**AIR TRAFFIC AND NAVIGATION SERVICES SOC. LTD**

**REPUBLIC OF SOUTH AFRICA**



**REQUEST FOR PROPOSAL: ATNS/TPQ/RPF045/22.23/ AMHS-AFTN REPLACEMENT**

**AMHS/AFTN REPLACEMENT PROJECT**

**Volume 3**

**PROJECT MANAGEMENT SPECIFICATIONS**

**October 2022**

The information contained within this document is confidential to ATNS in all respects and it is hereby acknowledged that the information as provided shall only be used for the preparation of a response to this document. The information furnished will not be used for any other purpose than stated and that the information will not directly or indirectly, by agent, employee or representative, be disclosed either in whole or in part, to any other third party without the express written consent by the Company or its representative/

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| LIST OF ABBREVIATIONS |

RFT Request for Tender

PMP Project Management Plan

WBS Work Breakdown Structure

IEEE Institute of Electrical and Electronics Engineers

TEMP Test and Evaluation Master Plan

ITC Installation and Transition and Commissioning

EMPr Environmental Management Programme

ISO International Organization for Standards

QMS Quality Management System

QA Quality Assurance

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| DEFINITIONS |

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| **Acquisition Phase**  | means the period from Effective Date to the end of PBU |
| **Implementation Phase** | means period from installation, integration, testing and commissioning until the final site acceptance. |

# **GENERAL INSTRUCTIONS TO BIDDERS**

The Bidder shall submit all responses, diagrams, documentation and drawings according to the GENERAL INFORMATION AND INSTRUCTIONS TO BIDDER’S document and in the English language.

To assist Bidders only, each paragraph or article has been appended throughout with the letters “(M)”, “(D)”, “(O)” or “(I)”, to indicate whether the requirement is **M**andatory, **D**esirable, **O**ptional or for **I**nformation only.

**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 (CHAPTER, SECTION, PAGE NUMBER, PARAGRAPH NUMBER) 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 and every paragraph of this document, based on the paragraph classification, in the response block provided opposite the column labelled “Compliance”. Bids will be evaluated as follows:

C: fully compliant = 2 points:

PC: partly compliant = 1 point;

NC: not compliant = 0 points.

Noted: Noted and accepted (applicable to paragraphs marked as “I”, not containing requirements)

Bidders shall, for paragraphs declared “PC” or “NC”, include a statement as to the nature of the variation and may supply additional supporting information in the space provided to demonstrate how the proposal may still meet the needs of ATNS.

**Paragraphs marked “(M)”**, indicates that the requirement is mandatory and Bidders that do not comply with the requirement **shall** be disqualified for further evaluation.

**Paragraphs marked “(D)”**, indicates that the requirement is desirable, and the Bidder is expected to declare their level of compliance, provide a formal response and reference supporting documents.

**Paragraphs marked “(I)”**, indicates that the requirement is for information, however the Bidder is still expected to respond and provide information if requested. Any information gathered herein may form part of the contractual terms.

**Paragraphs marked “(O)”**, indicates that the requirement is optional, and the Bidder may decide how to respond.

# **PROJECT MANAGEMENT**

## **General**

#####  [A] The Contractor shall establish, implement and maintain extensive and comprehensive Project Management plans throughout the period of any Contract arising from this RFT. These Plans will be submitted to the Company for information and reporting purposes. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

##### [B] Draft Project Management plans shall be submitted with the Tender to indicate compliance and will be refined as necessary during the Contract development and reporting phases. (D)

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| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

#####  [C] The Project Management of the Project is the responsibility of the Contractor. Submitting the Project Management Plans to and their acceptance by the Company do not imply approval or concurrence by the Company nor does it absolve the Contractor from the Project Management role and responsibilities. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

[D] The Contractor shall divide the plans into activities, which can be managed, monitored, and measured in terms of duration, cost, risk and resources. These activities shall be organised into logical networks. Such networks shall be used by the Contractor as the main framework for planning, budgeting, controlling and reporting to the Company throughout the period of the Contract. These networks shall be closely linked to the various System Engineering Plans and activities to ensure the rapid and accurate reflection of any System Engineering decision. A draft framework of measuring project activities shall be submitted as part of the tender. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

[E] The BIDDER shall present ATNS with a Project Management schedule in the Microsoft Project® format for integration into the ATNS Enterprise Project Management (EPM) system. The Company estimated project acquisition and implementation duration is twenty-four (24) months from contract signature. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [F] Project Management shall encompass the management of all the various facets of the project as defined in the Contract. These including design, development, production, supply of ancillary equipment, resource allocation and control, management of sub-contractors, on-site installation and construction, testing, transitioning, commissioning, transportation, all Integrated Logistic Support activities, staff movements and subsistence, etc. The BIDDER shall clearly demonstrate these aspects in the requirements described in the following parts of the document. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [G] The Contractor shall prepare for, actively participate in, and respond to the Project Meetings, prepare and present comprehensive reports, and produce adequate documentation as described in the following parts of this document. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## **Project Management Plan**

