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

Invitation for Bids
For Construction Works of an Advanced Water Purification Plant (AWPP) and SCADA Controls (CP 2)

ANSWERS TO CLARIFICATION QUESTIONS – ISSUE No. 2 (Questions 8-115)
January 25, 2021

Questions and Answers 1-7 issued to all registered Bidders on January 11, 2021	
Question 8:	Your answers in Clarification 1 identify ITB (Instructions to Bidders?) 8.4 and a pre-bid conference webinar. I cannot find information online about this webinar. I cannot find the ITB document that you reference. Can you please provide a link to the ITB as well as a link to where information about the webinar can be found?
Answer 8:	The link appears in Section II of the IFB – Bid Data Sheet ITB 8.4. Furthermore, IFB Addendum 2 issued to all registered Bidders on January 15, 2021 moved the Pre-bid Conference by one (1) week to January 27, 2021 at 10 am Ulaanbaatar time (GMT+8), Mongolia, and the link appears in that Addendum.
Question 9:	Kindly confirm that there is no restriction on the origin and source of the materials and equipment.
Answer 9:	The requirements and restrictions for Eligible Materials, Equipment, and Services are set forth in IFB Section I - Instructions to Bidders - ITB 6. Per ITB 6.1, the restrictions on the nationality of the supplier described in ITB 5.3 are also applicable to the country of origin of the materials, equipment, and services supplied. Bidders should note that, per ITB 6.2 and 6.3, the origin of materials, equipment, and services is distinct from the nationality of the Bidder, and that "origin" means the place where the materials and equipment are mined, grown, cultivated, produced, manufactured, or processed, and where the services are provided from, as further described in ITB 6.2.
Question 10:	Referring to subclause 14.3 (C) "Application for Interim Payment Certificates" in "Appendix to bid"; shall we replace it with bank guarantee.
Answer 10:	No, the Subclause is correctly written and this subclause must be adhered to.
Question 11:	Referring to subclause 14.5(b) and 14.5(c) "Plant and materials intended for the works" in "Appendix to bid"; a table is mentioned for the "Plant" and "Material" with the country of origin. Kindly clarify if this table should be filled at this stage and what to include in plant part and in material part.
Answer 11:	Yes, a completed Appendix to bid including the Table under sub-clause 14.5(b)(i) and 14.5(c)(i) must be submitted at this bidding stage. The country of origin of all major items above USD 20,000 to be imported must be listed for eligibility purposes as provided for in ITB 6.4.
Question 12:	In Section IV Bidding Form, Appendix to Bids page 65 it is stated that; "*Performance Security will be in a form acceptable to Employer in the amount of Ten percent (**10%**) of the Accepted Contract Amount, payable in US Dollars."* On the other hand, in section II Bid Data Sheet Page 37, ITB 34.2 it is stated that; *The total amount of the Performance Security may be increased to a level not exceeding*

	*twenty percent (**20**%) of the Accepted Contract Amount.* Please confirm that Performance Security will be (**10%**) of the Accepted Contract Amount, payable in US Dollars.
Answer 12:	The default Performance Security is set in the Appendix to Bid at 10%. ITB 34 relates to Price Reasonableness and Subclause 34.2 states that *"After the evaluation of the information and detailed price analyses presented by the Bidder, the Employer may, as appropriate: (a) accept the Bid; or (b) require that the total amount of the Performance Security be increased at the expense of the Bidder to a level not exceeding 20% or (c) reject the Bid."* There is no contradiction between these two percentages as it is the responsibility of the Bidder to submit a Bid that MCA-Mongolia determines to be Price Reasonable. If it does not, MCA-Mongolia may invoke one of the three above mentioned options.
Question 13:	In the Bid Data Sheet, it is stated that payment for mechanical and electrical equipment and materials will be 60% when they are on site. Please describe the payment schedule for payment of remaining 40 % of those items.
Answer 13:	The remaining 40% shall be paid after installation, calibration and successful testing of the equipment. The Engineer may consider partial payments for each step upon the request of the contractor, on a case-by-case basis. Furthermore, as per IFB Section VIII – Particular Conditions of Contract – Subclause 7.7 applies: (a) when it is incorporated in the Works. (b) Sub-Clause 8.10 [*Payment for Plant and Materials in Event of Suspension*]."
Question 14:	In the Bidding Document Issued on 15 December 2020 Section III Section III. Bid Review, Evaluation Criteria, and Bidder Qualification Requirements, 2.4.3 Specific Experience in Key Activities No 3, It stated that "*Must have 1 experience of installation of Reverse Osmosis (RO) and/or Nanofiltration (NF) membranes. The overall experience must be on a contract that has a value of at least $20M to the entity itself or one member of a JV."* Please confirm that limiting "*$20M"* is the <u>total contract value of a project</u> which contains a Reverse Osmosis System within that project.
Answer 14:	Correct. This refers to the total contract value of a project which contains a Reverse Osmosis System, not the value of Reverse Osmosis System portion.
Question 15:	According to the BDS the contractor will not pay the sales, value added, custom, income, etc. taxes incorporated to the works. Could you please; a. explain how this exemption will be provided? I.e., the local financial authority will issue a tax exemption letter, or the paid amounts will be reimbursed to the Contractor. b. Please confirm that this exemption will be valid until completion of the project including OM (operation and maintenance) till the final acceptance. c. The contractor is also exempted from the taxes on the staff salary. Please also confirm that the spare parts of the permanent and temporary imported machines are also custom tax exempted.
Answer 15:	In accordance with the Compact clause 2.8, MCC Funding is free from the payment or imposition of any existing or future taxes, duties, levies, contributions or other similar

