NEC3 Professional Services Contract (PSC3)

Contract between **Eskom Holdings SOC Limited**
(Reg No. 2002/015527/30)

and
(Reg No. _____)

for **Provision of Services for High Temperature Low Sag ((HTLS) Conductor awareness workshops (Theoretical classroom sessions and practical demonstrations)**

Contents:		**No of pages**
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CONTRACT No.

PART C1: AGREEMENTS & CONTRACT DATA

Document reference	Title	No of pages
C1.1	Form of Offer & Acceptance	[●]
C1.2a	Contract Data provided by the *Employer*	[●]
C1.2b	Contract Data provided by the *Consultant*	[●]

C1.1 Form of Offer & Acceptance

Offer

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

Provision of Services for High Temperature Low Sag ((HTLS) Conductor awareness workshops (Theoretical classroom sessions and Practical demonstrations)

The tenderer, identified in the Offer signature block, has

either	examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.
or	examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.

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 *Consultant* 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 Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Consultant* 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 .....

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 Consultant the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the Employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: The Scope

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

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

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

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

Signature(s)		
Name(s)		
Capacity		
for the Employer		
	(Insert name and address of organisation)	
Name & signature of witness		Date

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

Schedule of Deviations

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		Not applicable

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 PSC3 Contract Data

Part one - Data provided by the *Employer*

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

Clause	Statement	Data
1	**General**	
	The *conditions of contract* are the core clauses and the clauses for main Option	
		G: Term Contract
	dispute resolution Option	**W1: Dispute resolution procedure**
	and secondary Options	
		X1: Price adjustment for inflation
		X2: Changes in the law
		X7: Delay damages
		X9: Transfer of rights
		X10 *Employer*'s *Agent*
		X11: Termination by Employer
		Z: *Additional conditions of contract*
	of the NEC3 Professional Services Contract (April 2013)[1]	
10.1	The *Employer* is (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**
	Tel No.	
	Fax No.	
11.2(9)	The *services* are	**Provision of Services for** High Temperature Low Sag ((HTLS) Conductor awareness workshops (Theoretical classroom sessions and practical demonstrations)
11.2(10)	The following matters will be included in the Risk Register	**To be finalised on contract award**
11.2(11)	The Scope is in	**Part 3: Scope of Work**
12.2	The *law of the contract* is the law of	**the Republic of South Africa**

[1] Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009 and www.ecs.co.za

13.1	The *language of this contract* is	**English**		
13.3	The *period for reply* is	**1 weeks**		
13.6	The *period for retention* is			
2	**The Parties' main responsibilities**			
25.2	The *Employer* provides access to the following persons, places and things	**access to**		***access date***
		1	**Training site**	**Contract start date**
		2	**[●]**	**[●]**
		3	**[●]**	**[●]**
3	**Time**			
31.2	The *starting date* is.			
11.2(3)	The *completion date* for the whole of the *services* is.			
11.2(6)	The *key date*s and the *condition*s to be met are:	***Condition* to be met**		***key date***
		1	**As per Task Orders**	**As per Task Orders**
4	**Quality**			
40.2	The quality policy statement and quality plan are provided within	**Two (2) weeks of the Contract Date.**		
42.2	The *defects date* is	**Twenty four (24) weeks after completion of the whole of the *service*s.**		
5	**Payment**			
50.1	The *assessment interval* is	**25th day of each successive month.**		
51.1	The period within which payments are made is	**Four to six weeks.**		
51.2	The *currency of this contract* is the	**South African Rand**		

51.5	The *interest rate* is	**(i) zero percent above the publicly quoted prime rate of interest (calculated on a 365 day year) charged by from time to time by the Standard Bank of South Africa (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and** **(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted *mutatis mutandis* every 6 months thereafter (and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.**

6 Compensation events

There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.

7 Rights to material

There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.

8 Indemnity, insurance and liability

81.1 The amounts of insurance and the periods for which the *Consultant* maintains insurance are

Event	**Cover**	**Period following Completion of the whole of the *service*s or earlier termination**
Liability for failure by the *Consultant* to use the skill and care normally used by professionals providing services similar to the *service*s	**Whatever the *Consultant* deems necessary in respect of each claim, without limit to the number of claims**	**See Notes to Consultants in Annexure A**

	death of or bodily injury to a person (not an employee of the *Consultant*) or loss of or damage to property arising from or in connection with the *Consultant*'s Providing the Services.	**Whatever the *Consultant* deems necessary for any occurrence or series of occurrences arising out of one event without limit to the number of claims.**	**See Notes to Consultants in Annexure A**
	death of or bodily injury to employees of the *Consultant* arising out of and in the course of their employment in connection with this contract	**As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the *Consultant's* common law liability for people falling outside the scope of the Act with a limit of indemnity of not less than R500 000-00 (five hundred thousand) in respect of each claim, without limit to the number of claims**	**As *Consultant* deems necessary**
81.1	The *Employer* provides the following insurances	**Refer to Annexure A for details of insurance provided by the *Employer*.**	
82.1	The *Consultant*'s total liability to the *Employer* for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	**The total of the Prices**	
	The *Consultant* provides these additional insurances.		
	1 Insurance against:	**Whatever the *Consultant* deems necessary including cover provided for payment of deductibles**	
9	**Termination**	**There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.**	
10	**Data for main Option clause**		
G	**Term contract**		
21.4	The *Consultant* prepares forecasts of the total Time Charge and *expenses* at intervals no longer than	**Twelve (12) weeks.**	
11	**Data for Option W1**		

W1.1	The *Adjudicator* is (Name)	**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).**
W1.2(3)	The *adjudicator nominating body* is:	**the Chairman of the Joint Civils Division of the South African Institution of Civil Engineering or its successor body. (See www.jointcivils.co.za).**
W1.4(2)	The *tribunal* is:	**Arbitration**
W1.4(5)	The *arbitration procedure* is	**the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.**
	The place where arbitration is to be held is	**Johannesburg, South Africa**
	The person or organisation who will choose an arbitrator • if the Parties cannot agree a choice or • if the *arbitration procedure* does not state who selects an arbitrator, is	**the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.**

12 Data for secondary Option clauses

X1	**Price adjustment for inflation**	
X1.1	The index is	SEIFSA table C3 (labour) and table L2 (travel).
	The staff rates are	Fixed at the Contract Date and are not variable with changes in salary paid to individuals. (Price adjustment will be applicable after 12 months)

X2	**Changes in the law**	
X2.1	The law of the project is	the law of the Republic of South Africa.
X7	**Delay damages**	
X7.1	Delay damages for late Completion of the whole of the *services* are	**If a delay in completion of the service can be attributed to proven negligence, action or omission on the part of the Consultant, a penalty of ten percent (10%) of the task value may be levied.**
X9	**Transfer of rights**	**There is no reference to Contract Data in this Option and terms in italics used in this Option are identified elsewhere in this Contract Data.**
X10	**The *Employer's Agent***	

X10.1	The *Employer's Agent* is Name: Address	**Eskom** **Tel:** **Fax:** **e-mail: MaepaDN@eskom.co.za**
	The authority of the *Employer's Agent* is	**To manage contract in consultation with relevant applicable authorities.**
Z	**The *Additional conditions of contract* are**	**Z1 to Z14 always apply.**

Z1 Cession delegation and assignment

Z1.1 The *Consultant* 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 *Consultant* 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 and the Electricity Distribution Industry.

Z2 Joint ventures

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

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

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

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

Z3.1 Where a change in the *Consultant's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Consultant's* B-BBEE status, the *Consultant* notifies the *Employer* within seven days of the change.

Z3.2 The *Consultant* 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*.

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

Z3.4 Failure by the *Consultant* 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 core clause 91. The payment on termination includes a deduction of the forecast of the additional cost to the *Employer* of completing the whole of the *service*s in addition to the amounts due in terms of core clause 92.1.

Z4 Confidentiality

Z4.1 The *Consultant* does not disclose or make any information arising from or in connection with this contract available to Others. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Consultant*, enters the public domain or to information which was already in the possession of the *Consultant* at the time of disclosure (evidenced by written records in existence at that time). Should the *Consultant* disclose information to Others in terms of clause 23.1, the *Consultant* ensures that the provisions of this clause are complied with by the recipient.

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

Z4.3 In the event that the *Consultant* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Consultant*, 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 *Consultant* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.

Z4.4 The taking of images (whether photographs, video footage or otherwise) of the *Employer*'s project works or any portion thereof, in the course of Providing the Services and after Completion, requires the prior written consent of the *Employer*. All rights in and to all such images vests exclusively in the *Employer*.

Z5 Waiver and estoppel: Add to core clause 12.3:

Z5.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties*,* or the *Adjudicator* does not constitute a waiver of rights, and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.

Z6 Provision of a Tax Invoice. Add to core clause 51

Z6.1 The *Consultant* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer*'s VAT number 4740101508 on each invoice he submits for payment.

Z7 Notifying compensation events

Z7.1 Delete from the last sentence in core clause 61.3, "unless the *Employer* should have notified the event to the *Consultant* but did not".

Z8 *Employer's* limitation of liability

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

Z9 Termination: Add to core clause 90.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":

Z9.1 or had a judicial management order granted against it.

Z10 Delay damages: Addition to secondary Option X7 Delay damages (if applicable in this contract)

Z10.1 If the *Consultant's* payment of delay damages reaches the limits stated in this Contract Data for Option X7 or Options X5 and X7 used together, the *Employer* may terminate the *Consultant's* obligation to Provide the Services.

