

**Subject: Response-3 to Pre-bid queries for surface water project for Amritsar in Pre bid Meeting dated 13.08.2020.**

**Name of Work:** Request for Proposal Works and Operation Service (Design, Build and Operation) of 440 MLD Water Treatment Plant and associated Transmission Network and Over Head Service Reservoirs in City of Amritsar, Punjab, India.

**RFP Reference No. IN-PMIDC-170755-CW-RFP**

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462		6.6.16,	page no.208	Filter beds and filter operating gallery should be in covered RCC frame structure.	Filter beds in such a large size of plant are generally kept open. This will save time and cost. This may please be considered and confirmed.	Refer Item no.7 of Addendum no. 3 (Vol-2) Also refer Response to query No. 364, supersede by stipulations in Item no.7 of Addendum no. 3 (Vol-2) Also refer Item no.1 of Addendum No.5
463		6.6.28.2		Polyelectrolyte dosing rate of up to 5.0 Kg per ton of dry solids to be provided.	Polyelectrolyte dosing rate of 5Kg per Ton of dry solids is too high. It generally varies from 1.5 -2.5 Kg as per manufacturer's recommendations. May please be confirmed.	The dose polyelectrolyte from a polyelectrolyte storage tank into the thickener feed line is stipulated as: at a rate of <b>up to 5 kg per tonne</b> of dry solids." The dosing shall be as per the sludge solid concentration.  Provision shall remain as per Proposal Document
464		6.6.28, 6.6.28.5	page no. 62, page no. 222 and 6.6.28.5, page no.224	Turbidity to be considered for design and covered storage shed for dewatered sludge	It is mentioned that maximum likely turbidity is 244 NTU and normal turbidity is 58 NTU. Turbidity of 244 NTU is to be considered for design purpose. By considering turbidity of 244, provision of sludge handling system is coming huge which is techno-commercially is not advisable. Tentative sizes of various components are given as below for reference.  <ol style="list-style-type: none"> <li>1) Total sludge generated from clarifiers shall be about 11500M<sup>3</sup>/day by considering 1% consistency.</li> <li>2) Thickened sludge shall be about 1150M<sup>3</sup>/day by considering 5% consistency.</li> <li>3) Centrifuge requirement shall be 10 Nos.(5W+5S) each of capacity 30M<sup>3</sup>/Hr and 100% standby capacity as per tender documents.</li> <li>4) Capacity of Clarifier Sludge sump shall be about 1450M<sup>3</sup></li> <li>5) Quantity of dewatered sludge shall be about 500m<sup>3</sup>/day by considering 98% solid removal and 20 % consistency as per tender document. If dewatered sludge is to be stored for 15 days as per NIT, covered</li> </ol>	Refer Item No. 1 Addendum No. 5

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					<p>storage shed capacity shall be about 7500M3.</p> <p>Considering above, kindly advise the TSS to be considered for Raw water pre-settling tank and sludge handling provisions in WTP. Generally, for such a size of WTP and with the provision of Raw Water storage and pre-settling tank, TSS of 50 mg/ltr is enough for design of sludge handling system for WTP. Further storage of dewatered sludge may also be considered for 7 days instead of 15 days.</p>	
465		6.6.26	page no. 214	Chlorine Contact Tank	<p>Detention time is mentioned as 30 minutes. With this retention, volume of CCT shall be 10000M3 which will be like a reservoir. Since additional contact time is also available in conveying pipe line/channel and then CWR before pumping to transmission line, provision of CCT may please be reviewed or else a smaller chlorine Contact Chamber with 5 Minutes retention may please be considered. Generally, CCT is not provided in large sizes of WTPs.</p>	<p>It is being clarified that there shall be a unit for chlorine Contact Chamber and thereafter, there shall be in two parts CCT and CWR in two parts. Chlorine Contact time: It shall not be less than 30 minutes' contact time.</p> <p>Provision shall remain as per Proposal Document</p>
466	Price Bid/ Volume 2. Employer's requirement	Item Rate, Item No.1/ Clause c,xi, 1.11.8, Design Criteria,  Clause c, xi, 1.11.1, Brief Scope of Works	16,7	Capacity of ESRs	<p><b>Price Bid, (Item Rate, Item No.1):</b> The referred Item of Price Bid states, Construction of 36 Nos, 19 Nos and 22 Nos tanks of 1 ML, 1.5 ML and 2 ML respectively. Rates are to be quoted against each capacity of OHSR</p> <p><b>Clause c, xi, 1.11.8 Design Criteria, Page 16, Volume 2, Employers Requirement:</b> The referred clause states, "A key factor to be taken into account is the highly restrictive availability of land for installation of new reservoirs and hence the proposals should focus on expanding the utilizable storage through improved hydraulics and assigned demand patterns."</p> <p><b>Clause c, xi, 1.11.1, Brief Scope of Works, Page 7, Volume 2, Employers Requirement:</b> The referred clause states, "Transmission should be</p>	<p>Refer Response to Pre-bid Query No 448</p> <p>Also refer to Item no. 3 Addendum No. 4</p>