[A] BIDDER shall submit a draft Project Management Plan (PMP) with the tender. The Project Management Plan will be a formally accepted and approved document used to manage and control project execution throughout the project life-cycle phases. The PMP will detail all the activities necessary to successfully complete the project and shall refer to the other plans developed under the project. (D)

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| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## **Project Status Report**

* + 1. **General**

[A] The Contractor shall provide to the Company at two-weekly intervals (or at other mutually agreed intervals) Project Status Reports, which will capture the project performance to date and makes recommendations for future implementation and changes. Project status shall be presented relative to schedule critical path and cost and shall also include a Risk Report. The Risk Report shall identify risks and the measures taken either to manage or avoid the risks. Project status shall also include the Master Project Schedule and Schedule Analysis. The Contractor shall promptly submit to the Company the Master Project Schedule which, when updated, shows a negative float or indicates a significant change to the delivery schedule. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

* + - 1. **Master Milestone Schedule**

##### The Contractor shall develop, maintain, and track progress against a Master Project Schedule. The Project Schedule shall be organized to depict the flow of work, the task interdependencies and the interrelationships necessary to accomplish the program objectives from Contract Award to completion of the contract. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [B] The Contractor shall ensure that the Project Schedule includes all contractually specified milestones, identifies the critical path, and is linked to the WBS. The Master Project Schedule shall be broken down to a sufficient level of detail. The schedule shall also address the Logistic Support Programme. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

* + - 1. **Activity Dictionary**

[A] The Contractor shall provide the Company with an Activity Dictionary. Each activity definition shall be brief and concise. The activity dictionary shall define at least the following attributes:

* state the work to be accomplished;
* target start/target finish;
* actual start/actual finish (if applicable);
* minimum, maximum and most likely duration of each activity;
* manpower required to complete activity; and
* any other resource associated with the activity.

**Note**: Once the Company is in possession of an approved and comprehensive dictionary, exception reporting only is required in the Project Status Report (i.e.: new activities or a change in an activity). This however does not exclude the requirement to report on the risks on a monthly basis. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

* + 1. **Schedule Analysis**

[A] The Contractor shall provide the Company with a Schedule Analysis as part of the Project Status Report. This shall be a written analysis of project performance, future predictions and recommendations against time and cost objectives. The analysis shall also contain a statement of current resources applied to the project including materials, plant, space occupied on Company premises, costs and manpower. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## **Project Review Meeting**

* + 1. **Requirement**

[A] The Contractor shall attend Progress Review Meetings at monthly intervals (or at other mutually agreed intervals) to present a Project Status Report. The regular Progress Review meetings shall be held in South Africa at either the Contractors premises or at the Company’s Office, or at other mutually agreed locations. A copy of the Contractor’s written Project Status Report and meeting presentation material shall be submitted to the Company at least one week prior to the Progress Review Meeting. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

* + 1. **Matter for Consideration**

[A] The Contractor shall make a presentation on the progress of the project to date, a projection of the effects of variations from the previous schedule, and any action taken or recommendations for action to rectify existing or anticipated problems. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

[B] The Contractor shall present all aspects of the project status. The Contractor shall present a detailed, accurate summary of the accomplishments of the Contractor and subcontractors to date. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [C] The presentation shall include a forecast of trends in terms of technical, cost and schedule performance through to completion of the Contract. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [D] The presentation shall focus attention upon, and provide insight into, the interrelationships among the project elements including subcontractors. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [E] The presentation shall focus attention upon Design and Management problems. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [F] The Contractor shall present, at the request of the Company, any data for proposed work constituting a variation to the Contract or Engineering Change Proposals. The Contractor shall be prepared to provide supporting data on assumptions made and methodologies used in arriving at specific conclusions, recommendations and alternatives to the design approach. There shall be a free and unlimited exchange of information between the Contractor and the Company to establish progress of the project, to identify problems and to agree on the method of timely resolution. (I)

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| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

* + 1. **Participant in the Review Meeting**

[A] The Contractor shall be represented by appropriate key personnel in each significant area to be considered during the meeting to enable effective discussion of Agenda items and the Progress Report. The Project Manager and relevant specialists, including logistic support personnel shall represent the Company. The Project Manager will chair the Progress Review Meetings. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

* + 1. **Documentation**

[A] The Contractor shall submit a draft Agenda for Company concurrence at least two weeks prior to a scheduled Progress Review Meeting. The Company may submit items for inclusion in the Agenda. The Contractor shall provide administrative support for the meeting and prepare and distribute a draft record of the minutes of the meeting within one week of the meeting. The minutes are to include an Action Item List. The Company and the Contractor shall submit any updates of the Action Item List during the meeting. The Company and the Contractor prior to the next meeting shall review the draft minutes for accuracy prior to the next meeting. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