Z10.2 If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in core clause 91. The payment on termination includes a deduction of the forecast of the additional cost to the *Employer* of completing the whole of the *service*s in addition to the amounts due in terms of core clause 92.1.

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 *Consultant* or a third party, such party's employees, agents, or Subconsultants or Subconsultant'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 *Consultant*, or any member thereof in the case of a joint venture, or its employees, agents, or Subconsultants or the Subconsultant'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 *Consultant*'s obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Consultant* 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 *Consultant*'s obligation to Provide the Services for this reason.

Z11.3 If the *Employer* terminates the *Consultant*'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 *Consultant* ensures that the Committing Party co-operates fully with an investigation.

Z12 Insurance

Z12.1 Replace core clause 81 with the following:

81.1 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.

81.2 The *Consultant* 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**	**For the period following Completion of the whole of the *services* or earlier termination**
Liability of the *Consultant* for claims made against him arising out of his failure to use the skill and care normally used by professionals providing services similar to the *services*	The amount required by the applicable law.	Only required for the duration of the contract period.
Liability for death of or bodily injury to a person (not an employee of the *Consultant*) or loss of or damage to property resulting from an action or failure to take action by the *Consultant*	**Loss of or damage to property:** The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible, as at Contract Date, where covered by the *Employer*'s insurance **Bodily injury to or death of a person:** The amount required by the applicable law.	Only required for the duration of the contract period.
Liability for death of or bodily injury to employees of the *Consultant* arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law	Only required for the duration of the contract period.

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

INSURANCE TABLE B

Insurance against or name of policy	**Minimum amount of cover or minimum limit of indemnity**

Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

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 *Consultant* or any other person against any and all liabilities which the *Consultant* 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 *Consultant* or any other person or the presence of the *Consultant* or that person or any property of the *Consultant* 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 *Consultant* or any other person, or the presence of the *Consultant* or that person or any property of the *Consultant* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

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

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

Z14 Asbestos

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

AAIA means approved asbestos inspection authority.

ACM means asbestos containing materials.

AL means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.

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

Z14.1 The *Employer* ensures that the Ambient Air in the area where the *Consultant* 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 *Consultant*, 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 *Consultant* may perform Parallel Measurements and related control measures at the *Consultant*'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 *Consultant*'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 *Consultant* 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.

C1.2 Contract Data

Part two - Data provided by the *Consultant*

[Instructions to the tendering consultant: (delete these notes in the final draft of a contract)

1. The tendering consultant is advised to read both the NEC3 Professional Services Contract, April 2013 and the relevant parts of its Guidance Notes (PSC3-GN)[2] in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 158 & 159 of the PSC3 April 2013 Guidance Notes.
2. The number of the clause in the PSC3 which requires the data is shown in the left hand column for each statement however other clauses may also use the same data.
3. Whenever a cell is shaded in the left hand column it denotes this data is optional in PSC3 and would be required in relation to the option selected. The *Employer* should already have made the selection and deleted the rows not required.

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

Clause	Statement	Data
10.1	The *Consultant* is (Name): Address Tel No. Fax No.	
22.1	The *Consultant's key person*s are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications: Experience:	
Only if required		**CV's (and further *key persons* data including CVs) are appended to Tender Schedule entitled .**
11.2(3)	The *completion date* for the whole of the *services* is	

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

11.2(10)	The following matters will be included in the Risk Register			
11.2(13)	The *staff rates* are:	**name/designation**		**rate**
		Refer to a schedule in Part C2.2		
25.2	The *Employer* provides access to the following persons, places and things	**access to**		***access date***
		1	**Training site**	**To be advised on Task Order**

PART 2: PRICING DATA

PSC3 Option G

Document reference	Title	No of pages
C2.1	Pricing assumptions : Option	**[•]**
		[•]

C2.1 Pricing assumptions: Option

1. The function of the Task Schedule

The Task Schedule may include items of work to be paid for on a rate (Time Charge) or on a lump sum price for the item. Any work ordered during the term of the contract – i. e. before the Completion Date – for which there is no priced item in the Task Schedule is priced using the compensation event procedure and the resulting Price is added into the Price List.

The *task schedule* is prepared by the *Employer* for the *Consultant* to price, or may be prepared jointly with the *Consultant*. It is typically priced in two parts as items of work to be carried out on a time basis and lump sum prices for other items of work. The task schedule must be as complete as possible and fully representative of all the work and *services* which the *Employer* may require the *Consultant* to carry out. The only unknown is when the work is to be carried out; the Task Order will be used to instruct when work to be done.

C2 Pricing Data

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

Delete or strike through unused rows.

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

Please note:

- Eskom is requesting for HTLS Conductor awareness workshops (Theoretical Classroom sessions and Practical demonstrations) on different HTLS conductor technologies. The HTLS technology types include Composite core, Alloyed core, Steel core and high temperature mechanically compacted ACSR (plastically deformed) conductor technology.

  Suppliers are not limited to these technologies. Different technology submissions are welcome. In this case, the submission should clearly explain the technology and all technical information and pricing should be populated as per the C2 Pricing Data and Annexure 1.

  Based on the supplier submission, Tables C2.2.1 – Tables C2.2.4 are to be populated.

- Eskom will provide the location for the HTLS conductor awareness workshops, for the classroom and practical demonstration sessions.

- Suppliers to cater for their own accommodation and travel costs. The supplier is to advise if they require guidance from Eskom.

- The supplier is to indicate if conductor and hardware samples (for all 4 demonstration sessions of each conductor technology type) will be free to Eskom. If not, please populate and include the pricing estimates in the relevant Tables (Tables C2.2.1 – Tables C2.2.4).

Table C2.2.1 – Composite core conductors

Item no.	Description	Unit	Quantity	Unit Price (Rands)	Total Price
1	**Classroom sessions**				
1.1	**Price/day** **Tenderers to quote on a group of 50 learners per day.**	Group (50 learners)/1 day	2 days (2 x groups +/- 50 learners per group)	R	R
1.2	Videos Experience of installation and construction processes, from utilities that have installed the conductors	1 USB	3 USB copies	R	R
1.3	Training manuals Content to cover electrical aspects and mechanical processes	2 training manuals (1 hard copy and 1 soft copy)	100 copies (hard copy) 20 soft copies (Separate)	R	R
	Total Cost for Classroom sessions				R
2	**Practical Demonstrations**				
2.1	**Price/day** **Tenderers to quote on a group of 25 learners. Two sessions per day (50 learners per day).**	2 x Groups (+/- 25 learners per group) per day Two sessions per day	2 days 4 x Groups (+/- 25 learners per group)	R	R
2.2	**Conductor samples** Each Demonstration to include: Conductor – Conductor and conductor – hardware jointing processes	Each	4 conductor sample demonstrations required per conductor type.	R	R
2.3	**Hardware Samples** Each Demonstration to include: Midspan joints, dead-end joints, suspension clamps.	Each	All hardware components required for 4 conductor demonstrations	R	R
2.4	Live videography and photography of the conductor and hardware jointing demonstrations.	1 USB (Fully recorded session including pictures)	4 USB (1 for each demonstration session)	R	R
	Total Cost for Practical Demonstrations				R
	Total Cost (Classroom sessions and Practical demonstrations)				R

Table C2.2.2 – Alloyed core conductors

Item no.	Description	Unit	Quantity	Unit Price (Rands)	Total Price
1	**Classroom sessions**				
1.1	**Price/day** **Tenderers to quote on a group of 50 learners per day.**	Group (50 learners)/1 day	2 days (2 x groups +/- 50 learners per group)	R	R
1.2	Videos Experience of installation and construction processes, from utilities that have installed the conductors	1 USB	3 USB copies	R	R
1.3	Training manuals Content to cover electrical aspects and mechanical processes	2 training manuals (1 hard copy and 1 soft copy)	100 copies(hard copy) 20 soft copies (Separate)	R	R
	Total Cost for Classroom sessions				R
2	**Practical Demonstrations**				
2.1	**Price/day** **Tenderers to quote on a group of 25 learners. Two sessions per day (50 learners per day).**	2 x Groups (+/- 25 learners per group) per day Two sessions per day	2 days 4 x Groups (+/- 25 learners per group)	R	R
2.2	**Conductor samples** Each Demonstration to include: Conductor – Conductor and conductor – hardware jointing processes	Each	4 conductor sample demonstrations required per conductor type.	R	R
2.3	**Hardware Samples** Each Demonstration to include: Midspan joints, dead-end joints, suspension clamps.	Each	All hardware components required for 4 conductor demonstrations	R	R
2.4	Live videography and photography of the conductor and hardware jointing demonstrations.	1 USB (Fully recorded session including pictures)	4 USB (1 for each demonstration session)	R	R
	Total Cost for Practical Demonstrations				R
	Total Cost (Classroom sessions and Practical demonstrations)				**R**

