



## Bid Notice Abstract

### Invitation to Bid (ITB)

**Reference Number** 8859428  
**Procuring Entity** BAGUIO WATER DISTRICT - BAGUIO CITY  
**Title** 1 lot Supply, Delivery and Installation of 6" Ultraviolet Hydro Optic Disinfection System for Water Quality Laboratory & Treatment use (Buyog Sources)  
**Area of Delivery** Benguet

<b>Solicitation Number:</b>	07-055P	<b>Status</b>	Pending
<b>Trade Agreement:</b>	Implementing Rules and Regulations	<b>Associated Components</b>	1
<b>Procurement Mode:</b>	Public Bidding	<b>Bid Supplements</b>	0
<b>Classification:</b>	Goods - General Support Services	<b>Document Request List</b>	0
<b>Category:</b>	Industrial Safety Equipment	<b>Date Published</b>	23/07/2022
<b>Approved Budget for the Contract:</b>	PHP 9,550,000.00	<b>Last Updated / Time</b>	22/07/2022 09:12 AM
<b>Delivery Period:</b>	14 Day/s	<b>Closing Date / Time</b>	10/08/2022 13:30 PM
<b>Client Agency:</b>			
<b>Contact Person:</b>	Ma. Luisa C Tenedero BAC In-House Chairman BWD Compound, Utility Road Baguio City Benguet Philippines 2600 63-74-4424858 63-74-4424858 purchasing.bwd2014@gmail.com		

#### Description

1 lot Supply, Delivery and Installation of 6" Ultraviolet Hydro Optic Disinfection System  
Discharge Pipe Size: 6" diameter  
Max. Flow Capacity: 150 m3 / hr  
Type of Lamp: 1.7Kw UV HOD medium Pressure High Intensity  
No. of Lamps: 1 x 1.7Kw MPHI Lamp  
Max. Operating Pressure: 10 bar  
Water Operating Temperature: Up to 60°C  
Electric Requirements: 3 Phase x 400 / 480VAC for the Ballast Module (Lamp) and 1-Phase x 120 / 240VAC for the Controller  
Construction Materials:  
Housing: Stainless Steel 316  
Internals: High grade fused silica quartz  
Real Time Tracking & Lamp Monitoring  
Two (2) sensors per lamp to continuously measure 3 Parameters that affect UV dosage in real time (UV Transmittance, Lamp Power / Status and Flow Rate)  
-Control system which automatically adjust lamp power  
-The unit should provide the minimum dose required.  
-Full exception reporting, alarm and alerts, security suite.  
-Real Time Monitoring.  
-Real-time status display of critical parameters

#### ULTRA VIOLET DISINFECTION CHAMBER (Chamber & UV Lamps)

1. Internal Quartz disinfection chamber to be used as the main disinfection chamber. All the influent water must flow through the quartz disinfection chamber from one side of the reactor to the other. Water and light should be in contact.

pacing algorithm.

POWER / CONTROL MODULE / MONITORING

- Each power supply (ballast) shall independently operate one lamp that is capable of 40 – 100 percent adjustability.
- All power supply, UV intensity, UVT analyzer and flow meters will be controlled by a single controller with a touch screen which will capable of display and control of the following parameters:
  - flow rate
  - UV Dose (in mJ / cm2)
  - Lamp life and efficiency for each individual lamp.
  - Power output of the Power Supply (ballast)
  - Specific screens for calibrating UVT and UV intensity sensors.
- Each control module shall have built-in automated programmed capability to operate in Dose mode.

