



NEC3 Professional Services Contract (PSC3)

Contract between Eskom Holdings SOC Limited
(Reg No. 2002/015527/06)

and _____
(Reg No. _____)

for Surface and Ground Water Monitoring: 4 Quarters in a year
(January; April; June and September) for 5 years and specialist
studies.

Contents:	No of pages
Part C1 Agreements & Contract Data	
Part C2 Pricing Data	
Part C3 Scope of Work	

CONTRACT No. [Insert at award stage]

Document reference		No of pages
	Surface and Ground Water Monitoring: 4 Quarters in a year (January; April; June and September) for 5 years) and once-off Specialist Studies (Aquifer Vulnerability Study; Groundwater Numerical Plume Model and Hydrocensus) at Hendrina Power Station.	
C1.1	Form of Offer & Acceptance [to be inserted from Returnable Documents at award stage]	
C1.2a	Contract Data provided by the <i>Employer</i>	
C1.2b	Contract Data provided by the <i>Consultant</i> [to be inserted from Returnable Documents at award stage]	

C1.3 Securities proforma

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:

Surface and Ground Water Monitoring: 4 Quarters in a year (January; April; June and September) for 5 years and once-off Specialist Studies (Aquifer Vulnerability Study; Groundwater Numerical Plume Model and Hydrocensus) at Hendrina Power Station.

The tenderer, identified in the Offer signature block, has 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.

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)	

If Option E or G apply, for each offered total insert in brackets, "(Not Applicable – Cost reimbursable)"

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 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		
2		
3		
4		
5		
6		
7		

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

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

For the tenderer:

For the Employer

Signature _____

Name _____

Capacity _____

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

Name & signature of witness _____

Date _____

C1.2 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	
	<p>The <i>conditions of contract</i> are the core clauses and the clauses for main Option</p> <div style="background-color: #cccccc; width: 100px; height: 100px; margin-bottom: 10px;"></div> <p>dispute resolution Option</p>	<p>A: Priced contract with activity schedule</p> <p>W1: Dispute resolution procedure</p>
	<p>Secondary Options</p> <div style="background-color: #cccccc; width: 100px; height: 100px; margin-bottom: 10px;"></div> <p>of the NEC3 Professional Services Contract (June 2005)¹ with amendments June 2006</p>	<p>X1: Price adjustment for Inflation</p> <p>X2: Changes in the law</p> <p>X7: Delay damages</p> <p>X9: Transfer of Right</p> <p>X10: <i>Employer's Agent</i></p> <p>X11: Termination by the <i>Employer</i></p> <p>X20: Key Performance Indicators</p> <p>Z: <i>Additional conditions of contract</i></p>
10.1	<p>The <i>Employer</i> is (Name):</p> <p>Address</p> <p>Tel No.</p> <p>Fax No.</p>	<p>Eskom Holdings SOC Limited (reg no: 2002/015527/06), a juristic person incorporated in terms of the company laws of the Republic of South Africa</p> <p>Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg</p> <p>013 296 3490</p> <p>086 750 0526</p>

¹ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009

11.2(9) The *services* are : **Surface and Ground Water Monitoring: 4 Quarters in a year (January; April; June and September) for 5 years and once-off Specialist Studies (Aquifer Vulnerability Study; Groundwater Numerical Plume Model and Hydrocensus) at Hendrina Power Station.**

11.2(10) The following matters will be included in the Risk Register **Time , Quality and Cost**

11.2(11) The Scope is in **Part 3: Scope of Work and all documentation to which it makes reference to.**

12.2 The *law of the contract* is the law of **the Republic of South Africa**

13.1 The *language of this contract* is **English**

13.3 The *period for reply* is **2 working days however a reply within 24 hours after notification is issued is required**

13.6 The *period for retention* is **None**

2 The Parties' main responsibilities

25.2	The <i>Employer</i> provides access to the following persons, places and things to the <i>Consultant</i>	access to	access date
		1 Surface and Ground Water Monitoring: 4 Quarters in a year (January; April; June and September) for 5 years and once-off Specialist Studies (Aquifer Vulnerability Study; Groundwater Numerical Plume Model and Hydrocensus) at Hendrina Power Station.	2023

3 Time

31.2 The *starting date* is. **March 2024 or as soon thereafter**

11.2(3) The *completion date* for the whole of the *services* is. **30 March 2029**

31.1 The *Consultant* is to submit a first programme for acceptance within **2 weeks of the Contract Date.**

32.2 The *Consultant* submits revised programmes at intervals no longer than **3 weeks.**

4 Quality

40.2 The quality policy statement and quality plan are provided within **2 weeks of the Contract Date.**

42.2 The *defects date* is **4 weeks after Completion of the whole of the services.**

5 Payment

50.1 The *assessment interval* is **07 working days after completion of each task (provided deliverables have been received by the station)**

