



NEC3 Supply

Short Contract (SSC3)

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

and [•]

for Supply and delivery of High Specification Drones for
Detailed Transmission Line Inspections

Contents:	Compiled in accordance with CIDB Standard for Uniformity in Construction Procurement (May 2010) amendments)	Page No.
Part C1	Agreements & Contract Data	
	C1.1 Form of Offer and Acceptance	[•]
	C1.2 Contract Data provided by the <i>Purchaser</i>	[•]
	C1.2 Contract Data provided by the <i>Supplier</i>	[•]
Part C2	Pricing Data	
	C2.1 Pricing assumptions	[•]
	C2.2 Price Schedule	[•]
Part C3	Scope of Work	
	C3.1 Goods Information	[•]
	Pro Forma Batch Order	

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The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

C1 Agreements & Contract Data

C1.1 Form of Offer and Acceptance

Offer

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

Supply and delivery of high specs RPAS

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

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of the obligations and liabilities of the 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 Prices inclusive of VAT is	R
(In words)	

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

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections**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 1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

Part 2 Pricing Data

Part 3 Scope of Work: Goods Information

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

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the 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, which must be signed by the duly authorised representative(s) for both parties.

The tenderer shall within one week of receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the 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 copy of this document, including the Schedule of Deviations (if any) together with all the terms of the contract as listed above.

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

Signature(s)

Name(s)

Capacity

**for the
Purchaser**

ESKOM HOLDINGS SOC LTD

(Insert name and address of organisation)

Name &
signature of
witness

Date

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

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections**Schedule of Deviations**

Note:

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

Name & signature of witness _____

Date _____

Eskom Holdings SOC Limited (reg no: 2002/015527/30); Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

C1.2 Contract Data

Data provided by the *Purchaser*

Clause	Statement	Data
General		
10.1	The <i>Purchaser</i> is (Name):	Eskom Holdings SOC Limited (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.	011 800 2104 / 082 771 0718
	Fax No.	086 668 9504
	E-mail address	SitholLe@eskom.co.za
11.2(4)	The <i>delivery date</i> is [If the <i>goods</i> are instructed by Batch Order enter the data, "The delivery date is identified in the Batch Order"]	TBC
11.2(5)	The Goods Information is in	the document called 'Goods Information' in Part 3 of this contract.
11.2(8)	The <i>goods</i> are	Supply and delivery of Small portable visual inspection drone (weight of less than 1kg)
12.2	The <i>law of the contract</i> is	South African
13.2	The <i>period for reply</i> is	3 weeks
15.1	The <i>premises</i> are	Eskom Aviation Offices 311 New Road, Grand central Airport Midrand
23.1	The <i>Purchaser</i> requires the <i>Supplier</i> to Provide the Goods when instructed by Batch Order.	No
23.1	If the <i>goods</i> are instructed by Batch Order,	
	the batch order interval is	N/A
	the end date is	[•]
	the quantity range of <i>goods</i> in a batch is	from [•] to [•]
30.1	The <i>starting date</i> is.	TBC
41.1	The <i>defects date</i> is	52 weeks after Delivery
42.2	The period for the correction of Defects after Delivery is	30 days after notification
50.1	The <i>assessment day</i> is the	14 th day after receipt of goods

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

50.5	The <i>delay damages</i> are [If the <i>goods</i> are instructed by Batch Order enter a <i>delay damage</i> amount appropriate to the quantity or use of the <i>goods</i> in the Batch]	2,5% of the contract value per day
51.2	The interest rate on late payment is	0 % per complete week of delay.
86.1	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	Zero
86.2	The <i>Supplier</i> is not liable to the <i>Purchaser</i> for loss of or damage to the <i>Purchaser's</i> property in excess of	N/A
93.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
93.2(2)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the Institution of Civil Engineers (UK) or its successor body (See www.ice-sa.org.za).
93.4	The <i>tribunal</i> is: If the <i>tribunal</i> is arbitration, the arbitration procedure is	arbitration. the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
11.1	The <i>conditions of contract</i> are the NEC3 Supply Short Contract (April 2013) ^{1 2} and the following additional conditions. [Only enter details here if additional conditions are required, otherwise state 'none']	

Z1 Cession delegation and assignment

¹ Can be obtained from Engineering Contract Strategies on www.ecs.co.za, Tel 011 803 3008, Fax 086 539 1902

² If the December 2009 edition is being used, replace April 2013 with December 2009

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

- 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 and the Electricity Distribution Industry.

