Employer, Contractor, Supervisor, and SHEQ and other representatives as required.</i>
Overall contract progress and feedback	To be advised by <i>The Project Manager</i>	Simmerpan and/or Microsoft Teams	<i>Employer, Contractor, Supervisor, and other representatives as required.</i>
Adhoc meeting	To be advised by parties as and when required	Simmerpan and/or Microsoft Teams	<i>Employer, Contractor, Supervisor, and other representatives as required.</i>

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

All meetings shall be recorded using minutes and attendance registers will be kept. Minutes will be 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.

4.2 Use of standard forms

Early warning and compensation Event:

The Contractor and the *Employer* give an early warning by notifying the other as soon as either becomes aware of any matter (16.1) and *The Employer* gives an instruction changing the Works Information (60.1).

4.3 Invoicing and payment

In terms of core clause 50 the *Contractor* assesses the amount due and applies to the *Employer* for payment. The *Contractor* applies for payment with a tax invoice addressed to the *Employer* as follows:

The *Contractor* includes the following information on each tax invoice:

- Name and address of the *Contractor*
- The contract number and title;
- *Contractor's* VAT registration number;
- The *Employer's* VAT registration number 4710303126;
- The total Price for Work Done to Date which the *Contractor* has completed;
- Other amounts to be paid to the *Contractor*;
- Less amounts to be paid by or retained from the *Contractor*;
- The change in the amount due since the previous payment being the invoiced amount - excluding VAT, the VAT and including VAT;
- (add other as required)

The *Contractor* attaches the detail assessment of the amount due to each tax invoice showing the Price for Work Done to Date for each item in the Price List for work which he has completed.

Details on how to submit invoices and additional information:

- Ensure that the NTCSA 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.
- Your 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 Accounts Payable Department: Invoiceseskomlocal@eskom.co.za and a copy to the Project Manager
- If there is Cost Price Adjustment (CPA) on your invoice, we recommend that you 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.

4.4 Records of Defined Cost

A site diary is to be kept by the Contractor in which all events are recorded. All records of events that could give rise to Compensation Events are to be kept up to date for inspection by the Project Manager at all times.

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

- Number of personnel by category and/or trade on site on a daily basis.
- Weather conditions as agreed with the Supervisor on a daily basis.

Health and safety risk management

In addition to the requirements of the laws governing health and safety, Eskom has additional requirements particular to the *works* and the Working Areas for this contract. *The Contractor* shall comply with Issued Safety, Health and Environmental Specification for the Simmerpan Complex DC Workshop Battery Upgrade contained in Annexure (SHE Specification 559-1177047958) to this Works Information and other applicable legal requirements.

The contractor shall ensure SHEQ department approve the safety file before commencement of work and 37.2 agreement are signed by both parties.

The contractor must ensure that all his personnel attend a health and safety induction course prior to starting with their work. The induction course can, on request, be provided by employer and will be valid for the duration of the services.

Safety risk management has the right and authority to visit and inspect the Contractor's workplace on site establishments to ensure that tools, machinery and equipment comply with the minimum safety requirement.

The Employer's representative shall be entitled to instruct the contractor to stop work, without penalty to the employer, while the Contractors' personnel failed to comply with Eskom Life Saving Rules, procedures and standard and other legal requirements contravene health and safety regulations. The Employers representative is entitled to cause the contractor to discipline his employees and to conduct a disciplinary action and submit a report to the employee representative. The contractor shall implement additional health and safety precautions when necessary.

The contractor will provide all his personnel with the required personal protective equipment.

Risk assessment, Pre-job briefs, post-job briefs and job observation will be conducted for all jobs.

The employer follows an accident prevention policy that includes the investigation of all incidents involving personnel and property. This is done with the intention of introducing control measures to prevent a recurrence of the same incident. The contractor is expected to fully cooperate to achieve this objective. The employers representative must be informed immediately of any incident and any damage to property or equipment may be reported to the employers representative within 24 hours

The contractor shall comply with the occupational health and Safety Act, 1983, and regulations the act and all safety procedures issued by the employer. The contractor must furthermore comply with the employer safety health and environmental requirements for contractors.

