AIR TRAFFIC AND NAVIGATION SERVICES SOC LTD

APPOINTMENT OF A SERVICE PROVIDER TO PROVIDE A TECHNICALLY DETAILED PROPOSAL FOR THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND SUPPORT OF LITHIUM-ION BATTERY UPS'S IN SV1-SV5 WAM SITES.

RFP: ATNS/EP/RFP036/FY22/23/ WAM UPS'S

OCTOBER 2023

VOLUME 2, 3 and 4

IMPORTANT NOTICE

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The participants shall bear all costs incurred by him/her in connection with the preparation and submission of his information and supporting documents. ATNS will in no case be responsible for payment to the participants for these costs.

Introduction

1.1 Company Background

The Air Traffic and Navigation Services (ATNS) Company of South Africa is the sole provider of air traffic management, communication, surveillance, navigation, training and associated services within South Africa. ATNS manages 10% of the world's airspace.

Standing strong with over 1200 employees, ATNS strives to continuously provide safe airspace, orderly, expeditious and efficient management of Air Traffic Management services. The company operates at 21 aerodromes within the country, including OR Tambo, Cape Town and King Shaka International Airports. The airspace over which ATNS exercises jurisdiction covers continental Southern Africa (Two FIRs) and adjoining oceanic areas (Oceanic FIR). Beyond the coastal borders of the country this airspace extends westwards (into the Atlantic Ocean) to 10°W longitude, eastwards (into the Indian Ocean) to 75°E longitude, and southwards along these meridians of longitude to the South Pole (excluding the Mauritius FIR which extends to 45°S) as depicted in figure 1 below.

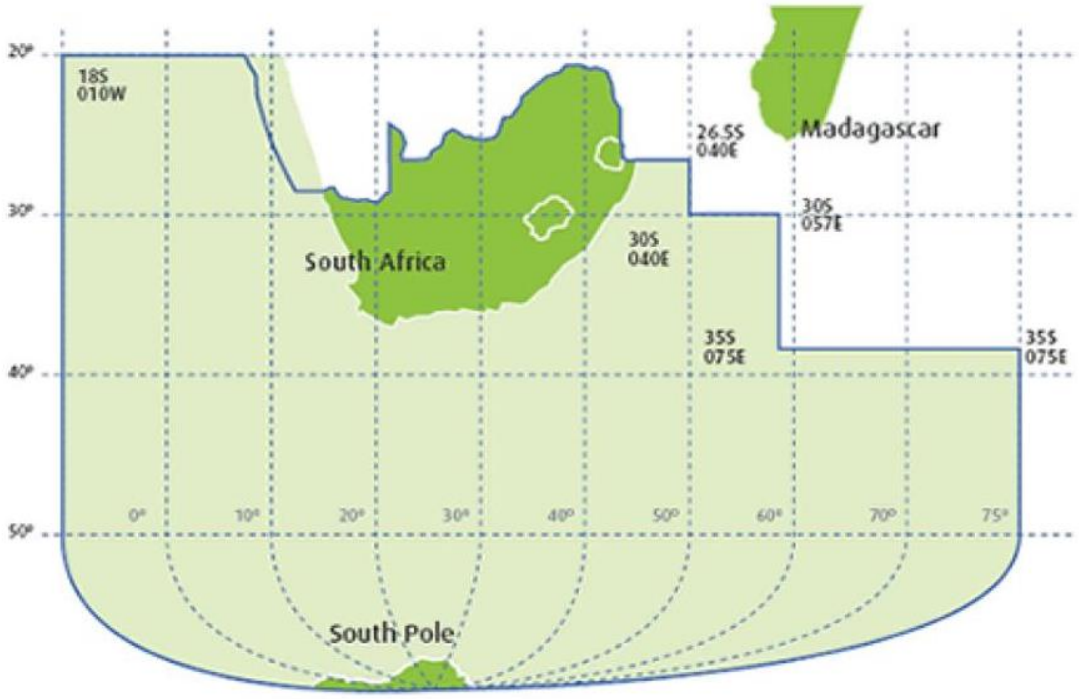


Figure 1 - Presentation of Airspace over which South African ATNS exercises jurisdiction

In the rest of the African Continent, ATNS provides amongst others the Aeronautical Satellite Communication (VSAT) networks. This service interconnects more than 33 states in Africa and The Middle East. Other services include ATS and technical training, WGS 84 surveys, airspace design, AIP documentation, billing and consultancy services.