Z2 Change of Broad Based Black Economic Empowerment (B-BBEE) status

- Z2.1 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.
- Z2.2 The *Supplier* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Purchaser* within thirty days of the notification or as otherwise instructed by the *Purchaser*.
- Z2.3 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.
- Z2.4 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 the same as for Reason 3 identified in clause 90.3.

Z3 Waiver and estoppel: Add to clause 12.3:

- Z3.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, or the *Adjudicator* does not constitute a waiver of rights and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.

Z4 Provision of a Tax Invoice and interest. Add to clause 51

- Z4.1 The *Supplier* provides the *Purchaser* with a tax invoice in accordance with the *Purchaser's* procedures stated in the Goods Information, showing the correctly assessed amount due.
- Z4.2 If the *Supplier* does not provide a tax invoice by the time required in this contract for his assessment of each amount due, 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.
- Z4.3 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.

Z5 Purchaser's limitation of liability

- Z5.1 The *Purchaser's* liability to the *Supplier* for the *Supplier's* indirect or consequential loss is limited to R0.00 (zero Rand)
- Z5.2 The *Supplier's* entitlement under the indemnity in 83.1 is provided for in 60.1(8) and the *Purchaser's* liability under the indemnity is limited.

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections**Z6 Termination: Add to clause 90.2 before (Reason 1)**

Z6.1 or had a judicial management order granted against it.

Z7 Addition to clause 50.5

Z7.1 If the amount due for the *Supplier's* payment of *delay damages* reaches the limits stated in this Contract Data (if any), the *Purchaser* may terminate the *Supplier's* obligation to Provide the Goods using the same procedures and payment on termination as those applied for Reason 3. Identified in clause 90.3.

Z8 Ethics

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

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

Z8.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

Z8.2 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.

Z8.3 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.

Z8.4 A Committing Party co-operates fully with any investigation pursuant to alleged

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

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.

Z9 Insurance

Replace condition of contract 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 in this Insurance Table A from the *starting date* until Delivery and against any risks he carries under this contract between Delivery and the *defects date*.

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><i>Purchaser's</i> 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 Death of or bodily injury

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

	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

84.2 The Purchaser provides the insurances in this Insurance Table B**INSURANCE TABLE B**

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

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections**Data provided by the *Supplier* (the *Supplier's Offer*)**

The tendering Supplier is advised to read both the NEC3 Supply Short Contract (April 2013) and the relevant parts of its Guidance Notes (SSC3-GN)³ in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on page 28 of the SSC3 Guidance Notes and Flow Charts.

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

10.1	The <i>Supplier</i> is (Name):	[•]
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	E-mail address	[•]
11.2(7)	The Price Schedule is in	the document called 'Price Schedule' in Part 2 of this contract.
11.2(7)	The offered total of the Prices	See C1.1 Form of Offer and Acceptance
63.2	The percentage for overheads and profit added to the Defined Cost is	[•]%

³ Available from Engineering Contract Strategies on www.ecs.co.za Tel 011 803 3008, Fax 086 539 1902.

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

C2 Pricing Data

C2.1 Pricing assumptions

Entries in the first four columns of this Price Schedule are made either by the *Purchaser* or the tenderer. If the *Supplier* is to be paid an amount for the item which is not adjusted if the quantity of goods in the item changes, the tenderer enters the amount in the Price column only, the Unit, Quantity and Rate columns being left blank.

If the *Supplier* is to be paid an amount for the item of goods which is the rate for the goods multiplied by the quantity supplied, the tenderer enters a rate for each item and multiplies it by the Quantity to produce the Price, to be entered in the final column.

The rates and Prices entered for each item includes for all work and other things necessary to supply the item.

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections**C2.2 Price Schedule**

The rates and Prices entered for each item includes for all work and other things necessary to supply the item.

