

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION**NEC3 Supply Contract (SC3)**

Between ESKOM HOLDINGS SOC Ltd
(Reg No. 2002/015527/30)

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

for SUPPLY AND DELIVERY OF VALVES FOR A
PERIOD OF THREE (03) YEARS ON AS AND WHEN
REQUIRED BASIS AT MATLA POWER STATION

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

CONTRACT No. [Insert at award stage]

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION**PART C1: AGREEMENTS & CONTRACT DATA**

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

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

C1.1 Form of Offer & Acceptance

Offer

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

Supply, Delivery and refurbishment of valves for a period of three (03) years contract on as and when required basis for Matla Power Station.

The tenderer, identified in the Offer signature block, has

<i>either</i>	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.
<i>or</i>	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 *Supplier* 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 amount due inclusive of VAT is ¹	R [●]
	(in words) [●]	

This Offer may be accepted by the Purchaser 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 *Supplier* 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

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

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

Acceptance

By signing this part of this Form of Offer and Acceptance, the Purchaser identified below accepts the tenderer's Offer. In consideration thereof, the Purchaser shall pay the Supplier 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 Purchaser 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: Goods Information including Supply Requirements

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 Purchaser 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 Purchaser'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
Purchaser**

**Eskom Holdings SOC Ltd, Megawatt Park, Maxwell Drive, Sandton, Johannesburg,
2199**

(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.

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

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

Note:

1. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the Purchaser 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 Purchaser 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 Purchaser 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 Purchaser

Signature

Name

Capacity

On behalf
of

(Insert name and address of organisation)

**Eskom Holdings SOC Ltd, Megawatt
Park, Maxwell Drive, Sandton,
Johannesburg, 2199**

Name &
signature
of witness

Date

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

C1.2 SC3 Contract Data

Part one - Data provided by the *Purchaser*

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

1. Please read the relevant clauses in the conditions of contract before you enter data. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data.
2. Some SC3 options are always selected by Eskom Holdings SOC Ltd. The remaining SC3 options are identified by shading in the left hand column. In the event that the option is not required select and delete the whole row. Where the following symbol is used "[•]" - data is required to be inserted relevant to the specific option selected.]

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

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for Options	W1: Dispute resolution procedure X1: Price adjustment for inflation X2: Changes in the law X7: Delay damages X17: Low performance damages Z: Additional conditions of contract
	of the NEC3 Supply Contract (April 2013) ²	(If the December 2009 edition is to be used delete April 2013 and replace by December 2013)
10.1	The <i>Purchaser</i> 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.	[•]
10.1	The <i>Supply Manager</i> is (name):	Kholofelo Sithole
	Address	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
	Tel	+27 14 736 9477

² Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 539 1902, www.ecs.co.za.

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

e-mail		sitholkj@eskom.co.za	
11.2(13)	The <i>goods</i> are	valves	
11.2(13)	The <i>services</i> are	Supply, Delivery and Refurbishment of valves for a period of three (03) years contract on as and when required basis for Matla Power Station	
11.2(14)	The following matters will be included in the Risk Register	Unforeseen circumstances Lead time	
11.2(15)	The Goods Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.	
11.2(15)	The Supply Requirements as part of the Goods Information is in	Annexure A to this Contract Data	
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa	
13.1	The <i>language of this contract</i> is	English	
13.3	The <i>period for reply</i> is	Two weeks	
2	The <i>Supplier's</i> main responsibilities	Data required by this section of the core clauses is provided by the <i>Supplier</i> in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.	
3	Time		
30.1	The <i>starting date</i> is.	TBC	
30.1	The <i>delivery date</i> of the <i>goods</i> and <i>services</i> is:	<i>goods and services</i>	<i>delivery date</i>
		1 Supply, Delivery and Refurbishment of valves for a period of three (03) years contract on as and when required basis for Matla Power Station	As per purchase order
30.2	The <i>Supplier</i> does not bring the <i>goods</i> to the Delivery Place more than one week before the Delivery Date.	[no data required]	
31.1	The <i>Supplier</i> is to submit a first programme for acceptance within	[•] weeks of the Contract Date.	
32.2	The <i>Supplier</i> submits revised programmes at intervals no longer than	[•] weeks.	
4	Testing and defects		
42	The <i>defects date</i> is	52 weeks after Delivery or where delivery is delayed, then from date of delivery of the Supplier's notice of readiness to deliver, whichever occurs first."	

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

43.2	The <i>defect correction period</i> is	“from date of receipt by the Supplier of the Purchaser’s written notification of Defect, the written notification itself being delivered no later than 7 (seven) days from the date upon which the Purchaser discovers the Defect. Supplier shall either correct the Defect within such period or where the notified Defect is not capable of correction within such period, then the Supplier shall put a plan in place indicating how the Defect will be corrected.
	except that the <i>defect correction period</i> for	The Defects provisions shall not apply to, and the Supplier shall not be liable in respect of:
	and the <i>defect correction period</i> for	[•] is [•] weeks
42.2	The <i>defects access period</i> is	“Should the Purchaser fail to notify Supplier in writing of any Defects before the Defects Date it shall be deemed that all Defects have been corrected and that no further Defects exist.”
	except that the <i>defect access period</i> for	[•] is [•]
	and the <i>defect access period</i> for	If the Supplier is not given access in order to correct a notified Defect before the defects date, then it shall be deemed that no Defect exist and Supplier shall have no further liability in respect of such Defect. Purchaser may elect to instruct a third party to correct the Defect after the defects date, but shall not be entitled to claim any costs or compensation from Supplier. Supplier shall not be liable in any way in respect of any work carried out by third parties. The Goods Information shall be treated as having been changed to accept the Defect.
5	Payment	
50.1	The <i>assessment interval</i> is	25 days after Quality Control the payment will be processed
51.1	The <i>currency of this contract</i> is the	South African Rand
51.2	The period within which payments are made is	60 days.
51.4	The <i>interest rate</i> is	the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and (ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption “Money Rates” in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

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	Title	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
8	Risks, liabilities, indemnities and insurance	
80.1	These are additional <i>Purchaser's</i> risks	1. Termination of contract by supplier 2. [•] 3. [•]
88.1	The <i>Supplier's</i> liability to the <i>Purchaser</i> for indirect or consequential loss, including loss of profit, revenue and goodwill is limited to	R0.0 (zero Rand)
88.2	For any one event, the <i>Supplier's</i> liability to the <i>Purchaser</i> for loss of or damage to the <i>Purchaser's</i> property is limited to	(1) for the <i>Purchaser's</i> existing and surrounding property in the care, custody and control of the <i>Supplier</i> the amount of the deductible (first amount payable) relevant to the event and (2) for all other existing <i>Purchaser's</i> property the applicable deductible as at contract date
88.3	The <i>Supplier's</i> liability for Defects due to his design which are not notified before the last <i>defects date</i> is limited to:	R[•] [This is a commercial decision, but consider using the total of the Prices. Delete this note after inserting a Rand amount]
88.4	The <i>Supplier's</i> total liability to the <i>Purchaser</i> , for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	R[•] [This is a commercial decision, but consider using at least the total of the Prices. Delete this note after inserting the Rand amount]

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

88.5 The *end of liability date* is [•] years after Delivery of the whole of the goods and services.

9 Termination and dispute resolution

94.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	e-mail	[•]
94.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA, a Division of the South African Institution of Civil Engineering, or its successor body (See www.ice-sa.org.za)
94.4(2)	The <i>tribunal</i> is:	arbitration
94.4(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.
94.4(5)	The place where arbitration is to be held is	[•] South Africa
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or	the Chairman for the time being or his nominee
	- if the arbitration procedure does not state who selects an arbitrator, is	of the Association of Arbitrators (Southern Africa) or its successor body.

10 Data for Option clauses

X1	Price adjustment for inflation		
X1.1	The <i>base date</i> for indices is	[•].	
	The proportions used to calculate the Price Adjustment Factor are:		
	Description	Weight	Tables

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

	Base date for escalation will be the Month prior to Tender closing date regardless of when the contract will be awarded.			
	Base index Month one month prior to the Tender closing date regardless of when the contract will be awarded			
X2	Changes in the law			
X2.1	A change in the law of	[•] is a compensation event if it occurs after the Contract Date		
X3	Multiple currencies	N/A		
X3.1	The Purchaser will pay for these items in the currencies stated	Items	Other currency	Total maximum payment in the currency
		[•]		
		[•]		
		[•]		
X3.1	The exchange rates are those published in	[•] on [•] (date)		
		The items will be paid in the other currency - to a foreign Bank account nominated by the Supplier - to a valid SARB approved CFC account in South Africa - in accordance with an alternative payment method agreed with the Purchaser before the Contract Date.		
		(select one of the three methods as agreed with the successful tenderer prior to contract award and delete the others and this note)		
X4	Parent company guarantee	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.		
X7	Delay damages			
X7.1	Delay damages for Delivery are	Delivery of Late delivery of goods	amount per day R500.00 per day for delay in delivery of the order as per delivery date specified upfront.	
		Should delay damages be applied, the supplier is to invoice for the full task order amount, and provide a credit note for the		

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

		amount of delay damages.	
X12	Partnering		
X12.1(1)	The <i>Client</i> is (Name):	[•]	
	Address	[•]	
	Contact details	[•]	
	Telephone:	[•]	
	Fax	[•]	
	e-mail	[•]	
X12.1(4)	The Partnering Information is in	Part 3 Scope of Work, section C3.[•]	
X12.2(1)	The <i>Client's objective</i> is:	[•]	
X13	Performance bond		
X13.1	The amount of the performance bond is	R [•]	
X14	Advanced payment to the <i>Supplier</i>		
X14.1	The amount of the advanced payment is	R[•].	
X14.2	An advanced payment bond	is /is not required.	
X14.3	The <i>Supplier</i> repays the instalments in assessments starting not less than	[•] weeks after the Contract Date.	
X14.3	The instalments are	R[•] (either an amount or a percentage of the payment otherwise due)	
X17	Low performance damages		
X17.1	The amounts for low performance damages are:	amount	performance level
		R [•]	for [•]
		R [•]	for [•]
		R [•]	for [•]
		R [•]	for [•]
X20	Key Performance Indicators (not used when Option X12 applies)		
X20.1	The <i>incentive schedule</i> for Key Performance Indicators is in	Annexure [•] to this Contract Data	
X20.2	A report of performance against each Key Performance Indicator is provided at intervals of	[•] months	
Z	The <i>additional conditions of contract</i> are	Z1 to Z15 always apply for Eskom	

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION**Z1 Cession delegation and assignment**

- Z1.1 The *Supplier* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Purchaser*.
- Z1.2 Notwithstanding the above, the *Purchaser* may on written notice to the *Supplier* cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.