[B] The Contractor shall prepare appropriate presentation material and make presentations at the Meeting to address all items required in the Progress Report. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

* + 1. **Cost**

[A] The Contractor and the Company will each meet their own costs associated with attending Progress Review Meetings. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## **Work Breakdown Structure**

[A] The Work Breakdown Structure is an important tool, which will enable the Company to maintain visibility of the project elements. The WBS shall be developed to the level where work is to be managed, monitored, and evaluated. The WBS shall describe the work that will be accomplished and shall facilitate management data collection and reporting. The Contractor shall use a single, program WBS as the basis for all project activities. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [B] The BIDDER shall include a draft WBS addressing the key elements of the project scope and requirements in the response to the RFT. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## **Project Resources**

**2.6.1 Resumes of Key Personnel**

 [A] BIDDERS shall submit resumes of key personnel, suitably qualified and experienced to execute the envisaged works to be dedicated to the project. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [B] BIDDERS shall submit with their tender a Resource Allocation Plan, which identifies all the resources, including subcontract resources, plant and equipment and facilities to be applied to each element of the project .The Plan shall clearly identify all work proposed to be undertaken through subcontracts. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

[C] The BIDDER shall ensure that only appropriately qualified and experienced personnel will be employed on the tasks. The Company shall retain the right to direct the Contractor to remove from the project any personnel considered by the Company to be inappropriately qualified or experienced, or unacceptable to the Company. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [D] BIDDERS shall give full details of their proposed internal organization for this project. The full project organization structure shall be presented, including relevant names and resumes of personnel responsible for and to the Project Manager. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

[E] The Project involves close liaison with the Company and there are elements of the project installation and commissioning which may require the Contractor to utilise Company staff. BIDDERS shall submit with their tender a description of all elements of their proposal, which will require involvement of Company personnel or other resources. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

# **SYSTEM ENGINEERING**

## **System Engineering Plan**

 [A] For the purposes of this project, the Systems Engineering process is defined as an integral set of activities, documentation control procedures and standards that enable and assist in the management of this project to progress through its various stages, including analysis of requirement, design, installation, setting to work, testing, operational evaluation, commissioning and maintenance, and establishment of logistic support for the whole life cycle of the project. (I)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [B] The Contractor shall be responsible for the total performance of the system. The BIDDER shall indicate in their proposal how aspects of quality and performance will be managed and assured throughout the project lifecycle. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

[C] BIDDERS shall ensure that every subsystem and its interfaces will comply with all the requirements allocated to that subsystem. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

[D] BIDDERS shall submit as part of the tender a draft project specific engineering plan in accordance with IEEE STD 1220-2005 Annex B or similar standard, where applicable, for the design, manufacture, integration and verification of the systems. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [E] BIDDERS shall clearly indicate what will be expected as customer furnished information or equipment. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [F] The interfaces and/or infrastructure to be provided by or required from the Company shall also be indicated in the system definition. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [G] BIDDERS shall submit as part of the tender a draft specification tree of the systems in accordance with IEEE STD 1220. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [H] BIDDERS shall submit as part of the tender a system breakdown structure of the systems in accordance with IEEE STD 1220. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [I] BIDDERS shall submit as part of the tender a high-level description of the integration of the system engineering effort in accordance with IEEE STD 1220. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [J] The Contractor shall perform the System Engineering activities necessary to implement the requirements of any contract placed as a result of this RFP. Any System Engineering Management Plan (SEMP) proposed is to be designed to ensure, inter alia: (I)

[a] that the elements of the WBS and associated technical tasks are identified and controlled;

[b] the application and maintenance of the various standards and plans; and

[c] appropriate and adequate configuration management procedures are established for all elements of the project.

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## **Test and Evaluation Master Plan**

[A] Specific testing and evaluation procedures for the various Acceptance Tests (e.g. Site Acceptance Testing, Physical Inspections, Final Acceptance, etc.) will be defined in the Test and Evaluation plan for each deliverable. A draft Test and Evaluation Plan or sample shall be submitted as part of the tender. (D)

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| **COMPLIANCE (C/PC/NC/Noted)***Responding with C/PC/NC/Noted only without proof will not be accepted.* |  |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

 [B] The Contractor shall prepare, implement and maintain a Test and Evaluation Master Plan (TEMP) that describes the Contractor’s plan for all Tests and Evaluations to be undertaken in demonstrating compliance with the technical, operational, contractual and performance requirements of the project. The Plan shall include an Acceptance matrix, which identifies all deliverables and methods of testing proposed by the BIDDER. A draft TEMP specific to the project scope shall be submitted with the tender. (D)