51.1 The period within which payments are made is **30 days after receipt of a tax compliant proforma invoice**

51.2 The *currency of this contract* is the **South African Rand**

51.5 The *interest rate* is **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

	Failure to use skill, death or injury to a person, loss or damage of property and failure to take action by the <i>Consultant</i> .	Cover	Period following Completion of the whole of the services or earlier termination
	Liability for failure by the <i>Consultant</i> to use the skill and care normally used by professionals providing services similar to the <i>services</i>	Whatever the <i>Consultant</i> 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 <i>Consultant</i>) or loss of or damage to property arising from or in connection with the <i>Consultant's</i> Providing the Services.	Whatever the <i>Consultant</i> 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 <i>Consultant</i> 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 <i>Consultant's</i> 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 <i>Consultant</i> deems necessary
81.1	The <i>Employer</i> provides the following insurances	Refer to Annexure A for details of insurance provided by the <i>Employer</i>.	
82.1	The <i>Consultant's</i> total liability to the <i>Employer</i> 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 <i>Consultant</i> provides these additional insurances.		
	1 Insurance against:	Whatever the <i>Consultant</i> 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		
A	Priced contract with activity schedule	Yes	
21.3	The <i>Consultant</i> prepares forecasts of the total of the <i>expenses</i> at intervals of no longer than	2 weeks.	
11	Data for Option W1		
W1.1	The <i>Adjudicator</i> is (Name)	To be arranged at the time a dispute arises: the person selected from the Eskom Panel of Adjudicators listed in Annexure C to this Contract Data by the Party intending to refer a dispute to him.	
W1.2(3)	The <i>adjudicator nominating body</i> 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 <i>tribunal</i> is:	arbitration	
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.	
	The place where arbitration is to be held is	South Africa	
	The person or organisation who will choose an arbitrator	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.	
	<ul style="list-style-type: none"> • if the Parties cannot agree a choice or • if the <i>arbitration procedure</i> does not state who selects an arbitrator, is 		
12	Data for secondary Option clauses		
X1?	Price adjustment for inflation?		
X2	Changes in the law		
X2.1	The law of the project is	South African Law	
X7	Delay damages		
X7.1	Delay damages for late Completion of the whole of the <i>services</i> are	R1000.00 per day up to 10% of task order value.	
X9	The Transfer of Rights.		
X9.1	The <i>Employer</i> owns the Consultant's right:	Reports and materials	
X10	The <i>Employer's Agent</i>.		

X10.1	The <i>Employer's Agent</i> is	
	Name:	Sindiso Rapudi
	Address	Hendrina Power Station Private Bag x1003 Pullenshope 1034
	The authority of the <i>Employer's Agent</i> is	To manage or execute the project.
X11	Termination by the <i>Employer</i>	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.
X20	Key Performance Indicators:	Time, quality, safety and environment.
Z	The <i>Additional conditions of contract</i> are	
	Z1 to Z11 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 *services* in addition to the amounts due in terms of core clause 92.1.

Z4 Ethics

- Z4.1 Any offer, payment, consideration, or benefit of any kind made by the *Consultant* which constitutes or could be construed either directly or indirectly as an illegal or corrupt practice, as an inducement or reward for the award or in execution of this contract constitutes grounds for terminating the *Consultant's* obligation to Provide the Services or taking any other action as appropriate against the *Consultant* (including civil or criminal action).
- Z4.2 The *Employer* may terminate the *Consultant's* obligation to Provide the Services if the *Consultant* (or any member of the *Consultant* where the *Consultant* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations) is found guilty by a competent court, administrative or regulatory body of participating in illegal or corrupt practices.

Such practices include making of offers, payments, considerations, or benefits of any kind or otherwise, whether in connection with any procurement process or contract with the *Employer* or other people or organisations and including in circumstances where the *Consultant* or any such member is removed from the an approved vendor data base of the *Employer* as a consequence of such practice.

- Z4.3 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 *services* in addition to the amounts due in terms of core clause 92.1.

Z5 Confidentiality

- Z5.1 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.
- Z5.2 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*.
- Z5.3 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.

Z5.4 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*.

Z5.5 The *Contractor* ensures that all his sub-contractors abide by the undertakings in this clause.

Z6 Waiver and estoppel: Add to core clause 12.3:

Z6.1 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.

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

Z7.1 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.

Z8 Notifying compensation events

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

Z9 *Employer's* limitation of liability

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

Z10 Termination: Add to core clause 90.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":

Z10.1 or had a judicial management order granted against it.

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

Z11.1 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.

Z11.2 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 *services* in addition to the amounts due in terms of core clause 92.1.

Annexure A: Notes to Consultants

This is guidance to Consultants to assist their decision making about what cover to arrange in the insurance to be provided by the Consultant. The guidance is not part of the contract and the Employer carries no liability for it.

1. For the purpose of works contracts, insurance provided by Eskom (the *Employer*) has been arranged on the basis of “project” or “contract” value, where the value is the total of the Prices at Completion of the whole of the works including VAT.

A “project” is a collection of contracts or work packages to be undertaken as part of a single identified capital expansion or refurbishment of a particular asset or facility.

A “contract” is a single contract not linked to or being part of a “project”.

2. There are three main “formats” of cover and deductible structure; Format A, Format B and Format Dx.

Format A is for a project or contract value less than or equal to R350M (three hundred and fifty million Rand) inclusive of VAT.

Format B is for a project or contract value greater than R350M (three hundred and fifty million Rand) inclusive of VAT.