Item No.	Description	Unit	Quantity	Rate	Amount
	NOTE: Tenderers to read this pricing schedule in conjunction with the technical specifications found in the tender document and price it accordingly.				
1.	<u>Drones and standard accessories:</u>				
1.1	High specification drone with a total take-off weight of less than 15kg, equipped with RTK technology, redundant propulsion system, barometric pressure aided height control and automatic route recognition. It must be able to fly for at least 40min, with a minimum wind resistance of 15m/s and at a minimum altitude of 3500m. It must have a minimum of IP45 rating. It must also be compatible with a mountable infrared camera (elsewhere measured). The drone must include the following standard accessories:	No	10		R -
	Smart controller battery charger and power cable				
	Smart controller and internal battery				
	Intelligent Flight Battery				
	Low-Noise Propellers (1x set)				
	Gimbal protector, screws and tools				
	Communication cable with USB 3.0 Type-C connector				
	Lanyard				
	Rubber port cover				
	Protection and travel case				

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

2.	<u>Additional Accessories</u>				
2.1	Intelligent Flight Battery	No	60		R -
2.3	Set of Low-Noise Propellers (Set of 4)	No	40		R -
2.4	USB - C to USB - C cable	No	10		R -
2.5	512GB MicroSD card (Class 3)	No	20		R -
2.6	Compatible drone landing pad	No	10		R -
2.7	Mobile charging station case (for 6)	No	10		R -
2.8	All-in-one mountable camera equipped with a 12MP ½.3" CMOS Wide camera (24mm Focal Length), a 20MP Zoom camera 1/17" CMOS (23x Hybrid Optical Zoom, 200x max zoom, 4k video resolution), a 1200m Laser range Finder and a 640X512 picture and video resolution, 8x digital zoom, 30Hz radiometric thermal camera. Carry case to be included.	No	10		R -
2.9	Controller screen sun-visors	No	20		R -
2.10	Spare smart controller	No	10		R -
2.11	Smart controller external battery	No	40		R -
	Subtotal				R -
	ADD VAT	15%			R -
	Total Amount carried to form of tender				R -

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

C3: Scope of Work

C3.1 Goods Information

1. Description and specification of the goods

High specs drone with a total takeoff weight of less than 15kg, equipped with RTK technology, redundant propulsion system, barometric pressure aided height control and automatic route recognition. It must be able to fly for at least 30min, with a minimum wind resistance of 15m/s and at a minimum altitude of 3500m. It must have a minimum of IP45 rating. It must also be compatible with a mountable infrared camera (elsewhere measured). The drone must include standard and additional accessories as listed below:

NOTE: These High Spec Drones must come with a 1 year warranty and the repairs and maintenance must be covered by the warranty for a period of 1 year. This warranty requirements is a standard for all Drones and it is mentioned to ensure conformity.

2. Technical requirements

This section details the specific requirements for a commercial size drone to be supplied with a list of accessories required per drone.

2.1 Functional Requirements

- a) Altitude: a minimum of 3500m.
- b) Capability to resist wind speeds of up to 15m/s.
- c) A minimum flight time of 40 min (assuming ideal no wind conditions at sea level) is required without having to do the first battery swap.
- d) Hot-swappable batteries.
- e) The device should be able to fly in light rain or snow and should have a minimum IP45 rating (IEC 60529).
- f) Omnidirectional obstacle avoidance technology of at least 30m.
- g) Automatic route/flight path recognition (i.e. storing the previous flight path in memory for future use).
- h) Systems should be resilient from a hacking perspective, i.e. SACAA requirements in terms of external interference, must be met.
- i) Electromagnetic withstand: minimum of 30 kV/m.
- j) Operating temperature of -5 °C to 50 °C.
- k) The system should allow for the independent camera control from a camera operator, it may be equipped with extra control pad.
- l) The device with all accessories should be portable and fit inside a protected travel case.
- m) All relevant flight data must be displayed live on the mobile ground station display.
- n) The pilot should be able to fly the RPAS with GNSS aided position and barometric pressure aided height control, which can be deactivated anytime and fly manually should he or she wish.
- o) Expandable storage capability.

2.2 Controller requirements

- a) Wi-Fi capability (Wi-Fi 6).

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

- b) Bluetooth capability (Bluetooth 5.1).
- c) The remote controller should be able to withstand light rain and snow with a minimum IP54 rating (IEC 60529).
- d) Required total working time of at least 4.5 hours before required to do the first battery swap.
- e) Brightness level setting of up to 1200 cd/m².
- f) Operating temperature of -5 °C to 50 °C.
- g) Capability to attach a lanyard/shoulder strap.
- h) Expandable storage capability.
- i) Status display: The pilot should be able to read on the display all the telemetry data like GNSS position, flight altitude and airspeed, battery voltage level, magnetic field or interferences around the RPAS, strong winds etc.

