



NEC3 Engineering and Construction

Short Contract (ECSC3)

A contract between Eskom Holdings SOC Ltd (Reg No. 2002/015527/30)

and

for **Supply, Delivery and Installation of Additional Mass Meters at Kusile Power Station**

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C1 Agreements & Contract Data

C1.1 Form of Offer and Acceptance

Offer

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

Supply, Delivery and Installation of Additional Mass Meters at Kusile Power Station

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

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

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

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

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Tenderer's CIDB registration number:

Acceptance

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

The terms of the Contract, are contained in:

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

Part 2 Pricing Data

Part 3 Scope of Work: *Works* Information

Part 4 Site Information

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

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

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

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

Signature(s)

Name(s)

Capacity

**for the
Employer**

(Insert name and address of organisation)

Name &
signature of
witness

Date

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

Schedule of Deviations

Note:

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

No.	Subject	Details
1		
2		
3		
4		
5		
6		
7		

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

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

For the tenderer:

For the Employer

Signature

Name

Capacity

On behalf
of

(Insert name and address of organisation)

(Insert name and address of organisation)

Name &
signature
of witness

Date

C1.2 Contract Data

Data provided by the *Employer*

[Instructions to the contract compiler: (delete these two notes in the final draft of a contract)]

1. Please read the relevant clauses in the NEC3 Engineering and Construction Short Contract (April 2013) (ECSC3)¹ before you enter data. The number of the principal clause is shown for most statements however other clauses may also use the same data.
2. Where the following symbol is used “[●]” - data is required to be inserted.]

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

Clause	Statement	Data
General		
10.1	The <i>Employers</i> (Name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state-owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
10.1 & 14.4	The <i>Employer's</i> representative to whom the <i>Employer</i> in terms of clause 14.4 delegates his actions ² is (Name):	
	Address	Eskom Kusile Power Station R545 Kendal & Balmoral Road Haartebees Farm Witbank 1034
	Tel No.	
	Fax No.	N/A
	E-mail address	
11.2(11)	The <i>Works</i> are	Supply, Delivery and Installation of Additional Mass Meters at Kusile Power Station
11.2(13)	The <i>Works</i> Information is in	the document called '<i>Works</i> Information' in Part 3 of this contract.
11.2(12)	The Site Information is in	the document called '<i>Site</i> Information' in Part 4 of this contract.
11.2(12)	The <i>site</i> is	Kusile Power Station
30.1	The <i>starting date</i> is.	TBA
11.2(2)	The <i>completion date</i> is.	TBA
13.2	The <i>period for reply</i> is	3 working days

¹ Available from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za

² Except those actions which can only be done by the *Employer* as a Party to the contract.

40	The <i>defects date</i> is	52 weeks after Completion
41.3	The <i>defect correction period</i> is	7 days after Notification
50.1	The <i>assessment day</i> is the	The assessment interval will be between the 25th day of each successive month and based on the completed activities as per NEC option A guidelines.
50.5	The <i>delay damages</i> are	10 000 per day up to a maximum of 10% of the contract value
50.6	The retention is	10%
51.2	The interest rate on late payment is	Zero
80.1	The <i>Contractor</i> is not liable to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property in excess of	the amount of the deductibles relevant to the event
	Does the United Kingdom Housing Grants, Construction and Regeneration Act (1996) apply?	No
93.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
93.2(2)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body
93.4	The <i>tribunal</i> is:	arbitration.
	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	Johannesburg South Africa
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or	the Chairman for the time being or his nominee
	- if the arbitration procedure does not state who selects an arbitrator, is	of the Association of Arbitrators (Southern Africa) or its successor body.
The <i>conditions of contract</i> are the NEC3 Engineering and Construction Short Contract (April 2013)³⁴ and the following additional conditions Z1 to Z11 which always apply:		

³ If June 2005 Edition applies, delete April 2013 and insert June 2005

⁴ State whether attached as a 'PDF' file in terms of Eskom's licence, or to be obtained from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

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

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

Z3 Confidentiality

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

Z4 Waiver and estoppel: Add to clause 12.2:

- Z4.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties or their delegates or the *Adjudicator* does not constitute a waiver of rights and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.

Z5 Health, safety and the environment

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

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

- Z6.1 The *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the *Works* Information, showing the correctly assessed amount due for payment.
- Z6.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employers* to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z6.3 The *Contractor* is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer's* VAT number 4740101508 on each invoice he submits for payment.

Z7 Notifying compensation events

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

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

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

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

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

Z10 Addition to Clause 50.5

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

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

Z11 Ethics

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

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

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

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

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

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

Z12 Insurance

Z_12.1 Replace core clause 82 with the following:

Insurance cover 82

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

INSURANCE TABLE A

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

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

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

INSURANCE TABLE B

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

Z13 Nuclear Liability

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

Z13.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or

resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z13.3 Subject to clause Z13.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

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

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

Z14 Asbestos

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

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

Z14.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the

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

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

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

The tendering *Contractor* is advised to read both the NEC3 Engineering and Construction Short Contract (April 2013) and the relevant parts of its Guidance Notes (ECSC3-GN)⁵ in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on page 31 of the ECSC3 April 2013 Guidance Notes.

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

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

⁵ Available from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

C2 Pricing Data

C2.1 Pricing assumptions

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

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

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

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

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

C2.2 Price List

The Price List is as follows

ITEM NO.	DESCRIPTION	UNIT	NO. OFF	QUANTITY	RATE	AMOUNT
	ITEM 1					
1	PRELIMINARIES AND GENERAL					
1.1	Establishment and De-establishment					
1.1.1	Site Establishment & Facilities					
1.1.1.1	Site Establishment for: Delivery of 12 x 3m Office Converted Container	Once Off	1	2		R -
1.1.1.2	Site Establishment for: Delivery of Kitchen Converted Container Fitted with Single Bowl Sink with a Work Top, Fitted with Undercounter Cupboard L-6m; W-3m	Once Off	1	1		R -
1.1.1.3	Site Establishment for: Delivery of Storage Container, Enclosed with No Windows L-9m; W-2.5m	Once Off	1	1		R -
1.1.1.4	Site Establishment for: Delivery of Female Ablution L-6m; W-3m	Once Off	1	1		R -
1.1.1.5	Site Establishment for: Delivery of Male Ablution L-6m; W-3m	Once Off	1	1		R -
1.1.1.6	Supply and connection of power supply to Containers/Parkhomes	m	1	100		R -
1.1.1.7	Supply and connection of temporary water supply including, piping, tap, pump and storage tank (2500Lt water tank, food grade LLDPE plastics) adjacent contractor camp	Once Off	1	1		R -
1.1.1.8	Supply and connection of temporary waste water system, including, piping and plastic under-ground septic tank (2500 litres) typical for 1 to 20 people use	Once Off	1	2		R -
1.1.1.9	Supply and Installation of Site Fencing (1.8m High Diamond Mesh wire, 40 Steel Poles)	m	1	200		R -
1.1.2	Site Clearance at Contractors Camp					
1.1.2.1	Site Establishment for: Delivery of TLB - 4 X 4 Backhoe Loader (1 Off)	Once Off	1	1		R -
1.1.2.2	Site De-Establishment for: Collection of TLB - 4 X 4 Backhoe Loader (1 Off)	Once Off	1	1		R -

