



NEC3 Engineering & Construction Contract

Between **NTCSA SOC Ltd**
(Reg No. 2021/539129/30)

and **[Insert at award stage]**
(Reg No. _____)

for **Simmerpan Complex DC Workshop and Battery Room Upgrade**

Contents:	No of pages
Part C1 Agreements & Contract Data	21
Part C2 Pricing Data	4
Part C3 Scope of Work	32
Part C4 Site Information	2

CONTRACT No. [Insert at award stage]

Part C1: Agreements & Contract Data

Contents:	No of pages
C1.1 Form of Offer and Acceptance [to be inserted from Returnable Documents at award stage]	[3]
C1.2a Contract Data provided by the <i>Employer</i>	[15]
C1.2b Contract Data provided by the <i>Contractor</i> [to be inserted from Returnable Documents at award stage]	[3]

C1.1 Form of Offer & Acceptance

Offer

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

Simmerpan Complex DC Workshop and Battery Room Upgrade for a period of 10 months

The tenderer, identified in the Offer signature block, has examined the documents listed in the Tender Data and addenda thereto 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.

Options A	The offered total of the Prices exclusive of VAT is	R [•]
	Sub total	R [•]
	Value Added Tax @ 15% is	R [•]
	The offered total of the amount due inclusive of VAT is ¹	R [•]
	(in words) [•]	

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

Signature(s)

Name(s)

Capacity

For the tenderer:

(Insert name and address of organisation)

Name & signature of witness

Date

Tenderer's CIDB registration number (if applicable)

--

¹ This total is required by the *Employer* for budgeting purposes only. Actual amounts due will be assessed in terms of the *conditions of contract*.

Acceptance

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

The terms of the contract, are contained in:

- Part C1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
- Part C2 Pricing Data
- Part C3 Scope of Work: Works Information
- Part C4 Site Information

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

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

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

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy signed between them of this document, including the Schedule of Deviations (if any).

Unless the tenderer (now *Contractor*) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)

Name(s)

Capacity

for the
Employer

(Insert name and address of organisation)

Name &
signature of
witness

Date

Note: If a tenderer wishes to submit alternative tenders, use another copy of this Form of Offer and Acceptance.

Schedule of Deviations to be completed by the *Employer* prior to contract award

Note:

1. 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)	(Insert name and address of organisation)
Name & signature of witness	.....	.....
Date	.....	.....

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

Completion of the data in full, according to the Options chosen, is essential to create a complete contract.

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
		A: Priced contract with activity schedule
	dispute resolution Option and secondary Options	W1: Dispute resolution procedure
		X2 Changes in the law
		X7: Delay damages
		X16: Retention
		X18: Limitation of liability
		Z: Additional conditions of contract
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
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	The <i>Project Manager</i> is: (Name)	TBC
	Address	TBC
	Tel	TBC
	Fax	TBC
	e-mail	TBC
10.1	The <i>Supervisor</i> is: (Name)	TBC
	Address	TBC
	Tel No.	TBC

Fax No.	TBC
e-mail	TBC
11.2(13) The works are	Simmerpan Complex DC Workshop Battery Upgrade
11.2(14) The following matters will be included in the Risk Register	Risks to be identified at the project risk meeting
11.2(15) The <i>boundaries of the site</i> are	The boundaries of the Eskom property at Simmerpan complex
11.2(16) The Site Information is in	Part 4: Site Information
11.2(19) The Works Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.
12.2 The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1 The <i>language of this contract</i> is	English
13.3 The <i>period for reply</i> is	2 weeks

2	The Contractor's main responsibilities	Data required by this section of the core clauses is provided by the <i>Contractor</i> in Part 2 and terms in <i>italics</i> used in this section are identified elsewhere in this Contract Data.		
3	Time			
11.2(3)	The <i>completion date</i> for the whole of the works is	TBC.		
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	Condition to be met	key date	
		1 Security clearance of personnel	TBC	
		2 Submission of SHEQ implementation file	TBC	
		3 Security & Safety Induction	TBC	
30.1	The <i>access dates</i> are:	Part of the Site	Date	
		1 Simmerpan complex	TBC	
31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	2 weeks of the Contract Date.		
31.2	The <i>starting date</i> is	TBC		
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	TBC		
35.1	The <i>Employer</i> is not willing to take over the works before the Completion Date.			
4	Testing and Defects			
42.2	The <i>defects date</i> is	52 weeks after Completion of the whole of the works.		
43.2	The <i>defect correction period</i> is	2 weeks		
5	Payment			
50.1	The <i>assessment interval</i> is	between the 25 day of each successive month.		
51.1	The <i>currency of this contract</i> is the	South African Rand.		
51.2	The period within which payments are made is	3 weeks.		
51.4	The <i>interest rate</i> is	the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and		
		(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the		

6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted *mutatis mutandis* every 6 months thereafter and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.

6 Compensation events

60.1(13)	The place where weather is to be recorded is:	Germiston, South Africa
	The <i>weather measurements</i> to be recorded for each calendar month are,	the cumulative rainfall (mm)
		the number of days with rainfall more than 10 mm
		the number of days with minimum air temperature less than 0 degrees Celsius
		the number of days with snow lying at 09:00 hours South African Time
		and these measurements:
	The <i>weather measurements</i> are supplied by	The Contractor as verified by the Supervisor
	The <i>weather data</i> are the records of past <i>weather measurements</i> for each calendar month which were recorded at:	Germiston
	and which are available from:	the South African Weather Bureau and included in Annexure A to this Contract Data provided by the Employer
7	Title	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.

8	Risks and insurance	
9	Termination	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
10	Data for main Option clause	
A	Priced contract with activity schedule	
11	Data for Option W1	
W1.1	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
W1.2(3)	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.
W1.4(2)	The <i>tribunal</i> is:	arbitration.
W1.4(5)	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 - if the arbitration procedure does not state who selects an arbitrator, is	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.
12	Data for secondary Option clauses	
X2	Changes in the law	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data. only South African law

X7	Delay damages (but not if Option X5 is also used)	
X7.1	Delay damages for Completion of the whole of the works are	0.1% per day up to a maximum of 10% contract value
X16	Retention (not used with Option F)	
X16.1	The <i>retention percentage</i> is	
X18	Limitation of liability	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	R0.0 (zero Rand)
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to:	the amount of the deductibles relevant to the event
X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to	<p>The greater of</p> <ol style="list-style-type: none"> 1. the total of the Prices at the Contract Date and the amounts excluded and unrecoverable from the <i>Employer's</i> assets policy for correcting the Defect (other than the resulting physical damage which is not excluded) plus the applicable deductible as at contract date.
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	<p>the total of the Prices other than for the additional excluded matters.</p> <p>The <i>Contractor's</i> total liability for the additional excluded matters is not limited.</p> <p>The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for</p> <ol style="list-style-type: none"> 2. Defects due to his design which arise before the Defects Certificate is issued, 3. Defects due to manufacture and fabrication outside the Site, 4. loss of or damage to property (other than the works, Plant and Materials), 5. death of or injury to a person and 6. infringement of an intellectual property right.
X18.5	The <i>end of liability date</i> is	<p>(i) 5 (Five) years after the defects date for latent Defects and</p> <p>(ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of</p>

any replacement legislation) for any other matter.

A latent Defect is a Defect which would not have been discovered on reasonable inspection by the *Employer* or the *Supervisor* before the defects date, without requiring any inspection not ordinarily carried out by the *Employer* or the *Supervisor* during that period. If the *Employer* or the *Supervisor* do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the *Employer* or the *Supervisor* to have discovered the Defect.

Z	The Additional conditions of contract are	Z1 to Z15 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*.
- 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 Joint ventures

Z2.1 If the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Employer* for the performance of this contract.

Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *Project Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Contractor* on their behalf.

Z2.3 The *Contractor* does not alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing.

Z3 Change of Broad Based Black Economic Empowerment (B-BBEE) status

Z3.1 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.

Z3.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Project Manager* within thirty days of the notification or as otherwise instructed by the *Project Manager*.

Z3.3 Where, as a result, the *Contractor*'s B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor*'s obligation to Provide the Works.