Vision

ATNS's Vision is to be the preferred supplier of air traffic management solutions and associated services to the African continent and selected international markets.

Mission

Our Mission is to provide safe, expeditious and efficient air traffic management solutions and associated services, whilst ensuring long-term economic, social and environmental sustainability.

Our business is driven through our embedded Values, being:

- Accountability
- Safety and customer service
- Continuous improvement and innovation
- Employee engagement and development
- Fairness and consistency
- Open and effective communication

The Air Traffic and Navigation Service Company Limited (ATNS) is a State-Owned Company (SOC), established in 1993 in terms of the ATNS Company Act (Act 45 of 1993) to provide air traffic management solutions and associated services on behalf of the State. These services accord with International Civil Aviation Organisation (ICAO) standards and recommended practices, and the South African Civil Aviation Regulations and Technical Standards. As an air navigation services provider (ANSP), ATNS is governed by the nation's legislative and administrative framework.

ATNS is also a commercialised ANSP operating on the "user pays" principle that relies on current revenues and debt funding for its operational and capital expenditure requirements.

Our business offerings are divided into Regulated and non-regulated activities:

Regulated Business

At present 90% of ATNS's revenue is facilitated through its regulated business:

Air navigation services and infrastructure

The principal activities of ATNS's regulated business encompass the planning, operating and maintenance of safe and efficient air traffic management services in the airspace for which the State is responsible. Airspace infrastructure consists of the following main components:

- Communications, navigation and surveillance (CNS) infrastructure.
- Auxiliary aviation services, such as aeronautical information publications, flight procedure design and aeronautical surveys.
- Air traffic management.

ATNS's infrastructure development is informed by user expectations and regulatory requirements at a global level; as well as the needs of the Air Traffic Management (ATM) community and new enabling technologies.

Air traffic service charges

As an Air Navigation Service Provider (ANSP), ATNS is regulated economically by the Economic Regulating Committee (RC) that is a statutory body formed and appointed by the Shareholder, the Department of Transport (DoT). The RC is empowered by the ATNS Company Act (Act 45 of 1993) to issue permission to ATNS. The permission regulates the increase in specified tariffs that ATNS can issue and lays down minimum service standards requirements for the regulated business. ATNS is, through the permission, authorised to levy air traffic service charges on users (aircraft operators) for the use of air navigation infrastructure and/or the provision of an air traffic service. The permission has a five-year life span.

Training institution

ATNS runs a successful training institution as a division within the Company, namely: the Aviation Training Academy (ATA). The ATA provides a full range of air traffic services training, technical support training and related training to delegates in South Africa and the broader African continent in the disciplines of engineering, air traffic services and management. The ATA is an ISO9001:2000 accredited institution and has international cooperation agreements in place with partners, enabling the academy to maintain mutually beneficial partnerships in the presentation and accreditation of international courses in air traffic services (ATS). The ATA is a world-renowned academy, and in both 2012 and 2013 was formally recognized as the International Air Transport Association (IATA) Worldwide Top Regional Training Partner.

Non-Regulated Business

ATNS's non-regulated business currently contributes 10% of the Company's revenue. The non-regulated business encompasses a long-term strategy to facilitate regional expansion through a subsidiary vehicle presently known as "ATNS International". ATNS International will enable the Company to take a more robust and agile stance in the non-regulated business market without posing undue risks to its regulated market and Shareholder. It will also enable

ATNS to enter into joint ventures and partnerships with external suppliers so that the Company can harness more valuable market opportunities and extend its regional influence and reach.

Additional information is available on ATNS website – www.atns.co.za

1.2 Northern WAM UPS Project Background

ATNS provides communication, navigation and surveillance in 10 % of the world airspace therefore always ensuring to provide world class Air Traffic Management Services. One of the systems used to provide aircraft surveillance is the Wide Area Multilateration System (WAM System).

The WAM&ADS-B system is an aeronautical radionavigation and radiolocation services provision system that operates within the allowable aviation spectrum of 1030MHz for transmission and 1090 MHz for receiving of surveillance data.

