SUPPLEMENTAL BULLETIN NO. 2
CONTRACT NO. RO-PG2020-006

Procurement, Installation and Commissioning of Water Meter Testing Facility/Laboratory

October 01, 2020

TO ALL CONCERNED:

Your attention is hereby invited to the following clarification in the Bidding Documents:

1. **Clause 12.1 of the Bid Data Sheet (BDS):**

From	To
The bidder's SLCC similar to the contract to be bid should have been completed within the past two (2) years, other than the procuring entity, prior to the deadline for the submission and receipt of bids.	The bidder or manufacturer shall submit a certificate or contract that the bidder or manufacturer has supplied said equipment for the past three (3) years in the Philippines or to other countries.

2. **Item 11 of the Invitation to Bid (BID)**

From	To
Bids must be duly received by the BAC Secretariat at the address below on or before October 05, 2020, 11:30 AM. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in Instruction to Bidders Clause 18. Bid opening shall be on October 05, 2020, 1:30 PM to be conducted through videoconferencing using the Google Meet platform. Late bids shall not be accepted.	Bids must be duly received by the BAC Secretariat at the address below on or before October 12, 2020, 11:30 AM. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in Instruction to Bidders Clause 18. Bid opening shall be on October 12, 2020, 1:30 PM to be conducted through videoconferencing using the Google Meet platform. Late bids shall not be accepted.

3. **Item 9 of the Invitation to Bid (ITB)**

From	To
Proof of payment via ETF or bank deposit must be submitted to the MWSS RO electronically to Mr. Alan D. Chuegan, Finance Officer B, through his e-mail address (alan.chuegan@ro.mwss.gov.ph) on or before the deadline for the submission of bids on **October 5, 2020**, 11:30 AM and shall be subject to verification. The said e-mail must indicate the name and address of the representative authorized to receive the official receipt for the payment. Official receipts for ETF and bank deposit payments will be mailed to the concerned bidders' authorized representative named in their e-mails within five (5) calendar days from receipt of the said e-mail.	Proof of payment via ETF or bank deposit must be submitted to the MWSS RO electronically to Mr. Alan D. Chuegan, Finance Officer B, through his e-mail address (alan.chuegan@ro.mwss.gov.ph) on or before the deadline for the submission of bids on **October 12, 2020**, 11:30 AM and shall be subject to verification. The said e-mail must indicate the name and address of the representative authorized to receive the official receipt for the payment. Official receipts for ETF and bank deposit payments will be mailed to the concerned bidders' authorized representative named in their e-mails within five (5) calendar days from receipt of the said e-mail

4. Technical Specifications – Project Duration clause 1.6

From	To
Supply, delivery, installation, commissioning including personnel training shall be within eight (8) months from the notice of award.	Supply, delivery, installation, commissioning including personnel training shall be within ten (10) months from the notice of award.

5. Technical Specifications – Training and Seminars Clause 1.3

From	To
1.3 Training and Seminars	1.3 Training and Seminars (Local and Foreign)
The supplier/manufacturer's representative shall conduct seminars for Meter Management personnel in the operation and maintenance of the test bench for a minimum period of five (5) consecutive working days of eight (8) hours following installation and successful testing of the test bench or	For Local Training/Seminars. The supplier/manufacturer's representative shall conduct seminars for Meter Management personnel in the operation and maintenance of the test bench for a minimum period of five (5) consecutive working days of eight (8) hours following installation and successful testing of the test bench or

using computer simulation, whichever comes first.	using computer simulation, whichever comes first. For Foreign Training. The supplier/manufacturer's representative shall conduct training for Meter Management technical personnel in the operation and maintenance of the test bench for a minimum period of five (5) consecutive working days of eight (8) hours 2 months before the schedule delivery of the Meter Test Bench. This also entails the pre-inspection/assessment of the product technical specifications.

6. Technical Specifications

From	To
	Part 1. 1.7 Other miscellaneous works (foreign costs local cost). <u>Foreign costs</u> Foreign costs to include all manufacturing costs of goods including cost of freight , insurances, taxes and duties. <u>Local costs</u> Local Costs to include local freight, delivery of the goods to the MWSS RO building laboratory site including local taxes and duties. To also include the electrical, water/plumbing system and other appurtenances and miscellaneous works to make the facility operational.