DOSAGE

- The UV system shall provide the minimum Validated dose needed for 4-log inactivation of Cryptosporidium (or UVDGM Table 1.4 of specific micro-organism log removal required for inactivation) according to LT2ESWATR under peak flow conditions. The basis for evaluating the UV dose and system design criteria for the UV system shall be in accordance to the manufacturer's third-party validation based on USEPA UVDGM validation protocol, Nov. 2006.
- The validation process of the UV system must be done in the USA using the dose pacing validation, as specified in the USEPA UVDGM validation protocol, Nov. 2006.
- The UV Dose will be adjusted using an end of lamp life factor of a minimum of 0.80%.
- The UV dose shall be capable of adjustment by a medium pressure lamp and ballast integrated system that is capable of adjusting the lamp intensity from 40 – 100 percent.
- Should N+1 be required for system redundancy, manufacturer shall use the USEPA UVDGM validation received for the particular UV system as the design criteria for ensuring N+1 compliance.

Delivery Terms: Two (2) Weeks

Inclusions:

- Supply, Delivery and Installation of 6" UV HOD
- Clean-in Place unit
- Provision of drawing for the suggested UV installation
- 1 unit 6" Digital Electromagnetic Flow Meter
- Warranty on parts for one (1) year from the date of delivery and monthly visit and periodic maintenance service.
- Training and Supervision of O & M.

Approved Budget Cost: ₱9,550,000.00 / lot

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This is a two (2) envelope system:

Envelope "A" to contain the following; among others:

- A refundable bid bond in the form of cash, Manager's or Cashier's check equivalent to 2% or surety bond callable on demand issued by a surety or insurance company duly certified by the Insurance Commission equivalent to 5% of the total approved budget cost is required for a total purchase bid amount of ₱ 50,000.00 and above. Validity of the surety bond is 120 days from the date of opening of bids OR Bid Securing Declaration regardless of amount of bid;
- Terms of payment, delivery, warranty, bid validity and complete specifications;
- Brochure/s (Original);
- Proof of payment of a non-refundable fee of ₱10,000.00; otherwise, bids shall not be opened
- Certificate of Authorized Distributorship / Dealership issued by the Principal Supplier to the participating bidder (with red ribbon) if none has been submitted to the BAC in its Accreditation;
  - For bidders who have foreign principal suppliers, the BWD-BAC shall accept an Apostilled Certificate of Authorized Distributorship / Dealership issued by a competent authority of the host government in lieu of the Certificate of Authorized Distributorship / Dealership (with red ribbon), except for non-contracting countries to the Apostille Convention, which still require the red ribbon requirement.
  - For locally produced / manufactured products, only certificate of Authorized Distributorship / Dealership w/o red ribbon is required if applicable;
- ISO Certificate issued to the principal supplier/participating bidder for the offered material or equipment brand name (if none has been submitted to the BAC in its Accreditation);
- International Certificate of Warranty.


Envelope "B" to contain the bid cost per unit.

Pre-bid conference: July 29, 2022  
 9:30am via Zoom Application  
 Meeting ID: 452 718 8447  
 Password: 9Buvqr

**Pre-bid Conference**

Date	Time	Venue
29/07/2022	9:30:00 AM	Pre-bid conference: July 29, 2022 9:30am via Zoom Application Meeting ID: 452 718 8447 Password: 9Buvnr



	<b>BAGUIO WATER DISTRICT</b> <b>BWD Compound, Utility Road, Baguio City 2600</b>	Document No.	ADM-PUR-F003
	<b>REQUEST FOR BIDS/QUOTATION (RQ)</b>	Effectivity Date	February 15, 2020
		Revision No.	00

To: \_\_\_\_\_  
 \_\_\_\_\_  
 (Name of Supplier)

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Contact no.: \_\_\_\_\_

RQ No.: **07 – 055P**


PR / JO No.: **055P**

Date of RQ: **July 18, 2022**


Purpose of RQ:  
 Water Quality Laboratory &  
 Treatment use (Buyog Sources)