The WAM system has been installed in Mpumalanga and Limpopo area. The system provides coverage to the Kruger and Hoedspruit Airports. It is important that ATNS provides an uninterruptible Air Traffic Service regardless of regular power failures of these present times.

This project calls for the supply, delivery, installation, commissioning, and one-year standard warranty of three new 10 KVA UPSs. The UPSs will be installed in each of the sites listed in Annexure A of this document. The project also includes associated electrical works, and certification.

1.2.1 **Scope of Work**

The scope of the project is to:

- Perform an overall assessment to validate that the UPS ratings is compatible and sufficient **to support a load of 801 Watts for 4 hours.**
- Provide a Certificate of Compliance after a successful installation and commissioning.
- Provide battery packs to support the load for the four-hour duration.
- Provide a one warranty for the proposed UPSs.

Region A (Nelspruit/Mpumalanga Region)

3 x Northern WAM UPSs Specification Summary

Capacity: 10 KVA, 4hr back up, Single Phase Lithium Ion, Double Conversion.

Output Voltage: 230 V

Physical Dimension: Information provided in the detailed requirements.

Allowable Recharge Time: 4 hours

Region B (Malelane/Mpumalanga Region)

3 x Northern WAM UPSs Specification Summary

Capacity: 10 KVA, 4hr back up, Single Phase Lithium Ion, Double Conversion.

Output Voltage: 230 V

Physical Dimension: Information provided in the detailed requirements.

Allowable Recharge Time: 4 hours

Region C (Limpopo Region)

4 x Northern WAM UPSs Specification Summary

Capacity: 10 KVA, 4hr back up, Single Phase Lithium Ion, Double Conversion.

Output Voltage: 230 V

Physical Dimension: Information provided in the detailed requirements.

Allowable Recharge Time: 4 hours

1.3 Purpose of the RFP

The scope of the ATNS invites potential service providers to provide technically detailed proposal for the delivery, supply, installation, and commissioning of UPSs at three regions listed above. The potential service provider shall include as part of their proposal one-year support plan that clearly articulates the support that can be offered throughout one year of service. The support will be offered as part of the standard one-year warranty period.

NB: Should the bidder have capacity to provide services in one region instead of the three listed regions, the bidder is required to only bid for that region and not all three.

The objective of this RFP is for ATNS to obtain a budgetary and technically detailed proposal.

Response to This Document

The bidder shall submit all responses, diagrams, project management documentation and drawings according to the GENERAL INFORMATION AND INSTRUCTIONS TO BIDDERS document and in the English language.

ALL RESPONSES TO THE REQUIREMENTS IN THIS DOCUMENT SHALL BE PROVIDED AS FOLLOWS:

BIDDERS SHALL RESPOND IN FULL TO EACH ITEM IN THE FORMAT PROVIDED AND REFERENCES TO DOCUMENTS AND RELEVANT INFORMATION SUPPORTING THE RESPONSES SHALL BE INDICATED IN THE SPACE PROVIDED. THIS INFORMATION WILL BE THE **ONLY RESPONSE USED FOR THE EVALUATION AND ASSESSMENT**.

Responses, provided in the space allowed, that are not clear or inadequate or the lack thereof shall be interpreted as **"Not Compliant"** even though the compliance column is declared as "Comply" and/or the Bidder's offer meets the requirement. Bidders shall ensure that each response correctly addresses the requirement stated. Responses not addressing the requirement of the specific paragraph shall be interpreted as **"Not Compliant"**.

Bidders shall declare compliance to each paragraph of this document in the column labelled "Compliance" as follows:

C: fully compliant = 2 points:
PC: partly compliant = 1 points.
NC: not compliant = 0 points.

For paragraphs marked "PC" or "NC", Bidder's shall include a statement as to the nature of the variation and may additionally supply supporting information in the space provided to demonstrate how the proposal meets the needs of ATNS.

The WAM UPS RFQ EVALUATION CRITERIA

The bidder is encouraged to note that each requirement contains a certain weight according to its importance. The total sum of the weights is **100%** and there is a set functional threshold of **70%** that the bidder should meet to proceed to the next step of the adjudication process.