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					<p>designed to meet demand fluctuations in supply areas under OHSRs (use of IA and other disruptive technologies are encouraged) and modify supply parameters. It is optional to use more than 1(one) peak factor in designing the transmission system such more water can be delivered during peak hours.”</p> <p>Owing to acute land constraint, it is crucial to improve effectiveness of the system covering the required demand. Abiding by the above clause, the capacities of proposed tanks can be optimized, without deviating the end requirements (DBOT concept). However, the present BoQ other clauses (mentioned above) do not favour the efficacy of the above points.</p> <p>It is hence requested to provide a single Lump-sum item for construction of OHSRs and eliminate the clauses mentioned in Point-2 to optimize the capacities of storage tanks, thereby providing value to the customer.</p>	
467	Price Bid/ Volume 2. Employer's requirement	Item Rate, Item No.1/  Clause a, viii, 1.11.8 Design Criteria,  Clause a, viii, 1.11.1, Brief Scope of Works  Clause a, ix, 1.11.8 Design Criteria	16,7	Capacity of ESRs	<p><b>Clause a, viii, 1.11.8 Design Criteria, Page 15, Volume 2, Employers Requirement:</b></p> <p>The referred clause states, “The Contractor shall plan and design the necessary Capital Works to ensure a sufficient supply of treated water from the Water Works to meet the Performance Standards; mainly maintaining minimum 1/3 volume of water in reservoirs at all times to allow 24/7 supply.”</p> <p><b>Clause a, viii, 1.11.1, Brief Scope of Works, Page 6, Volume 2, Employers Requirement:</b></p> <p>The referred clause states, “The system shall be designed to ensure uniform distribution of water to all OHSRs (managing minimum 1/3 quantity in all reservoirs at all times) such that 24/7 supply shall be managed drawing water from various OHSRs to supply to consumers.”</p>	Refer Response to Pre-bid Query No 447

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					<p><b>Clause a, ix, 1.11.8 Design Criteria, Page 16, Volume 2, Employers Requirement:</b></p> <p>The referred clause states, "Design of feeder system to OHSR s shall be such that distribution of water to the OHSRs is ensured at all times to maintain water in OHSRs – not below 1/3 capacity of OHSRs.</p> <p>Appendix 1B Design Criteria: "Capacity of Service Storage – as per Mass curve subject to 30% of Demand"</p> <p>From the above clauses, we understand, additional 1/3rd of capacity needs to be provided at all OHSRs. The additional 1/3 volume acts as dead storage, which is never utilized during 24 x 7 supply. Hence, we request you to eliminate the above clauses to optimize the capacities of OHSRs. Also, kindly allow the bidders to size the OHSR capacity based on appropriate mass balance. It is also requested to eliminate the minimum requirement of 30% of demand.</p>	
468	Volume 3 & Pre-Bid Replies	Table D-1-1: Operation & Maintenance Service- Fee Price Adjustment for O&M Services & Point No - 13	116 & 4	Price adjustment during O&M Section & Clause	<p>As per the referred formula, "<math>PAf = Ef \times [(0.45) + \{0.40x (CPI_n/CPI_i) + 0.10 \times (WPI_n/WPI_i) + 0.05(DPI_n/DPI_i)\}]</math>".</p> <p>As per the given formula, 45% of the total O&amp;M amount is fixed and not subjected to price variation. We request you to consider 15% for fixed overheads &amp; administrative expenses, 40% for Labour, 40% for material including chemicals and sludge treatment &amp; 5% for POL as being followed in tenders across India and in Punjab. Kindly consider and confirm.</p>	Refer Item No. 05 Addendum No. 5
469	Volume 2 & Pre-Bid Replies	1.11.3 & Query No 17	9 & 5	Additional Land Requirement	<p>As per the referred clause, "<i>If the design of the contractor requires additional land other than that is available with MCA, it will be procured at the cost of contractor</i>".</p>	No question of acquiring additional land. The proposer shall provide such design, suitable to available land so that the entire WTP system including all components should be fit into the available land .

