



Office of the President of the Philippines  
PRESIDENTIAL COMMUNICATIONS OFFICE  
Manila

**SUPPLEMENTAL BID BULLETIN NO. 1**  
**24 October 2023**

**SUPPLY, DELIVERY, INSTALLATION, SUPERVISION, TRAINING, TESTING,  
COMMISSIONING OF 2.5KW DIGITAL TERRESTRIAL TELEVISION BROADCAST  
(DTTB) TRANSMITTER AND HEADEND EQUIPMENT WITH EARLY WARNING  
BROADCAST SYSTEM (EWBS)**

**(Procurement/Contract No. 2023-PCO-079)**

Anent the Pre-Bid Conference held on **17 October 2023** for the above-cited procurement project by the Bids and Awards Committee, and the inquiries received by the Secretariat thereafter, please be informed of the following clarifications and amendments:

- A. Procedure on submission of bids
- B. Technical Specifications
- C. Schedule of Activity

All amendments are indicated in **red**.

**A. Procedure on submission**

<b>COMMENTS/ CLARIFICATION</b>	<b>ANSWER/RESPONSE</b>
How many copies of the Legal and Technical documents do we need to submit	<i>Prospective bidders must submit <b>two (2) original copies</b> of the Bidding documents (Legal and Technical, and Financial Documents, in a sealed envelope.</i>
Whether the PCO will accept a single contract with DTT transmitter and headend only?	<i>Yes, the PCO BAC will accept supply, delivery commission and headend</i>  <i><b>Supply, Delivery, Installation, Supervision, Training, Testing, Commissioning of 2.5KW Digital Terrestrial Television (DTT)</b></i>
The supplier requested a copy of the Price Schedule Form for Goods Offered from Abroad.	<i>Please refer to the attached <b>Price Schedule Form (Section VII.1)</b></i>

**B. Technical Specifications**

<b>COMMENTS/ CLARIFICATION</b>	<b>ANSWER/RESPONSE</b>
Inclusion on tech specs of headend and not in the TOR and clarified whether the one seg to verify the amount of HD and SD entering.	<i>Please see the attached detailed specifications sheet.</i>
In Item No. 5, the parabolic antenna is already included.	<i>Parabolic antenna not included</i>
Clarification whether the Committee can	<i>No. It does not share the same nature and</i>

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<p>consider the following project for the above subject.</p> <p>Supply, Delivery, Installation, Integration, Training, Testing and Commissioning of Complete System and accessories of Standard C-Band Satellite Earth Station of Mindanao Media Hub, People’s Television Network Inc. 2019</p>	<p><i>complexity as the subject matter of the project being procured.</i></p>
<p>Whether the listed documents should be included in the submission?</p> <ol style="list-style-type: none"> <li>1. The bidder must submit a complete detailed technical specification of equipment and services to be supplied.</li> <li>2. The bidder must submit a guaranteed certificate of the availability of spare parts and services for the supplied equipment within the next ten (10) years upon completion of the project.</li> <li>3. The Bidder shall submit a Company profile to showcase its experiences and expertise in manufacturing and installing TV transmitter equipment and system. The Bidder shall provide brand new equipment and accessories of reputable manufacturers with the latest make and model.</li> <li>4. The bidder shall include remarkable and significant features of the offered equipment such as but not limited to:             <ol style="list-style-type: none"> <li>a. Remarkable Features</li> <li>b. Energy efficiency</li> <li>c. Failure rate</li> <li>d. Footprint / Density</li> <li>e. Handling/Maintenance</li> <li>f. Future Proof/ Ready</li> <li>g. Reliability</li> <li>h. Other features</li> </ol> </li> </ol> <p>The PCO shall determine and evaluate the equipment that has the best technical specifications and features that suits its requirements.</p>	<p><i>Said documents shall be submitted during post-qualification.</i></p>
<p>Whether a supplier may conduct the SAT by its local engineers instead of manufacturer’s field engineer since the supplier’s engineers are factory trained?</p>	<p><i>Yes, the PCO BAC will allow the conduct of SAT by local engineers as long as the engineers are authorized and certified by the manufacturers.</i></p>
<p>Whether the inspection of delivered equipment shall be conducted in Manila</p>	<p><i>Inspection of all equipment will be conducted at the site (Visayas Media Hub</i></p>