Z3.4 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 P1, P2 and P3 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Confidentiality

Z4.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to Others. 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 in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient.

Z4.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Project Manager*.

Z4.3 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.

Z4.4 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 *Project Manager*. All rights in and to all such images vests exclusively in the *Employer*.

Z4.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z5 Waiver and estoppel: Add to core clause 12.3:

Z5.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, the *Project Manager*, the *Supervisor*, 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.

Z6 Health, safety and the environment: Add to core clause 27.4

Z6.1 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*:

- 7. 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;
- 8. 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
- 9. 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.

Z6.2 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.

Z7 Provision of a Tax Invoice and interest. Add to core clause 51

Z7.1 Within one week of receiving a payment certificate from the *Project Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer*'s procedures stated in the Works Information, showing the amount due for payment equal to that stated in the payment certificate.

Z7.2 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 core clause 51.2 is then calculated from the delayed date by when payment is to be made.

Z7.3 The *Contractor* (if registered in South Africa in terms of the companies Act) 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.

Z8 Notifying compensation events

Z8.1 Delete from the last sentence in core clause 61.3, "unless the *Project Manager* should have notified the event to the *Contractor* but did not".

Z9 Employer's limitation of liability

Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)

Z9.2 The *Contractor's* entitlement under the indemnity in 83.1 is provided for in 60.1(14) and the *Employer's* liability under the indemnity is limited.

Z10 Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":

Z10.1 or had a business rescue order granted against it.

Z11 Addition to secondary Option X7 Delay damages (if applicable in this contract)

Z11.1 If the amount due for the *Contractor's* payment of delay damages reaches the limits stated in this Contract Data for Option X7 or Options X5 and X7 used together, the *Employer* may terminate the *Contractor's* obligation to Provide the Works using the same procedures and payment on termination as those applied for reasons R1 to R15 or R18 stated in the Termination Table.

Z12 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 Subcontractors 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 Subcontractor 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.

Z12.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

Z12.2 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.

Z12.3 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.

Z12.4 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.

Z13 Insurance

Z 13.1 Replace core clause 84 with the following:

Insurance cover 84

84.1 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.

84.2 The *Contractor* provides the insurances stated in the Insurance Table A.

84.3 The insurances provide cover for events which are at the *Contractor's* risk 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
Loss of or damage to the works, Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insurance The <i>Employer's</i> policy deductible, as Contract Date, where covered by the <i>Employer's</i> insurance
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the works, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) caused by activity in connection with this contract	<u>Loss of or damage to property</u> <u>Employer's property</u> The replacement cost where not covered by the <i>Employer's</i> insurance The <i>Employer's</i> policy deductible, as Contract Date, where covered by the <i>Employer's</i> insurance <u>Other property</u> The replacement cost
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	<u>Bodily injury to or death of a person</u> The amount required by applicable law

Z 13.2**Replace core clause 87 with the following:**

The *Employer* provides the insurances stated in the Insurance Table B.

INSURANCE TABLE B

Insurance against or name of policy	Minimum amount of cover or minimum limit 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
--------------------------------------	-----------------------------------

Z14 Nuclear Liability

Z14.1 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.

Z14.2 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*.

Z14.3 Subject to clause Z14.4 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*.

Z14.4 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.

Z14.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z15 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 Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.</i>
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.
Z15.1	The <i>Employer</i> ensures that the Ambient Air in the area where the <i>Contractor</i> 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 OEASM.
Z15.2	Upon written request by the <i>Contractor</i> , the <i>Employer</i> 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 <i>Contractor</i> may perform Parallel Measurements and related control measures at the <i>Contractor's</i> expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z15.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
Z15.3	The <i>Employer</i> manages asbestos and ACM according to the Standard.
Z15.4	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.
Z15.5	The <i>Contractor's</i> 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.
Z15.6	The <i>Contractor</i> 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.
Z15.7	Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the <i>Employer</i> at the <i>Employer's</i> expense, and conducted in line with South African legislation.

Annexure A: One-in-ten-year-return weather data obtained from SA Weather Bureau for [weather station]

If any one of these *weather measurements* recorded within a calendar month, before the Completion Date for the whole of the works and at the place stated in this Contract Data is shown to be more adverse than the amount stated below then the *Contractor* may notify a compensation event.

Month	Weather measurement				
	Cumulative rainfall (mm)	Number of days with rain more than 10mm	Number of days with min air temp < 0 deg.C	Number of days with snow lying at 08:00 CAT	[Other measurements if applicable]
January	[•]	[•]	[•]	[•]	
February	[•]	[•]	[•]	[•]	
March	[•]	[•]	[•]	[•]	
April	[•]	[•]	[•]	[•]	
May	[•]	[•]	[•]	[•]	
June	[•]	[•]	[•]	[•]	
July	[•]	[•]	[•]	[•]	
August	[•]	[•]	[•]	[•]	
September	[•]	[•]	[•]	[•]	
October	[•]	[•]	[•]	[•]	
November	[•]	[•]	[•]	[•]	
December	[•]	[•]	[•]	[•]	

Only the difference between the more adverse recorded weather and the equivalent measurement given above is taken into account in assessing a compensation event.

C1.2 Contract Data

Part two - Data provided by the Contractor

Notes to a tendering Contractor:

1. Please read both the NEC3 Engineering and Construction Contract (April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)² in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to 158 of the ECC3 (April 2013) Guidance Notes.
2. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data
3. Where a form field like this [] appears, data is required to be inserted relevant to the option selected. Click on the form field **once** and type in the data. Otherwise complete by hand and in ink.

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is % The <i>subcontracted fee percentage</i> is %	
11.2(18)	The <i>working areas</i> are the Site and	
24.1	The <i>Contractor's key persons</i> are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications: Experience:	

² Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009 or see www.ecs.co.za

		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .
11.2(3)	The <i>completion date</i> for the whole of the works is	
11.2(14)	The following matters will be included in the Risk Register	
11.2(19)	The Works Information for the Contractor's design is in:	
31.1	The programme identified in the Contract Data is	
A	Priced contract with activity schedule	
11.2(20)	The <i>activity schedule</i> is in	
11.2(30)	The tendered total of the Prices is	(in figures) (in words), excluding VAT
	Data for Schedules of Cost Components	<i>Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).</i>
A	Priced contract with activity schedule	Data for the Shorter Schedule of Cost Components
41 in SSCC	The percentage for people overheads is:	%
21 in SSCC	The published list of Equipment is the last edition of the list published by The percentage for adjustment for Equipment in the published list is	Minus %
22 in SSCC	The rates of other Equipment are:	Equipment Size or capacity Rate
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates. Please insert another schedule if foreign resources may also be used	Category of employee Hourly rate

62 in SSCC	The percentage for design overheads is	%
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:	

PART 2: PRICING DATA**ECC3 Option A**

Document reference	Title	No of pages
	C2.1 Pricing assumptions: Option A	2
	C2.2 The <i>activity schedule</i>	Refer to excel sheet named "Activity Schedule for DC Workshop Refurbishment"

C2.1 Pricing assumptions: Option A

How work is priced and assessed for payment

Clause 11 in NEC3 Engineering and Construction Contract, (ECC3) Option A states:

Identified and defined terms 11
 11.2 (20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.

(27) The Price for Work Done to Date is the total of the Prices for each group of completed activities and each completed activity which is not in a group.

A completed activity is one which is without Defects which would either delay or be covered by immediately following work.

(30) The Prices are the lump sum prices for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

This confirms that Option A is a lump sum form of contract where the work is broken down into activities, each of which is priced by the tendering contractor as a lump sum. Only completed activities are assessed for payment at each assessment date; no part payment is made if the activity is not completed by the assessment date.

Function of the Activity Schedule

Clause 54.1 in Option A states: "Information in the Activity Schedule is not Works Information or Site Information". This confirms that specifications and descriptions of the work or any constraints on how it is to be done are not included in the Activity Schedule but in the Works Information. This is further confirmed by Clause 20.1 which states, "The Contractor Provides the Works in accordance with the Works Information". Hence the Contractor does not Provide the Works in accordance with the Activity Schedule. The Activity Schedule is only a pricing document.

