CB No: MCA-M/CF/WRA/W-01

CB No: MCA-M/CF/WRA/W-01 Invitation for Bids For the Wastewater Recycling Plant Design-Build

ANSWERS TO CLARIFICATION QUESTIONS – ISSUE No. 5 (Questions 70-85) September 24, 2021

| Questions and Answers 1-32 were issued to all registered Bidders on August 24, 2021 Questions and Answers 33-35 were issued to all registered Bidders on August 27, 2021 Question and Answer 36 was issued to all registered Bidders on September 6, 2021 Questions and Answers 37-69 were issued to all registered Bidders on September 17, 2021 | | |
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| Question 70: | Referring to employer requirements; it is mentioned in Table 2-4 Design Finished Water Quality Criteria for the WRP that TSS should be less than 5 ppm while it is mentioned in Table 2-10 Dual Media Filtration Design Criteria that TSS should be less than 1 ppm (expected from dual media filters). Kindly advise what of the Target effluent TSS concentration. Is it less than 5 ppm or less than 1 ppm? | |
| Answer 70: | The Bidder shall meet the Design Finished Water Quality Criteria for the WRP given in Table 2-4. This means the value for TSS of the effluent is < 5 mg/L. The 5 ppm of target effluent TSS concentration is given as a performance standard meaning it is the maximum acceptable level. The requirement for less than 1ppm may be considered to be aspirational rather than a contractual requirement. | |
| Question 71: | Kindly note that if the Target effluent TSS concentration should be less than 1 ppm then the Dual Media Filters will not achieve the requested TSS and different filtration process should be considered. Kindly advise. | |
| Answer 71: | Refer to the response to Clarification Question 70. The contractual effluent requirement is <5ppm for TSS. The Bidder may propose modification and/or innovative concepts to the filtration process that is different than the dual media filter and submit an Executive Summary by 10 am, Ulaanbaatar time, on September 27 th , 2021 as described in the Addendum #2 to the IFB which was issued on September 09, 2021. | |
| Question 72: | In case the Target effluent TSS should be less than 1 ppm then an extra time is needed to submit an executive summary as this will affect the treatment steps. | |
| Answer 72: | Please refer to the response to Clarification Question 70. TSS concentration of finished water quality criteria should be less than 5 ppm). | |
| Question 73: | Kindly confirm that the oil will be emulsified oil (and not free oil). In case it is free oil then an extra time is needed to submit an executive summary as this will affect the treatment steps | |
| Answer 73: | Oil is expected to be emulsified oil. | |
| Question 74: | Kindly advise if there will be any modifications on the original requirements or all modifications will be considered in the innovative ideas. | |
| Answer 74: | The Employer will make modifications to the Employer's Requirements which are as general as possible to further protect the innovative ideas of Bidders. The changes to the Employer's Requirements will be written in such a way that accommodates the acceptance of bids which comply with the original requirements as well as bids with innovative ideas. Thus, the Bids which are being developed based on the original requirements can still be submitted. | |
| Question 75: | Kindly note that Many suppliers / manufacturers have their annual vacations during August and September and that lead for late response from them. Accordingly, kindly advise if you can amend the due date of submitting the executive summary | |

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| Answer 75: | Kindly note that no full and complete details of all manufactured equipment are required to be submitted for the Executive Summaries, rather general equipment specifications and their functionality. Information can be obtained from technical brochures/vendor information. Detailed information such as Key Vendors Information Sheet (Form ELI-2) and Construction Equipment (form TECH-7) shall be provided in the final Bid Submission on January 21, 2022 MCA-Mongolia has extended the deadline for submission of an Executive Summary of proposed innovative concepts by three (3) weeks and there is a very limited flexibility in the overall project schedule to further amend this. Bidders are referred to the response to Clarification Question 36, the final sentence of which states: "No further extension requests to submission date of an Executive Summary of proposed innovative concepts shall be considered." |