Z2 Joint ventures

- Z2.1 If the *Supplier* 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 *Purchaser* for the performance of this contract.
- Z2.2 Unless already notified to the *Purchaser*, the persons or organisations notify the *Supply Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Supplier* on their behalf.
- Z2.3 The *Supplier* does not alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the *Purchaser* having been given to the *Supplier* in writing.

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

- Z3.1 Where a change in the *Supplier's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Supplier's* B-BBEE status, the *Supplier* notifies the *Purchaser* within seven days of the change.
- Z3.2 The *Supplier* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Supply Manager* within thirty days of the notification or as otherwise instructed by the *Supply Manager*.
- Z3.3 Where, as a result, the *Supplier's* B-BBEE status has decreased since the Contract Date the *Purchaser* may either re-negotiate this contract or alternatively, terminate the *Supplier's* obligation to Provide the Goods and Services.
- Z3.4 Failure by the *Supplier* to notify the *Purchaser* of a change in its B-BBEE status may constitute a reason for termination. If the *Purchaser* terminates in terms of this clause, the procedures on termination are P1, P2 and P3 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Confidentiality

- Z4.1 The *Supplier* 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 *Supplier*, enters the public domain or to information which was already in the possession of the *Supplier* at the time of disclosure (evidenced by written records in existence at that time). Should the *Supplier* disclose information to Others in terms of clause 23.1, the *Supplier* ensures that the provisions of this clause are complied with by the recipient.

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

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

Z4.3 In the event that the *Supplier* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Supplier*, to the extent permitted by law prior to disclosure, notifies the *Purchaser* 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 *Supplier* 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 *goods* or any portion thereof, in the course of Providing the Goods and Services and after Delivery, requires the prior written consent of the *Supply Manager*. All rights in and to all such images vests exclusively in the *Purchaser*.

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

Z5 Waiver and estoppel: Add to core clause 12.3:

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

Z6 Health, safety and the environment: Add to core clause 25.4

Z6.1 The *Supplier* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the provision of the *goods* and execution of the *services*.

Without limitation the *Supplier*:

- warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of supply and
- undertakes, in and about the execution of the supply, to comply with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Supplier's* direction and control, likewise observe and comply with the foregoing.

Z6.2 The *Supplier*, in and about the execution of the supply, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Supplier's* direction and control, likewise observe and comply with the foregoing.

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

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

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

Z7.2 If the *Supplier* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Purchaser* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Purchaser* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.

Z7.3 The *Supplier* (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 *Purchaser'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 the words, "unless the event arises from the *Supply Manager* giving an instruction, changing an earlier decision or correcting an assumption".

Z9 Purchaser's limitation of liability

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

Z9.2 The *Supplier's* entitlement under the indemnity in 83.1 is provided for in 60.1(12) and the *Purchaser's* liability under the indemnity is limited.

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

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

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

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

Z12 Ethics

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

Affected Party means, as the context requires, any party, irrespective of whether it is the *Supplier* or a third party, such party's employees, agents, or Subcontractors or Subcontractor's employees, or any one or more of all of these parties' relatives or friends,

Coercive Action means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,

Collusive Action means where two or more parties co-operate to achieve an unlawful or illegal purpose, including to influence an Affected Party to act unlawfully or illegally,

Committing Party means, as the context requires, the *Supplier*, or any member thereof in the case of a joint venture, or its employees, agents, or Subcontractors or the Subcontractor's employees,

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

Corrupt Action means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,

Fraudulent Action means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,

Obstructive Action means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and

Prohibited Action means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action.

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

Z12.2 The *Purchaser* may terminate the *Supplier's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Supplier* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Purchaser* 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 *Purchaser* can terminate the *Supplier's* obligation to Provide the Services for this reason.

Z12.3 If the *Purchaser* terminates the *Supplier's* obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.

Z12.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Purchaser* does not have a contractual bond with the Committing Party, the *Supplier* ensures that the Committing Party co-operates fully with an investigation.

Z13Insurance

Z 13.1 Replace core clause 84 with the following:

Insurance cover 84

84.1 When requested by a Party, the other Party provides certificates from his insurer or broker stating that the insurances required by this contract are in force.

84.2 The *Supplier* provides the insurances stated in the Insurance Table A for events which are at the *Supplier's* risk from the *starting date* until the last *defects date* or a termination certificate has been issued.

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity
Loss of or damage to the <i>goods</i> , plant and materials	The replacement cost where not covered by the <i>Purchaser's</i> insurance. The <i>Purchaser's</i> policy deductible as at Contract Date, where covered by the <i>Purchaser's</i> insurance.
Liability for loss of or damage to property (except the <i>goods</i> , plant and materials and equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Supplier</i>) caused by activity in connection with this contract	<u>Loss of or damage to property</u> <u>Purchaser's property</u> The replacement cost where not covered by the <i>Purchaser's</i> insurance. The <i>Purchaser's</i> policy deductible as at Contract Date, where covered by the <i>Purchaser's</i> insurance. <u>Other property</u> The replacement cost <u>Death of or bodily injury</u> The amount required by the applicable law.
Liability for death of or bodily injury to employees of the <i>Supplier</i> arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law

Z 13.2 Replace core clause 87 with the following:

**Insurance by
the *Purchaser***

87

87.1 The *Purchaser* provides the insurances stated in the Insurance Table B

INSURANCE TABLE B

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

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

Z14 Nuclear Liability

- Z14.1 The *Purchaser* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.
- Z14.2 The *Purchaser* is solely responsible for and indemnifies the *Supplier* or any other person against any and all liabilities which the *Supplier* 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 *Supplier* or any other person or the presence of the *Supplier* or that person or any property of the *Supplier* or such person at or in the KNPS or on the KNPS site, without the permission of the *Purchaser* or of a person acting on behalf of the *Purchaser*.
- Z14.3 Subject to clause Z14.4 below, the *Purchaser* 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 *Supplier* or any other person, or the presence of the *Supplier* or that person or any property of the *Supplier* or such person at or in the KNPS or on the KNPS site, without the permission of the *Purchaser* or of a person acting on behalf of the *Purchaser*.
- Z14.4 The *Purchaser* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.
- Z14.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z15 Asbestos

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

AAIA	means approved asbestos inspection authority.
ACM	means asbestos containing materials.
AL	means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
Ambient Air	means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
Compliance Monitoring	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

Standard	means the <i>Purchaser's</i> Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.
SANAS	means the South African National Accreditation System.
TWA	means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

- Z15.1 The *Purchaser* ensures that the Ambient Air in the area where the *Supplier* 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.
- Z15.2 Upon written request by the *Supplier*, the *Purchaser* 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 *Supplier* may perform Parallel Measurements and related control measures at the *Supplier'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 Z15.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
- Z15.3 The *Purchaser* manages asbestos and ACM according to the Standard.
- Z15.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.
- Z15.5 The *Supplier'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.
- Z15.6 The *Supplier* 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.
- Z15.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Purchaser* at the *Purchaser's* expense, and conducted in line with South African legislation.

Annexure A: Supply Requirements

[Notes: The example given in the NEC3 Supply Contract Guidance Notes pages 15 to 20 inclusive is based on Incoterms 2000. However users will probably wish to use Incoterms 2010 which the details below are based on. Users may need to adjust the information to comply with actual requirements. First decide whether Incoterms will be used or not, then delete the arrangement below which does not apply and delete these notes]

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

The Supply Requirements for this contract are based on the use of INCOTERMS:

The *Supplier* supplies the *goods* in accordance with INCOTERMS 2010³ as follows:

[Select the group and then term within the group which applies and state the applicable delivery place. Delete all the other groups and this note]

Group	Category	Term	Delivery Place
E	departure	EXW	
F	main carriage unpaid	FCA, FAS, FOB	
C	main carriage paid	CFR, CIF, CPT, CIP	
D	arrival	DAT, DAP, DDP	

The Parties obligations described in Incoterms for the category and term selected are now incorporated into this contract as part of the Supply Requirements and hence the Goods Information.

The obligations of seller and buyer for the selected Incoterm determine each Party's costs, risks and insurance requirements incidental to the supply and transport of the *goods* from *Supplier* to *Purchaser*.

For each of the thirteen terms, Incoterms set out obligations of the seller (the *Supplier*) in ten paragraphs identified as A1 to A10 and the corresponding obligations of the buyer (the *Purchaser*) in paragraphs B1 to B10. These obligations cover the following subjects:

A	The <i>Supplier's</i> obligations	B	The <i>Purchaser's</i> obligations
A1	Provision of goods in conformity with contract	B1	Payment of the price
A2	Licences, authorisations and formalities	B2	Licences, authorisations and formalities
A3	Contracts of carriage and insurance	B3	Contracts of carriage and insurance
A4	Delivery	B4	Taking delivery
A5	Transfer of risks	B5	Transfer of risks
A6	Division of costs	B6	Division of costs
A7	Notice to the buyer	B7	Notice to the seller
A8	Proof of delivery, transport document or equivalent electronic message	B8	Proof of delivery, transport document or equivalent electronic message
A9	Checking - packing - marking	B9	Inspection of goods
A10	Other obligations	B10	Other obligations

[Should there be a need to amplify any of the published obligations listed above for the chosen INCOTERM, add them here.]

All other information NOT pertinent to the above is given in the balance of the Goods Information

³ International Chamber of Commerce, Incoterms 2010, Paris, January 2011

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

The Supply Requirements for this contract are as follows:

[Use these when INCOTERMS do not apply].

1. The requirements for the supply are	[State the constraints on how the <i>Supplier</i> manufactures, prototypes, tests and stores the <i>goods</i> including order and timing]	
2. The requirements for transport are	[State the extent to which the <i>Supplier</i> transports the <i>goods</i> and the mode of transport]	
3. The delivery place is	[State the location where the <i>goods</i> are to be placed by the <i>Supplier</i> , such as whether it is a dispatch department at the <i>Supplier's</i> premises, the <i>Purchaser</i> is to collect or other location the <i>Purchaser</i> may require. If the delivery place for the <i>services</i> is different to the <i>goods</i> state it here]	
4. Actions of the Parties during supply	Action	Party which does it
	Giving notice of Delivery	
	Checking packing and marking before dispatch	
	Contracting for transport	
	Pay costs of transport	
	Arrange access to delivery place	
	Loading the <i>goods</i>	
	Unloading the <i>goods</i>	
For international procurement	Undertake export requirements	
	Undertake import requirements	
5. Information to be provided by the <i>Supplier</i>	Title of document	
	Packing lists for cases and their contents	
	Copy of invoice for the <i>goods</i>	
	Delivery Note	
	Test results and maintenance manuals	
For international procurement	Licences, authorisations and other formalities associated with export of the <i>goods</i>	
	Air Waybill or Bill of Lading with associated landing, delivery and forwarding order	
	The Bill of Entry endorsed by the importation authority	
	Customs work sheets, showing tax, duties and surcharges which the law of the country into which the <i>goods</i> are being imported requires the importer to pay	
	Invoice from the importation clearing agent showing airline fees, landing charges, wharfage and dock dues as applicable	
	Specify other import documents required by authorised officials.	