7. Answers to clarifications and queries:

<u>Clarification/Query</u>

"The Supplier/Manufacturer shall furnish the MWSS RO certified copies of records showing that each material has been pretested, and compliance certificate attesting that delivered materials have complied with all applicable requirements of this Standard. What we can do is provide a metrology assessment from the Czech metrology institute confirming that the test bench complies with applicable standards as a whole system of equipment and not by piece. As it is tested and certified as a whole system, Component/Subgroups separately can't be "pretested" neither certified with records."

Answer: That the test bench complies with applicable standards as a whole system of the equipment.

Clarification/Query #2

"Part 2 Product Description, pg 74 of A Clause 2.1 Testing Bench 15mm (1/2") to 40mm, pg 74
"The water meter testing facility is designed for testing and calibrating any type/brand/class of water meters with nominal sizes from 15mm to 40mm"
"any type/brand" is a too vague specification. If we are talking about standing start/stop testing (without automatic readout of pulses from meters), this is generally possible.
If the customer but expects an automatic testing procedure (flying start/stop) with pulse readouts from meters, we need to know the meter types to quote for suitable sensors (many meter models have their own specific interface not cole with standard sensors!)
The water meter to be tested in the test bench shall comply with the latest edition of ISO 4064.The connection are threaded for residential service connections.
In general, we can offer Keyence sensors with laser light for testing mechanical meters and IrDA optical probes for testing electronic meters with IEC62056-21 compatible interfaces as default. Also, which connections - threaded only or flanged?
Tested Pls. indicate also meter body lengths for each DN to be able to quote necessary spacer sets in between meters. Please advise."

Answer: Body lengths are in accordance with ISO 4064.

Clarification/Query #3

"Clause 2.1 Testing Bench 15mm (1/2") to 40mm, pg 75
"The test bench shall include devices necessary for testing method described in ISO 4064/3 and ISO 4064 - 2005 or equivalent with automatic flow rate regulator."What is the required flow rate range? - we need at least required min. and max. flow rate for testing - e.g. 3 L/h up to 20.000 L/h. This significantly affects the price of the equipment."

Answer: Flowrates in accordance with latest edition of ISO 4064.

Clarification/Query #4

"Clause 2.1 Testing Bench 15mm (1/2") to 40mm, pg 75 Automatic flushing process and pressure test operations. Including purging with vacuum before flushing?"

Answer: This depends on the engineering design equipment to be supplied.

Clarification/Query #5

"Clause 2.1 Testing Bench 15mm (1/2") to 40mm, pg 75

The bench shall be made of stainless steel with two (2) testing lines
Shall the lines be operated only one at a time, while the operator exchanges meters on the other (SEMI version) or shall they be interconnected and test all meters in both lines at once (INLINE version)? We humbly suggest the SEMI version which is more versatile and also more popular among customers."

Answer: This depends on the designed equipment process to be supplied.

Clarification/Query #6
"Clause 2.1 Part A. Flow Rate Setting Systems, pg 76
"The system allows the evaluation and correct adjusting of the test flow rates by two electromagnetic flow meters "Our proposed system is different. We use only one el.-mag. flow meter as the other is replaced by the piston prover (being a linear pump and etalon/standard at the same time). "and flow rate adjusting valves. For medium-high flow rates the flow rate adjusting is made by variable speed pumping systems and fixed pre-set adjusting valves: for the lower flow rates adjusting is made by electrically actuated modulating valve checked by the control system using as a feedback the output of the flow meters. The flow meter accuracy and stability are continuously checked by the reference tank during the standard operation of the bench. Not applicable for our system.
The system has 5 branches for adjusting so that the standard flow rates for the tests can be optimized (Qmax, Qn, Qt, and Qmin or Q1, Q2, Q3. Q4) in sequence without having to adjust the flow rate between one test and another. Our system allows to set any required flow rate, but does not use 5 branches. We use a piston prover where the flow rate is electronically adjusted for Q1 & Q2 or eventually even Q3 of smaller sized meters (within a flow rate range 0,5 L/h - 7.000 L/h) and one el.-mag. flow meter for Q3/Q4 (capable of testing e.g. within a range of 2 - 20 m3/h). Usually only one of Q3 or Q4 are tested, not both.
The Metrological accuracy measurement shall be in accordance with ISO 4064:1993 and ISO 4064-2005 as follows;"

Answer: The equipment depends on the manufacturer's design meeting latest edition of ISO standards.