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## **Installation, Transition and Commissioning Plans**

[A] The BIDDER shall prepare a proposed Installation, Transitioning and Commissioning Plan to clearly indicate the proposed methodology for the installation of the new systems, while the service being provided by the existing system continues uninterrupted. (D)

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 [B] The Plan shall indicate how the transition from the existing installation will be achieved, leading to the commissioning and acceptance of the new system. The Plans are required to indicate how the Contractor will plan and manage the installation and transition, including the cutover and commissioning procedures and the decommissioning and withdrawal from service of existing services. The BIDDER shall submit a draft ITC plan that is specific to the project requirements and scope as part of the tender response. (D)

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| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## **Health and Safety Management Plan**

[A] The Contractor shall prepare a Safety Management Plan for the implementation of the project covering all envisaged risks related to the supply, delivery, installation and commissioning of the offered systems. (I)

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[B] The BIDDER shall submit a draft Health and Safety Management plan specific to the project scope and requirements as part of the tender response. (D)

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| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## **Risk Management Plan**

* + 1. **Risk Analysis**

[A] The BIDDER shall prepare a Risk Management Plan. BIDDERS shall submit with their tender an outline of their policy and methodology for risk identification, assessment and abatement for all activities to be executed under this project, this shall encompass all phases of the project including the PBU period. (D)

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[B] The Contractor shall maintain throughout the execution of the contract a risk register which identifies risks and opportunities, estimated level of risk and the consequences and risk reduction strategies associated with: (I)

###### program objectives;

###### technology involved;

###### system performance; and

###### program schedules

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[C] The Contractor shall provide a Risk Report to each Progress Review Meeting to indicate the status and action associated with identified risk items. The format of the Risk Report shall be mutually agreed. (I)

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## **Technical Review and Meeting**

[A] The Contractor shall conduct technical system review meetings with Company personnel. It is preferred that these reviews be held concurrently with Progress Review Meetings. (I)

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[B] The technical reviews and meetings shall consist of at least the following: (I)

1. System Requirements Review.

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[b] Preliminary Design Review

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[c] Critical Design Review.

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[C] The above requirements are representative requirements and BIDDERS may offer alternative plans, which must list and describe the Technical Reviews and Meetings they would propose for this project. (D)

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 [D] The Contractor shall be required to provide appropriate and adequate documentation in support of these reviews at least 1 month in advance. BIDDERS shall include in their tender a description of the level and extent of documentation to be provided at the Technical Reviews and Meetings. (D)

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| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## **Environmental Management Programme**

[A] The Contractor shall develop an Environmental Management Programme (EMPr) based on identified activities which may have potential or actual environmental impacts before the commencement of work in accordance to the National Environmental Management Act (No. 107 of 1998) and associated environmental legislation as well as ATNS’ environmental specifications. (I)

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[B] The BIDDER shall provide a Draft Environmental Management Programme (EMPr) specific to the project scope, as defined in the Request for Tender.The environmental management programme shall address, without limitations, the following: (D)

1. Energy efficiency pertaining to all aspects of the project;
2. The use of Environmentally sustainable materials and products;
3. Waste management;

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[C] The BIDDER shall provide a suitable qualified environmental officer or service provider to render the services required as per EMPr activities associated with this project. (D)

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| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

# **QUALITY ASSURANCE**

## **Quality Assurance Program**

[A] The BIDDERS shall demonstrate the existence of a formal quality management system that is fully documented, implemented maintained and complies with the ISO 9001 standard. (D)

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 [B] The BIDDER shall include with the offer, proof of certification by an accredited ISO body, or objective evidence of documented QMS that is not certified but complies with ISO9001 (i.e. details of quality assurance procedures, work instruction, methods etc.) (D)

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[C] BIDDERS must indicate the QA measures and standards that were used for the development of the systems offered and those that are applicable for the successful delivery of Project. (D)

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## **Responsibility for Quality**

[A] The Contractor shall be responsible for ensuring that the quality of equipment and software supplied in accordance with the terms of the Contract, and any installation activity performed, fully conforms to the prescribed requirements. The Company will undertake a monitoring and audit role in relation to the Contractors Quality Management Plan and program to determine whether equipment, software or installation deliverables meet the contractual requirements. (I)

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| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* |

## **Quality Assurance Audits**

[A] Audit reports in respect of the project as prepared by the Contractor as part of his internal QA procedures, and details of any corrective action reports and corrective action taken, shall be submitted to the Company. (I)

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[B] The Company reserves the right to perform any inspections, tests or audits at the BIDDER’s or major sub-contractor’s premises at any time when such tests are deemed necessary to ensure Supplies and Services conform to specified requirements. Such inspections may also be conducted by the Company during the shortlisting phase of this tender. (I)

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