All other information NOT pertinent to the above is given in the balance of the Goods Information

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

C1.2 Contract Data

Part two - Data provided by the *Supplier*

[Instructions to the contract compiler: (delete this note before issue to tenderers with an enquiry)

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. In the event that the option is not required select and delete the whole row.]

Notes to a tendering supplier:

1. Please read both the NEC3 Supply Contract (SC3)⁴ and the relevant parts of its Guidance Notes (SC3-GN)⁵ in order to understand the implications of this Data which the tenderer is required to complete.
2. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data
3. Where a form field like this [] appears, data is required to be inserted relevant to the option selected. Click on the form field **once** and type in the data. Otherwise complete by hand and in ink.

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

Completion of the data within, according to options enclosed, is essential to create a complete contract.														
Clause	Statement	Data												
10.1	The <i>Supplier</i> is (Name): Address Tel No. Fax No.													
11.2(8)	The Goods Information for the <i>Supplier's</i> design is in:													
11.2(11)	The tendered total of the Prices is	R , (in words)												
11.2(12)	The <i>price schedule</i> is in:													
11.2(14)	The following matters will be included in the Risk Register													
25.2	The restrictions to access for the <i>Supply Manager</i> and Others to work being done for this contract are													
30.1	The <i>delivery date</i> of the <i>goods</i> and <i>services</i> is:	<table><thead><tr><th></th><th><i>goods and services</i></th><th><i>delivery date</i></th></tr></thead><tbody><tr><td>1</td><td>[•]</td><td>[•]</td></tr><tr><td>2</td><td>[•]</td><td>[•]</td></tr><tr><td>3</td><td>[•]</td><td>[•]</td></tr></tbody></table>		<i>goods and services</i>	<i>delivery date</i>	1	[•]	[•]	2	[•]	[•]	3	[•]	[•]
	<i>goods and services</i>	<i>delivery date</i>												
1	[•]	[•]												
2	[•]	[•]												
3	[•]	[•]												
31.1	The programme identified in the Contract Data is contained in:													
63.2	The <i>percentage for overheads and profit</i> added to the Defined Cost is	%												

⁴ Either April 2013 or December 2009 Edition as stated by *Purchaser* in Contract Data part 1.

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

**SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE
(03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION****PART 2: PRICING DATA**

Document reference	Title	No of pages
C2.1	Pricing assumptions	2
C2.2	The <i>price schedule</i>	[•]

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

C2.1 Pricing assumptions

How *goods* and *services* are priced and assessed for payment

Clause 11 in NEC3 Supply Contract, (SC3) core clauses states:

Identified and defined terms	11	
	11.2	(11) The Prices are the amounts stated in the price column of the Price Schedule. Where a quantity is stated for an item in the Price Schedule, the Price is calculated by multiplying the quantity by the rate.
		(12) The Price Schedule is the <i>price schedule</i> unless later changed in accordance with this contract.
Assessing the amount due	50.2	The amount due is
		- the Price for each lump sum item in the Price Schedule which the <i>Supplier</i> has completed, - where a quantity is stated for an item in the Price Schedule, an amount calculated by multiplying the quantity which the <i>Supplier</i> has completed by the rate, - plus other amounts to be paid to the <i>Supplier</i>, - less amounts to be paid by or retained from the <i>Supplier</i>.
		Any tax which the law requires the <i>Purchaser</i> to pay to the <i>Supplier</i> is included in the amount due.

This confirms that the Supply Contract is a priced contract where the Prices are derived from a list of items of *goods* and *services* which can be priced as lump sums or as expected quantities of *goods* and *services* multiplied by a rate, or a mix of both.

Function of the Price Schedule

Clause 53.1 states: "Information in the Price Schedule is not Goods Information". This confirms that instructions to do work or how it is to be done are not included in the Price Schedule but in the Goods Information. This is further confirmed by Clause 20.1 which states, "The *Supplier* Provides the Goods and Services in accordance with the Goods Information". Hence the *Supplier* does **not** Provide the Goods and Services in accordance with the Price Schedule. The Price Schedule is only a pricing document.

Preparing the *price schedule*

Items in the *price schedule* may have been inserted by the *Purchaser* and the tendering supplier should insert any additional items which he considers necessary. Whichever party provides the items in the *price schedule* the total of the Prices is assumed to be fully inclusive of everything necessary to Provide the Goods and Services as described at the time of entering into this contract.

It will be assumed that the tendering supplier has

- Read Pages 8, 11, 12 and Appendix 5 of the SC3 Guidance Notes before preparing the *price schedule*;
- Included in his Prices and rates for correction of Defects (core clause 43.1) as there is no compensation event for this unless the Defect is due to a *Supplier's* risk;
- Spread the cost of doing work he chooses not to list as separate items in the *price schedule* across other Prices and rates in order to fulfil the obligation to Provide the Goods and Services for the tendered total of the Prices;
- Understood that there is no adjustment to lump sum prices in the *price schedule* if the amount, or quantity, of work within that lump sum item later turns out to be different to that which the *Supplier* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation

SUPPLY, DELIVERY AND REFURBISHMENT OF VALVES FOR A PERIOD OF THREE (03) YEARS ON AS AND WHEN REQUIRED BASIS AT MATLA POWER STATION

event per clause 60.1;

- Understood that the *Supplier* does not have to allow in his Prices and rates for matters that may arise as a result of a compensation event.

Format of the *price schedule*

Entries in the first four columns in the *price schedule* in section C2.2 are made either by the *Purchaser* or the tendering supplier.

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

If the *Supplier* is to be paid an amount for the item which is the rate for the item multiplied by the quantity completed, the tendering *Supplier* enters the rate which is then multiplied by the Quantity to produce the Price, which is also entered.

If the *Supplier* is to be paid an amount for an item proportional to the length of time for which the *goods* and *services* are provided, a unit of time is stated in the Unit column and the length of time (as a quantity of the stated units of time) is stated in the Quantity column.

C2.2 the *price schedule*

Description	Valve Type	Valve Size	Unit	Quantity	Rate	Amount
New Valves						R -
VALVE, BALL: VALVE SIZE: 80 MM; DESIGN RATING: 6 MPA; CONNECTION: FLANGE; BODY MATERIAL: STL CAST; STYLE: 2 WAY; TRIM: SS 316; SOFTGOODS: PTFE; OPERATED: LEVER; TEMPERATURE RATING: 50 DEG C; FACE TO FACE LENGTH: 282 MM; DRILLED TO TABLE D, ANTI BLOW OUT STEM, ANTI STATIC, COMPLETE WITH LOCKING DEVICE, DLM MAKE ONLY;	Ball Valve	80NB	No.	80		
VALVE, BALL: VALVE SIZE: 150 MM; DESIGN RATING: 6 MPA; CONNECTION: FLANGE; BODY MATERIAL: STL CAST; STYLE: 2 WAY; TRIM: SS 316; SOFTGOODS: PTFE; OPERATED: LEVER; TEMPERATURE RATING: 50 DEG C; FACE TO FACE LENGTH: 403 MM; DRILLED TO TABLE D, ANTI BLOW OUT STEM, ANTI STATIC, COMPLETE WITH LOCKING DEVICE, DLM MAKE ONLY	Ball Valve	150NB	No.	80		
VALVE, BALL: VALVE SIZE: 100 MM; DESIGN RATING: 6 MPA; CONNECTION: FLANGE; BODY MATERIAL: STL CAST; STYLE: 2 WAY; TRIM: SS 316; SOFTGOODS: PTFE; OPERATED: LEVER; TEMPERATURE RATING: 50 DEG C; FACE TO FACE LENGTH: 305 MM; DRILLED TO TABLE D, ANTI BLOW OUT STEM, ANTI STATIC, COMPLETE WITH LOCKING DEVICE, DLM MAKE ONLY	Ball Valve	100NB	No.	100		
VALVE, BALL: VALVE SIZE: 50 MM; DESIGN RATING: 280 LB; CONNECTION: FLANGE; BODY MATERIAL: SS 316; GRADE: WCB; STYLE: 2PC; 2 WAY; TRIM: BALL SS 316; PLUG/STEM STL; SEAT PTFE; OPERATED: LEVER; TEMPERATURE RATING: 190LB AT 175DEG C; PORT TYPE: FULL BORE; ANSI 150 RF; TYPE M;	Ball Valve	50NB	No.	120		

VALVE, RELIEF: VALVE SIZE: 50 X 32 MM; SET PRESSURE: 7.87 BAR; TEMPERATURE RATING: -10 TO 50 DEG C; CONNECTION: THD; BODY MATERIAL: SS; TRIM: SEAT P20; SPINDLE SS; OPERATED: SPRING; GRADE: 316; DESIGN RATING: 887 KPA; PRESSURE RANGE: 5.25-12 BAR; FOR WALLACE AND TIERNAN DOSING AND METERING PUMP; PART NO: JUXA81040, SUPPLIER: UNKNOWN; PART NO: JP82995, SUPPLIER: UNKNOWN	Relief Valve	Caustic pumps	No.	50		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 350 NB; DESIGN RATING: 16 BAR; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: DISC SS; SOFTGOODS: EPDM LINED SEAT; OPERATED: HAND WHEEL; TEMPERATURE RATING: 38 DEG C; FACE TO FACE LENGTH: 80 MM; PART NO: B350WBFLYGB;	Butterfly Valve	Clarifier Blowdown	No.	40		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 350 NB; DESIGN RATING: 16 BAR; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: DISC SS; SOFTGOODS: EPDM LINED SEAT; OPERATED: PNEUMATIC; TEMPERATURE RATING: 38 DEG C; FACE TO FACE LENGTH: 80 MM; PART NO: B350WBFLYAC	Butterfly Valve	Clarifier Blowdown	No.	40		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 300 MM; DESIGN RATING: 16 BAR; CONNECTION: WAFER; BODY MATERIAL: SS; TRIM: SS DISC; SOFTGOODS: EPDM LINING; OPERATED: PNEUMATIC; TEMPERATURE RATING: 25 DEG C; FACE TO FACE LENGTH: 76.9 MM; STYLE: WAFER; SPECIAL FEATURES: SPRING LOADED ACTUATOR F/C;	Butterfly Valve	Blowdown	No.	40		
VALVE, BALL: VALVE SIZE: NB100; DESIGN RATING: 1600 KPA; CONNECTION: FLANGE; BODY MATERIAL: SS 304; AUSTENITIC; STYLE: SPLIT BODY; TRIM: SS 304; OPERATED: PNEUMATIC; TEMPERATURE RATING: 80 DEG C; SPECIFICATION: BS450516/3 STANDARD; FACE TO FACE LENGTH: 225 MM; APPLICATION: CPP RESIN INLET VALVE; TYPE: SPRING RETURN; FLOW CONTROL; PART NO: 150UTB	Ball Valve	CPP Resin Inlet	No.	120		