The contractor shall ensure all personnel are provided with risk based personal protective equipment for free of charge and with company logo.

The contractor will not be allowed to transport any of its workers in open vehicle to and from site as prescribed in the Eskom safety policy.

The contractor shall adhere to Eskom lifesaving rule.

4.5 Accelerated Shared Growth Initiative – South Africa (ASGI-SA)

If the ASGI-SA requirements are to be included in this contract specify constraints which *Contractor* must comply with after contract award in regard to any ASGI-SA requirements. The ASGI-SA Compliance Schedule completed in the returnable tender schedules is reproduced here. If ASGI-SA does not apply, delete this paragraph.

The *Contractor* complies with and fulfils the *Contractor's* obligations in respect of the Accelerated and Shared Growth Initiative - South Africa in accordance with and as provided for in the *Contractor's* ASGI-SA Compliance Schedule stated below

[Insert the agreed ASGI-SA Compliance Schedule here]

The *Contractor* shall keep accurate records and provide the *Employer* with reports on the *Contractor's* actual delivery against the above stated ASGI-SA criteria. [Elaborate on access to and format of records and frequency of submission etc.]

The *Contractor's* failure to comply with his ASGI-SA obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract.

4.6 BBBEE and preferencing scheme

Specify constraints which *Contractor* must comply with after contract award in regard to any Broad Based Black Economic Empowerment (B-BBEE) or preferencing scheme measures.

4.7 Facilities to be provided by the *Contractor*

Contractor is responsible for site establishment and de-establishment at project completion.

4.8 Title to material from excavation and demolition

Any material found on site belongs to the Employer. This includes material found through excavations.

4.9 Design by the *Contractor*

Not applicable

4.10 Cataloguing requirements by the *Contractor*

Not applicable

5. Requirements for the programme

The Contractor shall submit the first programme to The Project Manager for acceptance within two (2) weeks of the starting date. The programme must be in Primavera or Microsoft Project format.

The Contractor submit the programme as required in accordance with Core Clause 31 of ECSC3. Each time the programme is revised, The Contractor is to submit a revised forecast rate of invoicing to The Project Manager

6. Services and other things provided by the *Employer*

Item	Date by which it will be provided
Electricity	
Water supply	

6.1 Equipment provided by the *Employer*

No equipment will be provided by the Employer. *The Contractor* provides all equipment and tools required to complete the *works*.

C4: Site Information

C4.1: Information about the *site* at time of tender which may affect the work in this contract

1. Access limitations

The Site

- The works shall be performed at the DC Lab in Simmerpan complex in Germiston.
- Access to the site can be gained off Power Road Eskom Simmerpan / National Control. Contractor shall adhere to all procedures set for access to the station, including acquiring security clearance where necessary.
- The building where the work will take place is situated within the boundaries of Simmerpan Complex and all Eskom rules and regulations shall be adhered to when operating in this area.
- *The Contractor* is to inspect the site and building in order to ascertain the conditions and extent of his risk.
- *The Contractor* should indicate work sequence and the limitations of access when submitting the programme to Eskom.

Security

- There is security at Simmerpan and is responsible for access control.

2. Ground conditions in areas affected by work in this contract

N/A

3. Hidden and other services within the *site*

Before any work commences, it will be the responsibility of *The Contractor* to verify and ascertain the position of any other existing services on site. Once these are indicated to *The Contractor* they shall be deemed "known". Any costs incurred for repairs to any "known" services due to Contractor's fault/damage shall be for *The Contractor's* account.

4. Details of existing buildings / facilities which *Contractor* is required to work on

The works have interfaces and hook up points with existing facilities. Activities in the scope of work are to be carried out on existing structures or facilities, thus site information is as built.