2.3 Safety Requirements

- a) The device should have auxiliary lights to be used for landing in low lights conditions.
- b) Dual redundancy required on:
 - Barometer
 - Compass
 - RTK Antennas
 - GNSS module
 - Vision and IR sensors
 - Batteries
 - Antennas used for transmission links
- c) If one controller fails, the second operator should be able to take control of the RPAS.
- d) In case a single propeller or motor fails, the RPAS should have the capability to make a controlled emergency landing.
- e) The RPAS should include an ADS-B receiver.
- f) All flight data saved in Blackbox: All relevant parameters of the flight system, pilot inputs and external factors like GNSS satellite constellations are saved to a memory card and prevent manipulation. This will be considered for the **Beyond Vision Line Of Sight** stage.
- g) If the RPAS control link or communication is lost it should have the capability to safely return home to its previously saved launch position.

2.4 Camera and Gimbal Requirements

- a) Capability to switch between a Zoom camera, wide angle camera and thermal camera
- b) The RPAS should be fitted with a dedicated FPV camera for use when one pilot controls the RPAS and another pilot controls the gimbal camera.
- c) Range finder capability of up to 1000m.
- d) Zoom camera requirements
 - 20MP picture resolution
 - 4k video resolution
 - Optical zoom of up to 16x
 - Digital zoom of up to 200x
- e) Wide camera requirements
 - 12MP picture resolution
 - HD video resolution
- f) Thermal camera requirements
 - 640x512 picture resolution
 - 640x512 video resolution
 - Digital zoom of up to 8x

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections**2.5 List of Accessories**

The list below is a complete list of accessories to be supplied with the drone. Some of the items in the list will form part of the standard accessories that is supplied with the drone and included in the price. All other accessories specified in the list should then form part of an additional accessories list and priced separately. If for some reason parts are included as standard parts and not included in the list below, the supplier should note it to Eskom and include it in their list to be supplied.

- a) 1x Protective travel case
- b) 5x sets of propellers
- c) 1x USB Type-C Cable
- d) 1x USB-C to USB-C cable
- e) 1x AC power Adapter
- f) 2x Smart controller
- g) 4x Smart controller external battery
- h) Manuals
- i) 2x Lanyard/shoulder strap for the controller
- j) 1x Mobile multi battery charging case
- k) 8x (4 sets) Intelligent Flight Battery
- l) 1x RPAS launch pad
- m) 2x 512GB microSD card (minimum UHS Speed Class 3)
- n) 2x sun-visor to be used with controllers
- o) Gimbal protector, screws and tools

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections**3. Technical evaluation criteria**

The technical tenders received will be evaluated via a document evaluation (desktop assessment) process.

The evaluation exercise is performed by the appointed Eskom technical team. This initial part of the evaluation starts when submissions are opened and assessed for the first time. The supplier must meet all the mandatory requirements to be considered for the non-mandatory evaluation. The submitted documents will then be evaluated against the evaluation criteria as stated in this document. A minimum total of **80%** is required to pass the technical evaluation.

For the mandatory items a clear statement is required indicating that the RPAS meets all of the requirements. In some cases, additional supporting documents might be required to support the statement made by the supplier.

Part 1: Mandatory Items

Mandatory Items	Supporting Documents Required?	Meet/Not Meet for Mandatory Criteria
A minimum flight time of 40 min (assuming ideal no wind conditions) is required without having to do the first battery swap.	Yes	
Does the RPAS have omnidirectional obstacle avoidance capability?	Yes	
All relevant flight data must be displayed live on the mobile ground station display?	Yes	
Does the system allow for the independent camera control from a camera operator?	Yes	
Does the RPAS have the capability to return home if control link or communication is lost or any malfunctioning occurs.	Yes	
Does the RPAS include the following redundancies: • GNSS module • Vision and IR sensors • Batteries • Transmission link	No	
Does the RPAS include a camera with the following capabilities: • Zoom camera of at least 20MP • Wide camera of at least 12MP • Thermal camera	No	
Is the RPAS ICASA approved?	Yes	
Can the second operator take control of the RPAS incase the first/main controller malfunctions?	Yes	

Supporting documents must be supplied for this evaluation criteria above. Either the RPAS meets the minimum requirement stated in which case full point are awarded, or it does not in which case no points will be awarded.