VALVE, BALL: VALVE SIZE: NB 80; DESIGN RATING: 1600 KPA; CONNECTION: FLANGE; BODY MATERIAL: SS 304; AUSTENITIC; STYLE: SPLIT BODY; TRIM: SS 304; OPERATED: PNEUMATIC; TEMPERATURE RATING: 80 DEG C; SPECIFICATION: BS450516/3 STANDARD; FACE TO FACE LENGTH: 200 MM; APPLICATION: CPP RESIN INLET VALVE; TYPE: SPRING RETURN; RESIN FLOW CONTROL; PART NO: 150UTB;	Ball Valve	CPP Resin Inlet	No.	120		
VALVE: TYPE: PRESSURE REDUCING; VALVE SIZE: 1/2 IN; DESIGN RATING: 50 BAR; CONNECTION: NPT 1/2 IN; BODY MATERIAL: SS 316; STYLE: 1 WAY; OPERATED: MANUAL; TEMPERATURE RATING: 50 DEG C; FLOW COEFFICIENT=1.1; VALVE DISCHARGE PRESSURE IS 0-250 PSI; SERIES MODEL MUST BE PRINTED ON THE COVER; MODEL NO: PR7-1A1118I312;	Pressure Reducing Valve		No.	60		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 100 MM; DESIGN RATING: 10 BAR; CONNECTION: FLANGE; BODY MATERIAL: CI EPDM LINED; TRIM: DISC/PIN/SHAFT SS GR 316; OPERATED: GEARBOX; LINER REMOVABLE; MITECH BRAND ONLY ACCEPTABLE; REFERENCE NO: IHZ-IHS; MANUAL OVERRIDE HAND WHEEL.	Butterfly Valve	General	No.	120		
VALVE, CHECK: TYPE: DUAL PLATE; VALVE SIZE: 250 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CAST IRON; TRIM: SS 316 PLATE; SOFTGOODS: HYPALON LINED SEAT; FACE TO FACE LENGTH: 115 MM; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP NON RETURN VALVE; OPERATED: SPRING; PART NO: B250WNRVD/D;	Check Valve	250NB	No.	60		
VALVE, CHECK: TYPE: DUAL PLATE; VALVE SIZE: 100 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CAST IRON; TRIM: SS 316 PLATE; SOFTGOODS: HYPALON LINED SEAT; FACE TO FACE LENGTH: 65 MM; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP NON RETURN VALVE; OPERATED: SPRING; PART NO: B100WNRVD/D	Check Valve	100NB	No.	100		

VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 80 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: PNEUMATIC; TEMPERATURE RATING: 80 DEG C; APPLICATION: CPP AIRLINE RINSE; FACE TO FACE LENGTH: 40 MM; SCHEDULE: 40; SPECIAL FEATURES: AIR TO OPEN; PART NO: B80WB/FLYAC;	Butterfly Valve	80NB	No.	100		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 250 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HANDWHEEL; TEMPERATURE RATING: 80 DEG C; APPLICATION: RECARP DAM OUTLET; FACE TO FACE LENGTH: 65 MM; SCHEDULE: 40; RUBBER LINED; PART NO: B250WB/FLYGB;	Butterfly Valve	250NB	No.	80		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 300 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HANDWHEEL; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 75 MM; SCHEDULE: 40; RUBBER LINED; PART NO: B300WB/FLYGB	Butterfly Valve	300NB	No.	50		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 400 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HANDWHEEL; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 85 MM; SCHEDULE: 40; RUBBER LINED; PART NO: B400WB/FLYGB	Butterfly Valve	400NB	No.	50		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 100 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HANDWHEEL; TEMPERATURE RATING: 80 DEG C;	Butterfly Valve	100NB	No.	70		

APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 50 MM; SCHEDULE: 40; RUBBER LINED; PART NO: B100WB/FLYGB						
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 200 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HANDWHEEL;TEMPERATURE RATING: 80 DEG C; APPLICATION: RECARB DAM OUTLET; FACE TO FACE LENGTH: 65 MM; SCHEDULE: 40; RUBBER LINED; PART NO: B200WB/FLYGB;	Butterfly Valve	200NB	No.	120		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 100 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: PNEUMATIC; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 50 MM; SCHEDULE: 40; SPECIAL FEATURES: AIR TO OPEN; PART NO: B100WB/FLYAC;	Butterfly Valve	100NB	No.	80		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 80 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HAND WHEEL; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 44 MM; SCHEDULE: 40; MANUAL WAFER RUBBER LINED; PART NO: B80WB/FLYLV	Butterfly Valve	80NB	No.	70		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 250 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: PNEUMATIC; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 65 MM; SCHEDULE: 40; SPECIAL FEATURES: AIR TO OPEN; PART NO: B250WB/FLYGB;	Butterfly Valve	250NB	No.	80		

VALVE: TYPE: NON RETURN; VALVE SIZE: NB250; FACE TO FACE LENGTH: 67.2 MM; DESIGN RATING: PN 16; CONNECTION: WAFER; BODY MATERIAL: MS; TRIM: SS; OPERATED: SPRING; TEMPERATURE RATING: 25 DEG C;	Non-return Valve	Dilution	No.	80		
VALVE, CHECK: TYPE: DOUBLE FLAP; VALVE SIZE: 80 MM; DESIGN RATING: 7 BAR; CONNECTION: BOLTED FLANGE; BODY MATERIAL: CI; FACE TO FACE LENGTH: 260 MM; TEMPERATURE RATING: -5 TO 50 DEG C; APPLICATION: DEMIN WATER; OPERATED: WATER PRESSURE; VALVE MUST LINED WITH BUTYL RUBBER AND FLAP MUST ALSO BE BUTYL LINED; NX;	Check Valve	Sludge pump	No.	60		
VALVE, GATE: VALVE SIZE: 150 MM; TYPE: DISC; CONNECTION: FLANGE; FACE TO FACE LENGTH: 280 MM; BODY MATERIAL: SGI; TRIM: SPINDLE SS; OPERATED: HANDWHEEL; SOFTGOODS: SEAL RESILIENT; STEM DESIGN: RISING; STYLE: BOLTED BONNET; SPECIFICATION: SABS 664; DESIGN RATING: 10-16 BAR; FIG NO: AINSWORTH 134012; DOUBLE FLANGED TO BS4504 TABLE 16/11 AND TO BE OF S.G. IRON; HANDWHEEL STAINLESS STEEL; PITCH CIRCLE DIAMETER 240 MM; 8 X 22 MM HOLES; TO BEAR THE SABS MARK; PROTECTED AGAINST CORROSION BY RED OXIDE PRIMER; AINSWORTH BRAND ONLY ACCEPTABLE; WITH OPEN AND CLOSED INDICATION HOUSING	Gate Valve	General	No.	50		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 150 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY MATERIAL: STAINLESS STEEL; OPERATED: AIR; GRADE: 316; SUPPL P/N: D.L.M. 1506126S/MK/H30DA/MK/ACC; MODEL NO: MODEL 612; 612; DUCTILE IRON BODY; EPDM REPLACEMENT LINER; FITTED WITH STAINLESS STEEL MOUNTING; KIT TO FIT MITECH SINGLE ACTING ACTUATOR.	Butterfly Valve	General	No.	120		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 150 MM; DESIGN RATING: 10-16 BAR; TEMPERATURE RATING: 60-90 DEG C; CONNECTION: FLANGE; BODY MATERIAL: CI;	Butterfly Valve	General	No.	50		

OPERATED: GEARBOX; TRIM: DISC SGI NYLON COATED; SHAFT SS; EPDM LINED;						
VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 200 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 120 DEG C; CONNECTION: FLANGE; BODY MATERIAL: CI; TRIM: SS;	Check Valve	General	No.	60		
VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 150 MM; DESIGN RATING: 200 KPA; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY MATERIAL: SS GR 316; FACE TO FACE LENGTH: 75 MM; OPERATED: FLOW; SPECIFICATION: ASME CL 150; SINGLE DISC WATER CHECK RITE; STYLE SINGLE DOOR; DISC 316 STAINLESS STEEL; SEAT 316 STAINLESS STEEL;	Non- return Valve	General	No.	60		
VALVE, BALL: VALVE SIZE: 80 MM; DESIGN RATING: 18 BAR; TEMPERATURE RATING: 8 BAR AT 200 DEG C; CONNECTION: FLANGE; BODY MATERIAL: STAINLESS STEEL; OPERATED: LEVER; STYLE: SPLIT BODY; TRIM: BALL SS GR 316; SEAT PTFE; GRADE: CF8M; REFERENCE NO: 150UTBTP304SS; 150WTBTP304SS; ON-OFF; FOR SAUNDERS ACTUATOR	Ball Valve	General	No.	80		
VALVE, GATE: VALVE SIZE: 350 MM; TYPE: FLAP; CONNECTION: FLANGE; FACE TO FACE LENGTH: 760 MM; BODY MATERIAL: CS; OPERATED: AUTOMATIC; TEMPERATURE RATING: 80 DEG C; APPLICATION: BOOSTER PUMP; DESIGN RATING: 16 BAR; MANUF P/N: DSFFV350PULBT16; .	Gate Valve	350NB	No.	40		
VALVE, BUTTERFLY: TYPE: ISOLATING; VALVE SIZE: 100 MM; DESIGN RATING: PN16; TEMPERATURE RATING: AMBIENT; CONNECTION: FLANGE; BODY MATERIAL: CR13; FACE TO FACE LENGTH: 200 MM; OPERATED: FLOW; TRIM: STL; SOFTGOODS: GASKETS; APPLICATION: AUXILIARY BOILER 1 DEMINERALISED WATER SUPPLY SYSTEM INLET;	Butterfly Valve	100NB	No.	45		