NOTE: DATA REQUIRED MUST BE FILLED UP COMPLETELY. FAILURE TO INDICATE THE PRICE VALIDITY, TERMS, WARANTY PERIOD AND DELIVERY PERIOD SHALL MEAN OUTRIGHT DISQUALIFICATION OF BIDS				
	Qty.	Description	U-Price	Total
VALIDITY DATE: _____ day <b>(30 days minimum)</b>  DELIVERY : _____ working days _____ calendar days _____ FOB warehouse  WARRANTY _____ calendar days upon acceptance.  TERMS:	1 lot	<b>Supply, Delivery and Installation of 6" Ultraviolet Hydro Optic Disinfection System</b>  Discharge Pipe Size: 6" diameter Max. Flow Capacity: 150 m³ / hr Type of Lamp: 1.7Kw UV HOD medium Pressure High Intensity No. of Lamps: 1 x 1.7Kw MPHI Lamp Max. Operating Pressure: 10 bar Water Operating Temperature: Up to 60°C Electric Requirements: 3 Phase x 400 / 480VAC for the Ballast Module (Lamp) and 1-Phase x 120 / 240VAC for the Controller Construction Materials: Housing: Stainless Steel 316 Internals: High grade fused silica quartz  Real Time Tracking & Lamp Monitoring Two (2) sensors per lamp to continuously measure 3 Parameters that affect UV dosage in real time (UV Transmittance, Lamp Power / Status and Flow Rate) -Control system which automatically adjust lamp power -The unit should provide the minimum dose required. -Full exception reporting, alarm and alerts, security suite. -Real Time Monitoring. -Real-time status display of critical parameters  ULTRA VIOLET DISINFECTION CHAMBER (Chamber & UV Lamps) 1. Internal Quartz disinfection chamber to be used as the main disinfection chamber. All the influent water must flow through the quartz disinfection chamber from on side of the reactor to the next. Water and light shall be mixed in this		


11 0 AUG 2022

	<b>BAGUIO WATER DISTRICT</b> <b>BWD Compound, Utility Road, Baguio City 2600</b>		Document No.	ADM-PUR-F003
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			Revision No.	00
		<p>disinfection chamber. Quartz chamber shall be capable of reflecting light within the disinfection zone. Any reflective coating used inside the disinfection chamber shall not be in direct contact with the water flow path. A 316 stainless steel casing is only used as a protective casing around the main quartz chamber.</p> <p>2.The UV system shall be equipped with Medium Pressure, High Intensity Lamps and shall be enclosed within a quartz sleeve that is no less than 5mm thick. Each lamp shall guarantee 100 percent treatment of the water flow traveling through each UV System.</p> <p>3. The UV system shall be able to automatically adjust the power consumption between 40% - 100% depending on demand and still give 100 percent disinfection.</p> <p>4. The system shall have a UV intensity sensor per lamp. The UV intensity sensor views and monitors the UV intensity directly with no other medium in between. Each UV intensity sensor shall be connected to the master control of the UV system.</p> <p>5. The system should have a UV Transmittance (UVT) Sensor per 2 lamps that is integrated within the UV chamber. The UVT sensor should be connected to the system controller inline and provide the UVT for the validated dose pacing algorithm.</p> <p>POWER / CONTROL MODULE / MONITORING</p> <p>1. Each power supply (ballast) shall independently operate one lamp that is capable of 40 – 100 percent adjustability.</p> <p>2. All power supply, UV intensity, UVT analyzer and flow meters will be controlled by a single controller with a touch screen which will capable of display and control of the following parameters:</p> <ol style="list-style-type: none"> <li>flow rate</li> <li>UV Dose (in mJ / cm<sup>2</sup>)</li> <li>Lamp life and efficiency for each individual lamp.</li> <li>Power output of the Power Supply (ballast)</li> <li>Specific screens for calibrating UVT and UV intensity sensors.</li> </ol> <p>3. Each control module shall have built-in automated programmed capability to operate in Dose mode.</p>		