Link to the programme

Clause 31.4 states that "The Contractor provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance". Ideally the tendering contractor will develop a high-level programme first then resource each activity and thus arrive at the lump sum price for that activity both of which can be entered into the *activity schedule*.

Preparing the *activity schedule*

Generally it is the tendering Contractor who prepares the *activity schedule* by breaking down the work described within the Works Information into suitable activities which can be well defined, shown on a programme and priced as a lump sum.

The Employer, in his Instructions to Tenderers or in a Tender Schedule, may have listed some items that he requires the Contractor to include in his *activity schedule* and be priced accordingly.

It is assumed that in preparing his *activity schedule* the Contractor:

- Has taken account of the guidance given in the ECC3 Guidance Notes pages 19 and 20;
- Understands the function of the Activity Schedule and how work is priced and paid for;
- Is aware of the need to link the Activity Schedule to activities shown on his programme;
- Has listed and priced activities in the *activity schedule* which are inclusive of everything necessary and incidental to Providing the Works in accordance with the Works Information, as it was at the time of tender, as well as correct any Defects not caused by an *Employer's* risk;
- Has priced work he decides not to show as a separate activity within the Prices of other listed activities in order to fulfil the obligation to complete the *works* for the tendered total of the Prices.
- Understands there is no adjustment to the lump sum Activity Schedule price if the amount, or quantity, of work within that activity later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event.

C2.2 the *activity schedule*

Refer to the activity schedule in excel format named - **Activity Schedule for DC Workshop Refurbishment**.



Activity%20Schedule_DC%20Workshop'

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	<i>Employer's Works Information</i>	29
C3.2	<i>Contractor's Works Information</i>	2
	Total number of pages	32

C3.1: EMPLOYER'S WORKS INFORMATION

Contents

Part 3: Scope of Work.....	28
C3.1: Employer's works Information.....	29
1 Description of the works.....	31
1.1 Executive overview.....	31
1.2 Employer's objectives and purpose of the works.....	31
1.2.1 Employers Requirements.....	32
1.3 Interpretation and terminology.....	33
2 Defintion.....	35
3 Management and start up.....	36
3.1 Management meetings.....	36
3.2 Documentation control.....	37
3.3 Health and safety risk management.....	40
3.4 Environmental constraints and management.....	41
3.5 Quality assurance requirements.....	41
3.6 Programming constraints.....	41
3.7 Contractor's management, supervision and key people.....	42
3.8 Invoicing and payment.....	42
3.9 Insurance provided by the Employer.....	43
3.10 Contract change management.....	43
3.11 Training workshops and technology transfer.....	43
4 Engineering and the Contractor's design.....	44
4.1 Employer's design.....	44
4.2 Parts of the works which the Contractor is to design.....	44
4.3 Procedure for submission and acceptance of Contractor's design.....	44
4.3.1 Detail design.....	44
4.4 Other requirements of the Contractor's design.....	45
4.5 Use of Contractor's design.....	45
4.6 Design of Equipment.....	45
4.7 Equipment required to be included in the works.....	46
4.8 As-built drawings, operating manuals and maintenance schedules.....	46
5 Procurement.....	47
5.1 People.....	47
5.1.1 Minimum requirements of people employed on the Site.....	47
5.1.2 BBBEE and preferencing scheme.....	48
5.1.3 Supplier Development Localisation and Industrialisation.....	49
5.2 Subcontracting.....	51
5.2.1 Preferred subcontractors.....	51
5.2.2 Subcontract documentation, and assessment of subcontract tender.....	51
5.2.3 Limitations on subcontracting.....	51
5.3 Plant and Materials.....	51
5.3.1 Plant & Materials provided "free issue" by the Employer.....	51
5.3.2 Contractor's procurement of Plant and Materials.....	51
5.3.3 Spares and consumables.....	52
5.4 Tests and inspections before delivery.....	52
5.5 Marking Plant and Materials outside the Working Areas.....	52
6 Construction.....	52
6.1 Temporary works, Site services & construction constraints.....	52
6.1.1 Employer's Site entry and security control, permits, and Site regulations.....	52
6.1.2 Restrictions to access on Site, roads, walkways and barricades.....	52
6.1.3 People restrictions on Site; hours of work, conduct and records.....	52

6.1.4	Health and safety facilities on Site.....	52
6.1.5	Environmental controls, fauna & flora, dealing with objects of historical interest.....	52
6.1.6	Title to materials from demolition and excavation.....	53
6.1.7	Cooperating with and obtaining acceptance of Others.....	53
6.1.8	Publicity and progress photographs.....	53
6.1.9	<i>Contractor's Equipment</i>	53
6.1.10	Equipment provided by the <i>Employer</i>	53
6.1.11	Site services and facilities.....	53
6.1.12	Facilities provided by the <i>Contractor</i>	53
6.1.13	Existing premises, inspection of adjoining properties and checking work of Others.....	54
6.1.14	Survey control and setting out of the works.....	54
6.1.15	Excavations and associated water control.....	54
6.1.16	Underground services, other existing services, cable and pipe trenches and covers	54
6.1.17	Control of noise, dust, water and waste.....	54
6.1.18	Sequences of construction or installation.....	54
6.1.19	Giving notice of work to be covered up.....	54
6.1.20	Hook ups to existing works.....	54
6.2	Completion, testing, commissioning and correction of Defects.....	54
6.2.1	Work to be done by the Completion Date.....	54
6.2.2	Use of the works before Completion has been certified.....	54
6.2.3	Materials facilities and samples for tests and inspections.....	54
6.2.4	Commissioning.....	57
6.2.5	Start-up procedures required to put the works into operation.....	57
6.2.6	Take over procedures.....	57
6.2.7	Access given by the <i>Employer</i> for correction of Defects.....	57
6.2.8	Performance tests after Completion.....	57
6.2.9	Training and technology transfer.....	57
6.2.10	Operational maintenance after Completion.....	57
7	Plant and Materials standards and workmanship	58
7.1	Investigation, survey and Site clearance.....	59
7.2	Building works.....	59
7.3	Civil engineering and structural works.....	59
7.4	Electrical & mechanical engineering works.....	59
7.5	Process control and IT works.....	59
7.6	Other [as required].....	59
8	List of drawings	60
8.1	Drawings issued by the <i>Employer</i>	60
C3.2	<i>Contractor's Works Information</i>	61

Description of the works

Executive overview

The DC workshop and battery room is primarily used by NTCSA for testing of DC equipment and systems, including battery testing. The main function of Simmerpan workshop and battery room is to facilitate training for the repairs and testing of DC equipment and systems required by NTCSA employees. Simmerpan workshop and battery room will be re-evaluated, redesigned, and renovated to meet the specifications contained herein. The chosen Contractor will provide a turnkey solution and will perform the complete EPC (Engineering, Procurement, and Construction) function for evaluation and redesign and issuing of the Certificate of Compliance (CoC) for the DC workshop and battery room operation. This document must be read in conjunction with the requirements as specified in 240-185000441: Simmerpan DC Workshop and Battery room Refurbishment Technical Specification.

Employer's objectives and purpose of the works

The high-level scope of work entails the following:

- Battery room (including storeroom), Electrical, HVAC, Mechanical and Fire detection design.
- DC Workshop (including storerooms), Electrical, HVAC and Fire detection design.
- Decommissioning of existing lighting fixtures, trunking and lighting circuits in all rooms.
- Decommissioning of existing DC bus reticulation system.
- De-commissioning of existing battery monitoring system.
- Demolishing of the existing brick battery stands in the Battery room and Battery Live storeroom.
- Removal of floor and wall tiles in the Battery room and Battery Live storeroom.
- Closing of the existing windows in the Battery room.
- Floor preparation in the Battery room and Battery Live storeroom.
- Floor protection in the Battery room and Battery Live storeroom.
- Paint the Battery room and Battery Live storeroom walls with acid resistant paint.
- Supply laminated pine battery stands as per list of required battery bank sizes.
- Installation of new DC cables and battery terminal stands that would allow the charging and discharging of six (6) battery banks simultaneously in the Battery room.
- Installation of new DC cables and battery terminal stands (floor or wall mounted) that would allow one 220 Vdc battery bank or two (2) 50 Vdc battery banks to be kept on float charge in the Battery Live storeroom.
- Installation of new DC cables and battery terminal device that would allow one (1) VRLA battery bank to be charged and kept on float in the DC Workshop room.
- Design a manual switch or link configuration to allow flexibility between the 6 battery chargers and the 9 battery banks.
- Perform a load assessment to determine if the existing AC supply configuration to the Workshop Distribution board (DB) is adequate and upgrade where required (including LV supply cable, Minisub feeder circuit breaker, etc.)
- Existing Workshop DB to be replaced with a floor standing DB with separate sections for domestic and equipment circuits.
- Installation of new lighting fixtures and wiring as per Eskom Simmerpan DC Workshop Lighting design report.
- Installation of new lighting fixtures and wiring in the Air Handling room.
- Installation of new cable racks, trays, etc.