Table C2.2.3 – Steel core conductors

Item no.	Description	Unit	Quantity	Unit Price (Rands)	Total Price
1	**Classroom sessions**				
1.1	**Price/day** **Tenderers to quote on a group of 50 learners per day.**	Group (50 learners)/1 day	2 days (2 x groups +/- 50 learners per group)	R	R
1.2	Videos Experience of installation and construction processes, from utilities that have installed the conductors	1 USB	3 USB copies	R	R
1.3	Training manuals Content to cover electrical aspects and mechanical processes	2 training manuals (1 hard copy and 1 soft copy)	100 copies(hard copy) 20 soft copies (Separate)	R	R
	Total Cost for Classroom sessions				R
2	**Practical Demonstrations**				
2.1	**Price/day** **Tenderers to quote on a group of 25 learners. Two sessions per day (50 learners per day).**	2 x Groups (+/- 25 learners per group) per day Two sessions per day	2 days 4 x Groups (+/- 25 learners per group)	R	R
2.2	**Conductor samples** Each Demonstration to include: Conductor – Conductor and conductor – hardware jointing processes	Each	4 conductor sample demonstrations required per conductor type.	R	R
2.3	**Hardware Samples** Each Demonstration to include: Midspan joints, dead-end joints, suspension clamps.	Each	All hardware components required for 4 conductor demonstrations	R	R
2.4	Live videography and photography of the conductor and hardware jointing demonstrations.	1 USB (Fully recorded session including pictures)	4 USB (1 for each demonstration session)	R	R
	Total Cost for Practical Demonstrations				R
	Total Cost (Classroom sessions and Practical demonstrations)				**R**

Table C2.2.4 – High temperature mechanically compacted ACSR (plastically deformed) conductor technology

Item no.	Description	Unit	Quantity	Unit Price (Rands)	Total Price
1	**Classroom sessions**				
1.1	**Price/day** **Tenderers to quote on a group of 50 learners per day.**	Group (50 learners)/1 day	2 days (2 x groups +/- 50 learners per group)	R	R
1.2	Videos Experience of installation and construction processes, from utilities that have installed the conductors	1 USB	3 USB copies	R	R
1.3	Training manuals Content to cover electrical aspects and mechanical processes	2 training manuals (1 hard copy and 1 soft copy)	100 copies (hard copy) 20 soft copies (Separate)	R	R
	Total Cost for Classroom sessions				R
2	**Practical Demonstrations**				
2.1	**Price/day** **Tenderers to quote on a group of 25 learners. Two sessions per day (50 learners per day).**	2 x Groups (+/- 25 learners per group) per day Two sessions per day	2 days 4 x Groups (+/- 25 learners per group)	R	R
2.2	**Conductor samples** Each Demonstration to include: Conductor – Conductor and conductor – hardware jointing processes	Each	4 conductor sample demonstrations required per conductor type.	R	R
2.3	**Hardware Samples** Each Demonstration to include: Midspan joints, dead-end joints, suspension clamps.	Each	All hardware components required for 4 conductor demonstrations	R	R
2.4	Live videography and photography of the conductor and hardware jointing demonstrations.	1 USB (Fully recorded session including pictures)	4 USB (1 for each demonstration session)	R	R
	Total Cost for Practical Demonstrations			R	R
	Total Cost (Classroom sessions and practical demonstrations)				**R**

TOTAL for Table C2.2.1; C2.2.2; C2.2.3; & C2.2.4 = **R**

Additions Notes:

Classroom Sessions

1. An estimated amount of 100 learners are expected to attend the training. This number may vary. Classroom sessions to be conducted in 2 sessions, (50 learners in each session)
2. Each session to be conducted over a day (maximum 6 – 7 hours excluding lunch and breaks)
3. Supplier to quote for 2 sessions (50 learners per session) over 2 days.

Practical Demonstrations

1. An estimated total amount of 100 learners are expected to attend the practical demonstration sessions. This number may vary. Practical demonstrations to be conducted in groups of 25 learners, (4 demonstration sessions are required)
2. Each supplier (for each conductor technology type) to conduct two sessions per day.
3. The supplier to quote for four sessions (25 learners per session) over 2 days. (for a single technology type)

Conductor and Hardware samples

1. All samples required for practical demonstrations (conductors and hardware) to be provided for by the supplier. Please indicate if this is free to Eskom. If not, please fill in the estimated costs in the relevant Tables.
2. All tools, equipment, machinery and material required for practical demonstrations is to be provided by the supplier.
3. Eskom to retain all conductor and hardware samples that are part of the demonstrations.

General

1. It is the responsibility of the suppliers to cater for all travel/flights to, from and within South Africa.
2. It is the responsibility of the suppliers to cater for their own accommodation.
3. Eskom will not be responsible for travel costs/arrangements and accommodation.

PART 3: SCOPE OF WORK

C3.1: EMPLOYER'S SCOPE

1. Description of the services

1.1. Executive overview

The Provision of HTLS Conductor workshops(Classroom sessions and Practical demonstrations)for

1.2. Interpretation and terminology

The following abbreviations are used in this Scope:

Abbreviation	Meaning given to the abbreviation
HTLS	High temperature low sag
ACSR	Aluminium conductor steel reinforced
AAC	All aluminium conductors
AAAC	All aluminium alloy conductor
IEC	International Electrotechnical Commission

2. Specification and description of the services

2.1 Introduction

Overloaded transmission lines and transmission bottlenecks have been created due to an increase in loads, which requires an increase in transmission capacity. Two possible ways to solve this problem is to build new lines or to replace the existing conductors with High Temperature Low Sag (HTLS) conductors.

HTLS conductors have not been used in Eskom until very recently, reason being the high cost and the complexity of the associated hardware compared to ACSR conductors. Another limiting factor is the lack of knowledge and skills to handle and construct lines with the different HTLS technologies. This ultimately prompted the need for this project.

The scope of work for this project includes:

HTLS conductor awareness workshops (theoretical classroom sessions and practical demonstrations). Suppliers are to be provide Eskom employees with theoretical classroom sessions and practical demonstration on conductor/hardware jointing and installation processes.

2.1 Scope of Work

Suppliers are to provide Eskom with HTLS conductor awareness workshops (theoretical classroom sessions and practical demonstrations)

This includes:

- **Classroom sessions**- Conductor characteristics, hardware and conductor installation procedures, historical applications (references for international projects and videos of installation and construction processes).
- **Practical demonstrations** – Conductor – conductor jointing, Conductor – Hardware jointing, installation procedures and processes. Demonstrations on the core durability and flexibility. (All components provided by the supplier)
- Videos/ recordings of the theoretical and practical demonstrations to be provided by the supplier to Eskom. Videos of past experience to be provided, as well as videos of the practical demonstrations that will take place as part of the practical demonstrations (on site).
- Eskom will provide the location (1 venue - Gauteng) for the workshops

For suppliers to be considered technically compliant to provide Eskom with the conductor workshops, technical submissions are required, which will be evaluated by the Eskom technical team. Please refer to Annexure 1 (Mandatory and technical evaluation criteria document) for the technical requirements and evaluation criteria.

2.2 Evaluation Process

Please refer to Annexure 1 - Mandatory and technical evaluation criteria document).

The technical evaluation process of any potential supplier will be comprised of two stages for this project. This two-stage approach will follow the Eskom evaluation approach, and will entail the following:

- **Stage 1** – **Evaluation of Mandatory requirements**

  The evaluation of the mandatory responses. Suppliers who submit this information will thereafter proceed to the functional scoring assessment. Failure to submit mandatory information will result in disqualification. Please refer to Annexure 1 of the NEC3 Professional Services Contract (this document).

- **Stage 2 – Evaluation of functional requirements and scoring**

  Evaluation and scoring assessment of potential suppliers. A minimum score of 50% for each subsection (Section 3.2.1 and Section 3.2.2) , is required to pass. Please refer to Annexure 1 of the NEC3 Professional Services Contract (this document).

Additional Notes:

Classroom theoretical sessions

1. An estimated amount of 100 learners are expected to attend the workshops. This number may vary. Classroom sessions to be conducted in 2 sessions, (50 learners in each session)
2. Each session to be conducted over a day (maximum 6 – 7 hours excluding lunch and breaks)
3. Supplier to provide 2 classroom sessions (50 learners per session) over 2 days.

Practical demonstrations

1. An estimated amount of 100 learners are expected to attend the practical demonstrations. This number may vary. Practical demonstrations to be conducted in groups of 25 learners, (4 Practical demonstration sessions are required)
2. Each supplier (per single conductor technology type) to conduct two sessions per day.
3. The supplier to provide a total for four sessions (25 learners per session) over 2 days. (for a single technology type)

Eskom is not responsible for any travel or accommodation costs.

1. Constraints on how the Consultant Provides the Services.

a. Management meetings

Regular meetings of a general nature may be convened and chaired by the *Employer's Agent* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Contract initiation	At the start of the contract	UCG Site	All
Start and end of each task	As and when required	Teams / UCG site	Responsible Contract Team Members and Employer Agent

Meetings of a specialist nature may be convened as specified elsewhere in this Scope or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the *services*. Records of these meetings shall be submitted to the *Employer's Agent* by the person convening the meeting within five days of the meeting.