In the case of contracts / packages within a project:

- For a contract / package of R50M which is part of a R400M project, Format B will apply
- For a contract / package of R250M which is part of a R6 billion project, Format B will apply;
- For a contract / package of R120M which is part of a R350M project Format A will apply;

For a contract which is not part of a project the same limits apply:

- For a contract of R50M, Format A will apply
- For a contract of R355M, Format B will apply.

Format Dx applies only to Distribution Division projects and contracts. If a Distribution Division project or contract exceeds the Format A limit, the Eskom Insurance Management Services [EIMS] need to be contacted for advice on how to formulate the insurance cover. Cover and deductibles for Distribution Division are per the relevant policy available on the internet web link given below.

Format A generally applies to Transmission Division projects and contracts. If a Transmission Division project or contract exceeds the Format A limit, the Eskom Insurance Management Services [EIMS] need to be contacted for advice on how to formulate the insurance cover.

3. **Further information and full details of all Eskom provided policies and procedures may be obtained from:**

http://www.eskom.co.za/live/content.php?Item_ID=9248

4. The Insurance which the *Consultant* is to provide against his liability for claims made against him arising out of his failure to use reasonable skill and care (first row in the Insurance Table of clause 81.1 in the PSC3) should also indemnify the *Consultant* for those sums which he could become legally liable to pay as damages arising from any claim first made against him and reported to Insurers some time after Completion of the whole of the *services*. Hence the *Consultant* needs to ensure that his cover is in place at least until all his liabilities under the contract have expired. Such claims could arise out of any negligent act, error or omission committed or alleged to have been committed by the *Consultant* in the conduct of professional services in connection with the contract.

Annexure B: The *Employer's* Panel of Adjudicators

The following persons listed in alphabetical order of their surname have indicated their willingness to be included in the Eskom Panel of Adjudicators. Their CV's may be obtained by using the contact details provided.

Name	Location	Contact details (phone & e mail)

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 (June 2005) 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 146 to 150 of the PSC3 Guidance Notes. 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.
2. Whenever a cell is shaded in the left hand column it denotes this data is optional 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 <i>Consultant</i> is (Name): Address Tel No. Fax No.	
22.1	The <i>Consultant's</i> key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications: Experience:	
Info.		CV's (and further <i>key persons</i> data including CVs) are appended to Tender Schedule entitled .
11.2(3)	The <i>completion date</i> for the whole of the <i>services</i> is	
11.2(10)	The following matters will be included in the Risk Register	

² Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009

11.2(13)	The <i>staff rates</i> are:	name/designation	rate
	Either complete here or cross refer to a schedule in Part C2.2		
25.2	The <i>Employer</i> provides access to the following persons, places and things	access to	access date
31.1	The programme identified in the Contract Data is		
50.3	The <i>expenses</i> stated by the <i>Consultant</i> are	item	amount
A	Priced contract with activity schedule		
11.2(14)	The <i>activity schedule</i> is in		
11.2(18)	The tendered total of the Prices is	(in figures)	(in words), excluding VAT

PART 2: PRICING DATA

PSC3 Option A

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	
C2.2	The <i>activity schedule</i>	

C2.1 Pricing assumptions: Option A

How work is priced and assessed for payment

Clause 11 in NEC3 Professional Services Contract, June 2005 (PSC3) Option A states:

Identified and defined terms	11 11.2	(14) The Activity Schedule is the <i>activity schedule</i> unless later changed in accordance with this contract.
		(15) The Price for Services Provided to Date is the total of the Prices for the activities which have been completed. A completed activity is one which is without Defects which would delay immediately following work.
		(18) The Prices are the lump sum prices for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

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

Function of the Activity Schedule

Clause 53.1 in Option A states: "Information in the Activity Schedule is not Scope." This confirms that instructions to do work or how it is to be done are not included in the Activity Schedule but in the Scope. This is further confirmed by Clause 21.1 which states, "The *Consultant* Provides the Services in accordance with the Scope". Hence the *Consultant* does **not** provide the Services in accordance with the Activity Schedule. The Activity Schedule is only a pricing document.

Link to the programme

Clause 31.4 states that "The *Consultant* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance". Hence when compiling the *activity schedule*, the tendering consultant needs to show each activity on the programme he submits with his tender.

Preparing the activity schedule

The tendering consultant prepares the *activity schedule* and should study the PSC3 Guidance Notes pages 2 and 24 before doing so. The *Employer* may have instructed the tendering consultant to include particular activities which he has specified and requires the *Consultant* to identify them in his *activity schedule*.

1 Generally it is the *Consultant* who prepares the Activity Schedule as part of his tender by breaking down the work described within the Scope into suitable activities which can be well defined, priced as a lump sum and shown on the programme. The *Employer*, in his Conditions of Tender or in a Tender Schedule, may have listed some items that he requires the *Consultant* to include in his *activity schedule* and be priced accordingly.

2 The Prices are defined in clause 11.2(18) as the lump sum for each activity in the activity schedule and the Price for Services Provided to Date (PSPD) (the amount due to the *Consultant*) is defined in clause 11.2(15) as the total of the Prices for each activity that has been completed. Hence activities in the

activity schedule should be structured so as to provide an acceptable monthly cash flow as they are only assessed for payment on the assessment date if they have been completed.

3 As the *Consultant* has an obligation to correct Defects (core clause 41) the lump sum Prices must also include for the correction of Defects except if the Defect is one for which the *Consultant* is not liable which is compensation event 60.1(12).