- Replacement of all existing domestic sockets and wiring.
- Provide fixed AC termination of the Battery room battery chargers to the new Workshop DB.
- Rewiring of the existing Training battery chargers. Each charger to be supplied from an individual feeder circuit at new Workshop DB.
- The First floor DB is currently fed from the Workshop DB and provision must be made for a temporary supply to this DB when the Workshop DB is being replaced.
- Design, supply, deliver, Installation, commissioning and handover of new HVAC system (New Generation DX Split units in the DC workshop and New Generation DX Air Handling unit, complete with ducting, fire dampers, grilles, HVAC electrical and control systems, inclusive of panels and cabling, etc. in the battery room.)
- Installation of new Fire Detection System.
- Design, supply and install a new battery water system in the Air Handling room.
- Replace existing doors with fire-rated doors (battery room only).
- Replace the three (3) existing Safety shower and eye wash basins.
- Installation of new washing basin (location to be confirmed).
- Wall preparation, including removing of tiles (where indicated) and interior painting of all remaining rooms in accordance with Eskom Corporate Identity colours.
- Deep cleaning of all the remaining floors.
- Labelling and signage.
- HAZLOC classification and documentation.
- Issue of electrical and mechanical COC for the entire installation.
- Provide spare light fittings (5% of the installed lighting fixture types).
- Documentation management.

Employers Requirements

Refer to Technical Specification **240-185000441** for the following:

- a) Electrical design requirements
- b) HVAC design requirements
- c) Other mechanical design requirements
- d) Fire detection design requirements
- e) Fire protection design requirements
- f) General Design requirements
- g) Manufacturing requirements
- h) Construction requirements
- i) Commissioning requirements (See 6.2.4)
- j) Maintenance requirements
- k) Handover requirements
- l) Decommissioning requirements
- m) General requirements

Interpretation and terminology

Abbreviation	Meaning given to the abbreviation
ECC3	NEC 3 Engineering and Construction contract
Tx RE	Transmission Real Estate
NTCSA	National Transmission Company South Africa
DC	Direct Current
NEC	New Engineering Contract
SABS	South African Bureau of Standards
SANS	South African National Standards
SHEQ	Safety, Health, Environment & Quality
CAD	Computer Aided Draughting
ISO	International Organisation for Standardisation
SOP	Safe Operating Procedure
SOW	Scope of works
Vdc	Voltage Direct Current
AC	Alternating Current
HVAC	Heating, Ventilation, and Air conditioning
COC	Certificate of compliance
EXN	Explosion-proof (rated for hazardous locations)
VRLA	Valve Regulated Lead Acid

DB	Distribution Board (Electrical)
HAZLOC	Hazardous locations
LV	Low Voltage
AHU	Air Handling Unit
SAQCC	South African Qualification and Certification Committee – For HVAC Installations and Commissioning, as well as handheld fire extinguishers.
OEM	Original Equipment Manufacturer
FACP	Fire Alarm Control Panel
FFL	Finished Floor Level
LED	Light Emitting Diode
ΔT	Temperature Difference
EMP	Environmental Management Plan
QM	Quality Management
SHE	Safety Health Environment

Definitions

Definition	Description
Competent person	Person who is qualified by virtue of his education, training, experience and contextual knowledge to make a determination regarding the performance of a building or part thereof in relation to a functional regulation or to undertake such duties as may be assigned to him in terms of the National Building regulations.
Rational assessment	Assessment by a competent person of the adequacy of the performance of a solution in relation to requirements including as necessary, a process of reasoning, calculation and consideration of accepted analytical principles, based on a combination of deductions from available information, research and data, appropriate testing and service experience
Rational design	Design by a competent person involving a process of reasoning and calculation and which may include a design based on the use of a standard or other suitable document.

Management and start up.

Management meetings

General

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

All safety meetings will be held as per attached SHE specification.

Pre-Construction kick off meeting.

The kick off meeting will take 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* will prepare 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 7 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 register, SHEQ, technical clarification and compensation events	To be advised by the <i>Project Manager</i>	Simmerpan and/or Microsoft Teams	<i>Employer</i> , <i>Contractor</i> , <i>Supervisor</i> , and SHEQ and other representatives as required.
Overall contract progress and feedback	To be advised by the <i>Project Manager</i>	Simmerpan and/or Microsoft Teams	<i>Employer</i> , <i>Contractor</i> , <i>Supervisor</i> , and other representatives as required.
Risk register, SHEQ, technical clarification and compensation events	To be advised by the <i>Project Manager</i>	Simmerpan and/or Microsoft Teams	<i>Employer</i> , <i>Contractor</i> , <i>Supervisor</i> , and SHEQ and other representatives as required.

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

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or

instructions under the contract as these shall be done separately by the person identified in the *conditions of contract* to carry out such actions or instructions.

Documentation control

The language of all documentation is in English. The *Contractor* includes the *Employer's* drawing number in the drawing title block. This requirement only applies to design drawings developed by the *Contractor* and its *Sub-Contractors*. Drawing numbers are assigned by the *Employer* as drawings are developed.

Documentation control by the *Employer* will be done using the NTCSA project group standard documentation management system and using opentext for electronic filing.

All correspondence from the *Employer* to the *Contractor* will be referenced using the following reference.

YYYYMMDD_Type_DocumentTitle_Uniqueidentifier_WBS_Revision.File Extension

The naming convention is explained as follows.

- YYYYMMDD refers to the date of the document in the format Year/Month/Date. This is the date of approval if the document is approved. For a new document that has just been created, it will be the date that the document was created on.
- Type refers to the latest folder/collection level in the WBS filing structure in which the document is published. Hence it refers to the folder/collection location of the documents. This is in line with the current practice within Tx RE of including the folder name in the naming of files/documents.

The various types to choose from are on the left-hand side as follows:

➤ Incoming Correspondence	(Communication)
➤ Outgoing Correspondence	(Communication)
➤ Presentation	(Meetings)
➤ Minutes	(Meetings)
➤ Project Audit Report	(Project Reporting)
➤ Weekly Report (Historic)	(Project Reporting)
➤ Technical Report	(Engineering and Design)
➤ Designs and Proforma Bill of Materials	(Engineering and Design)
➤ Specification	(Engineering and Design)
➤ Project Schedule	(Schedule Management)
➤ Tender	(Commercial Management)
➤ Contract	(Commercial Management)
➤ Risk	(Risk Management)
➤ Insurance	(Risk Management)
➤ Safety and Health	(SHEQ)
➤ Environment	(SHEQ)
➤ Quality	(SHEQ)
➤ Invoices and Payments	(Financial Management)
➤ Project Monthly Expenditure/Cash flows	(Financial Management)
➤ Finalisation	(Financial Management)
➤ Incoming Transmittal Form	(Transmittals)
➤ Outgoing Transmittal Form	(Transmittals)
➤ Site Personnel Details	(Human Resource Management)
➤ Task Schedule	(Human Resource Management)
➤ Commissioning and Handover	(Commissioning and Handover)
➤ Photo	(Photos)

- Project Close-out (Project Close-out)
- Revision refers to the revision status of the document that has been approved.
- File Extension refers to the file types such as doc, pdf, tif, xls, ppt, mpp. This is by default indicated on the file name.