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

b. Consultant's key persons

The key personal will be confirmed at task order level as per the requirements of that particular task.

c. Provision of bonds and guarantees

Not Applicable

d. Documentation control and retention

i.Identification and communication

All work/deliverables will be initiated through a task order and discussed prior to initiation of any task. All data shared and generated during this contract will be deemed the property of Eskom and may not be shared with any 3rd party without written consent from Eskom. All data, maps, drawings and models are to be handed over to Eskom in the raw file format at the conclusion of the task order.

ii.Retention of documents

All drawing, specifications, reports and other documents are to be retained for a period of 5 years following completion of the contract.

e. Invoicing and payment

The following details shall be shown on or attached to each Invoice to show how the amount due has been assessed:

The *Consultant* shall address the tax invoice to Eskom Holding SOC and include on it the following information:

Name and address of the *Consultant* and the *Employer's Agent;*
The contract number and title;
Consultant's VAT registration number;
The *Employer*'s VAT registration number 4740101508;

Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
CPI Escalation (if Applicable)
Banking Detail of the Consultant
Purchase Order Number (task Order 45….) as given by the Employer

Within one week of receiving a payment certificate from the Service Manager in terms of core clause 51.1, the Employer will provide an Assessment to the Contractor for signature. The Contractor provides the Employer with a tax invoice thereafter showing the amount due for payment equal to that stated in the Service Manager's payment certificate and / or time sheets.

f. Contract change management

Any additional requirements to the compensation event clauses in Section 6 of the core clauses will be confirmed at the time of the compensation event.

g. Inclusions in the programme

Not Applicable

h. Quality management

i. System requirements

The contractor must comply to Eskom Supplier Quality Requirement as per QM58 Specification

ii. Information in the quality plan

Not Applicable

i. The Parties use of material provided by the Consultant

i. Employer's purpose for the material

Not Applicable

ii. Restrictions on the Consultant's use of the material for other work

Not Applicable

iii. Transfer of rights if Option X 9 applies

The Employer owns the Consultants rights over the reports prepared for this contract by the Consultant except as if stated otherwise in the scope.

The Consultant shall not challenge or assist any other party challenging at any time the validity or ownership of any of the intellectual property rights relating to the material created and developed for this contract.

j. Management of work done by Task Order

All work will be managed by task order.

k. Health and safety

The *Consultant* shall at all times comply with the health and safety requirements prescribed by law as they may apply to the *service*s.

Should the Consultant be required to perform any work on the UCG site, they shall comply with the health and safety requirements contained in the Mine Health and Safety Act No 29 of 1996. The *Consultant* will be guided by the *Employer* to set up a SHE File which will be audited for correctness before any site work can commence.

l. Procurement

i. BBBEE and preferencing scheme

As per agreement during pre-award negotiation meeting.

ii. Preferred subconsultants

Not Applicable

iii. Subcontract documentation, and assessment of subcontract tenders

Not Applicable

iv. Limitations on subcontracting

Not Applicable

v. Attendance on Subconsultants

Not Applicable

m. Working on the Employer's property

i. Employer's entry and security control, permits, and site regulations

Should the scope require work to be conducted on site the Consultant's representative will be required to complete induction after which temporary access will be granted for the duration of the activity. Daily alcohol testing will be conducted before entry into the UCG site will be permitted.

ii. People restrictions, hours of work, conduct and records

Not Applicable

n. Things provided by the Employer

All available past data and report will be made available to the consultant. The information is considered confidential and can only be used to successfully complete the scope of this contract and may not be shared with any third party.

2. List of drawings

a. Drawings issued by the Employer

Drawing will be issued by the Employer if they are required by the activity of the specific Task Order.

Annexure 1

1. Introduction

The intention of this document is to:

- Provide evaluation criteria for submissions of the High Temperature Low Sag (HTLS) conductor awareness workshops (theoretical classroom sessions and practical demonstrations)
- Submissions will be technically evaluated based on two criteria, that is mandatory information and functional requirements. Please refer to Section 3.1 for Table A.1 and Annexure A for Table A.2. Table A.1 indicates the Mandatory requirements, and the functionality requirements are indicated in Table A.2.

This note confirms that the technical evaluation for submissions of the HTLS conductor awareness workshops (theoretical classroom sessions and practical demonstrations) will be conducted in 2 stages:

- **Stage 1:** Evaluation of mandatory requirements (Section 3.1)
- **Stage 2:** Functional requirements - Evaluation and scoring (Section 3.2.1 and Section 3.2.2)

2. Supporting clauses

2.1 Scope

The purpose of this document is to describe the criteria which are to be used when evaluating tender submissions for the HTLS conductor awareness workshops (theoretical classroom sessions and practical demonstrations)

2.1.1 Purpose

This document consists of the technical evaluation criteria on which suppliers will be assessed. Passing submissions will be considered technically compliant. A minimum score of 50% is required for suppliers to pass this phase of the project.

3. Technical Tender Evaluation Procedure

Section 3.1, Section 3.2.1 and Section 3.2.2 require responses from suppliers and will be evaluated accordingly. The technical evaluation procedure is specific to each type of high temperature low sag (HTLS) conductor. The items include, but are not limited to, composite cores, alloyed cores, steel core and high temperature mechanically compacted ACSR (plastically deformed) conductor technology submissions.

Note - A type of conductor technology is referring to the overall model of the conductor, including the core and stranding. Example; an HTLS conductor with a solid composite core and a concentric stranding is considered a different technology to the HTLS conductor with a solid core and

trapezoidal stranding. Likewise, a solid composite core and a stranded composite core are considered different conductor technologies. The same is implied for alloyed core, steel core and high temperature mechanically compacted ACSR (plastically deformed) conductor technologies.

Section 3.1 refers to mandatory information. Supplier submissions with a "No" response to either one or all of the questions will be disqualified. Furthermore, omission of either one or all of the questions will also result in disqualification.

Section 3.2.1, information is to be submitted for a particular HTLS technology type **closest to 3 diameter equivalent conductors, ACSR Chickadee, IEC 315, and ACSR Tern conductors**.

Section 3.2.2 focuses on a questionnaire for the submitted conductor technology.

In order to pass the technical assessment, the minimum score of 50% must be achieved for each of the functional assessment sections. That is, a minimum score of 50% for section 3.2.1 and a minimum score of 50% for section 3.2.2 is required. Submissions that do not meet the minimum required threshold of 50% for each section will be considered non-compliant.

Note: Suppliers are not limited to submit one type of HTLS conductor technology. Should suppliers provide different conductor technology submissions, sections 3.1 , 3.2.1 and 3.2.2, for each technology submission will be evaluated independently. This implies that different conductor technology submissions will be evaluated and assessed individually and treated as separate submissions.

Evaluation Stages

The technical evaluation of any potential supplier will be in two stages for this phase of the project. **This two stage approach** will entail:

1. **The evaluation of the mandatory responses**. Suppliers who submit this information will thereafter proceed to the functional scoring assessment. Omission of mandatory information will result in disqualification.
2. **Evaluation of functional requirements and scoring.** A minimum score of 50% is required for section 3.2.1 and a minimum score 50% is required for section 3.2.2, for successful candidates. Passing submissions will be considered **technically compliant.**

During this process, the tender documentation submitted by **potential suppliers are evaluated against the criteria listed in Table A.1 (Section 3.1), Table A.2 and Table A.3 outlined in Annexure A of this report**. Sections 3.1, 3.2.1 and 3.2.2 are indicated in this document, but the full schedules and tick sheets will also be available in excel format with the tender enquiry package. The Eskom evaluating representatives will go through the details of the returnable submissions that are required and will, firstly, ensure that the mandatory criteria are met. Omission of Mandatory information will result in disqualification. The supplier/s will thereafter not proceed to the functional scoring assessment.

Returnable information and Mandatory list

3.1 Mandatory Requirements

In order for the suppliers to progress to the functional scoring assessment, mandatory information indicated in Table A.1 must be provided. **Please refer to Table A.1 for information on mandatory requirements.**

Table A.1 – Mandatory Information

Column 1	Column 2	Column 3
	Yes/No	If Yes to Column 2
1.1 Is information on the **construction processes** when installing the conductor available? **If Yes please refer to Column 3.**		Please provide detailed information on the processes, such as the use of running blocks and pulleys. Submission of a stringing and regulating method statement is advised. The method statement must clearly describe the construction process when installing the conductor, from start to the end of construction. Please provide the following information as part of the stringing and regulating method statement: • Correct equipment to be used such as tensioner, drums, running blocks, pulley and pilot wires. • Diagrams of the suggested positioning of conductor drums behind the tensioner, maximum angle of deviation (offset angle) between center line of tensioner and conductor drums, distance between drums and tensioner etc. • Details on the regulation / clamping in of conductor to the tower (dead – ending of the conductor) • Recommended pulling speed during stringing. • Technical details for tensioner and puller, including braking operation during stringing. • Details on the pilot wires that can be used for the different types of conductors. • Drawing showing the attachment of the pilot wire to the conductor bundle, including the pulling sock and swivel **Note :** When providing information on stringing and regulating, please make reference to the tower outline drawings attached in the Annexure B of this document. These are the, 518 self-support and strain towers and the guyed towers (520B Guyed Vee and 529C cross rope structures)
1.2 Is there information on the **installation methods of the conductor?** This includes installation processes for the conductor to conductor and conductor to hardware jointing processes. Jointing processes for the core and stranding to be provided.. **If Yes please refer to Column 3.**		If yes, please provide specifications and methods for installation. Please provide the following information as part of the specification: • Drawings for: mid span joints, compression dead-ends, spacer dampers and clamps. • Information on bolted and/or preformed type, rigid spacers for jumpers, repair sleeves etc. must also be provided. • Material used for manufacture. • Mechanical strength of end fittings • Any special inserts required for end – fittings.