4 If the *Consultant* has decided not to identify a particular activity, the cost to the *Consultant* of doing the work must be included in, or spread across, the other Prices in order to fulfil the obligation to complete the services for the tendered total of the Prices.

5 There is no adjustment to the lump sum activity schedule price if the amount, or quantity, of work within that activity later turns out to be different to that which the *Consultant* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event. See Clause 60.1.

6 Hence the Prices tendered by the *Consultant* in the *activity schedule* are inclusive of everything necessary and incidental to Providing the Services in accordance with the Scope, as it was at the time of tender, as well as correct any Defects except those for which he is not liable.

7 However, the *Consultant* does not have to allow in his Prices for matters that may arise as a result of a compensation event.

Expenses

Expenses are not included in the activity schedule items and are assessed separately at each assessment date.

Expenses associated with employing a staff member in Providing the Services are listed separately either by the *Employer* in Contract Data provided by the *Employer* or by the *Consultant* in Contract Data provided by the *Consultant*. As only the *expenses* listed may be claimed by the *Consultant*, all other cost to the *Consultant* associated with Providing the Services must be included within the activity schedule or *staff rates*.

Rate adjustment for inflation of *expenses* is explained on page 13 of the Guidance Notes.

Staff rates

When a compensation event occurs changes to the affected Activity Schedule item or new priced items in the Activity Schedule are assessed as the actual Time Charge for work already done and the forecast Time Charge for work not yet done. (See clause 63.1 and 63.14 in Option A)

The Time Charge is the sum of the products of each of the *staff rates* multiplied by the total staff time appropriate to that rate properly spent on work in this contract. (Clause 11.2(13))

Tendering *consultants* are advised to consult the NEC3 Professional Services Contract (June 2005) Guidance Notes and Flow Charts page 28 before entering *staff rates* into Contract Data, or in C2.2 below.

This is because *staff rates* can be established in one of three ways:

- rates for named staff,
- rates for categories of staff or
- rates related to salaries paid to staff.

Rate adjustment for inflation, if necessary, can be based either on actual salary adjustments or by using Option X1: Price adjustment for inflation. See pages 13, 14 and 28 of the Guidance Notes.

C2.2 the *activity schedule*

Use this page as a cover page to the *Consultant's activity schedule* or include here in this format:

Item No.	Activity description	Price (excl VAT)	Quantities
Quarter 1	Routine Monitoring Cycle 15 January: Quarter 1		
	Routine surface water monitoring X 73 monitoring sites		5
	Routine ground water monitoring X 44 boreholes sites		5
	Evaluation of current state (summary)		5
	Chemical analysis Cations & Anions all sites		5
	Chemical Analysis Hydrocarbons X 10 boreholes		5
	Chemical analysis Bacteriological X 4 boreholes		5
	Domestic waste site gas monitoring X 6 gas probes		5
	Additional analysis waste site for CO2, methane X 6 gas probes		5
	Raw data report spreadsheet to be attached as Appendix to the final report		5
	Transport costs to site and from site		5
	Report writing		5
	Delivery of report X 3 copies and an Electronic Copy		5
	Include all Appendix 1 & 2 Variables testing and analysing		5
	Total		
Quarter 2	Routine monitoring cycle April 2019: Quarter 2		
	Routine surface water monitoring X 73 monitoring sites		5
	Routine ground water monitoring X 44		5

	boreholes		
	Evaluation of current state (summary)		5
	Chemical analysis Cations & Anions X all sites		5
	Chemical Analysis Hydrocarbons X10 boreholes		5
	Chemical analysis Bacteriological X 4 sites		5
	Transport costs to site and from site		5
	Raw data report spreadsheet to be attached as Appendix to the final report		5
	Transport costs to site and from site		5
	Report writing		5
	Include all Appendix 1 & 2 Variables testing and analysing		
	Total		
Quarter 3	Routine Monitoring Cycle 15 June: Quarter 3		
	Routine surface water monitoring X 73 monitoring sites		5
	Routine ground water monitoring X 44 boreholes sites		5
	Evaluation of current state (summary)		5
	Chemical analysis Cations & Anions all sites		5
	Chemical Analysis Hydrocarbons X 10 boreholes		5
	Chemical analysis Bacteriological X 4 boreholes		5
	Domestic waste site gas monitoring X 6 gas probes		5
	Additional analysis waste site for CO2, methane X 6 gas probes		5
	Raw data report spreadsheet to be attached as Appendix to the final report		5
	Transport costs to site and from site		5
	Report writing		5
	Delivery of report X 3 copies and an Electronic Copy		5
	Include all Appendix 1 & 2 Variables testing and analysing		5
	Total		