Summary of the documentation required from the Contractor before and during construction which 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	
Material Inventory		x
Drawing Register	x	x
Progress Schedule		x
Application for payment		x
Weather Data	x	x
Monthly Safety Report		x
Progress Photographs		x

Contractual correspondence

- Properly compiled letters on official company letter head or forms attached to an email and not as a message in an email itself.
- Alpha numeric identification- reference: **Date/Simmerpan Complex DC Workshop and Battery room upgrade/ communication Number**
- All correspondence to be addressed to the *Project Manager*

Contractual forms to be used (To be forwarded to Contractor)

- ECC- Early Warning by *Contractor*
- ECC- Notification of CE (Compensation Event) by the *Contractor*

Site Communications

Contractor site diary signed daily by the *Supervisor*.

Contractor daily site diary (Minimum 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.

Daily site diary should be signed daily by the *Employer- Site manager/ Supervisor* and *Contractor-Contract Manager/ Site Agent*

Daily *Contractor's* attendance registers to be attached to the daily site diary.

Site Instructions issued by the *Supervisor*.

Site Memorandums addressed to the *Supervisor*.

Health and safety risk management

In addition to the requirements of the laws governing health and safety, NTCSA may have some additional requirements particular to the works and the Working Areas for this contract. The text below provides for these being attached as an Annexure to this Works Information.

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 is 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* provides 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* complies 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* ensures 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 NTCSA safety policy.

The *Contractor* shall adhere to Eskom lifesaving rule.

Environmental constraints and management

The *Contractor* to have an Environmental Management System in place that will ensure that the requirements are effectively implemented and managed.

The *Contractor* is required to ensure that all goods, services or works supplied in terms of the contract conform to all applicable environmental legislation.

The *Contractor* to have an environmental management system in place that will ensure that the requirements of the environmental management plan are effectively implemented and managed.

Campsite establishment and de-establishment are to be managed in accordance with specification.

The layout should be such that it facilitates a circular traffic route that eliminates the need to reverse when loading and off-loading.

The *Contractor* complies with the environmental criteria and constraints stated in Annexure (SHE Specification 559-1177047958)

Quality assurance requirements

The *Contractor* complies with the quality criteria stated in the 240-105658000 Supplier Quality Management Specification attached to this Works Information. The *Contractor* is to provide a quality inspection and test plan for the design, manufacture, delivery, and installation as stated in the Scope of Work, for approval.

Programming constraints

Tenderers will be evaluated with due consideration to the resources (both personnel and equipment) committed to the project as indicated in the tender programme. All proposed Subcontractors and Suppliers are to be identified at tender stage and will be included in the evaluation process.

The programme is to be submitted for acceptance in accordance with Core Clause 31 in the ECC3, 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 Gannt 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.
- 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* submits 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* revises the programme as required in accordance to Core Clause 32 of ECC3. Each time the programme is revised, the *Contractor* is to submit a revised forecast rate of invoicing to the *Project Manager*.

Contractor's management, supervision and key people

The *Contractor* submits an organogram which clearly indicates the people resources that will be utilised for this project. The organogram must clearly indicate lines of authority as well as lines of communication.

Site staff as well as head office staff must be indicated. It must state any additional constraining requirements on *Contractor's* supervision and key people that are not already stated in other sections such as for Health and Safety. The Person carrying out and signing off any designs and installation needs to be a Competent Person with the required professional registration.

Invoicing and payment

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

The *Contractor* addresses the tax invoice to NTCSA SOC Ltd and include on each invoice the following information:

- Name and address of the *Contractor* and the *Project Manager*;
- The contract number and title;
- *Contractor's* VAT registration number;
- The *Employer's* VAT registration number 4710303126;
- Description of service provided for each item invoiced based on the Price List;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- NTCSA order number must be clearly indicated on the invoice with the line number on the order for billing.
- Only PDF invoices must be submitted.
- Each PDF file should contain one invoice, one debit, and credit note only as NTCSA's SAP system does not support more than one PDF being linked into workflow at a time.
- Only one PDF file per email (one invoice or debit note or credit note).
- Send all invoices in PDF straight from your system to an NTCSA email address (see the email address below).
- When it comes to foreign invoices, suppliers will be required to physical deliver the hard copies of original documents to the respective documentation management centers – though invoices emailed. NTCSA is still seeking clarity from the South African Reserve Bank for foreign invoices and currency. Current requirements are that these manual invoices should be submitted. Invoice copy can be sent to the email address indicated below.
- All submitted invoices electronically must comply with the Tax Requirements.
- If there is a Cost Price Adjustment on the invoice, NTCSA recommends separate invoice for CPA to avoid delays on payment, if there are issues for the CPA.
- 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 email to the end user to do good receipt. This is also tracked by NTCSA through the park invoice report.

- The Contractor can request a park invoice report from the Finance Shared Services (FSS) contact centre which can then be followed up and corrected.
- The Contractor is welcome to forward the details of invoices corrected to the FSS contact centre.
- All invoices for payment must be submitted to invoicesntcsalocal@ntcsa.co.za.

Insurance provided by the *Employer*

Insurance related queries for this project can be addressed to the *Project Manager* who will then refer the query to the applicable NTCSA specialist with regards to insurance matters for this project. The insurance policy provided by the *Employer* will be dealt with as specified in Clause 86.1.

Contract change management.

This is not applicable.

Engineering and the *Contractor's* design

Employer's design

Please refer to technical specifications

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

Please refer to technical specifications

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

All project documents are submitted to the *Project Manager* with a transmittal note according to Project / Plant Specific Technical Documents and Records Management Work Instruction (240-76992014). In order to portray a consistent image, it is important that all documents used within the project follow the same standards of layout, style and formatting as described in the Work Instruction.

In addition, the *Contractor* adheres to the following:

- Project Handover Documentation Management Procedure (240-66920003).
- Project Documentation Deliverable Requirement Specification (240-65459834).
- Technical Documentation Classification and Designation Standard (240-54179170).

The *Contractor* submits all documentation to the *Project Manager* as well as the Project's Documentation Centre as follows:

- Electronic copies are submitted to NTCSA Documentation Centre through SharePoint transmittal site that will be provided during contract award.
- Hard copies are submitted to the *Project Manager* accompanied by a Transmittal Note.

The *Contractor* submits detailed design reports and associated drawings containing the following:

Detail design

- The *Contractor* shall after contract award submit a detailed design and associated drawings containing the following but not limited to:
 - A multidisciplinary detailed design calculation file/ report documenting all:
 - Specifications, codes and standards used in the designs.
 - Design criteria/ parameters used.
 - Design Philosophy.
 - Materials used.
 - Energy efficiency and Fenestration calculations as per SANS 10400: XA
 - All assumptions made.
 - All software input and output files incl. design models; and
 - All references/ sources of information used.
 - Detailed drawings indicating the modifications to existing structures.
 - An Assessment Review report by a professional person proving that the integrity of the existing structures is not compromised by the installation of the new installation.
 - Confirmation that the design of the works complies with the regulations.
 - Submit an Operation and Maintenance Manual, where applicable.

The *Employer* requires a period of two (2) weeks for the review of the Detail Design.

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 , Maintenance DB box.
- Operation and Maintenance Instruction manual.
- Original Manufacturers product documents
- SAT & FAT Procedure
- Commissioning procedure
- Handover certificates
- Inspection and Test Procedures
- And other project related documents

Other requirements of the *Contractor's* design

Any proposed design change by *Contractor* must be forwarded to the *Project Manager* for approval prior to the commencement. All Design change management are performed in accordance to the latest revision of the Eskom Project Engineering Change Management Procedure (240-53114026).

This should be done 14 days prior to the *Contractor's* planned start date. The *Project Manager* will liaise with the applicable engineering representative and manage the process of approval. The *Contractor* will be notified in writing by the *Project Manager* when the proposal has been approved and when work can commence.

Use of *Contractor's* design

Upon acceptance of the *Contractor's* designs, copyright will pass to the *Employer*.

Design of Equipment

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

Equipment required to be included in the works

There is no specific requirement for specialist equipment to be provided by the *Contractor* for the works. The *Contractor* must supply all equipment he deems necessary to complete the works.

Accredited access equipment personnel:

The Contractor indicates 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* to use suitably qualified personnel for the erection, use, dismantling and inspection of access scaffolding. The Contractor shall comply with SANS 10085

Use of all other access equipment shall be subject to approval by the *Employer* prior to such equipment being allowed on site.