3.2 Functional Assessment

Sections 3.2.1 and Section 3.2.2 includes the functional requirements. Should the Mandatory requirements be met, submissions will be evaluated based on responses to Section 3.2.1 (Table of inputs) and Section 3.2.2 (Questionnaire). **Please refer to Annexure A, Table A.2 for the evaluation criteria of the functional requirements.**

3.2.1 Table Inputs

Please provide the following information:

Description: Eskom requires information on HTLS conductors that can match or are closest in diameter size to the conventional ACSR conductors. The ACSR conductors and their diameters that are mentioned in row 1 of **Table A3.**, Error! Reference source not found. Error! Reference source not found. **and** Error! Reference source not found. are:

- ACSR Chickadee – 18.87 mm
- ACSR IEC 315 – 23.90 mm
- ACSR Tern – 27.00 mm

Table A3. refers to information required for HTLS ***composite core conductors***, **Error! Reference source not found.** refers to ***alloyed core conductors*** and **Error! Reference source not found.** refers to ***steel core conductors*** and Table A.3.2.4 refers to the **high temperature mechanically compacted ACSR (plastically deformed) conductor technology** . Please **populate the tables with the relevant HTLS conductor information**. The HTLS conductor should be equivalent to or closest in diameter size to the ACSR/IEC conductor diameter mentioned in the column heading of the table. The required stranding information is also indicated in the column heading of the tables.

Example – An HTLS diameter equivalent conductor to ACSR Tern should have a diameter close to 27.00 mm. The information for the diameter equivalent HTLS conductor should be provided.

Ampacity ratings – Information to be provided based on the weather conditions provided (page 18)

*This is the maximum amount of current that a conductor can handle under normal continuous operation. The following deterministic weather conditions have to be considered, for the calculation of a rating at 75° C, 90° C and 150˚C. Please indicate what the maximum operating temperature that the conductor is rated for and indicate the weather condition parameters used to obtain this rating.

Weather Conditions to be used for ampacity rating calculations at 75˚C, 90˚C and 150˚C

Wind speed - 0.40m/s
Wind direction – 90° (across the conductor direction)
Solar- 1120 W/m^2
Ambient temperature- 40°C

Diameter equivalent conductors

This refers to the overall outer diameter of the conductor, which mostly serves as an input to wind loading calculations on a tower, but also has a bearing on the corona performance.

Table A3.2.1 Composite core conductors

Overall diameter in mm Type of Core and stranding	18.87 Solid core, Concentric stranding	18.87 Solid core Trapezoidal stranding	18.87 Stranded core, Concentric stranding	18.87 Stranded core Trapezoidal stranding	23.90 Solid core, Concentric stranding	23.90 Solid core Trapezoidal stranding	23.90 Stranded core, Concentric stranding	23.90 Stranded core Trapezoidal stranding	27.00 Solid core, Concentric stranding	27.00 Solid core Trapezoidal stranding	27.00 Stranded core, Concentric stranding	27.00 Stranded core Trapezoidal stranding	Comments
IEC Code													
Composite core equivalent conductor													
Conductor overall diameter (mm)													
Core diameter (mm) and strand diameter (if applicable)													
Aluminum strand diameter (mm)													
Total Area (mm^2)													
Area of core or composite (mm^2)													
Area of Aluminium (mm^2)													
Total mass (kg/km)													
Mass of core (kg/km)													
Mass of Aluminium (kg/km)													
UTS (Kn)													
Roughness factor if available													
Ampacity Rating * 75˚ 90˚ 150˚ Max operating temp													

***Please refer to section 3.2.1, page 17. Ampacity ratings to be calculated based on the environmental conditions provided.**

Mechanical inputs/ PLS Cad inputs													
ALCAN chart equivalent													
Final modulus of elasticity of outer strands(Mpa/100)													
Final modulus of elasticity of core (Mpa/100)													
Thermal expansion coefficient for outer strands (/100 °)													
Thermal expansion coefficient for core (/100 °)													
Polynomial coefficients for stress-strain in outer strands. Strain in %. Stress in Mpa. a_0,a_1 a_2,a_3													
Polynomial coefficients for stress-strain in the core. Strain in %. Stress in Mpa. b_0,b_1 b_2,b_2													
Polynomial coefficients for creep in outer strands. Strain in %. Stress in Mpa. c_0,c_1 c_2,c_3													

Polynomial coefficients for creep in the core. Strain in %. Stress in Mpa. d_0,d_1 d_2,d_3													
Thermal ratings													
DC resistance at 20°C(ohm/km)													
DC Resistance at 180°C (ohm/km)													
DC Resistance at 200°C(ohm/km)													
Emissivity coefficient													
Solar absorption coefficient													
Core heat capacity (Watt-s/m-˚ C)													
Outer strands heat capacity (Watt-s/m-˚ C)													

Table A3.2.2- Alloyed core conductors

Overall diameter in mm Type of Core and stranding	18.87 Solid core, Concentric stranding	18.87 Solid core Trapezoidal stranding	18.87 Stranded core, Concentric stranding	18.87 Stranded core Trapezoidal stranding	23.90 Solid core, Concentric stranding	23.90 Solid core Trapezoidal stranding	23.90 Stranded core, Concentric stranding	23.90 Stranded core Trapezoidal stranding	27.00 Solid core, Concentric stranding	27.00 Solid core Trapezoidal stranding	27.00 Stranded core, Concentric stranding	27.00 Stranded core Trapezoidal stranding	Comments
IEC Code													
Composite core equivalent conductor													
Conductor overall diameter (mm)													
Core diameter (mm) and strand diameter (if applicable)													
Aluminum strand diameter (mm)													
Total Area (mm^2)													
Area of core or composite (mm^2)													
Area of Aluminium (mm^2)													
Total mass (kg/km)													
Mass of core (kg/km)													
Mass of Aluminium (kg/km)													
UTS (Kn)													
Roughness factor if available													
Ampacity Rating * 75˚ 90˚ 150˚ Max operating temp													

***Please refer to section 3.2.1, page 17. Ampacity ratings to be calculated based on the environmental conditions provided.**

Mechanical inputs/ PLS Cad inputs													
ALCAN chart equivalent													
Final modulus of elasticity of outer strands(Mpa/100)													
Final modulus of elasticity of core (Mpa/100)													
Thermal expansion coefficient for outer strands (/100 °)													
Thermal expansion coefficient for core (/100 °)													
Polynomial coefficients for stress-strain in outer strands. Strain in %. Stress in Mpa. a_0,a_1 a_2,a_3													
Polynomial coefficients for stress-strain in the core. Strain in %. Stress in Mpa. b_0,b_1 b_2,b_2													
Polynomial coefficients for creep in outer													

strands. Strain in %. Stress in Mpa. c_0,c_1 c_2,c_3													

Polynomial coefficients for creep in the core. Strain in %. Stress in Mpa. d_0,d_1 d_2,d_3													
Thermal ratings													
DC resistance at 20°C(ohm/km)													
DC Resistance at 180°C (ohm/km)													
DC Resistance at 200°C(ohm/km)													
Emissivity coefficient													
Solar absorption coefficient													
Core heat capacity (Watt-s/m-˚ C)													
Outer strands heat capacity (Watt-s/m-˚ C)													

Table A3.2.3 – Steel core conductors

Overall diameter in mm Type of Core and stranding	18.87 Solid core, Concentric stranding	18.87 Solid core Trapezoidal stranding	18.87 Stranded core, Concentric stranding	18.87 Stranded core Trapezoidal stranding	23.90 Solid core, Concentric stranding	23.90 Solid core Trapezoidal stranding	23.90 Stranded core, Concentric stranding	23.90 Stranded core Trapezoidal stranding	27.00 Solid core, Concentric stranding	27.00 Solid core Trapezoidal stranding	27.00 Stranded core, Concentric stranding	27.00 Stranded core Trapezoidal stranding	Comments
IEC Code													
Composite core equivalent conductor													
Conductor overall diameter (mm)													
Core diameter (mm) and strand diameter (if applicable)													
Aluminum strand diameter (mm)													
Total Area (mm^2)													
Area of core or composite (mm^2)													
Area of Aluminium (mm^2)													
Total mass (kg/km)													
Mass of core (kg/km)													
Mass of Aluminium (kg/km)													
UTS (Kn)													
Roughness factor if available													
Ampacity Rating * 75˚ 90˚ 150˚ Max operating temp													

***Please refer to section 3.2.1, page 17. Ampacity ratings to be calculated based on the environmental conditions provided.**

Mechanical inputs/ PLS Cad inputs													
ALCAN chart equivalent													
Final modulus of elasticity of outer strands(Mpa/100)													
Final modulus of elasticity of core (Mpa/100)													
Thermal expansion coefficient for outer strands (/100 °)													
Thermal expansion coefficient for core (/100 °)													
Polynomial coefficients for stress-strain in outer strands. Strain in %. Stress in Mpa. a_0,a_1 a_2,a_3													
Polynomial coefficients for stress-strain in the core. Strain in %. Stress in Mpa. b_0,b_1 b_2,b_2													
Polynomial coefficients for creep in outer strands. Strain in %. Stress in Mpa.													

c_0,c_1 c_2,c_3													

Polynomial coefficients for creep in the core. Strain in %. Stress in Mpa. d_0,d_1 d_2,d_3													
Thermal ratings													
DC resistance at 20°C(ohm/km)													
DC Resistance at 180°C (ohm/km)													
DC Resistance at 200°C(ohm/km)													
Emissivity coefficient													
Solar absorption coefficient													
Core heat capacity (Watt-s/m-˚ C)													
Outer strands heat capacity (Watt-s/m-˚ C)													