Quarter 4	Routine monitoring cycle September: Quarter 4		
	Routine surface water monitoring X 73 monitoring sites		5
	Routine ground water monitoring X 44 boreholes		5
	Evaluation of current state (summary)		5
	Chemical analysis Cations & Anions X all sites		5
	Chemical Analysis Hydrocarbons X10 boreholes		5
	Chemical analysis Bacteriological X 4 sites		5
	Raw data report spreadsheet to be attached as Appendix to the final report		5
	Transport costs to site and from site		5
	Report writing		5
	Delivery of report X 3 copies and an Electronic Copy		5
	Include all Appendix 1 & 2 Variables testing and analysing		5
Total			
Other activities/ Specialist Studies: To comply to Groundwater Governance Guideline (240-85697643) Rev 1			
Aquifer Vulnerability Study X 1		1	
Groundwater Numerical Plume Model X 1		1	
Hydrocensus X 1		1	
Incident rehabilitation study x 1 for oil		1	
Incident rehabilitation study x 1 for ash water spillage		1	
Incident rehabilitation study x 1 for sewage effluent spillage		1	
Borehole pumping		5	
Maintenance of all borehole structures and markings		5	
Total			
ALL ACTIVITIES OVERALL TOTAL			

<p>APPENDIX 1: Water Use License Amendment: Variables to be monitored in all monitoring points</p>																
<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Variables</td> </tr> <tr> <td> </td> </tr> <tr> <td>PH</td> </tr> <tr> <td>Total Dissolved Solids</td> </tr> <tr> <td>Chloride (Cl)</td> </tr> <tr> <td>Sulphate SO4</td> </tr> <tr> <td>Sodium (Na)</td> </tr> <tr> <td>Alkalinity</td> </tr> <tr> <td>Aluminum</td> </tr> <tr> <td>Calcium</td> </tr> <tr> <td>Fluoride</td> </tr> <tr> <td>Iron</td> </tr> <tr> <td>Total Phosphorus</td> </tr> <tr> <td>Manganese</td> </tr> <tr> <td>Magnesium</td> </tr> </table>	Variables		PH	Total Dissolved Solids	Chloride (Cl)	Sulphate SO4	Sodium (Na)	Alkalinity	Aluminum	Calcium	Fluoride	Iron	Total Phosphorus	Manganese	Magnesium	
Variables																
PH																
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Chloride (Cl)																
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Aluminum																
Calcium																
Fluoride																
Iron																
Total Phosphorus																
Manganese																
Magnesium																
<p>APPENDIX 2: Waste License: Variables to be monitored in all monitoring points</p>																

<u>Variables</u>
Alkalinity
Calcium
Chromium (Hexavalent)
Chromium (Total)
Chemical oxygen demand as O2
Cyanide
Lead
Nitrate (as N)
Phelonic compounds
Potassium
Total dissolved solids
Free & Saline ammonia as N
Boron
Magnesium
Cadmium
Chlorides
Mercury
PH
Sodium
Electrical Conductivity
Sulphate
Sodium
Fluoride

PART 3: SCOPE OF WORK

C3.1: Employer’s Scope

1 Description of the Services

1.1 Surface and Ground Water Monitoring

Surface and Ground water monitoring needs to be carried out in keeping monitoring of pollution and its impacts on the natural environment, inclusive of the natural water resources, as required by the National Water Act (Act 36 of 1998) and related legislation/guidelines/standards/permits and amendments in support of this Act. There are various permits for Hendrina power station from the Environmental/Chemical Services Departments. These documents will be made available to the successful consultant. The areas to be covered includes the Power generation plant, Water cooling facilities, Pullenshope township area, Sewage plant, Oil skimmer plant, Domestic waste site (the waste disposal Landfill site), Oil areas (rehabilitated) , Ash sites (Ashing area and Return water facilities), Coal stockyard, Woest-alleen spruit (east and west sections) and the rest of the Power station activities sites. All variables indicated in Appendix A and B are to analysed and reported in all Surface and Ground water monitoring reports.

1.2 Specialist Studies: Referenced from Groundwater Governance Guideline (240-85697643) Rev 1

All Specialist studies are to be completed within 12 months from the start of the contract. A Contractor is to ensure that the specialist studies are conducted as stipulated in the Ground water Governance Guideline (240-85697643) and Eskom Groundwater Governance Guideline (240-85697643).

1.2.1 Aquifer Vulnerability Assessment Guideline (GWG06)

Aquifer vulnerability assessment indicates the tendency or likelihood for contamination to reach a specified position in the groundwater system after introduction at some location above the uppermost aquifer. Stated in another way, aquifer vulnerability is a measure of the degree of insulation that the natural and manmade factors provide to keep contamination away from groundwater. Vulnerability is high if natural factors provide little protection to shield groundwater from contaminating activities at the land surface; and Vulnerability is low if natural factors provide relatively good protection and if there is little likelihood that contaminating activities will result in groundwater degradation.

A: Vulnerability Assessment Frequency

A vulnerability assessment should be done for all new operations that have waste or products stored on a temporary or permanent basis that could have potential impact on surface or groundwater quality, by leaching into or coming in contact with water. For existing operations, such as newly built coal-fired power stations, operational coal-fired power stations and dysfunctional mines, vulnerability assessment frequencies should be reviewed based on the following:

- Knowledge obtained regarding new critical receptors;
- New waste facilities built;
- Waste facilities expanded;
- Contamination observed through unidentified leakages; and
- Contamination sources newly delineated.