Section.	**Weight**
Capability Assessment Requirements	20%
Technical and Operational Requirements	55%
Integrated Logistics and Support	25%

Total	**100%**
Overall Threshold	**70%**

EVALUATION GROUP for CAPABILITY ASSESSMENT		
CRITERIA GUIDELINES FOR APPLICATION WEIGHTING	**EVALUATION CRITERIA**	**WEIGHTING**
Requirement **2.1**	Non-Compliant = 0% Partial Compliance = 5% Full Compliance = 10%	**10%**
Requirement **2.2**	Non-Compliant = 0% Partial Compliance = 5% Full Compliance = 10%	**10%**
TOTAL CAPABILITY ASSESMENT SCORE		**20%**

EVALUATION GROUP for TECHNICAL and OPERATIONAL REQUIREMENTS		
CRITERIA GUIDELINES FOR APPLICATION WEIGHTING	**EVALUATION CRITERIA**	**WEIGHTING**
Requirement **2.3**	Non-Compliant = 0% Partial Compliance = 5% Full Compliance = 10%	**10%**
Requirement **2.4**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
Requirement **2.5**	Non-Compliant = 0% Partial Compliance = 5% Full Compliance = 10%	**10%**
Requirement **2.6**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
TECH. AND OPS SCORE		**30%**

EVALUATION GROUP for TECHNICAL and OPERATIONAL REQUIREMENTS		
CRITERIA GUIDELINES FOR APPLICATION WEIGHTING	**EVALUATION CRITERIA**	**WEIGHTING**
Requirement **2.7**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
Requirement **2.8**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
Requirement **2.9**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
Requirement **2.10**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
Requirement **2.11**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
TECH. AND OPS. SCORE		**25%**

EVALUATION GROUP FOR INTEGRATED LOGISTICS AND SUPPORT REQUIREMENTS		
CRITERIA GUIDELINES FOR APPLICATION WEIGHTING	**EVALUATION CRITERIA**	**WEIGHTING**
Requirement **2.12**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
Requirement **2.13**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
Requirement **2.14**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
Requirement **2.15**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
Requirement **2.16**	Non-Compliant = 0% Partial Compliance = 2.5% Full Compliance = 5%	**5%**
INTEGRATED LOGISTICS AND SUPPORT SCORE		**25%**

2 NORTHERN WAM UPSs Technical Requirements

This section defines requirements for the supply, delivery, installation, and commissioning of three new Lithium Ion UPSs. Refer to Appendix A for geographic information or site locations.

2.1 The Contractor shall provide a Turn-Key solution addressing all project requirements which are: Supply, deliver, install and commission:

- 3x10 KVA, 4hr back up, single phase lithium-ion double conversion UPSs for Region A.
- 3x 10 KVA, 4hr back up, single phase lithium-ion double conversion UPSs for Region B.
- 4x 10 KVA, 4hr back up, single phase lithium-ion double conversion UPSs for Region C.

Please see Annex A (Site Names and Coordinates).

COMPLIANCE (C/PC/NC)		
Tick Region you are bidding for:	Region A	
	Region B	
	Region C	
[INSERT FULL RESPONSE FOR EVALUATION HERE]		
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]		

2.2 The Bidder shall provide an overall technical description of the proposed UPSs along with the supporting drawings, datasheets, connectivity diagrams, etc.

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.3 The bidder shall note that the ***overall load on site is 801 Watts per site***. This calculation is based on the actual figures as per equipment specification and has been tested and verified on site.

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

After noting the given load, the bidder shall provide a calculation explaining the following:

1. Quantities of battery packs
2. Details of the battery packs required to support the given load for four hours.

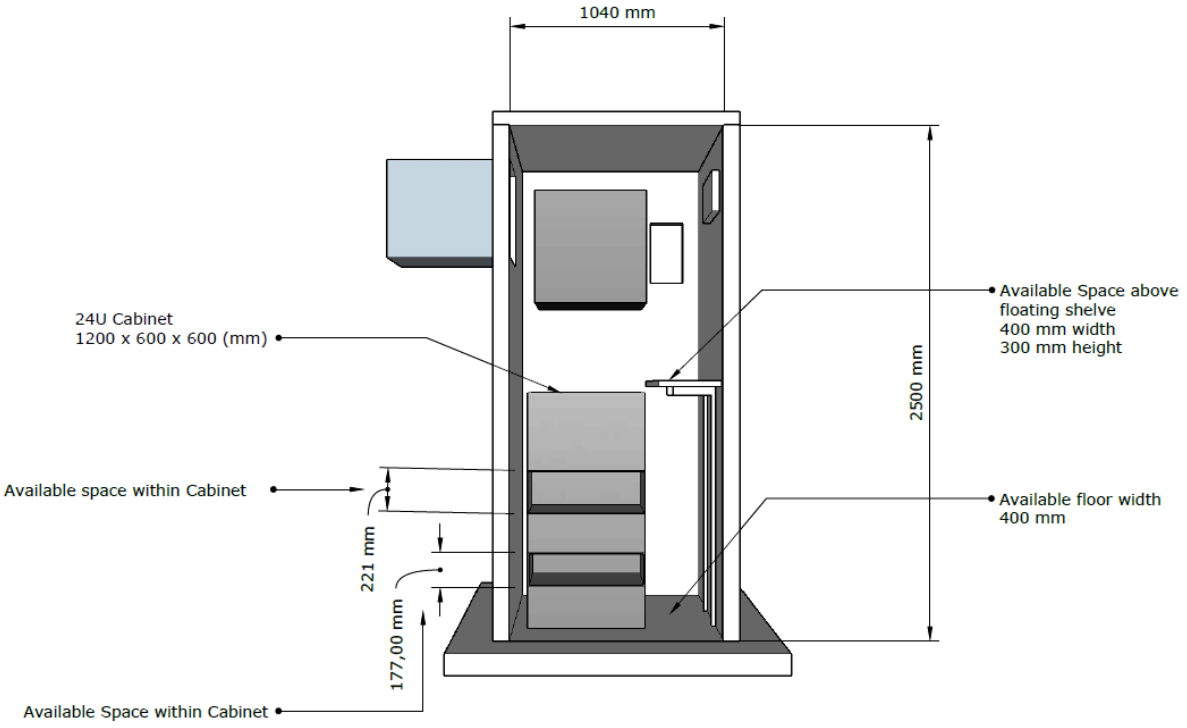
To answer the above requirement the bidder shall provide one page document with this calculation. The one page will be an appendix of the datasheet document. The bidder shall reference the page number on the below compliance section for ease of reference**.**

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

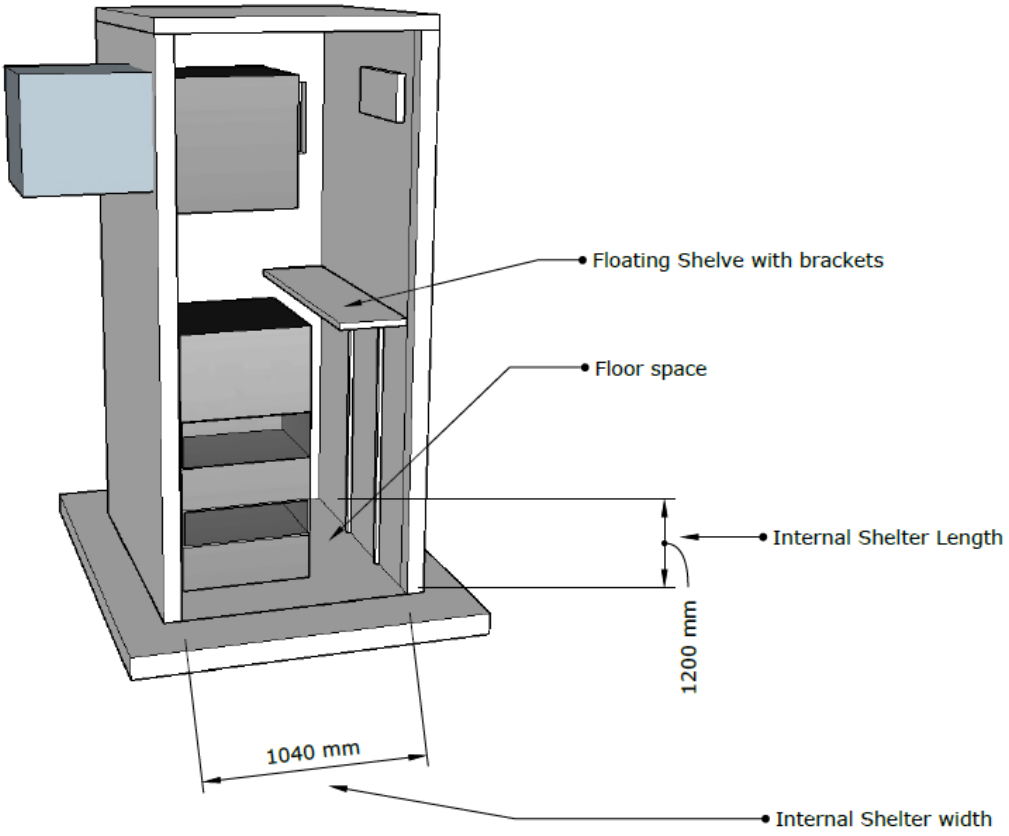
2.4 The UPSs batteries shall have a capability to recharge to 100% in battery capacity within a 4-hour period. The bidder shall indicate on the provided datasheet the section that confirms compliance to this requirement.