Table A3.2.4 - High temperature mechanically compacted ACSR (plastically deformed) conductor technology

Overall diameter in mm Type of Core and stranding	18.87 Solid core, Concentric stranding	18.87 Solid core Trapezoidal stranding	18.87 Stranded core, Concentric stranding	18.87 Stranded core Trapezoidal stranding	23.90 Solid core, Concentric stranding	23.90 Solid core Trapezoidal stranding	23.90 Stranded core, Concentric stranding	23.90 Stranded core Trapezoidal stranding	27.00 Solid core, Concentric stranding	27.00 Solid core Trapezoidal stranding	27.00 Stranded core, Concentric stranding	27.00 Stranded core Trapezoidal stranding	Comments
IEC Code													
Composite core equivalent conductor													
Conductor overall diameter (mm)													
Core diameter (mm) and strand diameter (if applicable)													
Aluminum strand diameter (mm)													
Total Area (mm^2)													
Area of core or composite (mm^2)													
Area of Aluminium (mm^2)													
Total mass (kg/km)													
Mass of core (kg/km)													
Mass of Aluminium (kg/km)													
UTS (kN)													
Roughness factor if available													
Ampacity Rating * 75˚ 90˚ 150˚ Max operating temp													

***Please refer to section 3.2.1, page 17. Ampacity ratings to be calculated based on the environmental conditions provided**

Mechanical inputs/ PLS Cad inputs													
ALCAN chart equivalent													
Final modulus of elasticity of outer strands(MPa/100)													
Final modulus of elasticity of core (MPa/100)													
Thermal expansion coefficient for outer strands (/100 °)													
Thermal expansion coefficient for core (/100 °)													
Polynomial coefficients for stress-strain in outer strands. Strain in %. Stress in MPa. a_0,a_1 a_2,a_3													
Polynomial coefficients for stress-strain in the core. Strain in %. Stress in MPa. b_0,b_1 b_2,b_2													
Polynomial coefficients for creep in outer strands. Strain in %. Stress in MPa. c_0,c_1													

c_2,c_3													

Polynomial coefficients for creep in the core. Strain in %. Stress in MPa. d_0,d_1 d_2,d_3													
Thermal ratings													
DC resistance at 20°C(ohm/km)													
DC Resistance at 180°C (ohm/km)													
DC Resistance at 200°C(ohm/km)													
Emissivity coefficient													
Solar absorption coefficient													
Core heat capacity (Watt-s/m-˚ C)													
Outer strands heat capacity (Watt-s/m-˚ C)													

3.2.2 Questionnaire

- **Mechanical information**

3.2.2.1 Populate Section 3.2.1 of the report and provide cable files to be used in software programs used to calculate creep and sag? If this cannot be provided now, will the supplier provide this information to Eskom if they are successful and nominated by Eskom to provide HTLS conductor awareness workshops (theoretical classroom sessions and practical demonstrations)

3.2.2.2 Does the core of the conductor require the use of standard ACSR hardware and fittings or are different hardware and fittings required?

3.2.2.3 Indicate the type of grease used for hardware attachments?

3.2.2.4 What detection methods should be used or followed to determine the mechanical integrity of the conductor once installed? Parameters to be checked include (but is not limited to) corrosion, internal damage due to conductor mechanical vibration etc.

3.2.2.5 What are the proposed methods of condition monitoring of the conductor? State the estimated lifespan of the conductor and under what conditions is this based on?

3.2.2.6 What are the recommended gripping technologies to be used during different stringing activities if the conductor needs to be pulled to the correct tension during regulating? As an example; provide guidelines for construction clamps to be used and how they differ compared to equipment used for ACSR conductors.

3.2.2.7 What are the handling characteristics to adhere to in terms of bending radius and tension compared to ACSR conductor?

3.2.2.8 Are the repair procedures for the conductors different to that of ACSR? Please provide supporting documentation.

3.2.2.9 When routine tensile tests are performed on Eskom conductors the guidelines of IEC 61089 are followed. Do we continue following the same specification for HTLS conductor, alternatively provide the relevant specification(s) to be used?

3.2.2.10 Provide confirmation of compatibility of conductor and hardware for electrolytic corrosion when exposed to marine pollution to at least C5 corrosion level. Please refer to ISO12944.

3.2.2.11 Please provide historical documentation or references from utilities regarding the performance and maintenance of the conductor? Maintenance procedures to be clearly indicated.

- **Electrical information**

3.2.2.12 Has the conductor been tested for corona performance? If yes, please provide test reports stating which conductor surface temperatures and environmental conditions the tests were conducted at. Also, what was the maximum conductor electric field surface gradient (kV/cm)?

3.2.2.13 If available, please provide the roughness factor for the conductor.

- **Test reports and standards**

3.2.2.14 Have the conductors been tested in an independent accredited testing laboratory? Certificate to be provided.

3.2.2.15 Show evidence of Type testing of the HTLS conductor in accordance to applicable IEC standards. Latest type test report to be submitted.

3.2.2.16 Show evidence of Sample testing of the HTLS conductor on each individual product in accordance to applicable IEC standards. Sample test report to be submitted.

3.2.2.17 Show evidence of Production testing of the HTLS conductor on each individual product in accordance to applicable IEC standards. Production sample test report to be submitted.

3.2.2.18 Show evidence of material checking and verification from raw to final product stages. Report or certificate to be provided.

If standards other than IEC have been used, please provide this information. If possible, attach test certificates.

- **Construction Information**

3.2.2.19 Provide transportation and handling requirements for the conductors.

3.2.2.20 Please include minimum storage protocols for the conductors when being stored on site before use.

3.2.2.21 Please include lifespan of conductors being stored in drums and provide damage mitigation measures to the core and strands?

3.2.2.22 Specify drum material type (wood, steel or either), and whether the drums can be stored outside, exposed to weather elements.

3.2.2.23 Is the disposal of the HTLS type of conductor different to the disposal of ACSR conductors? If yes, please indicate the process that should be followed.

3.2.2.24 Indicate the requirements/certification required by individuals that partake in the construction activities? Please indicate the training and accreditation process to be followed.

- **Manufacturing (For information purposes only, not to be scored)**

3.2.2.25 Are the conductors manufactured in South Africa? Please indicate if the core and/or the conductive strands are manufactured/ produced in South Africa or if either needs to be imported? Please indicate the names of suppliers used in either case?

3.2.2.26 Has the organization previously conducted training on conductor installation processes and construction activities for South African contractors/installers?

3.2.2.27 Is there a facility in South Africa that does the conductor stranding? If not, please advise how this service will be provided?

3.2.2.28 What is the lead time for delivery? What are the possible risks that could impact the lead time?

3.3 Summary of Conductor Evaluation

- Submissions will first evaluated for Mandatory requirements, this is indicated in Table A.1 (Section 3.1). Should the mandatory requirements be met, the submissions will be assessed on the functional requirements. Functional requirements are indicated in Section 3.2.1 and Section 3.2.2. Table A.2 in Annexure A refers to the evaluation criteria of the functional requirements.
- Mandatory information should include the submission of a specification including installation methods and processes for the conductor and hardware jointing. A stringing and regulating methodology document to be submitted. Table A.1 provides further details.

The functional requirements should consist of but not be limited to:

- Submission of electrical inputs requested for either Tables A.3.2.1, A.3.2.2 , A.3.2.3 or A.3.2.4 of section 3.2.1.
- Submission of mechanical inputs and cable files for either Tables A.3.2.1, A.3.2.2 , A.3.2.3 or A.3.2.4 of section 3.2.1.
- Submission of thermal inputs requested for either Tables A.3.2.1, A.3.2.2 , A.3.2.3 or A.3.2.4 of section 3.2.1.

- Suppliers are not limited to providing one type of conductor submission. Different conductor technologies will be evaluated independently.
- Suppliers are expected to provide clear responses to all questions in section 3.2.2. Where indicated, supporting documents to be provided.
- Test reports, as part of the electrical and mechanical questionnaire, to be submitted. Standards followed to be provided.
- An indication of the manufacturing location and lead times to be provided (Eskom information purposes).

Note – Different technical responses may be submitted for different conductor technologies. Please provide information describing the technology. If a supplier submits different technologies, the supplier should complete all sections for each type of technology. Eskom will evaluate the different technologies independently. The evaluation process will be followed.