SUPPLY, DELIVERY AND INSTALLATION OF ADDITIONAL MASS METERS AT KUSILE POWER STATION

1.1.2.3	TLB - 4 X 4 Backhoe Loader	Per Day	1	1		R	-
1.1.3	Site De-establishment						
1.1.3.1	Site De-establishment for: Collection of 12 x 3m Office Converted Container with a kitchenette	Once Off	1	2		R	-
1.1.3.2	Site De-establishment for: Collection of Kitchen Converted Container Fitted with Single Bowl Sink with a Work Top, Fitted with Undercounter Cupboard L-6m; W-3m	Once Off	1	1		R	-
1.1.3.3	Site De-establishment for: Collection of Storage Container, Enclosed with No Windows L-9m; W-2.5m	Once Off	1	1		R	-
1.1.3.4	Site De-establishment for: Collection of Female Ablution L-6m; W-3m	Once Off	1	1		R	-
1.1.3.5	Site De-establishment for: Collection of Male Ablution L-6m; W-3m	Once Off	1	1		R	-
1.1.3.6	Disconnection and Collection of power supply to Containers/Parkhomes	m	1	100		R	-
1.1.3.7	Collect and disconnection of temporary water supply including, piping, tap, pump and storage tank (2500Lt water tank, food grade LLDPE plastics) adjacent contractor camp	Once Off	1	1		R	-
1.1.3.8	Collect and disconnection of temporary waste water system, including, piping and plastic under-ground septic tank (2500 litres) typical for 1 to 20 people use	Once Off	1	2		R	-
1.1.3.9	Removal and Collection of Site Fencing (1.8m High Diamond Mesh wire, 40 Steel Poles)	m	1	200		R	-
1.2	Health and Safety Compliance						
1.2.1	Personal Protective Equipment						
1.2.1.1	Overall Trouser	Per Person	1	43		R	-
1.2.1.2	Overall Jacket	Per Person	1	43		R	-
1.2.1.3	Safety Boots	Per Person	1	43		R	-
1.2.1.4	Hardhat	Per Person	1	43		R	-
1.2.1.5	Reflector Vest	Per Person	1	43		R	-
1.2.1.6	Mask (Box of 20)	Box	3	43		R	-
1.2.1.7	Safety Gloves	Yearly	18	37		R	-
1.2.1.8	Safety Glasses	Yearly	3	37		R	-
1.2.1.9	Ear Protection	Yearly	18	37		R	-

SUPPLY, DELIVERY AND INSTALLATION OF ADDITIONAL MASS METERS AT KUSILE POWER STATION

1.2.2	Medicals, Security and Safety Compliance						
1.2.2.1	Safety File	Once Off	1	1		R	-
1.2.2.2	Medicals - Entry	Per Person	1	43		R	-
1.2.2.3	Medicals - Exit	Per Person	1	43		R	-
1.2.2.4	Police Clearance Certification	Per Person	1	43		R	-
1.2.3	Safety Trainings and Competency						
1.2.3.1	OHS Act (Valid for 2 Years) : Managers and Supervisors	No	2	3		R	-
1.2.3.2	Legal Liability (Once Off) : Managers and Supervisors	No	1	3		R	-
1.2.3.3	Supervisory Safety (Valid for 2 Years) : Managers and Supervisors	No	2	3		R	-
1.2.3.4	Planned Job Observation (Once Off) : Managers and Supervisors	No	1	3		R	-
1.2.3.5	HIRA (Valid for 2 Years) : Managers Supervisors and Safety Officer	No	2	4		R	-
1.2.3.6	Incident Investigator (Valid for 2 Years) : Managers, Supervisors and Safety Officer	No	2	4		R	-
1.2.3.7	Training (Working at Heights) Valid for 3 Years : Managers, Artisans, Supervisors and Semi-Skilled	No	1	22		R	-
1.2.4	Occupational Hygiene Surveys (All Areas)						
1.2.4.1	Illumination for Office, Kitchen, Ablution and Storage Containers (valid for 2 years)	No	1	6		R	-
1.2.4.2	Indoor Air Quality for Office container (valid for 2 years)	No	1	2		R	-
1.2.4.3	Ergonomics for Office container (valid for 2 years)	No	1	2		R	-
1.2.4	Equipment						
1.2.4.1	Fire Extingisher (9 Kg) - for all site facilities	No	1	7		R	-
1.2.1	Temporary Site Facilities						
1.2.1.1	Office Converted Container Insulated, with Air-Con. L-6m; W-3m	Per Month	2	18		R	-
1.2.1.2	Kitchen Converted Container Fitted with Single Bowl Sink with a Work top, Fitted with Undercounter Cupboard L-6m; W-3m	Per Month	2	18		R	-
1.2.1.3	Storage Container, Enclosed with No Windows L-9m; W-2.5m	Per Month	1	18		R	-
1.2.1.4	Female Ablution L-6m; W-3m (To be serviced weekly)	Per Month	1	18		R	-

SUPPLY, DELIVERY AND INSTALLATION OF ADDITIONAL MASS METERS AT KUSILE POWER STATION

1.2.1.5	Male Ablution L-6m; W-3m (To be serviced weekly)	Per Month	1	18		R	-
1.2.2	Transport and Logistics						
1.2.2.1	7 Seater [2No Off]	Per Month	2	18		R	-
1.2.2.2	14 Seater (Home-Work-Home) [3No Off]	Per Month	3	18		R	-
1.2.2.3	4 x 4 LDV Double Cab Bakkie [2No Off]	Per Month	2	18		R	-
	Total Item 1 (Preliminaries and General) Carried to Final Summary					R	-
	ITEM 2						
2	RESOURCES						
2.1	DESIGN TEAM						
2.1.1	Project Manager (Professional Registered with SACMP with 5 Years Relevant experience) [1No Off]	Hours	1	605		R	-
2.1.2	Structural Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	605		R	-
2.1.3	Mechanical Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	605		R	-
2.1.4	Electrical Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	605		R	-
2.1.5	Control and Instrumentation Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	605		R	-
2.1.6	Quality Controller/QC Inspector [1No Off]	Hours	1	242		R	-
2.1.7	Safety Officer with National Diploma in Safety Management or Environmental Health (3 Years Relevant experience) [1No Off]	Hours	1	605		R	-
2.1.8	Environmental Officer (Professional Registered with SACNAP with 3 Years Relevant experience) [1No Off]	Hours	1	605		R	-
2.1.9	Draughts person - Mechanical (Professional Registered with SAID with 5 Years Relevant experience) [1No Off]	Hours	1	605		R	-
2.1.10	Draughts person - Civil (Professional Registered with SAID with 5 Years Relevant experience) [1No Off]	Hours	1	605		R	-
2.1.11	Draughts person - EC&I (Professional Registered with SAID with 5 Years Relevant experience) [1No Off]	Hours	1	605		R	-
	Sub-Total Item 2.1 (Design Team) carried to Final Summary:					R	-

SUPPLY, DELIVERY AND INSTALLATION OF ADDITIONAL MASS METERS AT KUSILE POWER STATION

2.2	DESIGN TEAM REQUIRED FOR CONSTRUCTION SUPERVISION						
	NORMAL TIME						
2.2.1	Structural Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	2860	R	-	R -
2.2.2	Quality Controller/QC Inspector [1No Off]	Hours	1	2860	R	-	R -
2.2.3	Mechanical Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	2860	R	-	R -
2.2.4	Electrical Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	2860	R	-	R -
2.2.5	Control and Instrumentation Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	2860	R	-	R -
2.3	SATURDAYS				1.50		
2.3.1	Structural Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	360	R	-	R -
2.3.2	Quality Controller/QC Inspector [1No Off]	Hours	1	360	R	-	R -
2.3.3	Mechanical Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	360	R	-	R -
2.3.4	Electrical Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	360	R	-	R -
2.3.5	Control and Instrumentation Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	360	R	-	R -
2.4	SUNDAYS AND PUBLIC HOLIDAYS				2.00		
2.4.1	Structural Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	444	R	-	R -
2.4.2	Quality Controller/QC Inspector [1No Off]	Hours	1	444	R	-	R -
2.4.3	Mechanical Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	444	R	-	R -
2.4.4	Electrical Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	444	R	-	R -
2.4.5	Control and Instrumentation Engineer (Professional Registered with ECSA with 5 Years Relevant experience) [1No Off]	Hours	1	444	R	-	R -
	Total Costs for: DESIGN TEAM REQUIRED FOR CONSTRUCTION SUPERVISION						R -
3	CONSTRUCTION TEAM						
3.1	NORMAL TIME						