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					<p>As per the referred reply, "It is clarified that the bidder has to provide a design that can be accommodated in the available site / land"</p> <p>Since land acquisition is the responsibility of the Employer, kindly consider procurement of additional land or alternate land if the available space for construction of OHSR is not sufficient. Kindly confirm.</p>	
470	Addendum 2	Item No 09	13	Maximum amount of performance damages payable by the Contractor in any contract year during the O&M	<p>As per addendum 2, "Maximum amount of performance damages payable by the Contractor in any contract year during the Operation Service Period: 5 % of the Accepted Contract Amount for Operation Service"</p> <p>Since it is mentioned that performance damages in any contract year, we understand that the mentioned amount is 5% of the Accepted Contract Amount for Operation Service of the corresponding year. Kindly confirm.</p>	Refer Item No. 06 Addendum No. 5
471	Volume III	14.7 (b)	14	Minimum amount of interim payment	We would like to highlight that, there would be seasons where the quantum of invoicing will be high and low in some seasons. Hence, we request you to consider 0.1% of accepted contract value (Approx. 0.68 Cr) which is an acceptable amount for interim payment instead of 1% of contract value. The same is being followed across other multilateral funding projects in India. Kindly consider as it improves the cash rotation.	Provision shall remain as per Proposal Document
472	Volume III	Appendix 4, S.No.2 to 6	122	Performance damages works	It is general practice, to recover performance damages on cost of balance pending works. So, request to consider 0.01% of the cost of balance works of respective Milestone works instead of 0.01% of accepted contract amount of design build services. Kindly confirm	Provision shall remain as per Proposal Document.
473	Volume 1	PDS 38.1 & Form FIN 3.2	57 & 146	Source & Base date of exchange rate	<p>As per the FIN Forms - FIN 3.1, 3.2, "Refer ITP 38.1 for date and source of exchange rate."</p> <p>But, as per the clause ITP 38.1, "The source of exchange rate shall be: BC Selling Exchange rate"</p>	Refer Item No. 7 Addendum No. 5  "The exchange rate specified under ITP 38.1"

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					<p><i>of State Bank of India -Chandigarh</i>  <i>The date for the exchange rate shall be the deadline for submission of Proposals as specified in ITP 23"</i></p> <p>We would like to bring to your kind notice that exchange rate shall be usually 28 days prior to bid submission date for financial evaluation whereas it is mentioned as on date of bid submission which cannot be determined prior to last date of submission and also the same has been linked for conversion of financial figures into USD Equivalent in FIN 3.1 &amp; 3.2. In view of this, we presume that exchange rate shall be 28 days prior to bid due date for price evaluation and exchange rate for evaluating the bidder financial strength shall be on the date of financial year ending.</p> <p>Also, the source of exchange rate is mentioned as "BC Selling Exchange rate of State Bank of India – Chandigarh" whereas such data is not available in public domain. Hence, we request you to kindly provide the same or allow the bidders to consider FBIL (Fedai) exchange rate as it is easily available and being followed across contracts PAN India.</p>	is to be used for bid evaluation purpose only, which is different from the exchange rate used by the Proposer under ITP 16.1".
474	Section IV	All Proposal Forms	118 to 164	Proposal Forms	<p>As per the referred clauses, it states to "Provide 20 page space on e-portal for offer submission &amp; Provide 100 page space on e-portal for offer submission" and subsequently mentioned for all proposal forms.</p> <p>Since the bidder has option only to upload the technical proposal in pdf formats, we understand that the above mentioned clauses are not applicable. Kindly confirm.</p>	Refer Item no. 4 Addendum No. 5
475	Volume 2 - Employer's Requirement & Prebid Replies	1.11.9 Design of Works, ii) a) 1.11.8 Design Criteria & Query No 45	17,14 & 11/91	Design Period of OHSRs	<p>The referred clause states that, 'The system installed during the period of investment shall provide potable water to OHSRs to serve the present population of the served areas and for progressively serving the population till the ultimate design year.'</p> <p>Moreover, reply to query no 45 states, "Provision</p>	Refer vol-2: 1.11.8 item (iii) : OHSRs shall be designed to meet 15 year demand Provision shall remain as Proposal Document.