Annexure A – Technical Evaluation scoring criteria

Table A.2 - Technical Evaluation Criteria

Item	Section Number	Description	Criteria	Total Score /Section	Breakdown of Scoring (Based on the submission of 1 type of conductor technology
1.1	Section 3.2.1	Electrical Inputs	Information provided for either table A.3.2.1, A.3.2.2, A.3.2.3, A.3.2.4	25.5	19.5 points (0.5 points per input , 6.5 points for submission of 13 inputs for 1 diameter equivalent conductor type, 19.5 points for submission of 3 diameter equivalent conductor types)
			Ampacity ratings submitted using the provided weather conditions.		6 points (0.5 points for each ampacity rating input, 2 points for 1 diameter equivalent conductor type , 6 points for submission of 3 diameter equivalent conductor inputs). Suppliers submitting inputs without using the Eskom environmental requirements will receive a score of 0.
1.2	Section 3.2.1	Mechanical Inputs	Mechanical inputs - Provision of Mechanical inputs and submission of cable files.	13.5	13.5 points (0.5 points per input , 4.5 points for submission of 9 inputs for 1 diameter equivalent conductor type, 13.5 points for submission of 3 diameter equivalent conductor types).
1.3	Section 3.2.1	Thermal Inputs	Thermal ratings	10.5	10.5 points (0.5 points per input , 3.5 points for submission of 7 inputs for 1 diameter equivalent conductor type, 10.5 points for submission of 3 diameter equivalent conductor types)
Maximum Score for Section 3.2.1				49.5	
1.4	Section 3.2.2	Mechanical Questionnaire	Responses	24.5	20 points (2 points per response, excluding Question 3.2.3.11)
			For 3.2.3.11 Please provide historical documentation or references from utilities regarding the performance and maintenance of the conductor. Maintenance procedures to be clearly indicated.		4.5 points (1 point for each reference letter, maximum 3 points) (1.5 points for maintenance procedures)
1.5	Section 3.2.2	Electrical Questionnaire	Responses	4	2 points per response
1.6	Section 3.2.2	Test reports and standards Questionnaire	Provision of test reports	10	10 points (2 point for each question, that is 1 point per response and 1 point for the submission of the supporting report or certificate per question)
1.7	Section 3.2.2	Construction Questionnaire	Responses	12	12 points (2 points per response)
1.8	Section 3.2.2	Manufacturing Questionnaire	This is for Eskom information. It is not a mandatory and the supplier will not be scored on this.		Information purposes
Maximum Score for Section 3.2.2				50.5	
Maximum Score for Sections 3.2.1 and 3.2.2				100	

- **Assessment Methodology**

The assessment will only be conducted:

- If the mandatory requirements indicated in section 3.1 have been met, sections 3.2.1 and 3.2.2 will be evaluated.
- In order to pass the technical assessment, the minimum score of 50% must be achieved for each of the requested sections. That is, a minimum score of 50% for section 3.2.1 and a minimum score of 50% for section 3.2.2 is required. Submissions that do not meet the minimum required threshold of 50% for each section will be considered non-compliant.
- Once the evaluation assessment is complete, suppliers will be considered technically compliant.

Table A.3 - Technical Scoring Assessment summary

Item	Section Number	Description	Final Scoring/Desktop	Scoring /Section	Criteria
3.1	Section 3.1	Mandatory Information	Submitted or Not submitted	Yes/No	Must submit mandatory information in order to proceed
.1	Section 3.2.1	Electrical Inputs	Acceptably submitted/submitted	25.5	Must meet 50% threshold to proceed
1.2		Mechanical Inputs	Acceptably submitted/submitted	13.5	
1.3		Thermal Inputs	Acceptably submitted/submitted	10.5	
1.4	Section 3.2.2	Mechanical Questionnaire	Acceptably submitted/submitted	24.5	Must meet 50% threshold to proceed
1.5		Electrical Questionnaire	Acceptably submitted/submitted	4	
		Test reports and Standards	Acceptably submitted/submitted	10	
1.6		Construction Questionnaire	Acceptably submitted/submitted	12	
1.8		Manufacturing Questionnaire	Information Purposes	N/A	N/A
Total				**100**	
Overall minimum threshold for qualifications				**50**	