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections**Part 2: Non-mandatory items**

	Non-Mandatory Items	Weight	Score
1	Capability to fly at a minimum altitude of 3500m.	3	
2	Capability to resist wind speeds of up to 15 m/s.	3	
3	Capability for hot-swappable batteries.	3	
4	RPAS have a minimum IP45 rating.	3	
5	Omnidirectional obstacle avoidance of at least 30m.	5	
6	Capability to store previous flight paths in memory for future use.	3	
7	Immunity to Electric Fields up to 30 kv/m	5	
8	Range finder capability of up to 1000m	3	
9	The pilot should be able to fly the RPAS with GPS aided position and barometric pressure aided height control, which can be deactivated anytime and fly manually should he or she wish.	3	
10	Does the controller have wifi (6) and Bluetooth (5.1) capability	3	
11	Controller have a minimum IP54 rating	3	
12	Minimum working time of 4.5 hours on the controller before the first battery swap is required.	3	
13	Controller screen brightness of up to 1200cd/m ²	3	
14	Expandable storage capacity	3	
15	RPAS has the capability to simultaneously record video and capture photos.	3	
16	Status display: The pilot should be able to read on the display all the telemetry data like GPS position, flight altitude and airspeed, battery voltage level, magnetic field or interferences around the RPAS, strong winds etc.	3	
17	High level of flight behavior predictability: should be able to be predictable even in weak GPS environment or magnetic fields (must have RTK capability).	5	
18	Preferential to have both on-board and ground station recording – i.e. remote data capturing facilities	3	
19	RPAS to have auxiliary lights that can be used for landing in low light conditions.	3	
20	Dual Redundancy on: Barometer	8	

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

	• Compass • RTK Antennas • GNSS module • Vision and IR sensors • Batteries • Antennas used for transmission links		
21	In case of a single propeller or motor fails, the RPAS should have the capability to make a controller emergency landing.	5	
22	The RPAS should include a ADS-B receiver.	3	
23	Minimum Zoom camera capabilities: • 20MP picture resolution • 4k video resolution • Optical zoom of up to 16x • Digital zoom of up to 200x	5	
24	Minimum Wide camera capabilities: • 12MP picture resolution • HD video resolution (1920x1080)	5	
25	Minimum Thermal camera capabilities: • 640x512 picture resolution • 640x512 video resolution • Digital zoom of up to 8x	5	
26	Are all the required accessories specified included	6	
		100	

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

Title	Date or revision	Tick if publicly available
<u>General Specifications:</u>		
32-726 Contract and Contractor OHS Management	3	Yes
32-727 Safety, Health, Environment and Quality (SHEQ) Policy	4	Yes
32-136 Contractor Health and Safety Requirements	4	Yes
Occupational Health & Safety Act No.85 of 1993		Yes
240-105658000 Supplier Quality Management Specification	3	Yes
<u>Technical specifications:</u>		
LES1714 - High Specification Drones for Detailed Transmission Line Inspections	1	Yes

3. Constraints on how the *Supplier* Provides the Goods**3.1 Subcontracting – N/A****3.2 Use of standard forms – N/A****3.3 Invoicing and payment**

In terms of core clause 50 the *Supplier* assesses the amount due and applies to the *Purchaser* for payment. The *Supplier* applies for payment with a tax invoice addressed to the *Purchaser* as follows:

Eskom Holdings SOC Ltd
Reg. No. **2002/015527/30**

Email: invoiceseskomlocal@eskom.co.za

The *Supplier* includes the following information on each tax invoice:

- Name and address of the *Supplier*
- The contract number and title
- *Supplier's* VAT registration number.
- The *Purchaser's* VAT registration number which is **4740101508**
- The total of

The supply and delivery of 10 High Specification Drones for Detailed Transmission Line Inspections

- Where a quantity is stated for an item in the Price Schedule, an amount calculated by multiplying the quantity which the *Supplier* has completed by the rate,
- Other amounts to be paid to the *Supplier*
- Less amounts to be paid by or retained from the *Supplier*. 2,5% will be paid after 6 months and remaining 2,5% payable after 12 months
- The invoiced amount - excluding VAT, the VAT and including VAT

3.4 Records of Defined Cost – N/A**3.5 Cataloguing requirements by the *Supplier* - N/A****4. Requirements for the programme - N/A****5. Services and other things provided by the *Purchaser* – N/A**

Item	Date by which it will be provided

6. Supply requirements

6.1 All goods to be delivered to the following address:

**Eskom Aviation Offices
311 New Road,
Grand central Airport
Midrand**

Contact Person: Moses Tebele

Contact Number: 082 387 3854

6.2 Deliveries will be made during the week within the following hours:

Monday to Thursday: 08h00 until 14h45
Friday: 08h00 until 11h00

6.3 Supplier to be prepared to provide goods within an acceptable delivery period when urgently required

6.4 Successful bidder to supply goods within 6 weeks of tender award