SUPPLY, DELIVERY AND INSTALLATION OF ADDITIONAL MASS METERS AT KUSILE POWER STATION

3.1.1	Construction Project Manager (Professional with SACPM with 5 Years Relevant experience) [1No Off]	Hours	1	2860		R	-
3.1.2	Construction Supervisor (5 Years Relevant experience) [1No Off]	Hours	1	2860		R	-
3.1.3	Electrical Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	2860		R	-
3.1.4	C&I Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	2860		R	-
3.1.5	Mechanical Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	2860		R	-
3.1.6	Structural Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	2860		R	-
3.1.7	Construction Safety Manager (CHSM) (Professional with SACPM with 5 Years Relevant experience) [1No Off]	Hours	1	2860		R	-
3.1.8	Construction Health and Safety Officer (CHSO) with National Diploma in Safety Management or Environmental Health (Professional with SACPM with 5 Years Relevant experience) [1No Off]	Hours	1	2860		R	-
3.1.9	Rigger (3 Years Relevant experience) [2No Off]	Hours	2	2860		R	-
3.1.10	Master Installation Electrician with HAZLOC (N6 Qualification with Wireman's licence Min 4 Years Relevant experience) [1No Off]	Hours	1	2860		R	-
3.1.11	Quality Controller/QC Inspector [1No Off]	Hours	1	2860		R	-
3.1.12	Document Controller (3 Years Relevant experience) [1No Off]	Hours	1	2860		R	-
3.1.13	Storeman (3 Years Relevant experience) [1No Off]	Hours	1	2860		R	-
3.1.14	Semi-skilled site support for Electrical with Matric [2No Off]	Hours	2	2860		R	-
3.1.15	Semi-skilled site support for C&I with Matric [2No Off]	Hours	2	2860		R	-
3.1.16	Semi-skilled site support for Mechanical with Matric [2No Off]	Hours	2	2860		R	-
3.1.17	Semi-skilled site support for Structural with Matric [2No Off]	Hours	2	2860		R	-
3.1.18	General Labour (1-3 Years Relevant experience) [2No Off]	Hours	2	2860		R	-
3.1.19	Driver [3No Off]	Hours	3	2860		R	-
3.1.20	Cleaner [1No Off]	Hours	1	2860		R	-
3.2	SATURDAYS				1.50		
3.2.1	Construction Project Manager (Professional with SACPM with 5 Years Relevant experience) [1No Off]	Hours	1	360	R	-	R
3.2.2	Construction Supervisor (5 Years Relevant experience) [1No Off]	Hours	1	360	R	-	R
3.2.3	Electrical Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	360	R	-	R
3.2.4	C&I Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	360	R	-	R

SUPPLY, DELIVERY AND INSTALLATION OF ADDITIONAL MASS METERS AT KUSILE POWER STATION

3.2.5	Mechanical Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	360	R	-	R	-
3.2.6	Structural Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	360	R	-	R	-
3.2.7	Construction Safety Manager (CHSM) (Professional with SACPMP with 5 Years Relevant experience) [1No Off]	Hours	1	360	R	-	R	-
3.2.8	Construction Health and Safety Officer (CHSO) with National Diploma in Safety Management or Environmental Health (Professional with SACPMP with 5 Years Relevant experience) [1No Off]	Hours	1	360	R	-	R	-
3.2.9	Rigger (3 Years Relevant experience) [2No Off]	Hours	2	360	R	-	R	-
3.2.10	Master Installation Electrician with HAZLOC (N6 Qualification with Wireman's licence Min 4 Years Relevant experience) [1No Off]	Hours	1	360	R	-	R	-
3.2.11	Document Controller (3 Years Relevant experience) [1No Off]	Hours	1	360	R	-	R	-
3.2.12	Storeman (3 Years Relevant experience) [1No Off]	Hours	1	360	R	-	R	-
3.2.13	Semi-skilled site support for Electrical with Matric [2No Off]	Hours	2	360	R	-	R	-
3.2.14	Semi-skilled site support for C&I with Matric [2No Off]	Hours	2	360	R	-	R	-
3.2.15	Semi-skilled site support for Mechanical with Matric [2No Off]	Hours	2	360	R	-	R	-
3.2.16	Semi-skilled site support for Structural with Matric [2No Off]	Hours	2	360	R	-	R	-
3.2.17	General Labour (1-3 Years Relevant experience) [2No Off]	Hours	2	360	R	-	R	-
3.2.18	Driver [3No Off]	Hours	3	360	R	-	R	-
3.3	SUNDAYS AND PUBLIC HOLIDAYS				2.00			
3.3.1	Construction Project Manager (Professional with SACPMP with 5 Years Relevant experience) [1No Off]	Hours	1	444	R	-	R	-
3.3.2	Construction Supervisor (5 Years Relevant experience) [1No Off]	Hours	1	444	R	-	R	-
3.3.3	Electrical Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	444	R	-	R	-
3.3.4	C&I Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	444	R	-	R	-
3.3.5	Mechanical Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	444	R	-	R	-
3.3.6	Structural Technician Trade with N4 - N6 (3 Years Relevant experience) [2No Off]	Hours	2	444	R	-	R	-
3.3.7	Construction Safety Manager (CHSM) (Professional with SACPMP with 5 Years Relevant experience) [1No Off]	Hours	1	444	R	-	R	-
3.3.8	Construction Health and Safety Officer (CHSO) with National Diploma in Safety Management or Environmental Health (Professional with SACPMP with 5 Years Relevant experience) [1No Off]	Hours	1	444	R	-	R	-

SUPPLY, DELIVERY AND INSTALLATION OF ADDITIONAL MASS METERS AT KUSILE POWER STATION

3.3.9	Rigger (3 Years Relevant experience) [2No Off]	Hours	2	444	R	-	R	-
3.3.10	Master Installation Electrician with HAZLOC (N6 Qualification with Wireman's licence Min 4 Years Relevant experience) [1No Off]	Hours	1	444	R	-	R	-
3.3.11	Document Controller (3 Years Relevant experience) [1No Off]	Hours	1	444	R	-	R	-
3.3.12	Storeman (3 Years Relevant experience) [1No Off]	Hours	1	444	R	-	R	-
3.3.13	Semi-skilled site support for Electrical with Matric [2No Off]	Hours	2	444	R	-	R	-
3.3.14	Semi-skilled site support for C&I with Matric [2No Off]	Hours	2	444	R	-	R	-
3.3.15	Semi-skilled site support for Mechanical with Matric [2No Off]	Hours	2	444	R	-	R	-
3.3.16	Semi-skilled site support for Structural with Matric [2No Off]	Hours	2	444	R	-	R	-
3.3.17	General Labour (1-3 Years Relevant experience) [2No Off]	Hours	2	444	R	-	R	-
3.3.18	Driver [3No Off]	Hours	3	444	R	-	R	-
	Total Costs for: CONSTRUCTION TEAM						R	-
	Total for Resources - Carried to Final Summary						R	-
	ITEM 3							
3	SUPPLY AND DELIVERY OF ADDITIONAL MASS METERS							
3.1	Supply and Delivery of Additional Mass Meters (As per the Attached Detailed BoQ)	Sum	1	1	R	-	R	-

	<u>FINAL SUMMARY</u>							
ITEM 1	PRELIMINARIES AND GENERAL						R	-
ITEM 2	RESOURCES						R	-
ITEM 3	SUPPLY AND DELIVERY OF ADDITIONAL MASS METERS						R	-
	Final Summary Total						R	-

C3: Scope of Work

C3.1 Works Information

1. Description of the Works

Kusile Power Station intends to install and commission additional Mass Meters on the Coal Handling Plant, Mixed Ash Handling Plant and Limestone Handling Plant. The *Contractor* to deliver goods as per provided specification. The provided equipment shall be complete with their ancillaries, accessories, and serial numbers on spares. Supplied equipment shall comply with the Occupational Health and Safety Act requirements, the South African National Standards (SANS) and any other relevant standards or specifications.

The high-level scope of work for this contract includes the following activities:

Supply, Delivery and Installation of Additional Mass Meters at Kusile Power Station

This document clearly defines the scope of works for the Additional Mass Meters project. The scope of works is multidisciplinary in nature as it entails the mechanical sections which are the idler frames, the idlers and the weighbridge structures. The Control and instrumentation sections entails the integrators, speed switches control and communication cables and lastly the electrical scope that covers the power supply cabling.