Annexure B – Tower Drawings

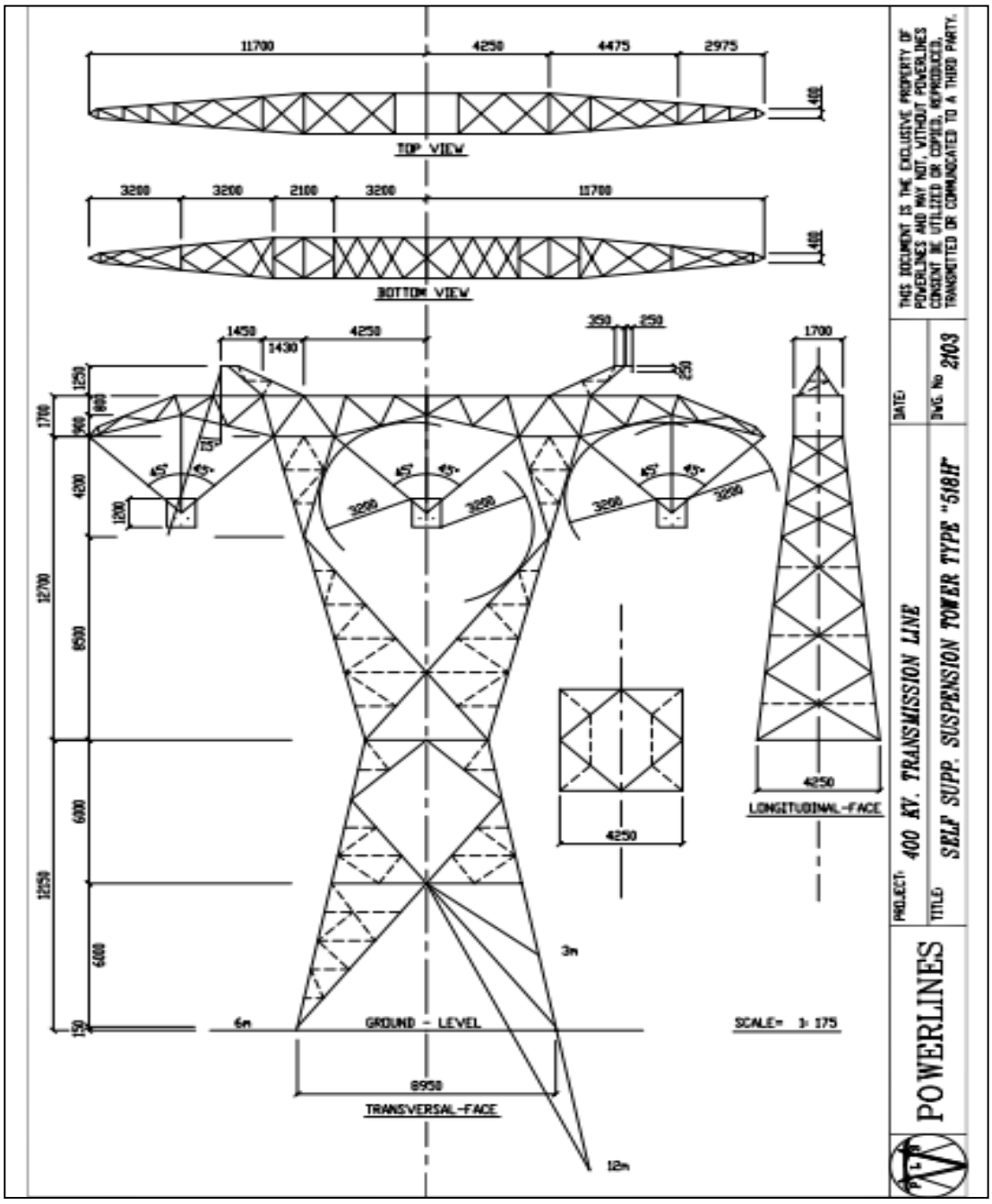

Figure B.1: **518H Self-support suspension structure outline drawing**

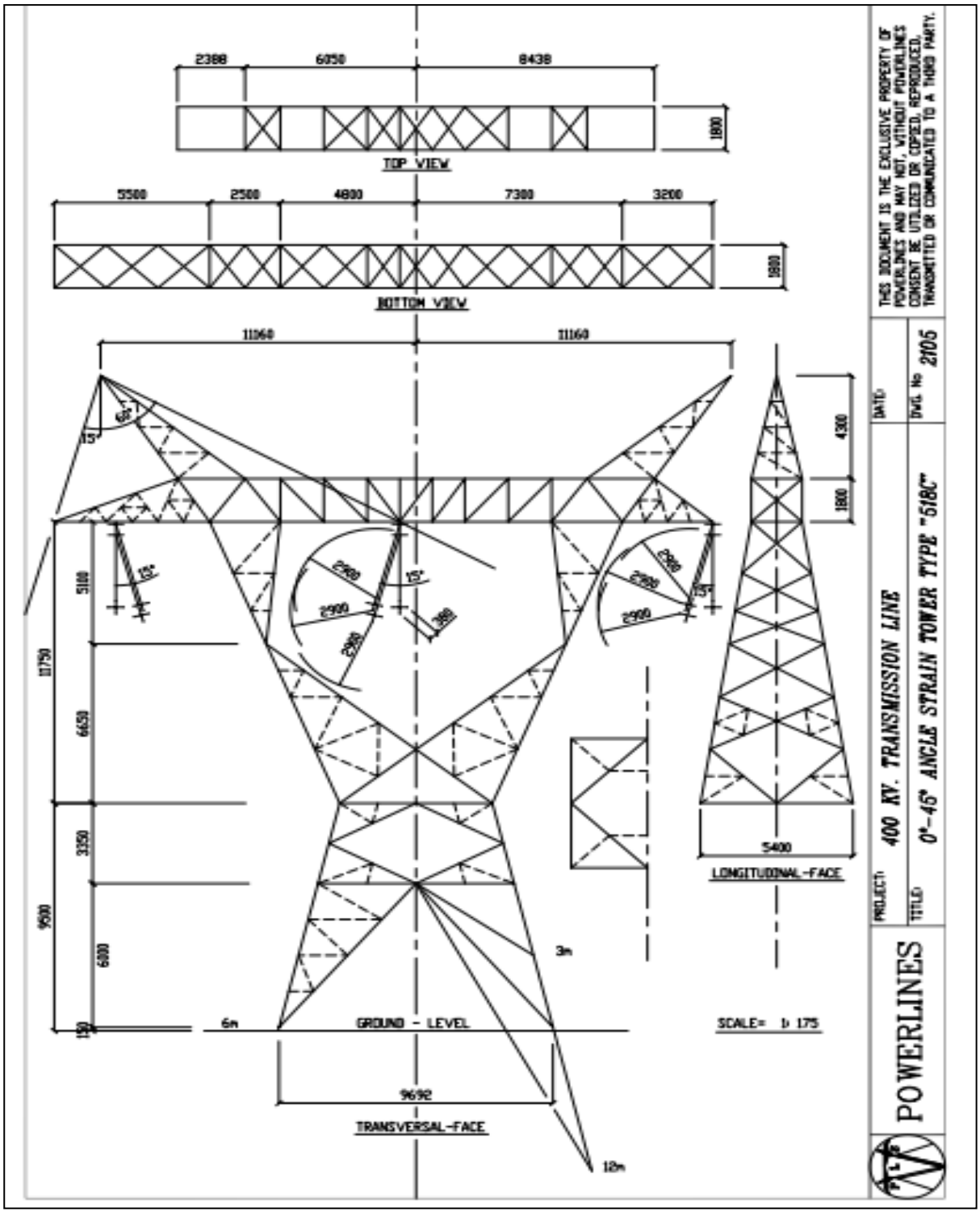

Figure B.2: 518C Self-support strain structure outline drawing

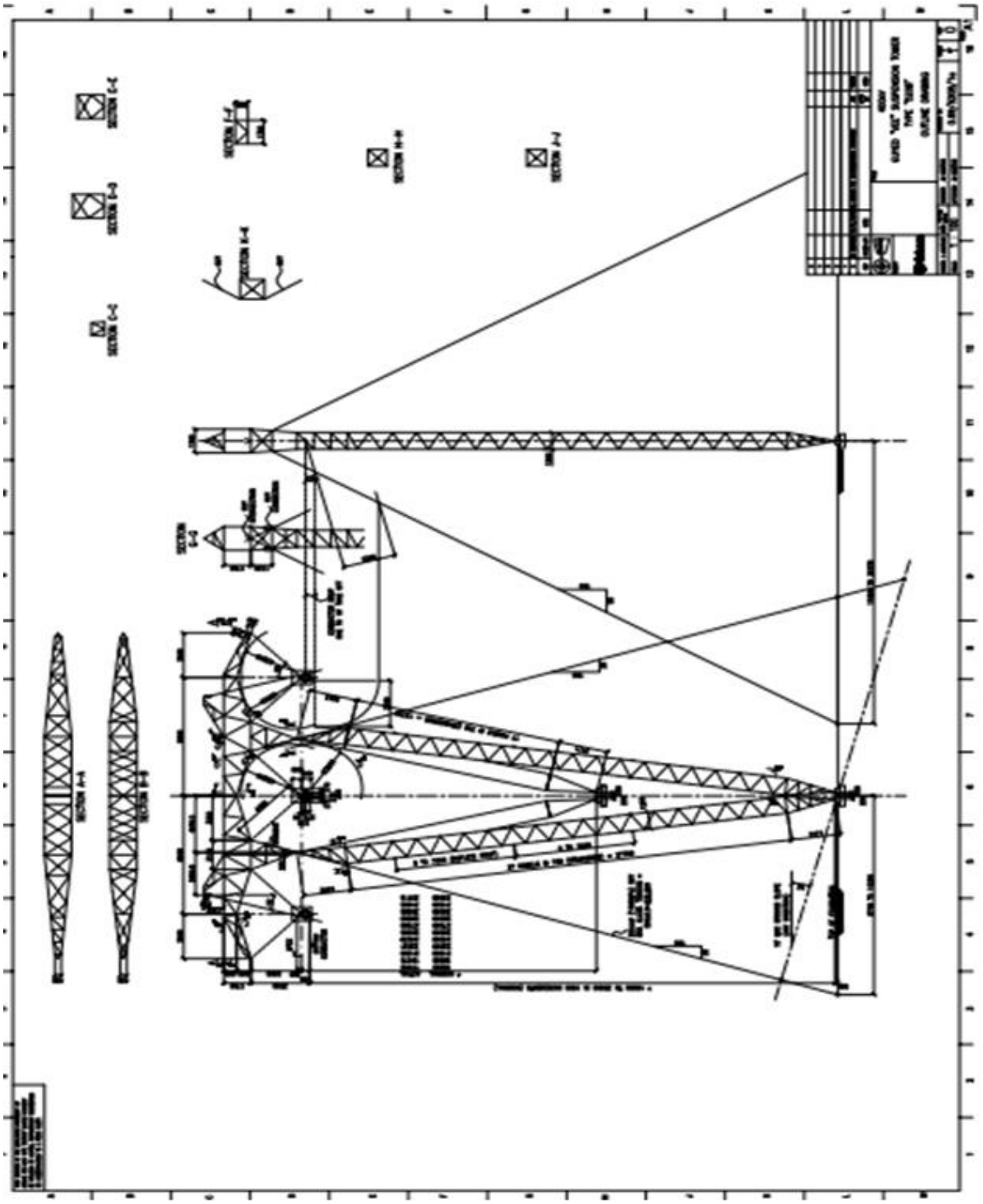

Figure B.3: 520B Guyed Vee structure outline drawing

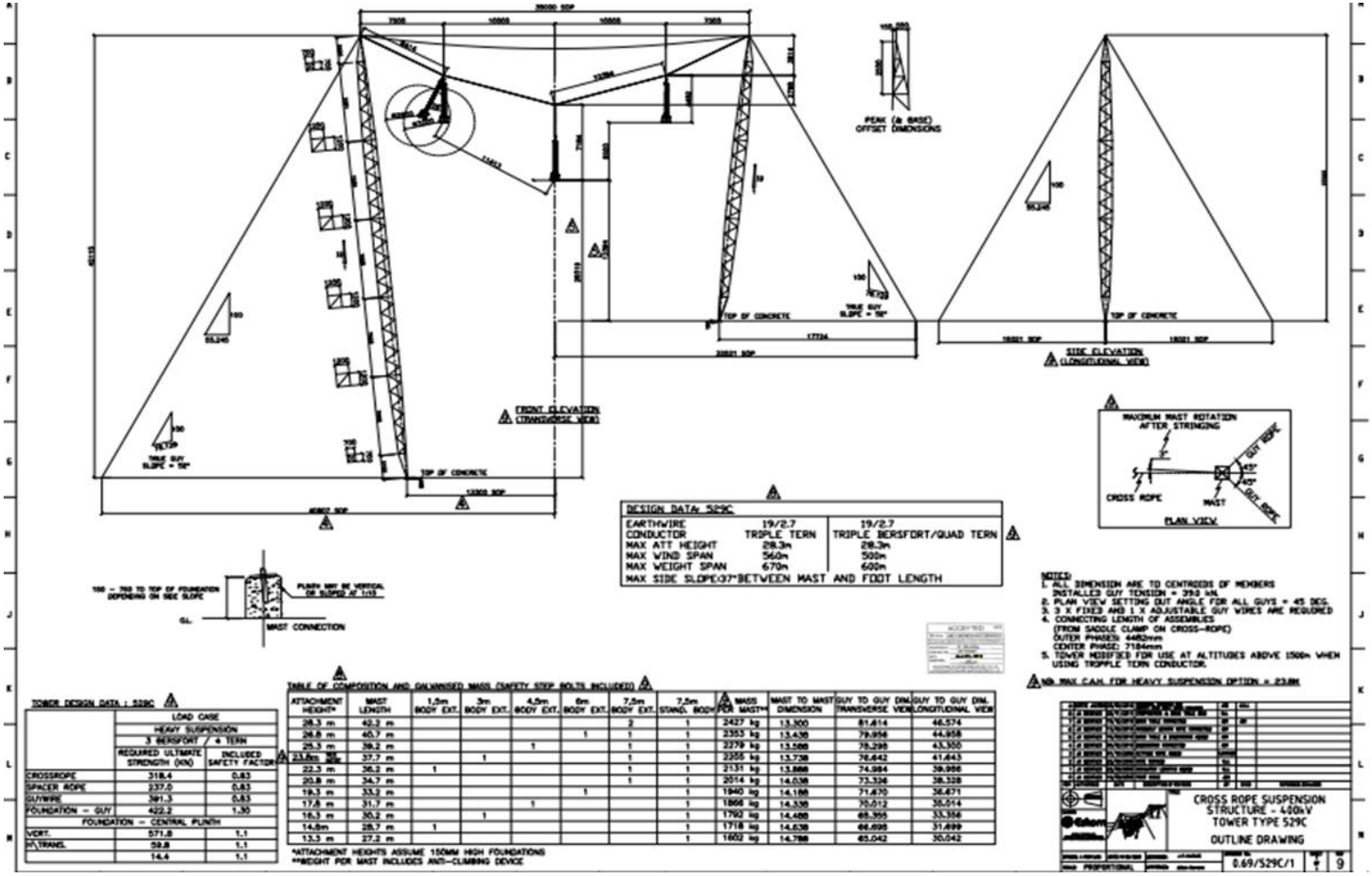

Figure B.4: 529C Guyed Cross rope structure outline drawing