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.5 The Bidder shall provide a Rack Mountable UPS solution that can fit in the spaces indicated below. The bidder shall indicate compliance to this requirement by proving a datasheet indicating dimensions of the proposed UPS and its associated battery packs.

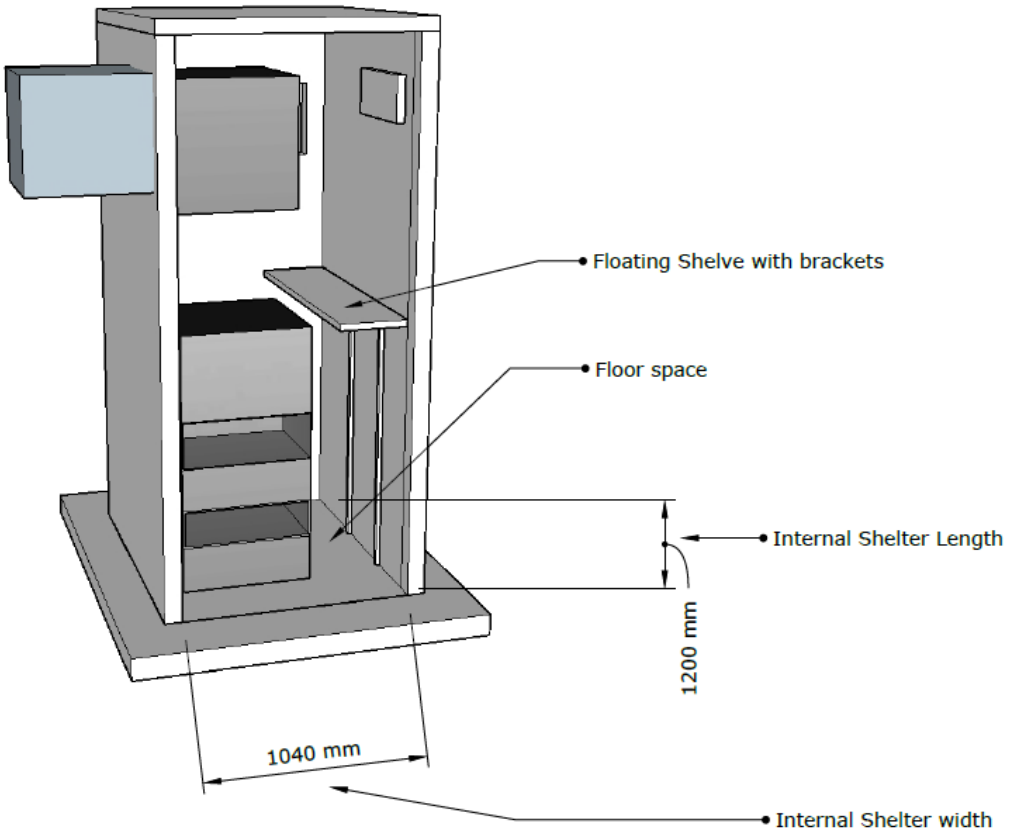


2.6 In a case where a bidder might need additional space required to neatly complete the installation of the proposed UPS. The Bidder shall provide a floating shelf per site. The floating shelf shall be capable of carrying the supplied UPS weight and its associated battery pack. The floating shelf will be installed in the highlighted space below. The bidder shall indicate compliance to this requirement by providing the floating shelf drawings, datasheet etc.



COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.7 The floating shelf shall include heavy duty L shaped brackets mounted on the shelter wall with a metal base to hold the proposed UPS or additional battery packs. The location of installation shall be the side indicated in the picture below. The bidder shall indicate compliance to this requirement by providing a drawing of the required bracket. The bidder shall account for this bracket on the pricing schedule.



COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.8 The service provider shall take full responsibility of all electrical works pertaining to the installation and commissioning of the three UPSs at each individual site. The electrical installation shall include an isolator switch for each system installed between the equipment and mains power supply. The bidder shall indicate compliance to this requirement by providing a datasheet of the proposed isolator switch.

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.9 The electrical installation shall also include sufficient lightning and surge protection as most sites are prone to lighting strikes. The bidder shall indicate compliance to this requirement by providing a datasheet of the proposed lightning and surge protection.

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.10 The Service Provider shall ensure that the UPSs to be installed are connected to the current Remote-Control Monitoring System such that the status of these systems can be monitored. The bidder shall confirm compliance to this requirement by confirming that the provided UPS model has dry contacts, IP output available to connect to external systems. To prove compliance the bidder shall point to the specific page on the provided datasheet. This will guide the evaluation team on where this information can be obtained.

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.11 The Service Provider shall ensure that all cables are labelled, colour coded and include a numerical identifier, cable type, source (unit name, port, location) and destination (unit name, port and location). A proposed interconnection diagram depicting the flow of communication and power between the UPS system components to ATNS equipment remote monitoring unit shall be provided after the installation. All power cables shall be neatly installed inside cable trays and/or ducts as applicable and shall not run parallel to data cables.

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.12 The Service Provider shall perform an integrity test before commissioning of the systems.

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.13 Once the UPS System has been commissioned at each individual site, the Service Provider shall provide AS Built documents and a COC to ATNS.

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.14 The Bidder shall submit a high-level project schedule and deployment timelines.

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.15 Once the UPS System has been commissioned at each individual site, the Service Provider shall provide on-the-job training to ATNS technical staff on the operation and high-level maintenance of the installed UPS system.

COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

2.16 The Bidder shall provide individual pricing for each UPS with its associated Electrical Installation Cost **in the Pricing and Payment Schedule Spreadsheet in Appendix B.**

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COMPLIANCE (C/PC/NC)	
[INSERT FULL RESPONSE FOR EVALUATION HERE]	
[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]	

Annex A: (NORTHERN WAM PROJECT SITES)

The below tables provide detailed information on the Site Coordinates where the UPSs will be installed.

Region A (Nelspruit/Mpumalanga Region)

Ground Station		Site Coordinates	Site Power Status
No.	Name		
GS05	Kameeldrift West	25°41'21.07"S, 27°59'4.08"E	NO BACK UP POWER
GS20	Lebombo	25°27'19.99"S, 31°58'47.96"E	NO BACK UP POWER
GS22	Thornhill	25°28'51.73"S, 31°36'20.63"E	NO BACK UP POWER

Region B Region B (Malelane/Mpumalanga Region)

Ground Station		Site Coordinates	Site Power Status
No.	Name		
GS14	Bakenkop	25° 8'6.34"S, 30°52'37.88"E	NO BACK UP POWER
GS17	Kaapsehoop-1	25°30'57.66"S, 30°46'34.80"E	NO BACK UP POWER
GS19	Mauchberg T	24°59'48.33"S, 30°45'38.24"E	NO BACK UP POWER

Region C Region C (Limpopo Region)

Ground Station		Site Coordinates	Site Power Status
No.	Name		
GS16	Hoedspruit	24°21'1.68"S, 30°57'4.22"E	NO BACK UP POWER
GS21	Mariepskop	24°32'23.18"S, 30°52'14.24"E	NO BACK UP POWER
GS06	Koperkop	22°40'19.78"S, 29° 8'9.95"E	NO BACK UP POWER
GS08	Tsharokho	22°38'33.98"S, 30°36'27.62"E	NO BACK UP POWER

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