

**PACIFIC AVIATION INVESTMENT PROGRAM**  
**TONGA AVIATION INVESTMENT PROJECT**  
**AIR TRAFFIC CONTROL (ATC) EQUIPMENT FOR FUA'AMOTU INTERNATIONAL AIRPORT**  
**CONTRACT REF: TAL/ICBG/A-A42.2**

28<sup>th</sup> January 2019

**CLARIFICATION NO.7 TO THE BIDDING DOCUMENTS**

The PAIP TFSU would like to issue the following clarification in response to questions asked by bidders in relation to the above named tender. The questions and answers are provided below:

Questions	Answers
<p>1. In the tender documents Section 6 Scope of Supply: LOT 3 – Onsite Communications and Services:</p> <ul style="list-style-type: none"> <li>• 6.1.12 The network shall be interoperate with, and connected to, the cross-site fibre network described in section 4.21 below.</li> <li>• 6.5.9 The data from the ADS-B system shall be routed to the same termination point as was used in the old Control Tower building. This will need to use the new fiber optic supported cross-site data link required under para 4.21 above.</li> </ul> <p>Please confirm that 4.21 is a typing error and you are referring to 6.2.</p>	<p>6.1.12 Reference to section 4.2.1 is an editorial error and should be 6.2</p> <p>6.5.9 Reference to section 4.2.1 is an editorial error and should be 6.2</p>
<p>2. Regarding the requirement to design and create a fiber optic network between the different buildings on the site, we would like to include an improvement to connect the present DVOR location with the new control tower building. Currently there is a connection between DVOR location and the Old control tower building through a radio link to transmit the signals of the DVOR and AVOS systems.</p> <p>On the new design, the new control tower building will be closer to the DVOR location, which gives the customer the opportunity to get a more secure signal for DVOR and AWOS systems through the fiber optic instead of the radio link system.</p>	<p>Bidders shall submit bids for the Cross-site Fibre Optic Communications Network as per the specifications defined in the bidding document.</p>
<p>3. Please note that in TAL Clarification No. 4, point no. 9 it is stated that Tonga Airports will be responsible for the groundwork of the crash alarm system connection between the existing tower and the new tower as per the extract below:</p> <p>However in the tender document clause 6.2.9 (page 133) it is stated:</p> <p>6.2.9 The Supplier shall include, the cost of all cross-site earthworks, duct and cable installation and re-instatement of the ground.</p> <p>Please clarify if the Bidder/Contractor is responsible for the cross-site earthworks, duct and cable supply and installation as well as</p>	<p>It is the Bidder responsibility for the cross-site earthworks, duct and cable supply and installation as well as re-instatement of the ground.</p> <p>Any sub-contractor engaged to carry out the full works must be approved by TAL and</p>

<p>re-instatement of the ground.</p>	<p>the bidder is required to ensure that no existing, or planned, underground services will be affected.</p>
<p>4. In tender documents section 3.24.6 Tools;  3.24.6.1 All special tools required for ongoing maintenance of the equipment shall be provided.</p> <p>3.24.6.2 All specialised test equipment necessary for the proper calibration, servicing and fault finding of the system shall be provided.</p> <p>Question – Shall we add a line in the “Price Schedule: Goods Manufactured Outside the Purchaser’s Country, to be Imported:” of each lot to include the Tools and Test Equipment quotation or should we include such cost within the rest of the systems/equipment prices?</p>	<p>Specialised test equipment should be included in the Price Schedule line item “Test &amp; Measurement Equipment”</p>
<p>5. The Indra’s ADS-B to be relocated, would it be under warranty period when the works will be carried out?  6.</p>	<p>Yes</p>
<p>7.  1. In tender documents Section 4 Scope of Supply: LOT 1 - HF Communications, in 4.6 Test and Measurement Equipment, the following equipment is requested:</p> <p>4.6.3 General test equipment and tools to be procured will include: A Communications Test Set (e.g. Rohde &amp; Schwarz CM180);</p> <p>2. Similarly, in tender documents Section 5 Scope of Supply: LOT 2 - VHF Communications, in 5.6 Test and Measurement Equipment, the following equipment is requested:  5.6.3 General test equipment and tools to be procured will include:  A Communications Test Set (e.g. Rohde &amp; Schwarz CM180);</p> <p>3. In tender documents Section 6 Scope of Supply: LOT 3 - Onsite Communications and Services, in 6.6 Test and Measurement Equipment the following equipment is requested:  6.6.3. General test equipment and tools to be procured will include: A Communications Test Set (e.g. Rohde &amp; Schwarz CM180);</p> <p>Comment – We consider that the provision of one (1) single Communications Test Set would be enough to cover the Purchaser’s needs for the equipment to be supplied in all 3 lots and offering a discount in such sense in case of the award of more than one lot (e.g. lots 1, 2, and 3), would lead to a significant money save for the Purchaser’s.</p>	<p>Please refer to Section I Instructions to Bidders, clause 14. Bid Prices and Discounts, para 14.4 which states that  <i>“The Bidder shall quote any discounts and indicate the methodology for their application in the Letter of Bid, in accordance with ITB 12.1. “</i></p>