VALVE, BUTTERFLY: VALVE SIZE: 80 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: DOUBLE FLANGE; BODY MATERIAL: STAINLESS STEEL; OPERATED: AIR; GRADE: 316; SUPPL P/N: 80612X6S/MK/H25DA/MK/ACC; MODEL NO: 612; EPDM REPLACEMENT LINER; FITTED WITH STAINLESS MOUNTING KIT TO FIT HABONIM DOUBLE ACTING ACTUATOR MODEL H25DA AND TWIST SET LIMIT SWITCH WITH MICRO SWITCHES; CONTROL.	Butterfly Valve	80NB	No.	45		
VALVE, CHECK: TYPE: SWING WAFER; VALVE SIZE: 80 MM; DESIGN RATING: 16 BAR; CONNECTION: FLANGE; BODY MATERIAL: CI; TRIM: SS GR 316; SEAT SS GR 316;	Check Valve	80NB	No.	30		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 800 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	Butterfly Valve	800NB	No.	30		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 700 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	Butterfly Valve	700NB	No.	30		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 600 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	Butterfly Valve	600NB	No.	40		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 500 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted	Butterfly Valve	500NB	No.	40		

on valve (243:1). Flange as per BS4504.						
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 400 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	Butterfly Valve	400NB	No.	70		
VALVE, DIAPHRAGM: TYPE: A WEIR; VALVE SIZE: 150 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: 150 DEG C; CONNECTION: FLANGE; BODY MATERIAL: DUCTILE IRON; DIAPHRAGM MATERIAL: PTFE; FACE TO FACE LENGTH: 127 MM; OPERATED: ACTUATOR PNEUMATIC; BUTYL LINING; DENIM PLANT; NORMALLY CLOSED	Diaphragm Valve	150NB	No.	120		
VALVE, CHECK: TYPE: SWING WAFER; VALVE SIZE: 80 MM; DESIGN RATING: 16 BAR; CONNECTION: FLANGE; BODY MATERIAL: CI; TRIM: SS GR 316; SEAT SS GR 316; Disk: SS GR 316	Check Valve	80NB	No.	160		
PLUG, VALVE: VALVE STYLE: TAPER; VALVE SIZE: 50 MM; MATERIAL: AUSTENITIC CAST IRON; PN16; BS45004-16; FF 203MM; WRENCH	Plug Valve	50mm	No.	150		
PLUG, VALVE: VALVE STYLE: TAPER; VALVE SIZE: 65 MM; MATERIAL: AUSTENITIC CAST IRON	Plug Valve	65mm	No.	150		
PLUG, VALVE: VALVE STYLE: TAPER; VALVE SIZE: 80 MM; MATERIAL: AUSTENITIC CAST IRON; PN16; BS45004-16; FF 203MM; WRENCH	Plug Valve	80mm	No.	150		
PLUG, VALVE: VALVE STYLE: TAPER; VALVE SIZE: 40 MM; MATERIAL: AUSTENITIC CAST IRON; PN16; BS45004-16; FF 203MM; WRENCH	Plug Valve	40mm	No.	150		
PLUG, VALVE: VALVE STYLE: TAPER; VALVE SIZE: 25 MM; MATERIAL: AUSTENITIC CAST IRON; PN16; BS45004-16; WRENCH	Plug Valve	25mm	No.	150		
Refurbishment of valves						

VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 800 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	Butterfly Valve	800NB	No.	10		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 700 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	Butterfly Valve	700NB	No.	10		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 600 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	Butterfly Valve	600NB	No.	5		
VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 500 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	Butterfly Valve	500NB	No.	5		
TOTAL						R -

PART 3: SCOPE OF WORK

GENERAL

- Data books, reviews, reports, and diagrams/drawings shall be submitted to Engineering after the completion of the work. Engineering to forward the data books to Quality Department (Document Control)
- All QCP's to be submitted to Engineering and Quality for approval prior to outage/project or maintenance work commencement.

	SCOPE OF WORK DESCRIPTION / ACTIVITY	PROCEDURE, SPECIFICATION, ENG. REQUIREMENTS / DOCUMENTATION	HOLD POINTS, WITNESS, REPORTS	RESPONSIBLE PARTY
1.1	Occupational Health and Safety	• Health and safety file should be approved by Safety risk management department prior to any work commences on site • All work is to be done in accordance with OHS Act 85 of 1993, Matla plant procedures and Plant Safety Regulations. (240-150642762). • Matla power station SHEQ induction must be done before access to site can be granted • The contractor should ensure that all employees have acquired the required competency for the task they are performing. • The contractor to ensure compliance to updated legal requirements and other requirements. • BUY QUIET: All stakeholders are encouraged to purchase or rent quieter machinery, equipment, and tools to reduce worker noise exposure, contribute towards compliance to OHSA noise exposure limits and ultimately reduce the risk of noise induced hearing loss.	Eskom to witness.	Contractor
1.2	Environmental Management.	• All activities listed in the National Environmental Act 107 of 1998, EIA Regulations as amended, must have environmental AUTHORISATION before commencement of work. • The contractor shall comply with all applicable legal and other requirements. • The polluter pays principle will be applied. • The contractor manager shall ensure compliance with Eskom Matla Environmental procedures to ensure the prevention of pollution (refer: OMOP 4090 and 4402). • The last payment will be processed based on the status of the last housekeeping check sheet (Annexure C: OMOP 4402) of designated area. • EMS file based on ISO14001 will be required.	Eskom to witness.	Contractor

1.3	Quality Management	- The contractor/executioner of work will be responsible for drawing up all QCP documentation and this must be approved by engineering and authorised by the Quality Department before commencing with the work. - Contractors/executioner to adhere to QM 58 and OMOP4497 requirements - Number of NCR issued can affect your next tendering process. - The QCP shall be signed progressively by the Engineer/Supervisor, Eskom QC Inspector, Contractor QC Inspector and/or AIA. - No procuring of outage items without the approval of scopes by quality - All outage scopes creep and scopes addition should be approved by quality - No contractor should be in the possession of scopes for execution without the scopes approved by quality - The contractor is subjected to quality auditing at any point in time during execution of scope	Hold point	Contractor
1.4	Inputs from other departments			
1.5	Commissioning reference			

This Scope was compiled for the supply and delivery of Water Treatment Plant Valves at Matla Power Station.

	SCOPE OF WORK DESCRIPTION / ACTIVITY	PROCEDURE, SPECIFICATION, ENG. REQUIREMENTS / DOCUMENTATION	HOLD POINTS, WITNESS, REPORTS	RESPONSIBLE PARTY
2.1	Required Services	The Services which are required from the successful Service Provider shall include but not limited to the below: - Supply of new valves. - Refurbishment of old valves. - Valves Site Support - Delivery/Collection of Valves at Matla Power Station	Hold Point	Contractor

		- Commissioning of valves at Matla as/when required. - Valves Failure Report for all valves which have failed within a year of installation.		
2.2	Scope of Work Requirements	The detailed Scope of Work requirements are as per below: - The contractor is responsible for deliver of Water Treatment Plant Valves at Matla Power Station as and when required based on the stock levels requirements at Matla Stores. - The Contractor is expected to deliver the valves within 5 days upon receiving a delivery request. - The contractor is expected to be available on a 24 hour standby basis in case of any site support required by Matla which may include but not limited to defective valve, valve delivery or any other issue that may arise related to the valves. - All Valves are required to be delivered with their Material Certificates. - The Auxiliary Engineering System Engineer will conduct Quality Control of the delivered valves at stores and the delivery notes will be signed off once the valves meets the Quality Control Checks. - The contractor is required to abide by the Eskom Standard for low pressure valves (240-105020315) for all new and refurbished valves. All the valves must meet this standard's requirements. - All valves must be pressure tested, and the valves must be delivered on site along with the Pressure Test Certificate as part of the data pack.	Hold Point	Contractor

		- The contractor must have an approved Quality Control Document before any valve refurbishment work could kick off. This quality control document must obtain approval from Eskom. - All valves other than the non-return, self-operating control valves, or safety valves shall be fitted with mechanical indicators which clearly and accurately indicate the degree to which the valves are open or closed. - All valves shall be permanently marked with their pressure rating and nominal bore of valve at minimum, as well as their design standard.		
2.3	Plant Sub Systems	The required Water Treatment Plant Valves include but not limited to the below WTP sub systems: - Demin Trains - Dosing Station - Clarifiers - Sludge Sump - Filter Sump - Effluent Sump - Potable Water - Resin Transfers - Condensate Polishing Plant - Condensate Polishing Regeneration Plant - Bulk Chemicals Storage System. - Chlorine Dosing Station - Lime Plant - Recarb Plant - Screen Washing System	Hold	Contractor
2.4	Valve Types	The required Water Treatment Plant Valve Types include but not limited to the below: - Butterfly Valves - Ball Valves - Gate Valves - Plug Valves - Control Valves - Pressure Relief Valves - Non Return Valve The required valves specifications and quantities are shown in Appendix A below.	Hold	Contractor

2.5	General	- Only valves which meet the Technical Requirements will be accepted and any valves which do not meet the requirements will be rejected. - All Delivered valves must have an attached tag which should include the below details: - Eskom Material Stock Number - Delivery Date - Serial number - Valve Size - Pressure Rating		

BILL OF MATERIAL

	Full description of Material/Spares/Equipment	Specifications of Material/Spares/Equipment	Stock No	Part Number	Required Quantity

New Valves to be supplied and old valves to be refurbished over contract duration							
Item Number	Plant Area	Stock Number	Valve, Type	Size	Specifications of Material/Spares/Equipment	New Valves Quantity	Refurbished Valves
1	Caustic	241296	Valve, Ball	80NB	VALVE, BALL: VALVE SIZE: 80 MM; DESIGN RATING: 6 MPA; CONNECTION: FLANGE; BODY MATERIAL: STL CAST; STYLE: 2 WAY; TRIM: SS 316; SOFTGOODS: PTFE; OPERATED: LEVER; TEMPERATURE RATING: 50 DEG C; FACE TO FACE LENGTH: 282 MM; DRILLED TO TABLE D, ANTI BLOW OUT STEM, ANTI STATIC, COMPLETE WITH LOCKING DEVICE, DLM MAKE ONLY;	80	
2	Caustic	241189	Valve, Ball	150NB	VALVE, BALL: VALVE SIZE: 150 MM; DESIGN RATING: 6 MPA; CONNECTION: FLANGE; BODY MATERIAL: STL CAST; STYLE: 2 WAY; TRIM: SS 316; SOFTGOODS: PTFE; OPERATED: LEVER; TEMPERATURE RATING: 50 DEG C; FACE TO FACE LENGTH: 403 MM; DRILLED TO TABLE D, ANTI BLOW OUT STEM, ANTI STATIC, COMPLETE WITH LOCKING DEVICE, DLM MAKE ONLY	80	
3	Caustic	241188	Valve, Ball	100NB	VALVE, BALL: VALVE SIZE: 100 MM; DESIGN RATING: 6 MPA; CONNECTION: FLANGE; BODY MATERIAL: STL CAST; STYLE: 2 WAY; TRIM: SS 316; SOFTGOODS: PTFE; OPERATED: LEVER; TEMPERATURE RATING: 50 DEG C; FACE TO FACE LENGTH: 305 MM; DRILLED TO TABLE D, ANTI BLOW OUT STEM, ANTI STATIC, COMPLETE WITH LOCKING DEVICE, DLM MAKE ONLY	100	
4	Caustic	75669	Valve, Ball	50NB	VALVE, BALL: VALVE SIZE: 50 MM; DESIGN RATING: 280 LB;	120	