Mechanical Scope of works

The scope of works is to procure, supply, deliver to site, install and commission a mass meter/weighbridge structure on the each of the following conveyors belt system in the table below. The mechanical scope entails drilling, mounting of all weighbridge/mass meter components. The specification in Table 1 must be read in conjunction with Figure 2

Minerals and Mining, Australia

Adelaide

CUSTOMER

SITE ADDRESS

DATE

CITY/STATE

CONTACT

BELT SCALE APPLICATION DATA

PHONE

FAX

EMAIL

CONVEYOR DATA

Conveyor Number

Belt Width

Belt Weight

Idler Spacing

Idler Weight

Conveyor Angle

Capacity (t/h)

Min

Ave

Max

Belt Speed (m/s)

Min

Ave

Max

Take up: ☐ Gravity ☒ Screw

☒ Fixed ☒ Variable

Tail or Non-driven Pulley Diameter

mm

MATERIAL DATA

Product Name

Max Lump Size

Bulk Density

crushed coal

mm

kg/m³

APPLICATION

Weighing Accuracy

%

☐ Rate

☐ Rate & Total

☐ Trade Approved

☐ Load-Out/ Batch Control

☒ Rate Control

ELECTRICAL DATA

Power Supply

☒ 240/220VAC

☐ 120/110VAC

Serial Output

☐ Yes ☐ No

☐ RS232 ☐ RS485

Integrator Mounting

☐ Field ☐ Panel

☐ Blind

Current Output

☐ Yes ☐ No

Qty: ☐ 1 ☐ 2

Protocol (specify)

Modbus or TCP-IP

Integrator Enclosure

☐ 不锈钢

☐ Std Polyester

Pulse Output

☐ Up to 60 VDC

☐ Up to 240 VAC

Area Classification

Speed Sensor Type

☐ Shaft-driven

☐ Proximity

OPTIONAL EQUIPMENT

Calibrating Equipment

☐ Standard R-Cal

☐ Stored-In-Place Billet Weight

☐ Chain Matte

☐ 5 or 10 kg Test Weights

☐ Class 1 Roller Chain

Please fill-in these dimensions:

Walkway Access (facing direction of belt travel)

☐ Left ☐ Right

Weigh Quality Idlers Supplied By

☐ Customer ☐ Ramsey

CUSTOMER SIGN-OFF

Name:

SUHARDJO

Position:

DIRECTOR

Signature:

Figure 2

Table 1: Belt specifications

Conveyor Number	SY3A SY3B	CAC 1 CAC 2 CAC 3 CAC4 CAC 5 CAC 6	T1A T1B	GYC1A GYC1B	POLC	CVY2
Quantity on mass meters	2	6	2	2	2	1
Accuracy Levels	+0,25%	+0.25%	+0.25%	+0.25%	+0.25 %	+0.25%
Belt Width (mm)	1800	1200	1800	900	1800	900

Belt Weight (kg/m)						
New/worn out	39.7/30.3	14/9.3	32.2/22.8	12/10	35/25	16.2/12.1
Idler Weight (kg)	Standard idler	Standard idler	Standard idler	Standard idler	Standard idler	Standard idler
Tail pulley diameter (mm)	630	500	630	500	800	630
Idler Spacing (mm)	1500	1500	1500	1500	1500	1500
Conveyor Angle (Degrees)	6	9	0	4	6	13.5
Capacity						
Min Capacity (TPH)	1000	40	800	40	1000	100
Ave Capacity (TPH)	2000	80	2000	110	2000	200
Max Capacity (TPH)	3400	140	3400	210	4000	450

Material Data

Product name	Coal	Wet Coarse Ash	Coal	wet Gypsum	Coal	Crushed Limestone
Bulk Density (kg/m³)	800	1040	800	1040	800	1360
Max Lump size (mm)	50	finest	50	Fines	50	40

Take-up arrangement

Gravity	X	X	X	X		X
Screw					X	

Belt Speed

Min Speed (m/s)	Speed can be varied	Speed can be varied	Speed can be varied	Speed can be varied	Speed can be varied	Speed can be varied
Ave Speed (m/s)	Speed can be varied	Speed can be varied	Speed can be varied	Speed can be varied	Speed can be varied	Speed can be varied
Max Speed (m/s)	3.9	3	3.35	2	4.15	2.2

Electrical Data

Power Supply (VAC)	240/220	240/220	240/220	240/220	240/220	240/220
Serial Output	No	No	No	No	No	No
Integrator Mounting	Field	Field	Field	Field	Field	Field
Protocol	Hardwired	Hardwired	Hardwired	Hardwired	Hardwired	Hardwired
Integrator Enclosure	Industrial Plastic	Industrial Plastic	Industrial Plastic	Industrial Plastic	Industrial Plastic	Industrial Plastic
Area Classification	Zone 22	Non-Hazardous	Zone 22	Non-Hazardous Area	Zone 22	Non-Hazardous Area

Current output	Yes	Yes	Yes	Yes	Yes	Yes
Quantity of outputs	2	2	2	2	2	2
Speed sensor Type	Shaft-Driven	Shaft-Driven	Shaft-Driven	Shaft-Driven	Shaft-Driven	Shaft-Driven
Pulse Output	Up to 60	Up to 60	Up to 60	Up to 60	Up to 60	Up to 60
Rate						
Trade Approved						
Load Out						
Rate & Total	X	X	X	X	X	X
Rate Control						
Batch Control						
Optional Equipment						
Standard R-Cal						
Chain Matte						
Class 1 Roller Chain						
Stored-in Billet Weight	X	X	X	X	X	X
5 or 10kg Weights						

Dimensions

Trough Angle (Degrees)	45	45	45	45	45	45
Roller Diameter (mm)	152	127	152	127	152	127
Backing Height (mm)	311	278	221	305	311	

CONTROLLED DISCLOSURE

Roller Length (mm)	660	450	660	340	660	340
Wing Idler Height (mm)	1576	1064	1576	800	1576	800
Return Belt Clearance (mm)	726	635	720	435	726	435
Inside Stringer Dimension (mm)	1998	1388	1988	1084	1998	1084
Idler Bolt Hole Centres (mm)	2058	1448	2058	1144	2058	1144
Outside Stringer Dimension (mm)	2208	1528	2208	1224	2208	1224
Walkway access	both left and right	both left and right	both left and right	both left and right	both left and right	both left and right

Belt name	Idler frame Troughing angle	Idler set spacing	Belt Width	Idler series	Belt Speed	Belt Inclination angle
CAC 1	45°	1500m m	1200mm	Series 25 @ 127	2m/s	9°
CAC 2						
CAC 3						
CAC 4						
CAC 5						
CAC 6						
T1A	45°	1500m m	1800mm	Series 30 @152	3.35m/s	0°
T1B						
SY3A	45°	1500m m	1800mm	Series 30@152	3.9m/s	6°
SY3B						
CVY2	45	1500m m	900mm	Series 25 @ 127	2.2m/s	6°
GYC1A	45	1500m m	900mm	Series 25 @ 127	2.2m/s	4°
GYC1B	45	1500m m	900mm	Series 25 @ 127	2.2m/s	4°

Electrical Scope of works

The Electrical scope of works entails procurement, supply, delivery to site and installation/pulling and termination of power supply cabling from the identified distribution board to the mass meter/weighbridge power units and other support instruments for all the conveyors listed below.