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before shipping to the site?	<i>Project at Barangay Subangdaku, Mandaue City, Cebu)</i>
In case there is a need to return the defective units/parts to the manufacturer, will PCO allow the supplier to pull-out the defective part/unit after it installed the replacement units/parts?	<p><b>Please see Section VII in the Terms of Reference:</b></p> <p>xxx</p> <p><b>VII. WARRANTY AND AFTER SALES SERVICE</b></p> <p><i>4. All defective components not capable of on-site repair shall be pulled out from PCO premises and may be sent back to the supplier. During the warranty period, the supplier shall cover all expenses incurred or related to the repair and shipment of the equipment/parts. The supplier shall provide and install within twenty-four (24) hours a temporary spare part while waiting for the product's replacement to ensure service continuity</i></p> <p>xxx</p>
Clarification of the DTT transmitter, is it single or dual exciter	<i>1 set of dual exciter</i>
Clarification on what is the power source onsite? Whether single phase or 3-phase? 208-240 or 380-415 Volts?	<i>Three(3)-Phase, 380 VAC, Delta</i>
For the headend, please provide the channel configuration (how many SD/HD). Do you need 1 SEG?	<i>Two (2) HD (configurable to SD) + Two (2) SD + 1-Seg</i>
<p>Under Section VII of the Technical Requirement item 7.0 Spare parts</p> <ul style="list-style-type: none"> <li>• Please provide a list of spare parts that we need to supply.</li> </ul>	<p><i>For TX:</i>  <i>1 unit – RF Amplifier and Power supply;</i>  <i>Other Critical Spares</i></p> <p><i>For Headend:</i>  <i>1 unit – encoder board/module and power supply</i></p>
Is 2.5 kW Power before or after the Bandpass Filter?	<i>After Bandpass filter</i>
Clarification on the main Power available in the site, Voltage, Single Phase or 3 Phase and Delta or Wye Connection?	<i>Three(3)-Phase, 380 VAC, Delta</i>
Clarification on the frequency	<i>UHF Channel 42</i>
Clarification on the size of Coaxial to be connected to the 3 port patch panel.	<i>1 5/8"EIA</i>
Whether do we need to add Harmonic Filter? R&S Transmitter does not need a harmonics filter for medium power transmitters. R&S Transmitter Harmonics : > 1.2GHz ≤ -70dBc w/o channel bandpass and external harmonic filter.	<i>It is necessary. However, if it is already a built-in design technology of the offered equipment, it is accepted.</i>

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<p>Clarification on the Air-conditioning units whether the Committee can provide the size of the transmitter room.</p> <p>This is to indicate the capacity of the AC unit.</p>	<p><i>25 square meter</i></p>
<p>Clarification on the headend item:</p> <ol style="list-style-type: none"> <li>1. How many HD, SD and 1 seg do you need?</li> <li>2. Source of your content, via Satellite, Microwave or IP?</li> <li>3. Input the encoder?</li> <li>4. Do you need Mux or Remux?</li> <li>5. Do you Stand Alone and Redundant?</li> </ol>	<ol style="list-style-type: none"> <li>1. <i>Two (2) HD (configurable to SD) + Two (2) SD + 1-Seg</i></li> <li>2. <i>Distribution source is Satellite. It must be configurable for Microwave and IP.</i></li> <li>3. <i>SDI, IP, TS-ASI</i></li> <li>4. <i>Yes. Multiplexer</i></li> <li>5. <i>Stand-alone with spare one (1) encoder module.</i></li> </ol>
<p>Clarification whether the Delivery Schedule will be extended to 120 days delivery.</p> <p><i>Normal production of the transmitter is Ninety (90) days and sailing time is 30 days.</i></p>	<p><i>Delivery of Schedule:</i></p> <p><i>From : 90 Calendar Days</i>  <i>To: One Hundred Twenty Calendar Days</i></p>

### C. Schedule of Activity

<b>COMMENTS/ CLARIFICATION</b>	<b>ANSWER/RESPONSE</b>
<p>Whether the committee will extend the submission and Opening of Bids 31 October 2023 to 17 November 2023.</p>	<p><i>From: 31 October 2023</i>  <i>To: 07 November 2023</i></p>

**Price Schedule for Goods Offered from Abroad**  
**[shall be submitted with the Bid if bidder is offering goods from Abroad]**

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**For Goods Offered from Abroad**