					CONNECTION: FLANGE; BODY MATERIAL: SS 316; GRADE: WCB; STYLE: 2PC; 2 WAY; TRIM: BALL SS 316; PLUG/STEM STL; SEAT PTFE; OPERATED: LEVER; TEMPERATURE RATING: 190LB AT 175DEG C; PORT TYPE: FULL BORE; ANSI 150 RF; TYPE M;		
5	Caustic	75297	Valve, Relief	Caustic Pumps	VALVE, RELIEF: VALVE SIZE: 50 X 32 MM; SET PRESSURE: 7.87 BAR; TEMPERATURE RATING: - 10 TO 50 DEG C; CONNECTION: THD; BODY MATERIAL: SS; TRIM: SEAT P20; SPINDLE SS; OPERATED: SPRING; GRADE: 316; DESIGN RATING: 887 KPA; PRESSURE RANGE: 5.25- 12 BAR; FOR WALLACE AND TIERNAN DOSING AND METERING PUMP; PART NO: JUXA81040, SUPPLIER: UNKNOWN; PART NO: JP82995, SUPPLIER: UNKNOWN	50	
6	Clarifier	627343	Valve, Butterfly	Clarifier Blowdo wn	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 350 NB; DESIGN RATING: 16 BAR; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: DISC SS; SOFTGOODS: EPDM LINED SEAT; OPERATED: HAND WHEEL; TEMPERATURE RATING: 38 DEG C; FACE TO FACE LENGTH: 80 MM; PART NO: B350WBFLYGB;	40	
7	Clarifier	627342	Valve, Butterfly	Clarifier Blowdo wn	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 350 NB; DESIGN RATING: 16 BAR; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: DISC SS; SOFTGOODS: EPDM LINED SEAT; OPERATED: PNEUMATIC; TEMPERATURE RATING: 38 DEG C; FACE TO FACE LENGTH: 80 MM; PART NO: B350WBFLYAC	40	

8	Clarifier	592896	Valve, Butterfly	Blowdown	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 300 MM; DESIGN RATING: 16 BAR; CONNECTION: WAFER; BODY MATERIAL: SS; TRIM: SS DISC; SOFTGOODS: EPDM LINING; OPERATED: PNEUMATIC; TEMPERATURE RATING: 25 DEG C; FACE TO FACE LENGTH: 76.9 MM; STYLE: WAFER; SPECIAL FEATURES: SPRING LOADED ACTUATOR F/C;	40	
9	CPP	627208	Valve, Ball	CPP Resin Inlet	VALVE, BALL: VALVE SIZE: NB100; DESIGN RATING: 1600 KPA; CONNECTION: FLANGE; BODY MATERIAL: SS 304; AUSTENITIC; STYLE: SPLIT BODY; TRIM: SS 304; OPERATED: PNEUMATIC; TEMPERATURE RATING: 80 DEG C; SPECIFICATION: BS450516/3 STANDARD; FACE TO FACE LENGTH: 225 MM; APPLICATION: CPP RESIN INLET VALVE; TYPE: SPRING RETURN; FLOW CONTROL; PART NO: 150UTB	120	
10	CPP	627203	Valve, Ball	CPP Resin Inlet	VALVE, BALL: VALVE SIZE: NB 80; DESIGN RATING: 1600 KPA; CONNECTION: FLANGE; BODY MATERIAL: SS 304; AUSTENITIC; STYLE: SPLIT BODY; TRIM: SS 304; OPERATED: PNEUMATIC; TEMPERATURE RATING: 80 DEG C; SPECIFICATION: BS450516/3 STANDARD; FACE TO FACE LENGTH: 200 MM; APPLICATION: CPP RESIN INLET VALVE; TYPE: SPRING RETURN; RESIN FLOW CONTROL; PART NO: 150UTB;	120	
11	General	553182	Valve, Pressure Reducing		VALVE: TYPE: PRESSURE REDUCING; VALVE SIZE: 1/2 IN; DESIGN RATING: 50 BAR; CONNECTION: NPT 1/2 IN; BODY MATERIAL: SS 316;	60	

					STYLE: 1 WAY; OPERATED: MANUAL; TEMPERATURE RATING: 50 DEG C; FLOW COEFFICIENT=1.1; VALVE DISCHARGE PRESSURE IS 0-250 PSI; SERIES MODEL MUST BE PRINTED ON THE COVER; MODEL NO: PR7- 1A11I8I312;		
12	General	75341	Valve, Butterfly	General	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 100 MM; DESIGN RATING: 10 BAR; CONNECTION: FLANGE; BODY MATERIAL: CI EPDM LINED; TRIM: DISC/PIN/SHAFT SS GR 316; OPERATED: GEARBOX; LINER REMOVABLE; MITECH BRAND ONLY ACCEPTABLE; REFERENCE NO: IHZ-IHS; MANUAL OVERRIDE HAND WHEEL.	120	
13	Lime	626239	Valve, Check	Recarb Dam to Lime Plants (250NB)	VALVE, CHECK: TYPE: DUAL PLATE; VALVE SIZE: 250 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CAST IRON; TRIM: SS 316 PLATE; SOFTGOODS: HYPALON LINED SEAT; FACE TO FACE LENGTH: 115 MM; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP NON RETURN VALVE; OPERATED: SPRING; PART NO: B250WNRVD/D;	60	
14	Lime	626238	Valve, Check	Recarb Dam to Lime Plants (100NB)	VALVE, CHECK: TYPE: DUAL PLATE; VALVE SIZE: 100 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CAST IRON; TRIM: SS 316 PLATE; SOFTGOODS: HYPALON LINED SEAT; FACE TO FACE LENGTH: 65 MM; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP NON RETURN VALVE; OPERATED:	100	

					SPRING; PART NO: B100WNRVD/D		
15	Lime	626237	Valve, Butterfly	Recarb Dam to Lime Plants (80NB)	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 80 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: PNEUMATIC; TEMPERATURE RATING: 80 DEG C; APPLICATION: CPP AIRLINE RINSE; FACE TO FACE LENGTH: 40 MM; SCHEDULE: 40; SPECIAL FEATURES: AIR TO OPEN; PART NO: B80WB/FLYAC;	100	
16	Lime	626236	Valve, Butterfly	Recarb Dam to Lime Plants (80NB)	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 80 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: PNEUMATIC; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 44 MM; SCHEDULE: 40; SPECIAL FEATURES: AIR TO OPEN; PART NO: B80WB/FLYLV	80	
17	Lime	626234	Valve, Butterfly	Recarb Dam to Lime Plants (250NB)	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 250 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HANDWHEEL; TEMPERATURE RATING: 80 DEG C; APPLICATION: RECARP DAM OUTLET; FACE TO FACE LENGTH: 65 MM; SCHEDULE: 40; RUBBER LINED; PART NO: B250WB/FLYGB;	80	
18	Lime	626233	Valve, Butterfly	Recarb Dam to Lime	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 300 NB; DESIGN	50	

				Plants (300NB)	RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HANDWHEEL; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 75 MM; SCHEDULE: 40; RUBBER LINED; PART NO: B300WB/FLYGB		
19	Lime	626232	Valve, Butterfly	Recarb Dam to Lime Plants (400NB)	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 400 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HANDWHEEL; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 85 MM; SCHEDULE: 40; RUBBER LINED; PART NO: B400WB/FLYGB	50	
20	Lime	626231	Valve, Butterfly	Recarb Dam to Lime Plants (100NB)	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 100 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HANDWHEEL; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 50 MM; SCHEDULE: 40; RUBBER LINED; PART NO: B100WB/FLYGB	70	
21	Lime	626230	Valve, Butterfly	Recarb Dam to Lime Plants (200NB)	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 200 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HANDWHEEL; TEMPERATURE RATING: 80 DEG C; APPLICATION:	120	

					RECARB DAM OUTLET; FACE TO FACE LENGTH: 65 MM; SCHEDULE: 40; RUBBER LINED; PART NO: B200WB/FLYGB;		
22	Lime	626229	Valve, Butterfly	Recarb Dam to Lime Plants (100NB)	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 100 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: PNEUMATIC; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 50 MM; SCHEDULE: 40; SPECIAL FEATURES: AIR TO OPEN; PART NO: B100WB/FLYAC;	80	
23	Lime	626228	Valve, Butterfly	Recarb Dam to Lime Plants (80NB)	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 80 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: HAND WHEEL; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 44 MM; SCHEDULE: 40; MANUAL WAFER RUBBER LINED; PART NO: B80WB/FLYLV	70	
24	Lime	626227	Valve, Butterfly	Recarb Dam to Lime Plants (250NB)	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 250 NB; DESIGN RATING: PN16; CONNECTION: WAFER; BODY MATERIAL: CI; TRIM: SS 316 DISC; SOFTGOODS: HYPALON LINED SEAT; OPERATED: PNEUMATIC; TEMPERATURE RATING: 80 DEG C; APPLICATION: DILUTION PUMP OUTLET; FACE TO FACE LENGTH: 65 MM; SCHEDULE: 40; SPECIAL FEATURES: AIR TO OPEN; PART NO: B250WB/FLYGB;	80	

25	Lime	592899	Valve, Non- Return	Dilution	VALVE: TYPE: NON RETURN; VALVE SIZE: NB250; FACE TO FACE LENGTH: 67.2 MM; DESIGN RATING: PN 16; CONNECTION: WAFER; BODY MATERIAL: MS; TRIM: SS; OPERATED: SPRING; TEMPERATURE RATING: 25 DEG C;	80	
26	Sludge	501280	Valve, Check	Sludge Pump Dischar ge	VALVE, CHECK: TYPE: DOUBLE FLAP; VALVE SIZE: 80 MM; DESIGN RATING: 7 BAR; CONNECTION: BOLTED FLANGE; BODY MATERIAL: CI; FACE TO FACE LENGTH: 260 MM; TEMPERATURE RATING: - 5 TO 50 DEG C; APPLICATION: DEMIN WATER; OPERATED: WATER PRESSURE; VALVE MUST LINED WITH BUTYL RUBBER AND FLAP MUST ALSO BE BUTYL LINED; NX;	60	
27	general	74947	Gate valve	general	VALVE, GATE: VALVE SIZE: 150 MM; TYPE: DISC; CONNECTION: FLANGE; FACE TO FACE LENGTH: 280 MM; BODY MATERIAL: SGI; TRIM: SPINDLE SS; OPERATED: HANDWHEEL; SOFTGOODS: SEAL RESILIENT; STEM DESIGN: RISING; STYLE: BOLTED BONNET; SPECIFICATION: SABS 664; DESIGN RATING: 10- 16 BAR; FIG NO: AINSWORTH 134012; DOUBLE FLANGED TO BS4504 TABLE 16/11 AND TO BE OF S.G. IRON; HANDWHEEL STAINLESS STEEL; PITCH CIRCLE DIAMETER 240 MM; 8 X 22 MM HOLES; TO BEAR THE SABS MARK; PROTECTED AGAINST CORROSION BY RED OXIDE PRIMER; AINSWORTH BRAND ONLY ACCEPTABLE;	50	