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| Question 76: | Referring to Answer 40 of ANSWERS TO CLARIFICATION QUESTIONS – ISSUE No. 4 (Questions 37-69); it is mentioned that The Bidder should submit one Bid-Offer and not separate ones for the "innovative ideas" and the "original requirements". kindly confirm if the contractors should submit "innovative ideas" or "original requirements" or "both scenarios"? |
| Answer 76: | The Bidder should submit only one Bid Offer by 10.00 am, Ulaanbaatar time, on January 21, 2022. If the Bidder has innovative ideas, the Bidder shall submit an Executive Summary which describes the innovative ideas by 10.00 am, Ulaanbaatar time, on September 27 th , 2021. Proposed innovative ideas will be evaluated through Executive Summaries and Proprietary Meetings. An Addendum will be issued on October 18 th , 2021, notifying all Bidders the innovative ideas that are rejected. A modified Employer's Requirement will be issued on November 22, 2021. This modification will be written in such a way as to allow both the original concepts and the approved innovative concepts. The Bidder shall submit a single offer that complies with the modified Employer's Requirement. Since both the original concepts and approved innovative concepts will be acceptable in the modified Employer's Requirement, the Bidder will be able to include the single highest value design it can conceive and it should only submit one bid. |
| Question 77: | Referring to Answer 44 of ANSWERS TO CLARIFICATION QUESTIONS – ISSUE No. 4 |
| Answer 77: | (Questions 37-69); kindly clarify when the changes will be acceptable as this point is not clear. Any proposed changes from the Employer's Requirement (such as dimensions of tanks asked in Question 44) will need to be submitted via Executive Summary by 10 am, Ulaanbaatar time, on September 27 th , 2021. Only proposed changes submitted via Executive Summary will be evaluated. Proposed changes that are rejected will be notified to all Bidders via an addendum on October 18 th , 2021. This is as early as possible to prevent Bidders exerting effort on a design modification which will not be acceptable. |
| | Approved proposed changes will be incorporated into a modified Employer's Requirement, and the modified Employer's Requirement will be issued on November 22, 2021. This is intentionally at a later date to reward Bidders who have proposed value added ideas. |
| Question 78: | In order to determine the appropriate Head / pressure for the pumps within the WRP; we need to provide us with drawings to show the elevation of the pump set, elevation of the structure where water will be pumped to, maximum water level in that structure, pipeline route, material of construction, diameter and length or layout with dimensions a) from Transfer Pump Station # 1 to the treatment process tanks; b) from Transfer pump station # 2 to CHP; c) from Transfer pump station # 2 to CWWTP effluent channel; d) from sludge transfer pumps to Train A Primary clarifier at new CWWTP. |

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| Answer 78: | Please kindly note the following: |
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| | a) from Transfer Pump station #1 to process tanks: Please refer to answer 47 |
| | b) from Transfer pump station # 2 to CHP: Please refer to answer 55 |
| | c) from Transfer pump station # 2 to CWWTP effluent channel: Please refer to Answer |
| | 50. no pump is required. The pipeline is being designed to drain and by gravity. |
| | d) from sludge transfer pumps to Train A Primary clarifier at new CWWTP: Please refer |
| | to answer 54 |
| | |
| | Kindly note that: |
| | • Initial heads of the pumps given in the ER and confirmed in above answers to previous |
| | questions are INDICATIVE only: |
| | - For Transfer PS #1 and the sludge transfer pumps: The Bidder should finalize the |
| | parameters for each pumping main based on his/her own design to meet the ER |
| | and determine through his/her own hydraulic and piezometric calculation the |
| | operating points of the respective pumps (Transfer PS #1, Transfer PS #2 and |
| | sludge transfer pumps), including static and geometric head. |
| | - For Transfer PS #2: The pipeline Design Consultant will select the pipeline |
| | diameter and will advise the WRP Design-Build Contractor of the system curves |
| | for the transmission pipeline which will be the basis to establish the final value of |
| | TDH/head of pumps. As noted in Answer 55 the Bidder may base its proposal on |
| | the information in Table 2-12. |
| | • No other drawings than those already provided in Section V of IFB are available. |