Name of Bidder \_\_\_\_\_ Project ID No. \_\_\_\_\_ Page \_\_\_ of \_\_\_

1	2	3	4	5	6	7	8	9
Item	Description	Country of origin	Quantity	Unit price CIF port of entry (specify port) or CIP named place (specify border point or place of destination)	Total CIF or CIP price per item (col. 4 x 5)	Unit Price Delivered Duty Unpaid (DDU)	Unit price Delivered Duty Paid (DDP)	Total Price delivered DDP (col 4 x 8)

Name: \_\_\_\_\_

Legal Capacity: \_\_\_\_\_

Signature: \_\_\_\_\_

Duly authorized to sign the Bid for and behalf of: \_\_\_\_\_

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**Section VII.I Detailed Technical Specifications**

**Supply, Delivery, Installation, Supervision, Training, Testing, Commissioning of 2.5KW Digital Terrestrial Television Broadcast (DTTB) Transmitter and Headend Equipment with Early Warning Broadcast System (EWBS)**

Item No.	Item Description	<b><u>Bidders shall comply with the following minimum Technical Specifications:</u></b>	QTY	Statement of Compliance
1	UHF 2.5 kW Air-Cooled Digital TV Transmitter System with accessories	<ul style="list-style-type: none"> <li>• Band IV/V UHF (Ch 42); Tunable; 6Mhz BW</li> <li>• must be SFN, MFN and DFN configuration capable</li> <li>• With Compression / Decompression Satellite/TS/IP Receiver/Decoder (remux) ready for 4-channel programs or a <b>Full Head-End System</b> [4-channel, atleast two (2) HD and two (2) SD]</li> <li>• 100% Solid State</li> <li>• Output Power: 2 .5 kW (ms) for ISDB-T Low VSWR</li> <li>• Power Output Stability must be 0.5dB or better.</li> <li>• Overall System Efficiency: Not less than 36%</li> <li>• Spurious Emissions must be less than -60dBc/20Mw</li> <li>• MER: Not less than 36db</li> <li>• Output Connector: 1-5/8" EIA</li> <li>• Electrical Input: Either 3-phase Delta</li> <li>• For confirmation during site inspection</li> </ul>	1-set	
2	Exciter and Control System (w/ GPS Receiving System)	<p>Control Monitoring System:</p> <ul style="list-style-type: none"> <li>• Fully digitized metering, fault indicators and control functions up to component level</li> <li>• User friendly control panel with LCD touch screen display</li> <li>• The monitoring control system should be able to display the necessary parameter such as but not limited to:                             <ul style="list-style-type: none"> <li>i. Output Power</li> <li>ii. Input Status</li> </ul> </li> </ul>	1 set (Dual)	

		<p>iii. Reflected Power                  iv. Source Voltage                  v. Cooling Temperature                  vi. Module Supply Voltage                  vii. Module Power Output                  viii. Drain Current (PA)                  ix. Amplifier Fault-Reflected Power, Over Drive, Over Heat and others.                  x. Power supply fault, excessive current, Output over voltage, over heat                  xi. Cooling system fault                  xii. Operation log/ history                  xiii. Exciter power output                  xiv. Peak Power Output</p> <p>Remote Management:</p> <ul style="list-style-type: none"> <li>Ethernet / SNMP input for local and remote network access</li> <li>Capable of integrating with 3<sup>rd</sup> party management programs</li> <li>PC Client: For control and monitor of the transmitter via LAN</li> </ul> <p>Exciter System:</p> <ul style="list-style-type: none"> <li>Dual Exciter with Change-over Switch</li> <li>ISDB-T Digital Terrestrial Transmission Standard</li> <li>Frequency Agile</li> <li>Both ASI and IP BTS inputs</li> <li>GPS input (10MHz / 1PPS) for Synchronization and SFN operation</li> <li>Automatic Digital Pre-correction capability</li> <li>Automatic gain control shall be incorporated to keep the visual and aural outputs constant under varying modulation level.</li> <li>Back-up Power Service: Equipped with an uninterruptible power supply (UPS)</li> </ul>		
3	RF Power Amplifiers	<ul style="list-style-type: none"> <li>100% Solid State</li> </ul>	1-set	