					WITH OPEN AND CLOSED INDICATION HOUSING		
28	general	216645	Butterfly valve	general	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 150 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY MATERIAL: STAINLESS STEEL; OPERATED: AIR; GRADE: 316; SUPPL P/N: D.L.M. 1506126S/MK/H30DA/MK/ACC; MODEL NO: MODEL 612; 612; DUCTILE IRON BODY; EPDM REPLACEMENT LINER; FITTED WITH STAINLESS STEEL MOUNTING; KIT TO FIT MITECH SINGLE ACTING ACTUATOR.	120	
29	general	75342	Butterfly valve	General	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 150 MM; DESIGN RATING: 10-16 BAR; TEMPERATURE RATING: 60-90 DEG C; CONNECTION: FLANGE; BODY MATERIAL: CI; OPERATED: GEARBOX; TRIM: DISC SGI NYLON COATED; SHAFT SS; EPDM LINED;	50	
30	general	62846	Check valve	general	VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 200 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 120 DEG C; CONNECTION: FLANGE; BODY MATERIAL: CI; TRIM: SS;	60	
31	general	573904	NRV	general	VALVE, CHECK: TYPE: WAFER; VALVE SIZE: 150 MM; DESIGN RATING: 200 KPA; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY MATERIAL: SS GR 316; FACE TO FACE LENGTH: 75 MM; OPERATED: FLOW; SPECIFICATION: ASME CL 150; SINGLE DISC WATER CHECK RITE; STYLE SINGLE DOOR; DISC 316 STAINLESS	60	

					STEEL; SEAT 316 STAINLESS STEEL;		
32	general	75672	Ball valve	General	VALVE, BALL: VALVE SIZE: 80 MM; DESIGN RATING: 18 BAR; TEMPERATURE RATING: 8 BAR AT 200 DEG C; CONNECTION: FLANGE; BODY MATERIAL: STAINLESS STEEL; OPERATED: LEVER; STYLE: SPLIT BODY; TRIM: BALL SS GR 316; SEAT PTFE; GRADE: CF8M; REFERENCE NO: 150UTBTP304SS; 150WTBTP304SS; ON- OFF; FOR SAUNDERS ACTUATOR	80	
33	Demin tanks	565087	Gate valve	350 mm	VALVE, GATE: VALVE SIZE: 350 MM; TYPE: FLAP; CONNECTION: FLANGE; FACE TO FACE LENGTH: 760 MM; BODY MATERIAL: CS; OPERATED: AUTOMATIC; TEMPERATURE RATING: 80 DEG C; APPLICATION: BOOSTER PUMP; DESIGN RATING: 16 BAR; MANUF P/N: DSFFV350PULBT16; .	40	
34	general	0685855	Butterfly valve	100mm	VALVE, BUTTERFLY: TYPE: ISOLATING; VALVE SIZE: 100 MM; DESIGN RATING: PN16; TEMPERATURE RATING: AMBIENT; CONNECTION: FLANGE; BODY MATERIAL: CR13; FACE TO FACE LENGTH: 200 MM; OPERATED: FLOW; TRIM: STL; SOFTGOODS: GASKETS; APPLICATION: AUXILIARY BOILER 1 DEMINERALISED WATER SUPPLY SYSTEM INLET;	45	

35	general	0216646	Butterfly valve	80mm	VALVE, BUTTERFLY: VALVE SIZE: 80 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: DOUBLE FLANGE; BODY MATERIAL: STAINLESS STEEL; OPERATED: AIR; GRADE: 316; SUPPL P/N: 080612X6S/MK/H25DA/MK /ACC; MODEL NO: 612; EPDM REPLACEMENT LINER; FITTED WITH STAINLESS MOUNTING KIT TO FIT HABONIM DOUBLE ACTING ACTUATOR MODEL H25DA AND TWIST SET LIMIT SWITCH WITH MICRO SWITCHES; CONTROL.	45	
36	General	75580	Check valve	80mm	VALVE, CHECK: TYPE: SWING WAFER; VALVE SIZE: 80 MM; DESIGN RATING: 16 BAR; CONNECTION: FLANGE; BODY MATERIAL: CI; TRIM: SS GR 316; SEAT SS GR 316;	30	
37	general	0256677	Butterfly valve	800mm	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 800 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	30	10
38	general	0218845	Butterfly valve	700mm	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 700 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	30	10

39	general	0316548	Butterfly valve	600mm	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 600 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	40	5
40	general	0413487	Butterfly valve	500mm	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 500 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	40	5
41	general	0523428	Butterfly valve	400mm	VALVE, BUTTERFLY: TYPE: WAFER; VALVE SIZE: 400 MM; DESIGN RATING: 10 BAR; TEMPERATURE RATING: 0-200 DEG C; CONNECTION: FLANGE; BODY & Disk MATERIAL: SG Iron EN 1563 Gr400/15; OPERATED: Manual; NO: MODEL 612; 612; DUCTILE IRON BODY; Gearbox fitted on valve (243:1). Flange as per BS4504.	70	0
42	general	671581	Diaphragm valve	150mm	VALVE, DIAPHRAGM: TYPE: A WEIR; VALVE SIZE: 150 MM; DESIGN RATING: 16 BAR; TEMPERATURE RATING: 150 DEG C; CONNECTION: FLANGE; BODY MATERIAL: DUCTILE IRON; DIAPHRAGM MATERIAL: PTFE; FACE TO FACE LENGTH: 127 MM; OPERATED: ACTUATOR PNEUMATIC; BUTYL LINING; DENIM PLANT; NORMALLY CLOSED	120	0

43	General	75580	Check valve	80mm	VALVE, CHECK: TYPE: SWING WAFER; VALVE SIZE: 80 MM; DESIGN RATING: 16 BAR; CONNECTION: FLANGE; BODY MATERIAL: CI; TRIM: SS GR 316; SEAT SS GR 316; Disk: SS GR 316	160	0
----	---------	-------	-------------	------	--	-----	---

SCOPE COMPILATION REFERENCES				
SOURCE & Ref No.	Yes	No	N/A	Comments
Previous outage service reports				
Return to service data packages				
Maintenance Strategy with Rev number				
SAP defects (attach list as appendix)				
GHRMS (STEP) reports (Generation Heat Rate Management System)				
Online Condition Monitoring				
Pre-outage performance test results				
Post outage performance test results				
GPSS/ Plant Performance data on UCLF incurred				
OMS / IIRMS recommendations (Audits Reports)				
Risk controls (IRM system)				
Previous audits and reviews (e.g. ERAP)				
Engineering Change Requests (Projects)				
LOPP strategy reports				
URS				
Philosophy (Outage)				
Condition Monitoring Report				
VA/PHD Viewer trends				
Corrective Actions				
CARAB reports				
Statutory Requirements				
Grid code requirements				
Waivers and Exemptions				

Calibration requirements				
Previous Outage SOW variations				
Post Mortems Actions from previous outages				
Pre-Outage plant walks				
Risk based inspection (RBI) report				
Simulation, TOIs, OON, SI				

Document reference	Title	No of pages
	This cover page	1
C3.1	<i>Purchaser's Goods Information</i>	

C3.2	<i>Supplier's Goods Information</i>	
	Total number of pages	1-36

C3.1: PURCHASER'S GOODS INFORMATION

Contents

When the document is complete, insert a 'Table of Contents'. To do this go to: Reference, → Table of Contents. Three levels and the title (but not the subtitle) may be shown if the formats used in this template are retained. Alternatively just update the table below when the drafting of the Goods Information is complete by clicking on 'References' then 'Update Table' then 'Update entire table'

Part 3: Scope of Work xii

C3.1: *Purchaser's* Goods Information xxxii

1	Overview and purpose of the <i>goods</i> and <i>services</i>	xxxiv
2	Specification and description of the <i>goods</i>	xxxiv
2.1	<i>Purchaser's</i> design	xxxiv
2.2	Procedure for submission and acceptance of <i>Supplier's</i> design	xxxiv
2.3	Other requirements of the <i>Supplier's</i> design	xxxiv
2.4	Use of <i>Supplier's</i> design	xxxiv
2.5	Manufacture & fabrication	xxxiv
2.6	Factory acceptance testing (FAT)	xxxv
2.7	Other tests and inspections and commissioning in place of use	xxxv
2.8	Operating manuals and maintenance schedules	xxxv
3	Supply Requirements	xxxv
4	Specification of the <i>services</i> to be provided	xxxv
5	Constraints on how the <i>Supplier</i> Provides the Goods	xxxv
5.1	Programming constraints	xxxv
5.2	Work to be done by the Delivery Date	xxxv
5.3	Marking the <i>goods</i>	xxxvi
5.4	Constraints at the delivery place and place of use	xxxvi
5.5	Cooperating with Others	xxxvi
5.6	Services & other things to be provided by the <i>Purchaser</i> or <i>Supplier</i>	xxxvi
5.7	Management meetings	xxxvi
5.8	Documentation control	xxxvii
5.9	Health and safety risk management	xxxvii
5.10	Environmental constraints and management	xxxvii
5.11	Quality	xxxvii
5.12	Invoicing and payment	xxxvii
5.13	Insurance provided by the <i>Purchaser</i>	xxxviii
5.14	Contract change management	xxxviii
5.15	Provision of bonds and guarantees	xxxviii
5.16	Records of Defined Cost, payments & assessments of compensation events to be kept by the <i>Supplier</i>	xxxviii
6	Procurement	xxxix
6.1	Subcontracting	xxxix
6.1.1	Preferred subcontractors	xxxix
6.1.2	Limitations on subcontracting	xxxix
6.1.3	Spares and consumables	xxxix
6.1.4	Other requirements related to procurement	xxxix
6.1.5	Cataloguing requirements	xxxix
7	List of drawings	xxxix
7.1	Drawings issued by the <i>Purchaser</i>	xxxix
C3.2	<i>Supplier's</i> Goods Information	xl

1 Overview and purpose of the *goods* and *services*

Provide an overview as an aide to the tendering supplier summarising the nature and purpose of the *goods* and the associated *services* (if any), together with some details about the supply requirements.

2 Specification and description of the *goods*

The content of this section is the meat of the scope of work and will depend on the nature of the *goods* required. For example the *goods* may already be available from the *Supplier*, and just need minor alterations to meet the *Purchaser's* requirements, or they may be unique and designed specifically for this contract. Accordingly there may be a need to:

- § Provide full technical specifications of the *goods* or the *Purchaser* may, as an alternative, provide a user requirement specification (URS) for the *goods* from which the *Supplier* then designs the *goods* to achieve the required performance.
- § Provide drawings and information about the environment where the *goods* are to be put to use.
- § Provide specifications of the component parts (plant and materials) used in the *goods* which may include minimum material standards and workmanship.