Personnel handling and inspecting equipment shall be in possession of the respective valid accredited training certificates for the respective equipment.

Personnel handling and inspecting equipment shall have valid accredited training certificates.

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 and maintenance manual.

As built/Floor plan drawings supplied by The *Contractor* to the *Employer* for all areas where changes have applied.

Terminal equipment locations and proposed cable routes shall be indicated on these drawings.

The *Contractor* uses red lines on drawings to show areas as per the Eskom convention for marking up drawings.

Procurement

Contractors refers to the NTCSA Holdings Standard Conditions of Tender, Johannesburg 2007 as included elsewhere in this document.

People

Minimum requirements of people employed on the Site

Police clearance is required for personnel that the *Contractor* utilises on the site as the site location is a National Key Point due to its proximity to the National Control Centre.

BBBEE and preferencing scheme

NB: The following documents are required to claim preference points:

- Valid B-BBEE certificate issued by a SANAS accredited verification agency / sworn affidavit / CIPC affidavit
- “proof of B-BBEE status level of contributor” means-
 - (a) the B-BBEE status level certificate issued by an authorised body or person; or
 - (b) a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice; or
 - (c) any other requirement prescribed in terms of the Broad-Based Black Economic Empowerment Act.

Transformation – BBBEE Improvement or Retention Plan

Transformation remains an area of focus, where Eskom continuously strives to align itself with national transformation imperatives to unlock growth, drive industrialization, create employment and contribute to skills development.

Eskom encourages its suppliers to constantly strive to improve their B-BBEE rating. Whereas Tenderer/s will be allocated points in terms of a preference point system based on specific goals, NTCSA also requests that tenderer/s submits their B-BBEE improvement or retention plan within 30 days of signing the contract.

Tenderer/s are therefore requested to indicate the extent to which they will maintain (only if the respondent is a Level 1) or may improve/maintain their B-BBEE status over the contract period if their B-BBEE status is level 2 or 3. Tenderer/s with a B-BBEE status level 4 at the time of contract award, shall migrate and achieve as a non-negotiable a milestone of B-BBEE Level 3 by the end of the first year of the contract and thereafter improve their B-BBEE status level or migrate by one level higher.

Tenderer/s with a B-BBEE recognition status of Level 5 to Level 8 or non-compliant at the time of contract award, shall migrate and achieve as a non-negotiable a milestone of Level 4 by the end of the first year of the contract and thereafter improve at least one B-BBEE Level higher of each year from the second year of the contract.

Tenderer/s are requested to submit their B-BBEE Improvement Plan as an essential document within 30 days of signing the contract.

NB: A valid B-BBEE certificate or Sworn Affidavit is a condition for contract award, if your company's annual Total Revenue is R10 Million or less you qualify as an Exempted Micro Enterprise therefore you can submit Sworn Affidavit. If your annual Total Revenue is R50 Million or less, you qualify as Qualifying Small Enterprise and must comply with all of the elements of QSE score card relevant to your sector unless an entity is at least 51% Black owned you are required to obtain a Sworn affidavit. If your Annual Total Revenue is above R50m you need to submit a Valid B-BBEE certificate

Supplier Development Localisation and Industrialisation

Section 1: Objective Criteria:

NB: The following documents are required to claim preference points:

- Valid B-BBEE certificate issued by a SANAS accredited verification agency / sworn affidavit / CIPC affidavit
- “proof of B-BBEE status level of contributor” means
 - (a) the B-BBEE status level certificate issued by an authorised body or person; or
 - (b) a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice; or
 - (c) any other requirement prescribed in terms of the Broad-Based Black Economic Empowerment Act.

Section 2: Other SDL&I Objectives in line with RDP Goals

Designated sectors

Commodity	Local Content Threshold –
Wires	100%
Cables	90%

Note: SBD 6.2 Declaration Form and Annexure C, D&E are mandatory for contract award.

CIDB level

The required CIDB grading is 6EB or higher.

Section 3: SDL&I Objectives in line with Reconstruction and Development Programme (RDP) Goals

Tenderers who complete and submit the objectives as required, but who do not meet NTCSA's targets, will not be disqualified. SDL&I objectives do not form part of scoring, but commitments will form part of contractual obligations.

Transformation – BBBEE Improvement or Retention Plan

Transformation remains an area of focus, where NTCSA continuously strives to align itself with national transformation imperatives to unlock growth, drive industrialization, create employment and contribute to skills development.

NTCSA encourages its suppliers to constantly strive to improve their B-BBEE rating. Whereas Tenderer/s will be allocated points in terms of a preference point system based on specific goals, NTCSA also requests that tenderer/s submits their B-BBEE improvement or retention plan within 30 days of signing the contract.

Tenderer/s are therefore requested to indicate the extent to which they will maintain (only if the respondent is a Level 1) or may improve/maintain their B-BBEE status over the contract period if their B-BBEE status is level 2 or 3. Tenderer/s with a B-BBEE status level 4 at the time of contract award, shall migrate and achieve as a non-negotiable a milestone of B-BBEE Level 3 by the end of the first year of the contract and thereafter improve their B-BBEE status level or migrate by one level higher.

Tenderer/s with a B-BBEE recognition status of Level 5 to Level 8 or non-compliant at the time of contract award, shall migrate and achieve as a non-negotiable a milestone of Level 4 by the end of the first year of the contract and thereafter improve at least one B-BBEE Level higher of each year from the second year of the contract.

Tenderer/s are requested to submit their B-BBEE Improvement Plan as an essential document within 30 days of signing the contract.

NB: A valid B-BBEE certificate or Sworn Affidavit is a condition for contract award, if your company's annual Total Revenue is R10 Million or less you qualify as an Exempted Micro Enterprise therefore you can submit Sworn Affidavit. If your annual Total Revenue is R50 Million or less, you qualify as Qualifying Small Enterprise and must comply with all of the elements of QSE score card relevant to your sector unless an entity is at least 51% Black owned you are required to obtain a Sworn affidavit. If your Annual Total Revenue is above R50m you need to submit a Valid B-BBEE certificate.

B-BBEE requirements

All tenderers must at a minimum maintain their B-BBEE status throughout the contract period.

Skills Development

Tenderers are required to propose against the following training initiatives:

Skills Type	NTCSA Target	Supplier's Proposal
Electrical and mechanical artisans	4	

Job Opportunities:

Tenderers are required to submit proposals for the type and number of jobs that will be created and retained in South Africa as a direct result of being awarded a contract.

Proposed number of Jobs to be created	Number of Jobs to be Retain

Note:

Preference must be given to local community to avoid disruption of the project.

Qualifying candidates shall be currently unemployed graduates from university, Technical and Vocational Education and Training (TVET) Colleges and/or Matriculates. The skills development candidates shall be representative of the population demographics of South Africa and be sourced from within the vicinity of the station

Procurement spends on entities with a minimum 51% black ownership

The winning tenderer is encouraged to procure/spend on designated groups on the following paid invoices for both:

- the indirect expenses (e.g. overheads) on goods and services supplied to the contractor/supplier by designated groups; and
- direct spend on goods and services supplied by the subcontractors for the execution of the scope of work.

Activities, as a proportion of the local procurement content, which may be subcontracted to designated black owned enterprises must be submitted in a table below.

Procurement from Designated Group	NTCSA Target	Tenderer Proposal
Black Owned	4.0%	
Black Women Owned	3.0%	
Black Youth Owned	2.0%	
Black Persons with Disability	1.0%	

Section 4: SDL&I penalty and performance security:

NTCSA will apply a penalty of 2.5% of the Contract Value for failure to meet SDL&I obligations.

For the duration of the contract, NTCSA will retain 2.5% of every invoice (excluding VAT) as security for the fulfilment of all SDL&I Obligations. The retained amounts shall only be released to the Contractor upon:

- NTCSA receives the SDL&I progress report/s from the *Contractor*.
- Fulfilment of all SDL&I obligations by the *Contractor*.
- Submission of an approved compliance report by SDL&I Department.