B: Output of the Aquifer Vulnerability Process

A report must be drawn up, complying with the following minimum requirements:

- Conceptual Site Model;
- Detailed description of the climate, precipitation and surface water runoff;
- Detailed description of the nature and composition of the aquifer characteristics;
- Detailed description of the nature and composition of the unsaturated zone;
- Evaluation of the precautionary or control measures such as waste facility design or liner design;
- Description of the aquifer vulnerability using a worst-case scenario approach describing the vulnerability to specific contaminants in the long term when continuously discharged or leached, taking in consideration the following:
 - Depth to the water table;
 - Recharge due to rainfall;
 - Aquifer media;
 - Soil media;
 - Topography;
 - Impact on vadose zone;
 - Conductivity;
 - Leaching potential;
 - Absorption;
 - Transformation of contaminants through natural attenuation; and
 - Precautionary or control measures.
- Listing of aquifer protection measures to be implemented.

1.2.2 Hydrocensus Guideline (GWG07)

A hydrocensus is essentially a site familiarisation exercise and collection of important groundwater data from the study area and surrounding environments. It comprises a census of key boreholes, springs and any other

groundwater related information. The extent (intensity and area covered) of the hydrocensus will depend upon the level of the study (national, local or site-specific) and the particular requirements of the study, but must provide wide coverage of information far enough outside Eskom's operations to allow an overview of the aquifer system(s) to be captured at the necessary level of detail.

A: Collect Field Data

A decision should already have been made on what data needs to be collected and the area over which the data is to be collected. The parameters that will be measured will vary depending on conditions prevailing at specific operations as well as the type of data needed to develop a model or for monitoring. The person conducting the hydrocensus should obtain at least the following information:

- GPS coordinates of the surface and groundwater features;
- Photo of the borehole;
- Owner details and dependence;
- Current use;
- Reported yield;
- Pump size/description and abstraction rates;
- Water tank size;
- Reported or measured borehole depth;
- Static water level;
- Field measurements of pH and conductivity;
- Collection of water samples from key selected boreholes or springs for quality analysis;
- Existing equipment;
- Possible information that can influence measurement data;
- Unsaturated zone;
- Current and future land use;
- Surface water quality should also be considered as part of the hydrocensus for use in surface water/groundwater interactions;
- Slug test (only if required);
- Identify potential contamination sources (e.g. waste dumps, mining activities, waste water treatment works, intensive rural settlement, feed lots, irrigation areas);
- Concerns raised by owners; and
- Record all data on standard hydrocensus forms (See Appendix B).

B: Output of a Hydrocensus

A report presenting the hydrocensus information is to be used as a planning and management document, with the following minimum requirements:

Tables of field data.

- GPS coordinates;
- Photo of the hydrocensus point;
- Owner details and dependence;
- Current use;
- Reported yield;
- Pump size/description and abstraction rates;
- Water tank size;
- Reported or measured borehole depth;
- Static water level;
- Field measurements of temperature, pH and conductivity;
- Collection of water samples from key selected boreholes or springs for quality analysis;
- Existing equipment such as pump description; and
- Possible information that can influence measurement data.

- Surface water quality should also be considered as part of the hydrocensus for use in surface water/groundwater interactions;
- Slug test results and interpretation;
- Identify potential contamination sources (e.g. waste dumps, mining activities, waste water treatment works, intensive rural settlement, feed lots, irrigation areas);
- List concerns raised by owners;
- Description of the groundwater levels, flow directions and discharge zones;
- Description of the unsaturated zone such depth and flow;
- Distribution of springs, seepage zones and wetlands;
- Distribution of land use (e.g. irrigation, mining, waste dumps, urban areas);
- Identification of impacts (e.g. dewatered or polluted areas);
- Description of the water quality distribution throughout the aquifer(s);
- Status quo of current groundwater situation surrounding the Eskom property; and
- Recommendations on the way forward.

1.2.3 Numerical/Analytical/Risk-based Groundwater Modelling Guideline (GWG09)

A groundwater model is a numerical representation of a groundwater flow system that attempts to mimic the natural processes in nature. It is a simplified version of a natural system, compiled with geological, hydrogeological, hydrological and meteorological data, which utilises a governing equation to incorporate all this data to simulate the hydraulic properties of the groundwater system. Models are utilised to provide a quantitative understanding of a groundwater system in terms of existing conditions as well as induced stresses, which inherently aids in the identification of cost effective and efficient solutions to groundwater contamination and management challenges at Eskom.

A: Numerical/Analytical/Risk-based Groundwater Modelling Output

Model reporting encompasses all communication of the conceptualisation, model design, construction, its performance and outputs from predictions. This is traditionally achieved through a written technical document, which is compiled as a staged or phased report. This report should at least include detail on the conceptualisation and design, the calibration of the model and the model predictions. Staged reporting of key model aspects not only makes it possible to change or remediate the direction of the project, it also allows the model team to align the expectations of the client and a stakeholder with what is achievable within the project. It also allows the overall report to be prepared progressively throughout the study, with opportunities for progressive reviews, which should benefit the quality of the final report.