The specifications may be included here or provided as Annexure and just listed here.

3 *Purchaser's* design

Clause 21.1 requires that the *Purchaser* states which parts of the *goods* he is to design. Complete as required or delete. Be careful not to duplicate what may already be covered in the *Purchaser's* operating philosophy / user requirement specification (URS) / performance specification described elsewhere in this Goods Information.

4 Procedure for submission and acceptance of *Supplier's* design

This is a mandatory requirement of core clause 21.2 and must be addressed. Identify the extent of detail (the particulars) of the *Supplier's* design which is to be submitted to the *Supply Manager* for his acceptance. . State requirements for drawings to be prepared by the *Supplier*.

5 Other requirements of the *Supplier's* design

Use this section to describe any particulars which must be taken into account by the *Supplier* in his design; for example codification of the *goods*.

6 Use of *Supplier's* design

First read core clause 22.1 and then include here the exceptions and other purposes if applicable. If there are none this section could be deleted leaving the core clause to stand.

7 Manufacture & fabrication

Although the *Purchaser* does not usually prescribe how the *goods* are to be manufactured and fabricated, if there are any specific requirements they could be stated here.

8 Factory acceptance testing (FAT)

Core Clauses 40 and 41 both make reference to the Goods Information regarding tests and inspections. There are often comprehensive requirements for testing at place of manufacture and before delivery. State whether the tests are to be witnessed by the *Supply Manager* or by a testing agency of the *Purchaser's* nomination. Note, *Supplier* may not restrict *Supply Manager's* right to witness tests per clause 25.2

9 Other tests and inspections and commissioning in place of use

Describe any other tests and inspections that may be required, specifically in the place of use. If the *Supplier* is to commission the *goods* in the place of use after Delivery, describe the process here. If he is only required to witness and report on the commissioning done by others, this would be included as a service in section 4 below.

10 Operating manuals and maintenance schedules

Use this section to describe these requirements. Pay particular attention to when and in what form they are required. Consideration should be given to obtaining operating manuals and maintenance schedules before Delivery of the whole of the *goods* when there is still financial incentive for the *Supplier* to do so.

11 Supply Requirements

Clause 11.2(16) defines Supply Requirements and clause 11.2(8) states that they are part of the Goods Information. They can either be included here or as an Annexure to the Contract Data provided by the *Purchaser* because of their commercial nature. Eskom has chosen to include them in the C1.2a Contract Data, hence include the following text here:

The Supply Requirements for this contract are in an Annexure to the Contract Data provided by the *Purchaser*.

12 Specification of the services to be provided

These services may include training of the *Purchaser's* staff in the use of the *goods*, supervision of installation of the *goods* on the *Purchaser's* property and post Delivery commissioning and monitoring of the *goods* in use. Ensure that all items of service specified can be related to an item in the Price Schedule

13 Constraints on how the *Supplier* Provides the Goods

14 Programming constraints

Read clause 31.2 first then state what additional information (if any) is to go in the programme per the last bullet of clause 31.2. Describe any particular constraints on the order and timing of the work which the *Supplier* must take into account in his programme.

15 Work to be done by the Delivery Date

Clause 11.2(5) defines Delivery as when the *Supplier* has done all the work which the Goods Information states he is to do by the Delivery Date. The defined term “Delivery” is used in this contract to identify when a stage, or amount of work has been achieved. This may be more than the common meaning of “delivery” and could include the passing of specified tests, provision of documentation and packing and preparation for air freight or shipping to the *Purchaser’s* nominated Delivery Place specified in the Supply Requirements.

Either list here what has to be done in order to constitute “Delivery”, or list what may remain undone and be completed after the Delivery Date by stating that everything else must be done before Delivery.

16 Marking the goods

If this contract requires the *goods* be paid for before they are brought within the Delivery Place, core clause 71.1 requires that the Goods Information state how the *Supplier* is to “mark” the *goods*

17 Constraints at the delivery place and place of use

State any constraints on how the *Supplier* is to provide the *goods* and *services* both at the delivery place and where the *goods* and *services* are to be put into use, e. g. restriction on access, hours of working and sequence of work. Sites such as Sasol Secunda and Koeberg Nuclear Power Station have very strict entrance requirements which tenderers need to allow for in their prices, and the *Supplier* has to comply with. State these or similar requirements here.

18 Cooperating with Others

Although not a direct requirement of the *conditions of contract* if the *Purchaser* is aware of the *Supplier’s* need to co-operate with Others (for example where the supply is to one of the *Purchaser’s* contractor’s on a project or design of the *goods* needs to be discussed with Others) details could be given here.

19 Services & other things to be provided by the Purchaser or Supplier

Clause 23.2 requires that the Goods Information state what services and other things are to be provided by the Parties, each to the other as part of the supply process. This has nothing to do with the *services* identified in the Contract Data. It would include temporary services and things needed to facilitate the supply, such as cranes provided by the *Purchaser* for offloading of the *goods*.

20 Management meetings

The *conditions of contract* (e.g. Clause 16.2) require and other sections of the Goods Information (e.g. safety risk management) may require (mandate) that a meeting shall be held. However the intention of all NEC contracts is that the Parties and their agents use the techniques of partnering to manage the contract by holding meetings designed to pro actively and jointly manage the administration of the contract with the objective of minimising the adverse effects of risks and surprises for both Parties.

Depending on the complexity of the *goods*, it is probably beneficial for the *Supply Manager* to hold a regular risk register meeting (Clause 16.2). This could be used to discuss safety, compensation events, subcontracting, overall co-ordination and other matters of a general nature. Separate meetings for specialist activities such as programming, engineering and design management, may also be warranted.

Describe here the general meetings and their purpose. Provide particulars of approximate times, days, location, and attendance requirements, stipulating that attendees shall have the necessary delegated authority to make decisions in respect of matters raised at such meetings.

The right to hold specialist meetings should be stated generically and in such a way that ambiguity with other parts of the Goods Information is avoided.

The following text could be used as a model for this section:

Regular meetings of a general nature may be convened and chaired by the *Supply Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	Weekly on _____ at _____		
Overall contract progress and feedback	Monthly on _____ at _____		<i>Purchaser, Supplier, and _____</i>

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

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

21 Documentation control

Specify how documentation will be identified with an alpha numeric which indicates source, recipient, communication number etc. Provide details of any particular format or other constraints; for example that all contractual communications will be in the form of properly compiled letters or forms attached to e mails and not as a message in the e mail itself. State any particular routing requirements but note from SC who issues what to whom.

22 Health and safety risk management

In addition to the requirements of the laws governing health and safety, the *Purchaser* may have some additional requirements particular to the *goods* and the location where they are to be delivered for this contract. This is a requirement of clause 25.4.

The *Supplier* shall comply with the health and safety requirements [stated here or contained in Annexure _____ to this Goods Information].

23 Environmental constraints and management

Describe or cross refer to environmental constraints applicable to the *Supplier's* design of the *goods* if not already included in the *Purchaser's* URS.

The *Supplier* shall comply with the environmental criteria and constraints [stated here or contained in Annexure _____ to this Goods Information].

24 Quality

Specify minimum requirements for the *Supplier's* Quality Plan and Work Procedures if required and not already covered in the specifications for the *goods*. State whether ISO compliance is a condition and if so which ISO standard shall apply.

25 Invoicing and payment

List the information that is to be shown by the *Supplier* on his invoices. State any other requirements relating to payment. For example:

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

The *Supplier* shall address the tax invoice to *Purchaser* and include on each invoice the following information:

- Name and address of the *Supplier* and the *Supply Manager*;
- The contract number and title;
- *Supplier's* VAT registration number;
- The *Purchaser's* VAT registration number.
- Description of *goods* and *services* provided for each item invoiced based on the Price Schedule;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- (add other as required)

Add procedures for invoice submission and payment (e. g. electronic payment instructions)

26 Insurance provided by the *Purchaser*

First read SC3 Core Clause 84.1 and then add anything necessary for the management of insurance related issues such as a cross reference to where procedures for making claims can be found. Also provide contact details for persons capable of being able to answer any insurance related queries the *Supplier* may have, as well as to whom the information required by any Marine Insurance may be addressed.

27 Contract change management

This section is intended to deal with any additional requirements to the compensation event clauses in section 6 of the core clauses; such as the use of standard forms. Not the same thing as documentation control.

28 Provision of bonds and guarantees

The form in which a bond or guarantee required by the *conditions of contract* (if any) is to be provided by the *Supplier* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

The *Purchaser* may withhold payment of amounts due to the *Supplier* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Supplier* by the *Supply Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Supplier* does not affect the *Purchaser's* right to termination stated in this contract.

29 Records of Defined Cost, payments & assessments of compensation events to be kept by the *Supplier*

Read clause 63.2 and 11.2(4) and then state whether the *Supplier* is required to keep any records of Defined Cost. Include any other constraint which may be required in regard to format and filing of the records, and whether access for the *Supply Manager* shall be provided in hard copy or electronically.

30 Procurement

31 Subcontracting

32 Preferred subcontractors

SC does not make use of nominated subcontracting, but the *Purchaser* may list which subcontractors or sub-suppliers the *Supplier* is required to enter into subcontracts with (if any). This is usually only required where plant and materials need to be obtained from a particular supplier or group of suppliers in order to comply with operational standards for the *goods*.

33 Limitations on subcontracting

The *Purchaser* may require that the *Supplier* must subcontract certain specialised work, or that the *Supplier* shall not subcontract more than a specified proportion of the whole of the contract.

34 Spares and consumables

Some contracts may need to include provision for the supply of a minimum category of spares, fuel, oil or other consumables which the *Purchaser* may need at or just after delivery or commissioning of the *goods* and that it is best the *Supplier* provide these initially as part of his Providing the Goods and Services

35 Other requirements related to procurement

Other requirements such as ASGISA or socio political enhancements the *Supplier* is to provide as part of Providing the Goods and Services (if any) could be included here.

36 Cataloguing requirements by the *Supplier*

State whether cataloguing is applicable, if it is, reference the requirements for cataloguing that need to be satisfied by the *Supplier* (consult Procurement Instruction Number 1 of 2018 – Incorporating Cataloguing into the Procurement Environment, Unique Identifier 240-1289988974).

37 List of drawings

38 Drawings issued by the *Purchaser*

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

Drawing number	Revision	Title

C3.2 *SUPPLIER'S* GOODS INFORMATION

This section of the Goods Information will always be contract specific depending on the nature of the *goods* and *services*.

It is most likely to be required for supply contracts where the tendering supplier will have proposed specifications and schedules for the *goods* and *services*, which once accepted by the *Purchaser* prior to award of contract now become obligations of the *Supplier* per core clause 20.1.

This section could also be compiled as a separate file.