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		<p>DOSAGE</p> <p>1. The UV system shall provide the minimum Validated dose needed for 4-log inactivation of Cryptosporidium (or UVDGM Table 1.4 of specific micro-organism log removal required for inactivation) according to LT2ESWATR under peak flow conditions. The basis for evaluating the UV dose and system design criteria for the UV system shall be in accordance to the manufacturer's third-party validation based on USEPA UVDGM validation protocol, Nov. 2006.</p> <p>2. The validation process of the UV system must be done in the USA using the dose pacing validation, as specified in the USEPA UVDGM validation protocol, Nov. 2006.</p> <p>3. The UV Dose will be adjusted using an end of lamp life factor of a minimum of 0.80%.</p> <p>4. The UV dose shall be capable of adjustment by a medium pressure lamp and ballast integrated system that is capable of adjusting the lamp intensity from 40 – 100 percent.</p> <p>5. Should N+1 be required for system redundancy, manufacturer shall use the USEPA UVDGM validation received for the particular UV system as the design criteria for ensuring N+1 compliance.</p> <p>Delivery Terms: Two (2) Weeks</p> <p>Inclusions:</p> <p>1. Supply, Delivery and Installation of 6" UV HOD</p> <p>2. Clean-in Place unit</p> <p>3. Provision of drawing for the suggested UV installation</p> <p>4. 1 unit 6" Digital Electromagnetic Flow Meter</p> <p>5. Warranty on parts for one (1) year from the date of delivery and monthly visit and periodic maintenance service.</p> <p>6. Training and Supervision of O &amp; M.</p> <p><b>Approved Budget Cost: ₱9,550,000.00 / lot</b></p> <p style="text-align: center;">x x x x x</p> <p><b>This is a two (2) envelope system:</b></p> <p><b>Envelope "A" to contain the following; among others:</b></p> <p>a) A refundable bid bond in the form of cash, Manager's or Cashier's check equivalent to 2% or surety bond callable on demand issued by a surety or insurance company duly certified by the Insurance Commission equivalent to 5% of the total approved budget cost is</p>		

10 AUG 2022

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	<p>required for a total purchase bid amount of ₱50,000.00 and above. Validity of the surety bond is 120 days from the date of opening of bids <b>OR</b> Bid Securing Declaration regardless of amount of bid;</p> <p>b) Terms of payment, delivery, warranty, bid validity and complete specifications;</p> <p>c) Brochure/s (Original);</p> <p>d) Proof of payment of a non-refundable fee of <b>₱10,000.00</b>; otherwise, bids shall not be opened</p> <p>e) Certificate of Authorized Distributorship / Dealership issued by the Principal Supplier to the participating bidder (with red ribbon) if none has been submitted to the BAC in its Accreditation;</p> <p>-For bidders who have foreign principal suppliers, the BWD-BAC shall accept an Apostilled Certificate of Authorized Distributorship / Dealership issued by a competent authority of the host government in lieu of the Certificate of Authorized Distributorship / Dealership (with red ribbon), except for non-contracting countries to the Apostille Convention, which still require the red ribbon requirement.</p> <p>-For locally produced / manufactured products, only a certificate of Authorized Distributorship / Dealership w/o red ribbon is required if applicable;</p> <p>f) ISO Certificate issued to the principal supplier/participating bidder for the offered material or equipment brand name (if none has been submitted to the BAC in its Accreditation);</p> <p>g) International Certificate of Warranty.</p> <p><b>Envelope "B" to contain the bid cost per unit.</b></p> <p>Pre-bid conference: <b>29 JUL 2022</b>  <b>9:30am via Zoom Application</b>  <b>Meeting ID: 452 718 8447</b>  <b>Password: 9Buvqr</b></p>	
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By: Supplier or Authorized Representative: \_\_\_\_\_ (sign over printed name )

Deadline of submission of bids: \_\_\_\_\_ **10 AUG 2022** Opening of bids: **1:30 pm**

Prepared by: M. Lamangan Noted by: ATTY. MA. LUISA C. TENEDERO ENGR. REYNALDO C. JAYCO  
PURCHASING BAC IN-HOUSE BAC-TECHNICAL

**BWD RESERVES THE RIGHT TO REJECT BIDS &/OR DECLARE A FAILURE OF BIDDING**  
**PURSUANT TO THE PERTINENT PROVISIONS OF RA 9184**  
**Telefax No. (074) 442-4858 (Purchasing) / 444-7246**