All steps and assumptions should be clearly and thoroughly detailed in each report to render the information accessible to all stakeholders and any other interested parties. The structure of these guidelines can be used as a template for reporting many modelling projects. Some of the important aspects that need to be addressed in a model report include:

- Model objectives;
- Conceptual Site Model;
- Model code, design and construction;
- Status quo of the groundwater flow and quality prior to impact prediction;
- Model calibration and sensitivity analysis;
- Uncertainty analysis;
- Predictive modelling identifying potential impacts during the operations as well after closure of the operation;
- The influence of mitigation measures on potential impacts to assist Eskom in managing risk;
- Highlighting of risk areas where receptors may be impacted and when;
- Gap analysis;
- Model assumptions, capabilities and limitations;
- Conclusions and recommendations; and
- Review report.

1.2.4 Incident/s Environmental Rehabilitation Studies

The environmental rehabilitation study per incident will be determined by the magnitude of the incident and the need for the rehabilitation or by directive/s. During a serious incident that probe the study, the contractor will need to respond within 24 hours for collection of data needed. This is not a planned incident, therefore the study will only be performed as per 'as and when required basis.

1.2.5 Borehole pumping

Contractor will undertake borehole pumping on bi-annual basis.

2. Reporting:

2.1 Surface and Ground Water Monitoring

The *Contractor* compiles and presents a draft report to the Station Environmental /Chemical Services personnel two weeks after every sampling or monitoring or assessment that will include the following:

- i. Introduction including purpose and scope of the report
- ii. The data sets used (locations, periods, time graphs, line graphs and data tables etc)
- iii. Quality Assurance and Controls
- iv. Ground and surface water quality
- v. Groundwater levels and contours
- vi. Evaluation of the Current state of the monitoring system (including a comparison with relevant Resource Quality objectives described in the water use licence, background, drinking water quality standards.
- vii. Spatial and temporal trends
- viii. Identification of issues of access, borehole and marker posts maintenance which will include photos which are required during each monitoring event. The identified maintenance shall be repaired during the next monitoring phase by the service provider.
- ix. Recommendations derived from the findings including non compliances, the recommendations should include feasible proposed rehabilitation measures.
- x.
- xi. All chemical analyses results for physical and inorganic constituents in the format specified by the Employer. The data should at a minimum contain the date, time, location and analysis method for each sample. The contractor shall indicate which parameters where measured in field or in a laboratory. Each report shall contain the laboratory certificate of analyses. All data shall be clear, concise and legible.
- xii. Water level fluctuaitons
- xiii. Min/Max, average and current plots (MMAC)
- xiv. A map indicating sampled areas and an indication of compliance for each monitoring point
- xv. Impact and risk assessment
- xvi. Recommendations and a conclusion
- xvii.

This report is to be finalized after a month period of the station reviews, which will present the station comments. The *Contractor* shall providethe station with an electronic copy and three (3) hard copies of the report after each monitoring phase or completion of a specialist study

In addition to the requirements for the quarterly report, the final annual report shall include:

- Prediction of future environmental impacts (both positive and negative)
- A complete risk analysis assessment on areas identified as areas with high levels of contamination.

Water Quality Data Base Management

The contractor shall udate and maintain a database for existing and future data to be collected for the duration of the contract. The updated database shall be submitted to the Employer after each monitoring phase in a format specified by the Employer. All data generated for the duration of the contract shall remain the intellectual property o the Employer.

2.2 Specialist Studies (Aquifer Vulnerability Study; Groundwater Numerical Plume Model and Hydrocensus and Rehabilitation Studies)

The reports requirements are explained in section 1.2 above. This report is to be finalized after a month period of the station's draft report reviews, which will present the station comments. The Contractor is to provide the station with electronic reports and three (3) numbers of final copies of the report per specialist study conducted.

3 Constraints on how the Consultant Provides the Services.

3.1 Management meetings

Regular meetings of a general nature may be convened and chaired by the Employer's Agent as follows: Present the findings and risks before the report is issued quarterly and annual meeting for annual report.

Adhoc Meeting/s of a specialist nature/ incidences may be convened by persons and at times and locations to suit the Parties, the nature and the progress of the services.

Records of all meetings shall be submitted to the *Employer's Agent*

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting.

3.2 Consultant's key persons

The *Consultant* submits the names, relevant qualifications and experience of the proposed persons to the *Employer* for acceptance.

3.3 Provision of bonds and guarantees

N/A

3.4 Documentation control and retention

3.4.1 Identification and communication

At the site kick off meeting to be held, the documentation identifies with an alpha numeric which indicates source, recipient, and communication number. All contractual communications are 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 communications are between the *Project manager* and the *Consultant* only, any agreements between the *Consultant* and any other person representing the *Employer* which is not routed via the *Project Manager* are null and void.

Any instructions written or verbal resulting in any changes to the duration, quality, cost of the project receives from the *Project Manager*.

3.4.2 Retention of documents

The *Project Manager* issues certificates to the *Employer* and the *Consultant*. The Supervisor issues certificates to the *Project Manager* and the *Consultant*. Drawings, specifications, reports and other documents which record the services are kept for an agreed period of five years.

3.5 Records and forecasting of expenses

The *Consultant* prepares forecasts of the total expenses for the services at intervals no longer than two weeks.

3.6 Records and forecasting of the Time Charge

Not applicable in this contract.

3.7 Invoicing and payment

Within one week of receiving a payment certificate from the *Service manager*, the *Consultant* provides the *Employer* with a tax invoice showing the amount due for payment equal to that stated in the Service manager's payment certificate.