Table 2: Electrical specifications

POLC	230VAC	15W	4	50m	The POLC is still Under Construction, the power supply still not installed
SY3A	230VAC	15W	4	80m	0 1BLP07 GP001 (LDB-TH07)
SY3B	230VAC	15W	4	80m	0 1BLP07 GP001 (LDB-TH7)
T1A	230VAC	15W	4	50m	0 2BLP01 GP001 (LDB-S1T)
T1B	230VAC	15W	4	50m	0 2BLP01 GP001 (LDB-S1T)
CAC 1	230VAC	15W	4	80m	1 0BLP01 GP001 (LDB-TH01)
CAC 2	230VAC	15W	4	80m	2 0BLP01 GP001 (LDB-TH02)
CAC 3	230VAC	15W	4	80m	3 0BLP01 GP001 (LDB-TH03)
CAC 4	230VAC	15W	4	80m	4 0BLP01 GP001 (LDB-TH04)
CAC 5	230VAC	15W	4	80m	5 0BLP01 GP001 (LDB-TH05)
CAC 6	230VAC	15W	4	80m	6 0BLP01 GP001 (LDB-TH06)
CVY2	230VAC	15W	4	50m	0 4BLP03 GP001 (Limestone LDB)
GYC 1A	230VAC	15W	4	130m	0 4BLP04 GP001 (GYC LDB)
GYC 1B	230VAC	15W	4	130m	0 4BLP04 GP001 (GYC LDB)

Control and Instrumentation scope of works

The control and instrumentation scopes of works entails procurement, supply, delivery, installation, and commissioning of newly installed mass meters and cabling.

Table 3: C&I components per Mass Meter

Component	Description	Quantity	Cable Type	Connection Point
Load cells	Measure the weight of material on the conveyor belt	2	As per the OEM design.	Connect to Integrator's load cell input terminals
Speed Sensor	Measures the speed of the conveyor belt	1	As per the OEM design.	Connect to Integrator's speed sensor input terminals
Integrator	Processes signals from load cells and speed sensor to calculate mass flow rate	1	Multi core UVG cable or RS- 485 (if digital)	Connect to DCS directly from the integrator
Signal Output (Integrator to DCS)	Transmits processed mass flow rate data to DCS	1	Multi core UVG cable or Ethernet cable (4-20mA)	Connect to DCS input terminal via I/O cards or direct connection
Totaliser pulse output (Integrator to DCS)	Transmit integrator totaliser pulse	1	24V	Connect to DCS input terminal via I/O cards or direct connection
Grounding and shielding	Ensures signal integrity and reduces noise	1	Grounding cable (Green/Yellow) and Shielded communication cable.	Connected to all shielded cables and integrator chassis
Field Junction Box (optional)	Intermediate point for cable termination	1	Junction box rated for industrial requirements	Used if cable lengths exceed standard runs; may also house terminal blocks for ease of connection

Key considerations

1. Cable length: Cable length should not exceed the maximum limits specified by the equipment manufacturer, especially for analogue signals like 4-20 mA, to avoid signal degradation. If distance exceed these, signal repeaters or junction box may be needed.

2. Shielding: Proper cable shielding and grounding are critical to minimize electromagnetic interference, which can affect measurement accuracy.
3. Redundancy: Redundant paths should be considered for critical signals (e.g., dual load cell signals) if reliability is a concern.
4. Environmental Protection: Cables that are suitable for the environmental conditions (temperature, moisture, dust, etc.) of the installation site should be used.
5. Calibration and Testing: Proper calibration of load cells and speed sensors after installation to verify accuracy.
6. The proposed Mass Meters shall have an accuracy of + 0.25 %.

The table below provides a comprehensive overview of the instrumentation requirements for the whole additional mass meter project, detailing required load cells, speed sensors, integrators and cabling length:

Table 4: Cable lengths

Belt Name	Number of Mass meters per belt.	Load Cells	Speed Sensors	Integrators	Cable Length (m)
CAC 1	1	2	1	1	150
CAC2	1	2	1	1	150
CAC3	1	2	1	1	150
CAC4	1	2	1	1	150
CAC5	1	2	1	1	150
CAC 6	1	2	1	1	150
T1A	1	2	1	1	330
T1B	1	2	1	1	330
SY3A	1	2	1	1	900
SY3B	1	2	1	1	880
CVY2	1	2	1	1	400
GYC1A	1	2	1	1	100
GYC1B	1	2	1	1	100
POLC Mass meter 1	1	2	1	1	300
POLC mass meter 2	1	2	1	1	310
Total Number	15	30	15	15	

Configuration Management Scope of Work

The plant on which the Contractor is to install the additional mass meters are using the KKS coding system for classifying and designating both plants and their associated documents. The rules for applying the KKS codes in the publication VGB-S-811-01-2018-01-EN KKS Identification Systems for Power Stations. KKS standard and key part, 8th revision of the 2018 edition.

1. The Contractor shall use Eskom-specific interpretations of the KKS.
2. The Contractor shall, as soon as possible after the Tender is awarded to them, provide the Employer with the following: Equipment list, component list, Piping and instrumentation Diagram, Outline drawings or diagrams showing the systems and equipment. In respect of items procured by the Contractor from another manufacturer or vendor, the Contractor shall provide the name of the actual manufacturer and drawings or reference numbers and relevant technical data for identification purposes.

3. The Employer shall use the Contractor's equipment list to code all the plant equipment and components within the scope of supply according to the KKS Classification system to Breakdown Level 3. The KKS coding list generated by the Employer shall be sent to the Contractor. The Contractor shall be responsible for printing and installation of the KKS for the equipment and components within the scope of supply in accordance with document 240-71432150: Plant Labelling Standard.
4. The relevant KKS codes thus allocated shall appear on all plant related documentation, drawings, lists and correspondence. The Contractor shall be responsible for ensuring the accuracy, completeness, and consistency of the designations in all documents. This applies both to designations within documents (plant designations) and of documents (document designations).
5. The Contractor shall revise all drawings and associated documents within the scope of supply to reflect the Employer's KKS codes.

7. *Employer's objectives and purpose of the works*

This document outlines the scope of work for the supply, delivery, offloading and installation of Additional Mass Meters at Kusile Power Station.

The *Contractor* to supply equipment and offload the equipment at the *Employer* site.

Special Tools Requirements

The *Supplier* to identify and submit to the *Employer* a priced list of all special tools required for the operation and maintenance of the supplied machinery. These shall include the following but not limited to:

- a) OEM specific tools/devices
- b) Tools required for on-going maintenance of the machinery

Documentation

Prepare a Databook to document all the additional mass meter works from procurement of mass meters to execution of works. The data book must entail the following information.

1. Fabrication drawings and offsite QCPs
2. Construction Drawings
3. Onsite delivery QCPs
4. Mass meter data sheets.
5. Installation Method statement and Risk Assessment
6. Onsite installation QCPs
7. Commissioning procedures and check sheets
8. Project acceptance certificates
9. Hazloc Databook

Handover

The Contractor shall be responsible for handover of all Works associated with the contract as per this scope of Works. The handover submissions shall include but not limited to the following:

- a) Warranty certificates
- b) Technical Data Sheets/Material Certificates
- c) Operating and maintenance manuals
- d) Factory acceptance test certificates/documentation
- e) Spares schedule

Material Fabrication

The offsite material fabrication processes and fabrication workshop must be ISO 9001:2015 compliant.

8. Interpretation and terminology

The following abbreviations are used in this *Works Information*:

Abbreviation	Explanation
OEM	Original Equipment Manufacturer
SANS	South African National Standards
SOW	Scope of Work
ITP	Inspection Test Plan
MS	Method Statement

2. Drawings

Drawing number	Revision	Title

3. Specifications

The following services are required together with the supply of the equipment:

1. Supply, assembly, delivery and offloading of all equipment.
2. Supply of all operating and maintenance procedures and technical data sheets.
3. Submit Priced schedule of spare parts that are recommended to be kept by the Employer for the long-term operation and maintenance of the supplied machines.
4. Onsite installation
5. Warranty period

3.1 Documentation control

At the site (Kick-off) meeting to be held, documentation will be identified with an alpha numeric which indicates source, recipient, communication number etc.

All contractual communications will be in the form of properly compiled letters or forms attached to e-mails and not as a message in the e-mail itself.

The routing of all written communication will be between the *Project Manager* and the *Contractor* only, any other agreements between the *Contractor* and any other person representing the *Employer* which has not been routed via the *Project Manager* will be null and void.

Any instruction written or verbal resulting in any changes to the duration, quality, and cost of the project may only be received from the *Project Manager*.