		<ul style="list-style-type: none"> <li>• Narrowband Doherty configuration with the latest UHF power LDMOS transistor technology (supplier should indicate the model of LDMOS transistor used by their transmitters)</li> <li>• Optimized to Ch42; Can be turned to other channels within Band IV / V UHF with minimal technical calibrations</li> <li>• Modular and Hot Swappable</li> <li>• All power amplifiers should be identical and operates in parallel and should be interchangeable with one another.</li> <li>• All RF amplifier modules shall be protected against over-temperature, over-current, over-drive, and reflected power. Each PA's power supply shall have surge protection device integrated.</li> <li>• All modules shall be provided with suitable visual alarms to indicate faults within to facilitate identification.</li> <li>• Visible Fault indicators Field Repairable</li> </ul>		
4	Cooling System	<ul style="list-style-type: none"> <li>• Air Cooled</li> </ul> <p>Includes Airconditioning system of the TX room</p>	1-set	
5	Emergency Warning Broadcast System (EWBS) Server and Encoder	<ul style="list-style-type: none"> <li>• EWBS Operation must be as stated in the ISDB-T harmonization document</li> </ul> <p>Encoder:            Low delay (0.7 Sec)            Video Input: Multi Format, HDTV (1080i,1080p,720i,720p) SDTV (576i,480i,480p)            Audio Input: Embedded Audio (8ch)            Video Encoding: H.264 High Profile @ level 4.0            Audio Encoding: HE AAC profile v2 L4</p>	1-set	



		Audio Stream: LATM/LOAS and ADTS  Closed Caption:  Embedded in Input Signal and Outputted Subtitle Packet		
6	Spare Parts	<ul style="list-style-type: none"> <li>1 unit RF Power Amplifier</li> <li>Other replaceable (consumable) TX components, if there are any</li> </ul>	1 set (s)	

**Table 2. Transmitter Output Network**

1	Transmitter Output Waveguide (Rigid Line)	<ul style="list-style-type: none"> <li>Rigid Line: 1-5/8" EIA I/O Connector</li> </ul>	1-lot	
2	Band Pass Filter	<ul style="list-style-type: none"> <li>Optimized to Ch42</li> <li>Critical Mask for ISDB-T</li> <li>At least 2.5 kW (ms) power rating for ISDB-T Band IV/V UHF Air Cooled</li> </ul>	1-set	
3	Directional Coupler	<ul style="list-style-type: none"> <li>5 Probes</li> <li>At least 2.5 kW (ms) power rating for ISDB-T Band IV/V UHF</li> </ul>	1-set	
4	Harmonic Filter	<ul style="list-style-type: none"> <li>At least 2.5 kW (ms) power rating for ISDB-T Band IV/V UHF</li> </ul>	1-set	
5	3-Port Patch Panel	<ul style="list-style-type: none"> <li>Includes the 1-5/8" U-Link</li> </ul>	1-set	
6	Rigid Line Kit	<ul style="list-style-type: none"> <li>1-5/8" line sections, elbows, connectors, etc. for the interconnection of the transmitter system to the transmitter output network</li> </ul>	1-lot	

**Table 3. Electrical System and Transmitter AC Protection System**

1	Automatic Voltage Regulator  Isolation Transformer  Transient Voltage Surge Suppressor	<ul style="list-style-type: none"> <li>Supplier shall provide an electrical plan signed by a Registered Professional Electrical Engineer</li> <li>For confirmation to the existing AC power source on site</li> <li>These equipments shall be with technical</li> </ul>	1-set	
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		specifications conforming to electrical requirement of the system.		
4	Grounding System	<ul style="list-style-type: none"> <li>Complete grounding system</li> </ul>	1-lot	

Pursuant to Section 22.5 of the 2016 Revised Implementing Rules and Regulations of Republic Act No. 9184, this Supplemental/Bid Bulletin is issued for the information and guidance of all prospective bidders and shall form an integral part of the Bidding Documents issued for said the project.

Should you have further concerns, you may contact the BAC Secretariat through the details below:

**BIDS AND AWARDS COMMITTEE SECRETARIAT**

Presidential Communications Office  
 7<sup>th</sup> Floor, Times Plaza, UN Avenue Manila  
 Telefax No. (02) 8734-5968  
 Email: bac1@pco.gov.ph  
 Website: https://pco.gov.ph

For information and guidance.

*(Original signed)*

**ASEC. EUGENE HENRY C. RODRIGUEZ**  
*Chairperson*  
 Bids and Awards Committee

Conforme:

\_\_\_\_\_  
 Signature over printed name

Designation: \_\_\_\_\_

Company: \_\_\_\_\_

Date: \_\_\_\_\_