- 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;
- (add other as required)

3.8 Contract change management
N/A

3.9 Inclusions in the programme

The *Consultant* submits a bar-chart indicating start date , milestones, critical path and completion date in the line with given time to implement the project for acceptance by the *Project Manager* prior to commencing with the work. The program is revised at intervals no longer than three weeks. The *Consultant* supplies, installs, maintains and removes all temporary construction facilities and utilities necessary to provide the works. Format of programme is MS Project.

3.10 Quality management

3.10.1 System requirements

The *Consultant* operates a quality management system for providing the services to meet the SANS which accompany an installation of this sort. All the works must adhere to HSPPA/006 with the constant involvement of the quality controller and the adherence to the quality control plan.

CONTROL POINTS

H: Hold
V: Verify
W: Witness

LEGEND

Vis: Visual
Doc: Documentation
Acc: Acceptance

Cont: Contractor
QC: Quality Controller
SE: System Engineer

ITEM	DESCRIPTION	CONTROL ACTIVITIES
1	Do the report calculations to comply with the respective standards? (H)	Vis; Doc; Acc SE + QC + Cont
2	Does the report meet maintenance and operating requirements? (H)	SE + QC + Cont
3	Are the drawings in the specified format? (V)	SE + QC + Cont
4	Does the report meet the URS? (H)	SE + QC + Cont
5	Is the EIA scope acceptable to the authorities? (H)	SE + QC + Cont
6	Does the EIA scope include the studies required? (H)	SE + QC + Cont

3.10.2 Information in the quality plan

The *Consultant* complies with the *Employer's* Quality Requirements as specified in Eskom Generation Standard (GGS 0462) and the Hendrina Quality procedure (HSPPA/006). The *Consultant* also supplies his own quality document for the report.

3.11 The Parties use of material provided by the *Consultant*

3.11.1 Employer's purpose for the material

The *Employer* has the right to use the material provided by the *Consultant* for the purpose stated in the Scope. The *Consultant* obtains from a Sub-consultant equivalent rights for the *Employer* to use material prepare by the Sub-consultant.

3.11.2 Restrictions on the *Consultant's* use of the material for other work

The *Consultant* is not allowed to use material for other work unless the *Employer* agrees to.

3.11.3 Transfer of rights if Option X 9 applies

The *Employer* owns the *Consultant's* right over reports and materials

3.12 Management of work done by Task Order

Each work done is assessed according to the Task Order after completion.

3.13 Health and safety

The Medical Centre is used by all people on site for injuries and first aid related issues. The fire department is also available for fire and other related emergencies. Their respective contact details to be provided during induction. The *Consultant* must have his own medical facilities available and appointed safety supervisor. The *Consultant* uses Employer's medical centre during bad injuries. The *Consultant* must all times comply with the health and safety requirements prescribed by law as they may apply to the services.

3.14 Procurement

3.14.1 BBBEE and referencing scheme

Refer to Z3 clause

3.14.2 Other constraints

Weather conditions -can't carry out the work

3.14.3 Preferred subconsultants

N/A

3.14.4 Subcontract documentation, and assessment of subcontract tenders

N/A

3.14.5 Limitations on subcontracting

N/A

3.14.6 Attendance on Sub-consultants

The main *Consultant* is responsible for attendance.

3.15 Correction of Defects

The correction of defects is an agreed 52 weeks after Completion of the whole of the services.

3.16 Working on the Employer's property

Cardinal Rules-1.Open, isolate, test, earth, bond and /insulate before touch.2.Hook up at height. 3. Buckle up. 4. Be sober. 5. Ensure you have a permit to work.6.Wear the correct PPE at all Times.7.Report all injuries on the same day-no exceptions. 8. Use hands –free cell phone kits during driving and keep to the 40kpm speed limit on site.

In addition to the above there are other restrictions once on the Site, plus rules relating to roads, walkways and the provision of barricades. Gate Permits/Vehicle Permits
All are covered by the Induction Process.

3.16.1 Employer's entry and security control, permits, and site regulations

Compulsory induction is required before gaining access to Hendrina Power Station. Adherence to Lifesaving rules by security gate and other requirements are explained during the induction after contract is awarded.

3.16.2 People restrictions, hours of work, conduct and records

Restrictions and hours of work may be applied on some sites. The *Consultant* keeps records of his people on Site, including those of his Subcontractors which the *Project Manager* or Supervisor have access to at any time. These records are needed when assessing compensation events

3.17 Cooperating with and obtaining acceptance of Others

The *Consultant* co-operates with Others in obtaining and providing information which they need in connection with the works. He co-operates with Others and shares the Working Areas with them as stated in the Works Information.

3.18 Things provided by the Employer

The *Employer* does the induction training for the *Contractor*. The *Employer* gives the *Contractor* access to the working areas required for the execution of the works. The Employer supplies, free of charge, reasonable quantities of potable water required for the purposes of this contract from the

existing points.

4 List of drawings

1.2 **Drawings issued by the Employer**
N/A

5 Appendices
N/A

Site Information

Hendrina Power Station is allocated approximately 45km from Middleburg along the N11 road.

1. Safety and Health

1.1 Accommodation and catering are the responsibility of the *Consultant*.

2. Security access

2.1 Site access procedure HSPHO/20 to be adhering to all times.