3.2 Health and safety risk management

In addition to the requirements of the laws governing health and safety, Eskom 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*. PLEASE ALSO READ CORE CLAUSE 27.4 TOGETHER WITH Z7 IN THE ADDITIONAL CONDITIONS OF CONTRACT TO MAKE SURE THAT WHATEVER IS INCLUDED IN THE ANNEXURE FOLLOWS ON FROM THOSE CLAUSES.

The Divisional/Regional Safety Risk Manager or his representative having jurisdiction over the *Works* must provide the relevant safety, health and environmental (SHE) criteria for incorporation into this *Works*

Information. The SHE specification / scope must be signed off by the Divisional/Regional Safety Risk Manager or his representative confirming that the applicable safety criteria have been considered.

The Commodity Manager / Buyer must refer the tender to the Divisional/Regional Safety Risk Manager or his representative to evaluate against enquiry-specific safety criteria.

The *Contractor* shall comply with the health and safety requirements contained in this *Works* Information.

In addition to the requirements of the laws governing health and safety, Eskom may have some additional requirements particular to the *Works* and the Working Areas for this contract.

The *Contractor* ensures that all his personnel attend a Health and Safety Induction Course presented by Education and Training Department (ETD), Monday to Friday – 09:00 to 10:00, free of charge prior to commencement of any works. This is a one (1) hour training and is valid for the duration of one (1) year at Kusile Power Station.

The *Contractor Works* strictly to regularly updated risk assessment.

The *Contractor* ensures supervised and authorised entry into the plant.

The *Contractor* barricades the entire perimeter of the site.

The *Contractor* ensures at all times compliance with the safety regulations imposed by any act of parliament, or any regulation or by law of any statutory authority.

3.3 Environmental constraints and management

The *Contractor* takes note of the road conditions during this period.

Rubble generated during the activities should be discarded in bins to be provided by the *Contractor*.

The *Contractor* ensures that all equipment used on site conform to all applicable environmental legislation.

The *Contractor* adheres to the Kusile Power Station Environmental Management System that must meet the requirements for the Code of Practice for Environmental Management System (EMS), ISO 14001: 2015

The EMS requirements are detailed in the latest revision of the following documents, which are available from the *Employers Representative*.

3.4 Quality assurance requirements

The *Contractor* ensures that the *Work* done is accordance to SANS 10120 and National Building Regulations 10400 specifications. The *Contractor* is to develop the quality inspection plan (QIP) and the method statement. The *Contractor* is to ensure that his QIP is in line with the Employer's requirements. QM 58

High quality is assured by conforming to the following:

Construction and installation conform to the Scope of Work and *Works* information, and relevant drawings.

All work is to be done accordance to an approve quality system;

ISO 9001: 2015- Quality Management Standard.

EVS 010- Quality Requirements for Quality related services.

EVS 005- Quality Requirements for Quality related items and equipment

When required the *Contractor* prepares a Quality Control Plan, the scope and contents of which shall be determined by the nature of the work.

The Contract Quality Plan shall, where appropriate.

Indicate the interface with the Contractor's quality system.

Establish communication channels between the *Contractor* and *Employer* in respect of product quality and the integration of such with the prescribed contact communication channels.

Identify items of activities for which Product/Process Quality Plans will be prepared.
Identify the specifications and acceptance criteria for material for which Production/Process Quality Plans are required

The *Contractor* shall have a Quality Programme that, as a minimum meets the Quality requirements as specified in ISO 9001:2015.

A quality requirement has been established by *Employer* (Eskom Kusile Power Station) where catalogue items (commercial duties when required either in accordance with the provisions of Act), as amended or Employer's requirements and shall be responsible for issuing the Final Certificate of Inspection and Tests, as prescribed by the Act or by Employer.

Any information and documents requested by *Employer* (Eskom Kusile Power Station) shall be supplied to the Authority and no plant shall be placed in service until information and documents are approved by the Employer.

The Authority will perform such quality activities as may be necessary during construction, erection, installation, commissioning, maintenance or repair and testing. The activities shall be in the main being as follows:

- Witness inspections or verification.
- Monitoring the Contractor's quality function
- Samplings checks against the Contractor's records.
- Record verification.

Grade items are being procured but where an additional degree of confidence exceeding normal commercial transactions is required, e.g. certification of conformance to a specific revision of the supplier's catalogue. A quality assurance programme is not mandatory for such suppliers.

The responsibility for ensuring that the Sub-Contractors programme complies with the quality requirements is that of the *Contractor* who shall define the specific criteria of the quality requirements applicable to the Sub-Contractor's scope of supply.

Non-conformance reports shall be prepared by the *Contractor* and approved by the *Project Manager* for non-conforming materials, workmanship or documentation shall form part of the permanent quality records. When requested these reports shall be submitted to *Employer* Authority/Agency for review.

Employer Authority may initiate NCR's covering non-conforming materials, workmanship or documentation and the *Contractor* shall respond in a timely manner by stating the:

- Cause
- Corrective action
- Action taken to prevent recurrence
- Effective

	Date or revision	Tick if publicly available
<u>General Specifications:</u>		
Health and Safety requirements		x
Environmental requirements		x
Site regulations and access control		x
<u>Technical specifications:</u>		x

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

4.1 Meetings

After contract award, *Employee* schedules a kick-off meeting to discuss the execution requirements.

Kick-off meeting specifies how the *Contractor* will meet the project objectives and confirm *Contractor* understands the required works, and programme to execute the scope of work.

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:
Overall contract progress and feedback	Every second week on a day and time agreed upon by Parties. This is subject to change depending on the requirement.	To be confirmed by the <i>Project Manager</i>	<i>Contractor/s, Supervisor, Project Manager, System Engineer, and Others</i>
Early Warning (Risk reduction) meeting	As and when required	To be confirmed by the <i>Project Manager</i>	<i>Contractor/s, Supervisor, Project Manager, System Engineer, and Others</i>
Kick-off meeting	Third working day after official contract is placed.	To be confirmed by the <i>Project Manager</i>	<i>Contractor/s, Supervisor, Project Manager, System Engineer, and Others</i>
Interfacing meetings	As and when required	To be confirmed by the <i>Project Manager</i>	<i>Contractor/s, Supervisor, Project Manager, System Engineer, and Others</i>
Risk register and compensation events	As and when required	To be confirmed by the <i>Project Manager</i>	<i>Contractor/s, Supervisor, Project Manager, System Engineer, and Others</i>
Tool box sessions	Every-day before commencing with work	Site	<i>Contractor/s, ,</i>
Executive SHEQ Meeting	Monthly	Site	<i>Site Manager, SHE Representative</i>

4.2 Use of standard forms

This contract will strictly use only Eskom standard forms. E.g but not limited to: Early warning, Compensation event notifications and Worker's register if need be.

4.3 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* shall address the tax invoice to Eskom Holdings 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;

Description of service provided for each item invoiced based on the Price List;
Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
(add other as required)

Add procedures for invoice submission and payment (e. g. electronic payment instructions)
Invoices submitted to:

**Eskom Holdings LTD
Kusile Power Station
Suite 46
Private Bag X7297
Witbank
1035**

For invoicing kindly send request and supporting documents to Eskom invoice email address

4.4 Records of Defined Cost

In order to substantiate the Defined Cost of compensation events, the *Employer* may require the *Contractor* to keep records of amounts paid by him for people employed by the Contractor, Plant and Materials, work subcontracted by the *Contractor* and Equipment.

The *Contractor* shall keep all the original invoice and these invoices shall be supplied to the *Employer* shall the need arise.

4.5 Supplier Development Localization and Industrialization (SDL&I)

Refer to SD&L report

4.6 BBBEE and preferencing scheme

The *Contractor* shall ensure that it maintains the B-BBEE's Level of Contribution with which it was awarded a Contract. Should the Contractor, for any reason, including a change in Legislation, loose its status then it will be given 90 days to comply.

Refer to SD&L report.

4.7 Facilities to be provided by the Contractor

The *Contractor* supplies and delivers all equipment, materials, labour, tools, consumables, storage facilities and accommodation and anything deemed necessary to complete scope of work.