| | Please refer to the drawings set contain in "ER and its Annexes" (3.1. WRP.pdf) and |
| | Feasibility Study Vol II (page 38, proposed WRP preliminary hydraulic profile). |
| | |
| Question 79: | The material of Force main is mentioned as HDPE is the ER. Kindly advise us if HDPE piping |
| | material should be considered for all piping within the WRP. |
| Answer 79: | Piping systems (buried or exposed pipes within the WRP) shall be designed by the Design- |
| | Build Contractor to include: potable water, non-potable (service) water, fire protection water, |
| | influent and treated water, sanitary sewer, stormwater, groundwater. The Contractor may |
| | select materials which offer the best value and which meet applicable code and service |
| | requirements. The specifications for materials are given in section # 2.23.8 for HDPE pipes & |
| | fittings, in section # 2.23.9 for steel pipes & fittings, and for appurtenances in section # 2.23.10 |
| | to 2.23.15. All pipes, fittings & appurtenances shall comply to the appropriate ASTM, ISO, |
| | BS or AWWA Standard or equivalent, and for potable water service pipe material shall be approved by the National Sanitation Foundation International (NSF). |
| | approved by the National Saintation Foundation international (NSF). |
| Question 80: | Kindly advise us with the Electrical tariff that should be considered by the contractor during |
| Question ou. | the commissioning period. |
| Answer 80: | The Energy Regulatory Commission approves electricity retail tariff as per the Law of |
| | Mongolia on Energy. The information about the retail tariff presently in force can be obtained |
| | from the following link: https://erc.gov.mn/web/en/tariff-central-south (in English), |
| | https://erc.gov.mn/web/mn/tariff-center (in Mongolian). The Design-Build Contractor has to |
| | pay the electricity bill as per the tariff for the consumer category called: For other industries, |
| | business entities and organizations. |
| | |
| | The tariff for users with simple meter is 140.59 MNT/kWh (without the VAT of 10%). |
| | If the consumer has installed a time use of meter the below tariff shall be applied: |
| | a. daytime consumption (from 06:00 to 17:00) - 140.59 MNT/kWh (without VAT) |
| | b. evening time consumption (from 17:00 – 22:00) – 221.89 MNT/kWh (without VAT) |

| | c. nighttime consumption (from 22:00 – 06:00) – 89.19 MNT/kWh (without VAT) |
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| | Note: The ERC may change the retail tariff based on the indexation rule by considering the inflation rate, fuel price and foreign currency exchange rate, etc. as per the Law of Mongolia on Energy. |
| | |
| Question 81: | Referring to Answer 64 of ANSWERS TO CLARIFICATION QUESTIONS – ISSUE No. 4 (Questions 37-69; kindly advise when the contractors will receive all the necessary data regarding the surge system. |
| Answer 81: | During the procurement, the Employer will determine the initial details of the surge system and will provide it to the Bidders by addendum. Assessment of pipeline route, hydraulic and piezometric calculations (by the Pipeline Design Consultant) are scheduled to be completed in Nov 2021, and the basic design of the hydraulic and mechanical devices of the pipelines (incl. the initial details of the surge system) by Dec 2021. The addendum related to the surge system will then be issued by MCA-M to all Bidders at the same time. The WRP Design-Build Contractor shall finalize the design and specification for the surge protection system - initially as part of his Preliminary Design Proposal (to be part of his Technical Bid Proposal, in line with the ER section # 2.6.4), to be submitted with the Bid Submission on Jan 21, 2021). |
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| Question 82: | Referring to Answer 50 of ANSWERS TO CLARIFICATION QUESTIONS – ISSUE No. 4 (Questions 37-69). It is requested that the contractor shall design Transfer Pump Station #2 accordingly and shall coordinate its design with the pipeline design. Kindly advise when the contractors will receive the pipeline design. |
| Answer 82: | The Bidder is responsible for the preliminary design as part of the Design Proposal during the bidding phase based on information provided. The selected Bidder, or the Contractor, will coordinate with the pipeline design consultant to finalize the design in the 30% and detailed design phase. For Bidder's information, below are the pipeline design consultant's timeline on Detailed Design: 1. Basic Design of Detailed Design Documents: December, 2021 2. Detailed Design Documents 60%: March, 2022 3. Detailed Design Documents 90%: June, 2022 4. Detailed Design Documents 100%: August, 2022 |