Section 5: Reporting and Monitoring:

- The *Suppliers* shall on a quarterly basis submit a report to NTCSA in accordance with Data Collection Template on their compliance with the SDL&I obligations described above.
- NTCSA to review the SDL&I reports submitted by the suppliers within 30 (thirty) days of receipt of the reports and notify the *Suppliers* in writing if their SDL&I obligations have not been met.
- Upon notification by NTCSA that the *Suppliers* have not met their SDL&I obligations, the suppliers shall be required to implement corrective measures to meet those SDL&I obligations before the commencement of the following report, failing which Retention clauses shall be invoked.
- Every contract shall be accompanied by the SDL&I Implementation Schedule, which must be completed by the suppliers and returned to SDL&I representative for acceptance 28 days after contract award. This will be used as a reference document for monitoring, measuring and reporting on the supplier's progress in delivering on their stated SDL&I commitments.

Subcontracting

Preferred subcontractors

The *Employer* does not have any preferred *Sub-Contractors* that the *Contractor* must use. The *Contractor* must source products that are to specification. The *Contractor* to notify NTCSA in the event of using any *Sub-Contractor*. A *Sub-Contractor* cannot subcontract work to another *Sub-Contractor*.

Subcontract documentation, and assessment of subcontract tenders

The *Employer* expects the *Contractor* to 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 in the same way that the *Employer* manages the *Contractor*.

It is recommended that the *Contractor* make use of the NEC contracting system to ensure a contracting standard throughout.

The *Employer* to approve all *Sub-Contractors* and suppliers that the *Contractor* employs for this contract.

Limitations on subcontracting

Sub-contracting will be allowed, and list of proposed *Sub-Contractors* must be included in the tender document as part of technical returnable. All *Sub-Contractors* to be approved by the *Project Manager* prior to appointment by the *Contractor*.

Plant and Materials

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

No equipment or materials are provided “free issue” to the *Contractor* for this contract. All equipment and material necessary for the works are to be provided by the *Contractor*.

Contractor’s procurement of Plant and Materials

All transportation to site of equipment and material required for this project will be by means of road transport. The *Contractor* must familiarise himself with the road conditions to Simmerpan complex.

manage such storage areas as to ensure safety compliance as well as security of any equipment and material.

Spares and consumables

Replacement components are to be readily available. The *Contractor* guarantees that all components are available in South Africa in the foreseeable future for at least 20 years.

Tests and inspections before delivery

Not Applicable.

Material must be off loaded and stored separately in areas allocated for this purpose. The *Contractor* must

Marking Plant and Materials outside the Working Areas

There are no requirements for the “Marking” of equipment and materials outside the Working Areas.

Construction

Temporary works, Site services & construction constraints

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

The *Employer* will provide access control for the Site. All persons and vehicles entering or exiting Simmerpan complex may be subjected to searches, and the *Employer* reserves the right to refuse entrance to the site, to any person not meeting security and/or access requirements. From time to time, and as required, the Employer will issue policies and procedures regarding Site security and access control. These policies and procedures shall be strictly adhered to by the *Contractor*. The *Employer* shall be entitled, at his discretion, to amend or relax the Site security and/or access requirements to deal with emergencies or other circumstances justifying such amendment or relaxation. Any breach of security must be reported to the *Employer* immediately.

Restrictions to access on Site, roads, walkways and barricades

The *Contractor's* Personnel and any visitors on the Site must be in possession of a valid identification card supplied by the *Contractor*. The *Employer* furthermore may remove from the Site (or from any other places, if any, as may be specified under the Contract as forming part of the Site) any person who ceases, for any reason, to have legitimate business thereon.

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

The *Contractor* must clearly indicate any shift work or extended working hour work that is required in order to meet with the required completion and milestone completion dates of the contract. The *Project Manager* and *SHEQ manager*'s permission must be 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.

Health and safety facilities on Site

The *Contractor* must refer to: Safety, Health and Environmental Specification for the works.

Title to materials from demolition and excavation

The removal and disposal of any old material and equipment from site is the responsibility of the *Contractor*.

Cooperating with and obtaining acceptance of Others

Except as directed by the *Employer*, the *Contractor* shall in no way interfere with, remove, adjust or operate equipment and/or materials of or being supplied or operated by Other *Contractors*, should third parties be in the same work environment. The *Contractor* shall, at all times, keep the work of Other Project *Contractors* free from damage.

Publicity and progress photographs

This is not applicable.

Contractor's Equipment

The *Contractor* keeps a daily record of all equipment and machinery on site. The information must be captured in such a way that differentiation is made between hired and owned equipment. The record must also clearly indicate when equipment is working and who the operator of the said equipment was for the recorded shift.

These records are verified and signed off by the *Engineer* on a daily basis and this document must be available on site at all times.

The *Contractor* provides the following to complete the Works:

- a) All scaffolding required
- b) Any equipment necessary to complete the Works
- c) Lifting facilities
- d) Man-power required to temporarily move stored equipment and material when painting and preparing walls and floors

The *Contractor* supplies, installs, maintains, and removes all temporary construction facilities and utilities necessary to provide the Works.

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*.

Site services and facilities

The *Employer*, at his expense, arranges for, develop and maintain the various facilities and services at or near the Site, as applicable. The services and facilities provided by the *Employer* are listed below:

- Electricity;
- Water supply; and
- Sanitary Services.

Facilities provided by the *Contractor*

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

Contractor to provide containers for storage of material and offices.

Contractor will provide all material and equipment.

The *Contractor* to provide generator in case of outages/loadshedding

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

The *Contractor* surveys the existing equipment before any repairs, procurement, fabrication or installation.

Survey control and setting out of the *works*

Provide information on survey controls established by the *Employer*, if any, and state requirements for survey control and the setting out of the works.

Excavations and associated water control

The *Contractor* will be responsible for dewatering of excavations where necessary.

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

Refer to technical specification.

Giving notice of work to be covered up

The *Contractor* must refer to: Safety, Health, and Environmental Specification for the works.

Hook ups to existing works

The *Contractor* must refer to: Safety, Health, and Environmental Specification for the works.

Completion, testing, commissioning and correction of Defects

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
All as-built drawings	Within one week after Completion

Use of the works before Completion has been certified

Clause 35.2 in ECC3 provides that the *Employer* may use any part of the works before Completion has been certified but if he does so he takes over the part of the works except if the use is for a reason stated in the Works Information. State the reason here if this applies.

Materials facilities and samples for tests and inspections

Any samples that must be provided are to be provided by the *Contractor* once the contract has been awarded. The *Contractor* must supply materials facilities and samples for tests as prescribed in the relevant SANS practice code.

The *Contractor* includes the following on his ITP to be witnessed by the *Engineer*:

- Acceptance of all relevant documents and drawings.
- Inspection of modifications before the installation
- Final inspection before the handover to the *Employer*.
- Inspection to ensure that all required records are available.

Commissioning

The *Contractor* does comprehensive pre-commissioning, commissioning as well as quality monitoring on all systems and is to provide a report with the following details. The installers and commissioners must have the correct accreditation (SAQCC as B6 for HVAC installing, commissioning and SAQCC fire for fire extinguisher installing and commissioning, and SAQCC registration for the relevant work required (i.e. design, installation, commissioning, etc) for Fire Detection).

HVAC Commissioning

The commissioning for the HVAC must contain the following as a minimum, as well as any instructions from the OEM (or OEM manuals).

Pre-commissioning checks (before the unit is powered on):

a) Installation Verification

- Indoor and outdoor units installed according to manufacturer guidelines.
- Proper mounting (level, stable, vibration-isolated).
- Correct orientation and spacing (especially clearance for airflow and maintenance access).
- Adequate drainage for condensate from indoor unit.
- Outdoor unit placed on vibration-isolated slab/bracket, with weather protection if required.

b) Piping and Electrical Checks

- Refrigerant piping (suction and liquid lines) correctly sized and connected.
- Leak testing of refrigerant lines (usually using nitrogen + soap bubble test or electronic detector).
- 40 Bar Pressure test
- 200-micron vacuum test
- Proper insulation of refrigerant lines.
- Power supply matches unit specification (voltage, phase, amperage).
- Circuit breaker and disconnect switch installed properly.
- Wiring (including communication wires) is secure and terminated per manufacturer diagram.
- Earth/ground connection confirmed.