4.8 Title to material from excavation and demolition

All removed equipment is transported to the areas specified by the *Employer*. All such areas are located within the boundaries of Kusile Power Station.

All equipment and material that is removed is deemed re-usable and remains the property of the *Employer*. Where field equipment or cabling have been removed, the area will be made good in accordance with the requirements of the Project Manager.

The term "making good" refers to the following:

- All areas where equipment was removed on the plant are made neat by means of closing holes, grinding of old anchor points and welding, repainting and resurfacing.
- The interface point between the new system and existing equipment or plant is made neat and functional to prevent weak points in the final delivered product e.g. fixing of brackets and supports of interface boxes, covers, locking nuts etc.

4.9 Design by the *Contractor*

All the drawings will be provided by the *Employer*, the *Contractor* will only be doing construction.

4.10 Cataloguing requirements by the *Contractor*

N/A

5. Requirements for the programme

The *Contractor* shall submit a program, compiled in Microsoft Project / Primavera or similar program, which will provide details of the list of all activities and the duration of each activity.

- A list of all activities and duration of each shall be made available after an instruction to commence work is given to the *Contractor* by the Project Manager.
- The program shall be updated weekly and will be used to track progress and manage all the activities.
- The *Contractor* submits a bar chart program one week after award of the contract showing the following:
 - The early start and early completion date of each activity.
 - The late start and late completion of each activity.
 - Planned completion.
 - The order and planning of operations which the *Contractor* plans to do in order to provide the works.
 - The *Contractor* prepares and submits an update, seven days after the start date, showing actual progress and the effect upon the remainder of the activities to be completed.

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

The *Contractor* will inform the *Employer* of any scaffolding requirements for the installation as soon as the exact locations and routes are identified and finalised. The *Employer* will need 2 weeks to arrange for the necessary scaffolding to be erected. Scaffolding will be erected unless there is no any other major priority work being worked or utilised on.

All additional equipment needed to execute the work will be discussed and approved by and agreed the *Employer* and *Contractor*.

Item	Date by which it will be provided

C4: Site Information

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

1. Access limitations

1.1 Site location and Security

- The Site is Eskom Kusile Power Station which is located approximately 37km from Emalahleni N4 offramp along the Balmoral/Kendal – Balmoral Road (R545). Taking the turn-off, about 1.5 km south from N4 offramp, and continue about 5km on R686 you will get to a sign saying Kusile Power Station & turn left to the security gates. Access to the site will be via the main security gate only.
- The *Employer* will inform the *Contractor* of the access procedures, and it should be expected that such procedures may change depending on the prevailing security situation.
- The *Contractor* to allow in his price and program for delays at the security gate. The *Employer* reserves the right for its Security personnel to search persons or vehicles entering or leaving the premises. This includes but is not limited to briefcases and toolboxes.
- All *Contractor* employees to provide proof clearance before access permits are issued.

1.2 Access limitations

Normal working hours are Eskom working hours:

- Monday to Thursday 07:00 - 16:15
- Fridays 07:00 - 12:00

All Timesheets and workers register are to be kept for records purposes i.e. man-hours worked safely etc. Daily time sheet must be kept up to date of normal and overtime worked at all times.

1.3 Temporary Gate Permits

- The *Contractor* provides the *Employer* with the personal details of their staff at least two days prior to the occupation date. All names and details to be submitted to the *Employer* who arranges for all gate permits.

1.4 Occupational Health and Safety Induction Course

- All the employees of the *Contractor* must attend a health and safety induction course provided by the *Employer* at the security offices before they will be allowed to work on the Site. It is the responsibility of the *Contractor* to ensure that all employees have attended the health and safety induction.
- The Induction course includes an awareness on the Error prevention and Improvement tools and techniques to ensure familiarisation and use of these error-prevention tools/techniques inclusive of, Pre and Post-job briefs, Risk Assessments, Self-checks (STAR principle), Peer Checks, Job observations, Accountability, Effective communications e.g. 3- way, Questioning attitude, Procedural adherence, Hand overs and other.
- A list of employees requiring safety induction must be submitted at least 2 days in advance arrival so that the details of the safety and health induction course can be communicated.

1.5 Health and Safety Requirements

The *Contractor* and his sub-*Contractors* ensure at all times compliance with safety regulations imposed by any Act of Parliament, ordinance or any regulation or by-law of any local or statutory authority. The *Contractor* acts in accordance with the health and safety requirements stated in the *Works Information*.

- In carrying out its obligations to the *Employer* in terms of this contract; in providing the Works; in using Plant, Materials and Equipment; and while at the Site for any reason, the *Contractor* complies and procures and ensures the compliance by its employees, agents, Sub-Contractors and mandataries with:
 - the provisions of the Occupational Health and Safety Act 85 of 1993 (as amended) and all regulations in force from time to time in terms of that Act ("the OHSA"); and the Eskom "Health, Safety and Environmental specifications for *Contractors*" document attached to the *Works* Information (as amended from time to time) and such other Eskom Safety Regulations as are applicable to the *Works* and are provided in writing to the *Contractor* (collectively "the Eskom Regulations"). The Eskom Regulations may be amended from time to time by the *Employer* and all amendments will be provided in writing to the *Contractor*. The *Contractor* complies with the provisions of the latest written version of the Eskom Regulations with which it has been provided; and the health and safety plan prepared by the *Contractor* in accordance with the SHEQ Requirements

(The OHSA and the Eskom Regulations are collectively referred to as the "SHEQ Requirements".)

- The *Contractor*, at all times, considers itself to be the "*Employer*" for the purposes of the OHSA and shall not consider itself under the supervision or management of the *Employer* with regard to compliance with the SHEQ Requirements, the *Contractor* shall furthermore not consider itself to be a subordinate or under the supervision of the *Employer* in respect of these matters. The *Contractor* is at all times responsible for the supervision of its employees, agents, Sub-Contractors and mandataries and takes full responsibility and accountability for ensuring they are competent, aware of the SHEQ Requirements and execute the *Works* in accordance with the SHEQ Requirements.
- The *Contractor* acknowledges that it is fully aware of the requirements of all the above and undertakes to employ only people who have been duly authorized in terms thereof and who have received sufficient training to ensure that they can comply therewith.
- The *Contractor* ensures that all statutory appointments and appointments required by any Eskom Regulations are made and that all appointees fully understand their responsibilities and is trained and competent to execute their duties. The *Contractor* supervises the execution of their duties by all such appointees.
- The *Contractor* shall appoint a person who will liaise with the Eskom Safety Officer responsible for the premises relevant to this contract. The person so appointed shall, on request: supply the Eskom Safety Officer with copies of minutes of all Health And Safety Committee meetings, whenever he is required to do so; supply the Eskom Safety Officer with copies of all appointments in respect of employees employed on this contract, in terms of the Act and Regulations and shall advise the Eskom Safety Officer of any changes thereto.

The *Employer*, or any person appointed by the *Employer*, may, at any stage during the duration of this contract:

- conduct health and safety audits regarding all aspects of compliance with the SHEQ Requirements, at any off-site place of work, or the site establishment of the *Contractor*;
- refuse any employee, Sub *Contractor* or agent of the *Contractor* access to the premises if such person has been found to commit an unsafe act or any unsafe working practice or is found not to be qualified or authorised in terms of the SHEQ Requirements;
- Issue the *Contractor* with a stop order should the *Employer* become aware of any unsafe working procedure or condition or any non-compliance with any provision of the SHEQ Requirements.
- The *Contractor* immediately reports any disabling injury as well as any threat to health or safety of which it becomes aware at the *Works* or on the Site to the *Employer's Representative*.