<p>2. Exactly the same situation occurs when analyzing lots 1 and 2 in terms of UPS's to be supplied for both lots; a single more powerful UPS to cover both lots needs would be more efficient than a single UPS for each lot, leading to a lower cost.</p> <p>3. Also, the same situation occurs when analyzing lots 1 and 2 in terms of Communications Remote Access and Communication System Monitors/ System Control and Monitoring to be supplied for both lots; a single Communications Remote Access and Communication System Monitors/ System Control and Monitoring for both lots would be more efficient than a single one for each lot, leading to a lower cost.</p> <ul style="list-style-type: none"> <li>• As can be seen at items 4.2.1 and 5.2.1, the requirements for Communications Remote Access and Control in each lot, makes reference to the need of accessing VHF (lot 2) and HF (lot 1) and telephone communications for their control.</li> </ul> <p>Question - Would it be possible to offer a discount in case of award of more than one lot linked to a reduction of the overall scope of supply? If yes, how could that be captured in the proposal submission? Could we attach a reduced scope of supply list specifying the equipment to be delivered in case of contract award of more than one lot?</p>	
<p>8. In Price Schedule: Goods Manufactured Outside the Purchaser's Country, to be Imported: LOT 3, price for item 2.2 OPTION: Diverse routing of Crosssite data link./ 1 each, is required as per the following specification:</p> <p>6.2.3 Suppliers shall provide an outline solution, with costs, to enable a cross site connection between the existing (or —oldll) control tower building and the new control tower site plus an onward leg to the new RFFS building. It is anticipated that for the longer distance between the old and new towers that multi-mode fibre will be at the limit of its capability and Suppliers shall consider this possible limitation when proposing their technical solution. Diverse routing for the cross-site links shall be offered as an option to provide a high resilience network.</p> <p>Question - Since it is an option, should the total price of the Price Schedule: Goods Manufactured Outside the Purchaser's Country, to be Imported: LOT 3 include the price for item 2.2 OPTION: Diverse routing of Crosssite data link./ 1 each? Please kindly confirm.</p>	<p>Item 2.2 Diverse routing of Cross site data link shall be priced separately price schedule and included in the total price of the price schedule.</p>
<p>9. In 3 Relevant Standards; 3.6.2 Warranty and Technical Assistance, the following is specified:</p> <p>e) With the exception of the VHF Air-Ground-Air (AGA) communications system, at least 99.7% full functioning availability of equipment/systems for a single calendar year of operations (i.e. 364 days out of 365 days of operations) shall be guaranteed by the Supplier within the warranty period. In the event the equipment/system supplied has been malfunctioning for more than five percent (0.3%) of one single year of the warranty period,</p>	

<p>i.e. more than 1 day in one single year, the Supplier shall extend the warranty period up to six times of the time the equipment/system were malfunctioning.</p> <p>Question – Please kindly confirm if it is a typing error and it should read “three percent (0.3%)”</p>	<p>Confirmed. That is a typo carried over from the original bid doc last year. It should show as zero point three percent.</p>
<p>10. In 3 Relevant Standards, the following is specified:  3.17.1 The equipment offered shall be latest proven technology with support readily available for the minimum periods specified below, from date of commissioning.  3 years for server based equipment;</p> <p>Question – Could you kindly please specify which equipment are you referring to as “server based equipment”?</p>	<p>That covers any system where there is a PC based element required to provide the operational service. That would generally include Windows, Linux &amp; iOS based operating systems. Processor based equipment running other operating systems shall be fully described and will be subject to approval for use by TAL and the project engineer.</p>