| | Per response 55, the Bidder may base its proposal for Transfer Pump Station #2 on the information in Table 2-12. The Employer expects that the Contractor will reasonably coordinate its final design of the pump station with the design of the pipeline. The Engineer will adjudicate changes associated with the design development per the FIDIC Conditions of contract. |
| 0 4 02 | D.C |
| Question 83: | Referring to Answer 50 of ANSWERS TO CLARIFICATION QUESTIONS – ISSUE No. 4 (Questions 37-69). It is mentioned that The Bidder shall determine the size and length of the drain to allow the full 50,000 m3/day to be directed to the NCWWTP effluent channel based on its layout and the design of the transfer pumps. kindly advise us with layout drawing that includes dimensions in order to estimate the length. |
| Answer 83: | To have an indicative view of the location of the Transfer Pump Station #2, please check the location of this PS # 2 and the connection point with the finished water pipeline to CHPP #3 and CHPP #4 (which is also the connecting point of the drain). Kindly refer to Sheet C-100, preliminary WRP layout drawing, page 19 of the "ER and its annexes) (3.1. WRP.pdf) (can be downloaded from para. 3, LINK FOR THE EMPLOYERS REQUIREMENTS of Section V of IFB). |
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To have an indicative view on the NCWWTP effluent channel to be constructed by other Contractor (not part of the scope of this contract), please refer to Annex 6 of same link (access road, drawings, effluent discharging channel design and layout), Sheet No 11, 12 and 13. The nearest distance between the drain outlet of Transfer Pump Station #2 and the NCWWTP can be identified by the Bidders from the above. The size and layout design of the drain shall be estimated by the Bidder considering the full flow of WRP Phase 1 of 50,000 m³/day. Note that the Bidder will propose its own layout which meets the Employer's Requirements and may differ from the indicative layout provided. **Question 84:** Referring to Answer 55 of ANSWERS TO CLARIFICATION QUESTIONS – ISSUE No. 4 (Questions 37-69); The pipeline Design Consultant will select the pipeline diameter and will advise the WRP Design-Build Contractor of the system curves for the transmission pipeline which will be the basis to establish the final value of TDH. Kindly advise when we can get these data from the consultant. Refer to answers to Question 82. Answer 84: Kindly confirm that the Acceptable Innovative Ideas" will be issued to all bidders. **Question 85:** Answer 85: Yes. Please refer to Section II of the Bidding Documents - Bid Data Sheet - ITB 9.1, as Amendment in Addendum 2, which clearly states: An Addendum identifying rejected innovated concepts will be issued to all bidders by October 18, 2021, this being 12 weeks / 84 days from the release of the Bidding documents. This date has been selected to rapidly inform all Bidders of ideas which are not acceptable to reduce all Bidders' wasted efforts. An Addendum outlining changes to the Employer's Requirements resulting from the Proprietary Meetings will be issued on November 22, 2021, this being 17 weeks / 119 days from the release of the Bidding documents. This date has been selected to provide benefit to Bidders who generate innovative ideas and to allow time for completion of Bids based on these ideas. The Employer will make modifications to the Employer's Requirements which are as general as possible to further protect the innovative ideas of Bidders." Please also refer to the response to Clarification Question 41, which is copied below, with bold type emphasizes added. The following schedule of activities shall apply: Activities **Dates** September 27, 2021 **Submission of Executive Summary** Commencement of Proprietary Meetings October 04, 2021 Addendum: Rejection of the Unacceptable Innovative Concepts October 18, 2021 **Innovative Concepts Addendum: Modifying ER to allow November 22, 2021** acceptable Innovative Ideas After organizing Proprietary Meetings with Bidders who submitted the Executive Summary on innovative concepts, MCA-Mongolia will issue two Addendums to all Registered Bidders: one with the rejected innovative ideas and one with general modifications to the Employers Requirements that permit ideas that are deemed acceptable. These Addendums will be written in a way that continues to allow the original ER's design requirements so that bids based on those original requirements will continue to be acceptable.