



## NAYA RAIPUR DEVELOPMENT AUTHORITY

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### Corrigendum - 1

22.04.2016

With reference to **NIT No.: 66/EE-PHE/SE(E)/NRDA/2016-17, Raipur, Dated: 11.04.2016** for the work of "Supply, installation, testing and commissioning of flow meters at various locations of Naya Raipur", the following corrigendum - 1 is made:-

Based on the queries received, Modified BOQs is uploaded to facilitate proper bid submission

**In case the earlier uploaded documents are submitted along with the bid, the bid shall be considered void and shall be summarily rejected.**

The uploaded reply to Pre bid queries ( Annexure A) shall form part of the tender document

All other terms and condition shall remain same.

नया रायपुर – मेरा रायपुर

Chief Executive Officer

BOQ Sr. No. /Page no.	In place of	Read As
Flow meters sheet item no. 1 / page 2 of 6	Supply, installation, testing and commissioning of Multi Jet, dry-dial, inferential type, horizontal, Magentically coupled, class 'B'water meters Conforming to IS-779: 1994 and ISO 4064:1993 standard with EEC/MID certification mark, with IP68 protection class copper can register with 5 mm tempered mineral glass cover, successful Life Cycle Test Certificate from FCRI and AMR compatibility with 5 years warranty complete with brass nuts and nipples. Instrument shall be complete in all respects according to technical specifications including all specials and fittings as per requirement of making connections with existing pipe line, including coupling, adaptor, union (typ), bends, reducer, suitable size of valve, brick chamber with RCC cover, excavation at site, cuts in the existing pipe system complete and as per direction of Engineer in Charge.	Supply, installation, testing and commissioning of Multi Jet, dry-dial, inferential type, horizontal, Magentically coupled, class 'B'water meters Conforming to IS-779: 1994 and ISO 4064:1993 standard with EEC/MID certification mark, with IP68 protection class copper can register with 5 mm tempered mineral glass cover, successful Life Cycle Test Certificate from FCRI and AMR compatibility with 5 years warranty complete with brass nuts and nipples. Instrument shall be complete in all respects according to technical specifications <b>including all specials and fittings as per requirement of making connections with existing CPVC pipe line, including coupling, adaptor, union (typ), bends, reducer, suitable size of CPVC Ball valve (CTS sockets), Brick chamber inside dimension : 60cmx60cmx75cm, well burnt clay bricks of 35 kg/ cm<sup>2</sup> in cement mortar 1:4, inside 12mm thick plastering with cement mortar 1:3 and 110mm thick RCC top slab 1:2:4 mix, including steel 10mm dia. bar 150mm c/c, foundation concrete 150mm thick, PCC-1:5:10 Mix., including excavation, back filling, existing pipe line cutting and fitting with meter etc. including all material labour, testing and commissioning along with meter</b> complete and as per direction of Engineer in Charge.
a	DN 40 mm	DN 40 mm
Flow meters sheet item no. 2 / page 2 of 6	Supply, installation, testing and commissioning of Woltman Type, dry dial, inferential type, Magnetically coupled, class 'B' accuracy water meters in any position with interchangeable mechanism. Confirming to ISO 4064:1993 standard with EEC certification mark, with IP 68 protection class copper can register with 5 mm tempered mineral glass cover, AMR compatibility with 5 years warranty complete and successful accuracy test certificate from FCRI, Palakkad with C.I. Body 'T' Type strainer. Instrument shall be complete in all respects according to technical specifications including all specials and fittings as per requirement of making connections with existing pipe	Supply, installation, testing and commissioning of Woltman Type, dry dial, inferential type, Magnetically coupled, class 'B' accuracy water meters in any position with interchangeable mechanism. Confirming to ISO 4064:1993 standard with EEC certification mark, with IP 68 protection class copper can register with 5 mm tempered mineral glass cover, AMR compatibility with 5 years warranty complete and successful accuracy test certificate from FCRI, Palakkad with C.I. Body 'T' Type strainer. Instrument shall be complete in all respects according to technical specifications <b>including all specials and fittings as per requirement of making connections with existing CPVC pipe line, including coupling, adaptor, union (typ), bends, reducer, suitable size of CPVC Ball valve (CTS sockets), Brick chamber inside dimension : 60cmx60cmx75cm,</b>