Clarification/Query #7
"Clause 2.1 Part A. Damping Tank, pg 76
"The damping tank shall be hydro-pneumatic low-pressure tank installed in the main water supply pipeline."Our equipments do not use damping tanks - this is a very old approach. Our piston prover designed for the lower flow rates causes no flow bursts/pulsations.
"The pressure booster, which is installed in the lower part of the bench, shall be operated pneumatically to perform a pressure test to the water meters with a maximum static pressure of 20 bars." For the static pressure test we use a separate piston pump to save the lifetime of pumps and the piston prover. We can provide a Pmax of 26bar, as requested by the standard for PN16 water meters."

Answer: This shall depend on manufacturer's engineering design.

Clarification/Query #8
"Clause 2.1 Part C. Reference Water Measuring System, pg 77

"The measuring tanks shall be made of stainless steel complete with flow meters; sight glass and fittings, calibrated engraved scales level sensors" The tank does not have a reading scale - hllMettler Toledo. Only electronic fully automated read.out is possible.
"The system is designed to enable the verification of the volume of water that has flowed through the meters tested and consequently measured in calibrated tanks."
We do not use calibrated tanks - but the piston prover and one additional weighing scale, distinction is as follows:
1/ Piston prover for flow rates 0,5 - 7.000 Lph, with a max. testing volume of 30L
2/ Weighing scale for flow rates 2 - 20 m3/h, with a max. testing volume of 300L (300kg)
3/ El.-mag. flow meter for flow rates 2 - 20 m3/h, with an unlimited testing volume (infinite loop).
"The water used for the tests is contained in a stainless-steel tank of 6oo liters"
We have a 1,2 m3 main supply tank.
"net capacity with level switch and a 20 liters constant level tank for gravity water supply."
Our systems do not use gravity water supplies.
"The reference tanks made in stainless steel"Our tank on the weighing scale is made of polypropylene. Pls. note, both materials are durable and rustless, but the polypropylene does weigh less than the stainless steel and takes less pre-weight from the test bench's weighing capacity.
"two scales with a maximum weight capacity of 5 Kg (resolution of 0.01 gram) and 600 Kg"We do not use two weighing scales.We suggest the piston prover PP30 which replaces the smaller weighing scale and a 300kg weighing scale which is sufficient for a flow rate range up to 20 m3/h."

Answer: This depends on manufacturer's engineering design.

Clarification/Query #9
"Clause 2.1 Part E. Test Water Supply System, pg 78
"The water supply system is composed of the following: A). Main pipe for higher flow; B). Secondary pump for medium flow rates Qmin/Q1 and Qt/Q2 and C). Steady supply (constant level tank) for lower flow rates."We use a new modern approach as described above: piston prover, weighing scale and no constant level tank.
"The pneumatic system shall be connected to a main air supply with a maximum pressure of 8 bars."We will provide an air compressor with 6 bar pressure, which is sufficient for our system."

Answer: This depends on manufacturer's engineering design.

Clarification/Query #10
"Clause 2.1 Part F. Water Meters Filling System, pg 78
"The test bench is equipped with liquid ring vacuum pump in order to grant a perfect filling with water of the meter under test and all the ancillary components of the testing line."
We do not use a pump to create vacuum, but an ejector using parallel water flow to create vacuum in the line."

Answer: This depends on manufacturer's engineering design.

Clarification/Query #11

"Clause 2.1 Part G.Metrological Precision Calculation System, pg 78

"Hand held terminal for input of reading data. Software for calculation of errors and management of testing data as well as calculation of all parameters."
We can provide for a wireless number keypad to enter values on the go + a wireless barcode scanner for scanning serial numbers of meters printed on the meters as QR or bar codes.
In summary, our proposed Automatic Water Meter Test Bench Utilizing Piston Prover technology is very much different from your specs which is in fact similar to the test bench which we had supplied to the Manila Water Company, in 2012, eight (8) years ago. Much advancement in the field of Water Meter Test benches has happened in the past eight (8) years, hence the advent of the Piston Prover type Water Meter Test Bench, which we pray that the MWSS will be open to, as it will definitely comply with the ISO standards which it should meet."

Answer: This depends on manufacturer's engineering design.

This Supplemental Bulletin No. 2 shall form part of the Bidding Documents.

For the guidance and information of all concerned.

(Sgd.) EVELYN B. AGUSTIN
Chairperson
Bids and Awards Committee
3/F Engineering Building, MWSS Complex
Katipunan Road, Balara, Quezon City

Please acknowledge the receipt of this Supplemental/Bid Bulletin No. 2 for Contract No. RO-PG2020-006:

_____
Name over Signature

Date :

_____
Company/Agency