- The *Contractor* undertakes not to do, or not to allow anything to be done which will contravene any of the provisions of the Act, Regulations or Safety and Operating Procedures.
- The *Contractor* appoints a person, qualified in accordance with the SHEQ Requirements, as the liaison with the Eskom Safety Officer for all matters related to health and safety, this person shall be contactable 24 hours a day.
- The *Contractor* confirms that it has been provided with sufficient written information regarding the health and safety arrangements and procedures applicable to the *Works* to ensure compliance by it and all employees, agents, Sub-*Contractors* or mandataries with the SHEQ Requirements while providing the *Works* in terms of this contract. As such, the *Contractor* confirms that this contract and the relevant Eskom Regulations referred to in this contract constitute written arrangements and procedures between the *Contractor* and the *Employer* regarding health and safety for the purposes of section 37(2) of the OHSA.
- The *Contractor* agrees that the *Employer* is relieved of any and all of its responsibilities and liabilities in terms of Section 37(1) of OHSA in respect of any acts or omissions of the *Contractor*, and the *Contractor's* employees, agents or Sub-*Contractors*, to the extent permitted by the OHSA.
- The *Contractor* hereby indemnifies the *Employer* and holds the *Employer* harmless in respect of any and all loss, costs, claims, demands, liabilities, damage, penalties or expense that may be made against the *Employer* and/or suffered or incurred by the *Employer*(as the case may be) as a result of, any failure of the *Contractor*, its employees, agents, Sub-*Contractors* and/or mandataries to comply with their obligations in terms of clause 16, and/or the failure of the *Employer* to procure the compliance by the *Contractor* , its employees, agents, Sub-*Contractors* and/or mandataries with their responsibilities and/or obligations in terms of or arising from the OHSA.
 - In carrying out his obligation as the mandatory to the *Employer* for this contract in terms of the National Environmental Management Act No.107 of 1998, the *Contractor* ensures that he complies with the Act when Providing the Services or using plant, materials or equipment.
- The following hierarchy of controls has to be observed on any activity that is above ground level:
 - When considering work at height, a risk assessment must be conducted, form part of the health and safety plan to be applied on site and must include:
 - The identification of the risks and hazards to which persons may be exposed to.
 - An analysis and evaluation of the risks and hazards identified based on a documented method.
 - A documented plan and applicable safe work procedures to mitigate, reduce or control the risks and hazards that have been identified.
 - Have a monitoring and a review plan in place.
 - When working at height, risk assessments shall take into account factors such as, the necessity for the work to be done in an elevated position as opposed to on the ground and precaution measures to be taken to mitigate incidents.
 - Any lesson occurred from working at heights must be reported and shared among the team.

1.6 Permit to Work System

- NO work shall be carried out without a "PERMIT TO WORK"
- The *Contractor's* Responsible Person must satisfy himself that all sources of possible danger are isolated. Details of the Permit to Work system can be found in the Plant Safety Regulations for

Hendrina Power Station, Eskom. The *Contractor* must also make provision for sufficient Authorise Supervisor(s) depending on the contractual obligations. The Authorised Supervisor will need to undergo a week's training, which will be arranged at a suitable Eskom facility. This person must also pass an exam to verify his understanding of the procedure, after which he/she will need to be interviewed by a panel to discuss the practical understanding of being appointed as an Authorised Supervisor.

- Plant with a prohibitive sign attached may only be operated by appointed Eskom personnel. Any *Contractor* employee found tampering with such plant will be permanently removed from Site.

1.7 Transportation of passengers: open LDV's:

No *Eskom employee* or *Contractor* would be allowed to transport passengers on the back of open light delivery vehicles (LDV's). It is a legal requirement to provide safe transportation of *Eskom* and *Contractor* employees – therefore the following will be enforced:

- All passengers must be transported in a closed vehicle with proper and adequate Seating, fitted with safety belt for the number of passengers to be transported.
- Tools and equipment must be properly secured.
- Only authorised drivers may transport passengers.
- Proof must be submitted on request in terms of valid roadworthiness of all vehicles
- The above must apply to on site and off site transportation of passengers.

1.8 Eskom Life Saving Rules:

Life Saving Rules have been developed that will apply to all Eskom *Employees*, agents, consultants and *Contractors*.

- **Rule 1:** Open, Isolate, Test, Earth, Bond, and/or Insulate before touch - that is any plant operating above 1 000 V.
- **Rule 2:** Hook up at heights - no person may work at height where there is a risk of falling.
- **Rule 3:** Buckle up – no person may drive any vehicle on Eskom business and/or on Eskom premises: unless the driver and all passengers are wearing seat belts.
- **Rule 4:** Be sober (no person is allowed to work under the influence of drugs and alcohol.
- **Rule 5:** Use a permit to work – where an authorization limitation exists, no person shall work without the required permit to work.

1.9 Local Safety Procedures

The *Contractor* adheres to all local procedures. A list of local procedures is available on request from the *Employer*.

1.10 Incidents / Accidents

- Incidents and accidents must be reported and investigated as detailed in OHS Incident Management Procedure 32-95. All incidents must also be reported to the *Employer* within 24 hours.
- First aid must be made available either by the *Contractor* or use can be made of the Hendrina medical centre. The availability of the *Contractor's* own first aid does not relieve the *Contractor* of his obligation to report and investigate the incident in accordance with Hendrina Procedure.
- The *Employer* will accompany the *Contractor* to hospital in the case of serious injury.

1.11 Fire Prevention

- Fire prevention and protection requirements to which *Contractors* must comply are detailed in HSPHO/059 Emergency Response Procedure

1.12 Protective Equipment and Clothing

- The *Contractor* supplies his own personal protective equipment necessary to carry out the *Works* and the *Contractor* shall ensure that all overalls for his staff have clearly identifying **company LOGO's**
- The *Contractor* is also responsible to inspect and maintain such equipment as required in terms of the OHS Act and local procedures.

1.13 Inspection of Equipment

- The *Contractor's* equipment is inspected by an authorised Eskom employee on arrival at the site.
- The following documentation is required to accompany the equipment where applicable: copies of all test certificates and maintenance records.
- Lifting equipment and electrical equipment must be marked with a unique number, code or colour code for identification. If the equipment is found to be in an unsatisfactory condition or if insufficient maintenance has been carried out on the equipment then it will not be approved for use on Site. A list of all lifting equipment and electrical equipment must be submitted to the *Employer* at least 2 days prior to the occupation date. This list must indicate the unique number and description of the equipment.
- Training requirements must comply with the *Works* Information and statutory requirements.

1.14 Environmental Policy and Waste Handling

The *Contractor* shall submit an Environmental Management Plan (EMP) to be reviewed and approved by Eskom environmental officer, one week before the commencement of *Works* if required as per the *Works* Information.

1.15 Disposal of Waste

Waste shall be removed promptly to the designated disposal area as per below requirements:

- Domestic waste to the bins marked Domestic waste
- No stockpiling will be permitted
- Production waste in the marked bins
- Paper in its recycling bin
- Contact the *Project Manager* for the disposal of building rubble

Scrap metal, Wood & Rubber, Redundant Valves, Pipes, and Equipment etc. to be placed in the marked bins scrap bins.

1.16 Hazardous Waste Disposal and Handling

- Any new hazardous waste that comes to the temporary hazardous waste site must be accompanied by an SDS; all other hazardous waste can be delivered without the SDS.
- An inventory is signed by the person who delivers the hazardous waste and the waste coordinator must acknowledge the receipt of the waste.
- A 210l drum with lid will be issued to the person who has delivered the waste after the inventory is signed.
- Drums with incorrect colour coding or drums without lids will not be accepted at the temporary hazardous waste site.

2. Additional Information

Contractors are accountable for taking all the necessary steps to protect all persons (including employees, visitors, and the general public), to protect the environment and property against any harm during the course of performing work or services in relation to their contractual obligations. In addition, all work procedures and equipment will be carried out in accordance with Eskom and legislative requirements.

Eskom's contractors have the fundamental accountability and responsibility for executing on-site safety, health, and environment issues for their activities, services, products, and work. Each *Contractor* is responsible for ensuring that its employees and the employees of any appointed contractors comply with all occupational safety, health, and environmental (SHE) statutory requirements and the policies and procedures of Eskom Holdings SOC Limited.

This procedure is supplementary to the requirements of relevant legislation and the conditions of the contract.