BOQ Sr. No. /Page no.	In place of	Read As
	line, including coupling, adaptor, union (typ), bends, reducer, suitable size of valve, brick chamber with RCC cover, excavation at site, cuts in the existing pipe system complete and as per direction of Engineer in Charge.	<b>well burnt clay bricks of 35 kg/ cm<sup>2</sup> in cement mortar 1:4, inside 12mm thick plastering with cement mortar 1:3 and 110mm thick RCC top slab 1:2:4 mix, including steel 10mm dia. bar 150mm c/c, foundation concrete 150mm thick, PCC-1:5:10 Mix., including excavation, back filling, existing pipe line cutting and fitting with meter etc. including all material labour, testing and commissioning along with meter complete and as per direction of Engineer in Charge.</b>
a	DN 50 mm	DN 50 mm
Flow meters sheet: item no. 3 / page 3 of 6	Supplying, installation, testing and commissioning of electromagnetic full bore meter complete as per specification includes transportation to site, storage, safety, installation, testing, commissioning, making connections with existing pipe line, including excavation at site, cuts in the existing pipe system, dewatering and reinstating the same after completion of installation as per specification and drawings including all taxes. Accuracy of meter +/- 0.3% - 0.5% of measured value, Flange connection as per AWWA & IS, fully welded sensor housing complying to IP 68 standard, Electrodes SS 316/Hastelloy C, cable gland 1/2" NPT, Sensor housing fully welded SS 304 housing with protective Polyurethane paint/Die Cast Aluminium with anti-corrosive grade paint/Carbon Steel ASTM A 105 with corrosion resistant two component epoxy coating (min 150 µm), Flow Transmitter/ Converter: Microprocessor based, modular design display 2 line back lit LCD for indication of actual flow rate, forward, reverse, sumtotalizer, Perfection category: IP 65. Output: One current output (4-20 mA) one scalable pulse output. The required cable and mounting accessories for remote type transmitter mounting shall be included (maximum distance of 15 m or as per site condition).Instrument shall be based on open protocol and SCADA compatible, complete in all respect as per technical specification including all specials and fittings, coupling, adaptor, union (typ), bends, reducer, suitable size of valve,	Supplying, installation, testing and commissioning of electromagnetic full bore meter complete as per specification includes transportation to site, storage, safety, installation, testing, commissioning, making connections with existing pipe line, including excavation at site, cuts in the existing pipe system, dewatering and reinstating the same after completion of installation as per specification and drawings including all taxes. Accuracy of meter +/- 0.3% - 0.5% of measured value, Flange connection as per AWWA & IS, fully welded sensor housing complying to IP 68 standard, Electrodes SS 316/Hastelloy C, cable gland 1/2" NPT, Sensor housing fully welded SS 304 housing with protective Polyurethane paint/Die Cast Aluminium with anti-corrosive grade paint/Carbon Steel ASTM A 105 with corrosion resistant two component epoxy coating (min 150 µm), Flow Transmitter/ Converter: Microprocessor based, modular design display 2 line back lit LCD for indication of actual flow rate, forward, reverse, sumtotalizer, Perfection category: IP 65. Output: One current output (4-20 mA) one scalable pulse output. The required cable and mounting accessories for remote type transmitter mounting shall be included (maximum distance of 15 m or as per site condition).Instrument shall be based on open protocol and SCADA compatible, complete in all respect as per technical specification <b>including all specials and fittings as per requirement of making connections with existing pipe line, including coupling, adaptor, union (typ), bends, reducer, and including suitable size of Butterfly valve PN-1.6, Brick chamber inside dimension : 120cmx120cmx100cm, well burnt clay bricks of 35 kg/ cm<sup>2</sup> in cement mortar 1:4, inside 12mm thick plastering with cement mortar 1:3 and 110mm thick RCC top slab 1:2:4 mix, steel 10mm dia. bar 150mm c/c, foundation concrete</b>

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	brick chamber with RCC cover complete and as per direction of Engineer in Charge.	<b>150mm thick, PCC-1:5:10 Mix., excavation, back filling, existing pipe line cutting and fitting with meter etc. including all material labour, testing and commissioning along with meter</b> complete and as per direction of Engineer in Charge.
a	DN 65mm	DN 65mm <b>(Existing pipe material: HDPE pipe)</b>
b	DN 100mm	DN 100mm <b>(Existing pipe material: Ductile iron pipe)</b>
c	DN 150mm	DN 150mm <b>(Existing pipe material: Ductile iron pipe)</b>
d	DN 200mm	DN 200mm <b>(Existing pipe material: Ductile iron pipe)</b>
Electrical sheet: item no. 1 / page 5 of 6	Fabrication, supply, installation, testing and commissioning of cubicle type compartmentalized wall/ floor mounted control panel board of suitable dimensions made out of not less than 2 mm thick CRCA MS sheet with suitable compartments in three parts for UPS,SCADA Equipments and for electrical arrgment like bus bars, switchgears and necessary cutouts for voltmeters, ammeters etc as per specifications including powder coating painting <b>but without</b> busbars,switchgears and other accessories etc complete as required.	Fabrication, supply, installation, testing and commissioning of cubicle type compartmentalized wall/ floor mounted control panel board of suitable dimensions made out of not less than 2 mm thick CRCA MS sheet with suitable compartments in three parts for UPS,SCADA Equipments and for electrical arrgment like bus bars, switchgears and necessary cutouts for voltmeters, ammeters etc as per specifications including powder coating painting, busbars, switchgears and other accessories etc complete as required.
	Bus bar	Bus bar
	2 pole copper bus bar 100amps	2 pole copper bus bar 100amps
	incomer	incomer
	2 pole MCCB, 63A, 35KA as incomer	2 pole MCCB, 63A, 35KA as incomer
	outgoing	outgoing
	5 Nos 6 amps to 32 amps SP MCB	5 Nos 6 amps to 32 amps SP MCB
Electrical sheet: item no. 2 / page 5 of 6	Supplying, installation, testing and commissioning 0.5 KVA rating single phase in, single phase out ON-LINE UPS having DC bus voltage 180V including 6 kV surge protection with SMF (Sealed Maintenance Free) lead acid battery of minimum 4 hr back up ,connection etc. as required.	Supplying, installation, testing and commissioning <b>2.0 KVA</b> rating single phase in, single phase out ON-LINE UPS having DC bus voltage 180V including 6 kV surge protection with SMF (Sealed Maintenance Free) lead acid battery of <b>minimum 2hr back up</b> ,connection etc as required..