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					<p><i>shall remain as Proposal Document</i>".</p> <p>We understand OHSRs shall be designed for the intermediate year demand only. Kindly confirm.</p>	
476	Pre-bid Replies	28	8/91	Freeboard for Raw water sedimentation tank	<p>From the referred query, FSL of canal is mentioned as 234.062m.</p> <p>Since FGL at WTP needs to be 0.5 m above FSL, FGL at WTP location = 234.062+0.5 = 234.562 m.</p> <p>Since Bed level of Canal (232.629) is lesser than the FGL at WTP, sufficient freeboard (considering FGL at storage tank, Low water level and additional 0.5 m for prevention of surface water entry) needs to be considered to ensure storage of desired quantity of water. This freeboard shall be in addition to 110 ML. The Volume of Raw water sedimentation tank needs to be considered accordingly.</p> <p>Kindly provide low water level and clarify the above in scope of works of Raw water Sedimentation tank to ensure parity among bidders.</p>	<p>1. Water Should be drawn from canal, little above bed level.</p> <p>2. The free board level shall be kept 500 mm above FSL in Raw Water Storage cum pre-settling tank but if, free board level comes near to FGL then RCC wall top is to be kept at least one meter above FGL.</p>
477	Pre-bid replies	Query no:38	9	Design Methodology	<p>The referred replies states, "<i>Liquid retaining structures shall be designed as cracked section with a limiting crack width of 0.1 mm</i>"</p> <p>We kindly request you to allow the bidder to design the liquid retaining structures as mentioned in IS 3370-2009 part 2 cl 4.4.1.2 "The maximum calculated surface width of cracks for direct tension and flexure or restrained temperature and moisture effects shall not exceed 0.2 mm with specified cover".</p>	Refer Response to Pre-bid Query No 38
478	Addendum no:3 Vol 2	Item no:8	6	Net Safe Bearing Capacity	<p>The referred clause states that "<i>The foundations of all OHSRs shall be designed for the actual safe net bearing capacity as determined by geotechnical investigation at the respective location conducted by the Contractor. However, the maximum permissible Safe net bearing capacity of soil to be considered in design shall be 8.6 T/m<sup>2</sup>. Even if in a</i></p>	No change

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					<p><i>specific location where the net bearing capacity is found to be more than 8.6 T/m<sup>2</sup>, but the design value to be considered still be 8.6 T/m<sup>2</sup> (net)</i>.</p> <p>We kindly request you to allow the bidder to consider Net Safe bearing capacity of soil as per soil investigation report. Kindly confirm.</p>	
479	Volume-2 & Prebid Replies	Table-1&Table-2 & Query No 95	113 & 23	Yearly Water Demand Calculation for MLD.	<p>In the referred table. The unit of monthly variable fee column is mentioned as cubic meter. We presume this is typographical error and the unit should be ML. Kindly confirm.</p> <p>The reply to the aforementioned query is stated as "<i>Confirmed. Refer Revised Price Bid</i>". Kindly provide the revised Price bid.</p>	Refer Item No 5 of Addendum 4 and Item No. 03 Addendum No. 5
478	Prebid Replies & Addendum No.3(Vol-2)	Sl. No 364 & 6.6.13	72 & 5	Filter beds	<p>Referred pre-bid replies states that, "<i>Filter beds shall also be covered</i>".</p> <p>As per referred corrigendum, "<i>The filters shall be open to sky</i>".</p> <p>Since both the clauses are contradictory and covering filter beds will have huge cost implications, we presume that the bidder can design the filters open to sky. Kindly confirm.</p>	Refer query response S. No. 462
479	Prebid Replies & Addendum No.3(Vol-2)	Sl. No 76 & 6.6.13	19 & 5	Dual media filters	<p>As per referred clause states that, "<i>Bidder can also consider dual media filters</i>".</p> <p>As per referred corrigendum states that, "<i>Dual media filters shall not be acceptable</i>".</p> <p>Since both the clauses are contradictory and being a DBOT tender, the bidder is free to consider the filters as per bidder design. Kindly confirm.</p>	Dual media may be used as well or any proven technology.
480	Addendum No.3(Vol-2)	6.6.13	4	Surface loading rate	As per referred clause states that, " <i>Surface loading rate in settling tank shall not exceed 35 m/hour</i> ".	Refer item no. 02 Addendum No. 5



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					We presume that the mentioned surface loading rate is a typographical error it should be 35m/day. Kindly confirm.	
481	Pre-bid Replies	Sl.No.94 & Sl.No.131	23 & 29	Variation in influent Quality & Adjustments for Changes in Influent Quality	<p>As per referred clause states that, "<i>In the unlikely event of change in canal raw water quality during O&amp;M period, the contractor shall propose process improvements as necessary under Variations</i>".</p> <p>As per referred clause states that, "<i>Test shall be conducted post award of work. No variation shall be considered</i>".</p> <p>Since both the clauses are contradictory, we presume that the change in canal raw water quality during O&amp;M period, contractor shall propose process improvements as necessary under variations with respect to contract price and shall be paid extra as actuals. Kindly confirm.</p>	<p><b>Sl.No.94:</b> Reply is for Design build phase, based on complete testing by the contractor. (No variation shall be considered.)</p> <p>In the unlikely event of change in canal raw water quality during O&amp;M period, the contractor shall propose process improvements as necessary under Variations.</p> <p><b>Sl.No.131:</b> Design build phase, based on complete testing by the contractor. No variation shall be considered.</p> <p>There is no contradiction.</p>