Start-Up and Functional Testing (After the unit is powered)**a) Initial Power-On****b) Power supplied and no error codes displayed.**

- Remote control or thermostat functional.
- Communication between indoor and outdoor units verified.

c) Refrigerant and Pressure Checks

- System pressures (suction, discharge) within manufacturer specifications.
- Superheat and subcooling measured and within acceptable range (for non-inverter systems).

For inverter systems, check manufacturer-specific diagnostics for operating parameters.

d) Airflow & Performance

- Indoor unit fan operation (all speeds tested).
- Outdoor unit fan and compressor operation.
- Supply and return air temperatures measured to confirm ΔT (temperature difference, typically 8–14°C in cooling mode).
- Check for unusual noise or vibration.

Controls and Modes Verification

- Unit responds correctly to cooling, heating (heat pump), dehumidification, and fan-only modes.
- Thermostat or controller responds correctly to setpoint changes.
- Timer functions, sleep modes, and auto-restart (after power failure) tested.

Battery Room HVAC System Commissioning

Commissioning to include but not limited to:

- Supply airflow balancing, including total air from AHUs to air on each outlet grille
- Even distribution of air in the room
- Room temperature of 20 degrees Celsius met as per requirements
- Supply airflow balancing, including total air extracted by fans
- Room pressurization i.e. negative pressure relative to adjacent spaces.
- Battery room extraction fan interface to battery chargers.
- HVAC interface to fire detection and response thereof
- Run and standby configuration change over in the event of failure of duty unit, confirmation of automatic change over.
- Run and standby change over test to balance running hours.
- Checking of Air Changes Per Hour against minimum of 10 ACH as per Eskom requirements for battery room.

Fire Detection/Protection Commissioning

The commissioning for the fire protection/detection must contain the following as a minimum, as well as any instructions from the OEM (or OEM manuals).

Fire detection:**a) Smoke detectors**

- Confirm correct location per design (ceiling height, airflow, spacing).
- Power up and test for functionality using test smoke or aerosol.
- Check sensitivity (if adjustable).
- Confirm alarm signal is received at FACP (Fire Alarm Control Panel).
- Document test results and detector address/zone.

b) MCP's

- Confirm correct location per design (ceiling height, airflow, spacing).
- Proper mounting height (typically 1.2–1.4 m from FFL).
- Located along escape routes, stairwells, and exits (no more than 45 m apart).
- Glass or element must be easy to break or activate.

- Functionality tested (break glass/test key) and confirm signal at FACP.
- Clearly labelled and accessible (no obstructions).

c) Control Panel (Fire alarm) and Mimic Panel

- Confirm all zones, devices, and addresses are correctly programmed.
- Battery backup system tested (usually 24–72 hr capacity).
- Simulate alarms and faults to confirm response.
- Confirm printer or logging systems (if present) are functioning.
- All LEDs, buttons, buzzer indicators verified.
- Wiring from FACP confirmed and functional.
- LEDs light up corresponding to zone alarm/fault.
- Must reflect actual layout (updated floorplan).
- Visible and accessible to emergency responders.

d) PH120 Fire-Rated Cable

- Cables tested for continuity, insulation resistance.
- Installed in metal conduit or cable trays (per fire-rating design).
- Terminations checked for tightness and labelling.
- Fire-stopping/penetration seals verified.
- Verify fire rating certificate from cable manufacturer.

e) Sounders and Strobe Lights

- Minimum dB level at 1 m (typically 65–85 dB depending on environment).
- Strobe visibility tested from various angles.
- Confirm all devices activate during test alarm.
- Synchronization (if required).
- Power supply (current draw and backup) verified.

The commissioning procedure to be adopted is prepared by the Commissioning Authority. During commissioning the *Contractor* set the installation to work and competent personnel demonstrate and explain the operation and maintenance procedures for the installation and for each item of plant to the Employer. During commissioning if any item is found to be unsatisfactory the fault is rectified and/or new components fitted and commissioned by the *Contractor* at their own expense. The *Contractor* then rebalances and commission the system or part thereof affected at their own expense.

Electrical Commissioning

Commissioning shall entail the following:

- Functional testing of the manual switch or link board configuration witnessed by the *Employer* and the *Employer's representative*. Safety clearance certificate to be issued and signed-off by all parties.
- Simulation or functional testing (if new chargers are installed) of the airflow failure interlock protection.
- Testing and verifying all electrical outlets including earth leakage testing.

- Testing and verifying lighting circuits, switches and correct operation of occupancy sensors.
- A competent person shall perform illumination measurements as recommended in [18] of the technical specification (240-185000441). Illumination measurement reports shall be produced and submitted to the Employer.
- Issuing of an electrical COC.

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

There are no requirements or start-up procedures required from the *Contractor* to put the works into operation.

Take over procedures.

Take over of the Works shall be in accordance of NEC ECC3 hand over certification and projects execution hand over document

The *Contractor* advises the *Project Manager* when the works will be available for final inspection and provide assistance where required.

By completion date in the contract data, the *Contractor* shall complete all work required. The *Project Manager* prior to release of retention money shall approve all the completed works. The *Contractor* maintenance the works until the defects date.

Access given by the *Employer* for correction of Defects

Clause 43.4 of the NEC will apply.

Performance tests after Completion

This is not applicable.

Training and technology transfer

Compliance to the SD&L requirements

Operational maintenance after Completion

This is not applicable.

Plant and Materials standards and workmanship

Investigation, survey and Site clearance

Refer to technical specification.

Building works

Reference could be made to the latest Model Trade Preambles published by the Association of South African Quantity Surveyors. However, these have been developed for use with the JBCC series of contracts and an approach where description of the work is made part of the bill of quantities, which is not the case in other forms of contract. Only parts of the Model Trade Preambles could be referenced by an ECC contract, with a covering note dealing with the changes in terminology. **See 7.3 Civil Engineering and structural works.**

Civil engineering and structural works

Reference could be made to the SANS1200 series of specifications developed and published by South African National Standards. However these are now very out of date and originally developed for use with SAICE general conditions of contract for works of civil engineering which have themselves been superseded twice. All SANS 1200 specifications are in the process of being updated to make them more compatible with a wider range of contracts, including NEC, and users should check availability of the new SANS 2000 series of specifications.

Sections 3, 4 and 5 of SANS1200A are probably already covered in section 5 of this Works Information.

This subsection would typically comprise of **civil, structural and building Works includes the following but not limited to:**

- a) Utilise the existing equipment supports where applicable. Load verification is to be carried out to ensure that the existing plinths are suitable for the new equipment.
- b) Core drilling where necessary for all piping to protrude through the walls. Holes through structure and brickwork including timber frames and fire sealing off all rounds the pipework. The *Contractor* ensures that all openings created on load bearing walls do not compromise the structural integrity of the aforementioned walls. The *Contractor* ensures that all openings created do not compromise or impact any steel reinforcement existing in the structural walls.
- c) Hoisting and rigging of equipment.
- d) Supporting hangers and brackets for all associated equipment.

Electrical & mechanical engineering works

Refer to technical specifications for requirements.

Process control and IT works

This is not applicable.

Other [as required]

None

List of drawings

Drawings issued by the *Employer*

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

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

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

PART 4: SITE INFORMATION

Document reference	Title	No of pages
C4	This cover page Site Information	
	Total number of pages	3

PART 4: SITE INFORMATION

Core clause 11.2(16) states

“Site Information is information which

- describes the Site and its surroundings and
- is in the documents which the Contract Data states it is in.”

In Contract Data, reference has been made to this Part 4 of the contract for the location of Site Information.

General description

The Site

- The works shall be performed at the DC Workshop in Simmerpan complex in Germiston.
- Access to the site can be gained off Power Road Eskom Simmerpan / National Control. *Contractor* adheres 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 NTCSA.

Security

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

Existing buildings, structures, and plant & machinery on the Site

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.

Subsoil information

No geotechnical reports or borehole records are required under this contract.

Hidden services

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.

Other reports and publicly available information

No public information available, *Supplier* should prepare their own design, method of work and programme.