	charges. The mechanisms to implement this tax exemption is set forth in detail in Annex V of the Program Implementation Agreement. Therefore: a. Detailed procedure for the exemption of different types of taxes are set forth in Annex V of the Program Implementation Agreement. Each type of tax has a different set of procedure to be followed in order to implement the exemption. For instance, VAT for all local purchases will be exempt by utilizing a VAT relief purchase registration number issued by the local Tax Authority. The procedure to apply for such registration number is provided in detail in the above-mentioned Annex V of the Program Implementation Agreement. b. Tax exemption period will be effective throughout the full contract term. c. Please refer to Program Implementation Agreement Annex V- Tax Schedules, Schedules D, E, F for more detailed information. In general, Contractor's local staff, defined as natural persons who are either citizens or permanent residents of Mongolia, will not be exempted of the applicable tax and social insurance payments. Staffs who are neither citizens nor permanent residents of Mongolia will be exempted of the applicable taxes. Yes, if the equipment and spare parts are imported by the Contractor solely for the Compact purposes, custom tax will be exempted. For detailed information on the custom tax exemption procedure, please refer to Program Implementation Agreement Annex V- Tax Schedules, Schedule B.
Question 16:	After awarding, the foreign contractor will be registered locally. Most of the time this registration procedure will take very long time. a) Could you please give a brief information about the time necessary for that registration? Also, does the contractor carry any responsibility other than the preparation & submission of the documents necessary for this registration? b) Does the project execution time cover the time necessary for the registration of the company in order to be able to commence the works?
Answer 16:	a) An issue of registration of legal entities including legal entities with foreign investment and representative offices of foreign companies is subject to the Law of Mongolia on State Registration of Legal Entities. The law determines different procedures for registration of a legal entity with foreign investment and of a representative office of foreign company. For example, according to the Clause 12.1 of Law on State Registration of Legal Entities, the State Registration Office after receipt of all required by law documents shall make decision on whether to register a legal entity with foreign investment or not within 5 working days and shall inform the applicant about its decision in writing or electronically. Since it is the bidders' responsibility to register their companies in Mongolia, it is advised to study and learn the relevant Mongolian laws and regulations on registration of legal entities. b) Clause 45.3 on Foreign individuals and legal entities of the Law of Mongolia on Construction states: Unless otherwise specified in the legislation of Mongolia, the foreign entities to perform the construction activities to be funded from the state or local state budget or funded by the foreign aid or loan shall perform the activities in cooperation with the authorized Mongolian legal entity through entering into a contract as provided in this law. The Contractor will be advised to manage and obtain construction commencement permits according to the laws and regulations of the Country of the Employer during Mobilization period specified in the Construction schedule (Appendix E). In general, it takes

	10 business days upon submission of required documents to the relevant authority.
Question 17:	Referring to SECTION 01950 CONTRACT OPERATION AND MAINTENANCE OF THE ADVANCED WATER PURIFICATION PLANT, and it is requested to submit technical proposal and cost proposal. Kindly note that there is no form for operation and maintenance in the "Bidding Forms" and there is no item for operation and maintenance in the "Letter of Bid".
Answer 17:	Specification 01950 was removed by Addendum #3 to the IFB issued to all Bidders on January 21, 2021.
Question 18:	It is listed in Clause 2.03/B/4 Section 13025 (Reverse osmosis membrane system) to submit the cost for the membrane element. Kindly note that there is no item no. for that in the "Letter of bid".
Answer 18:	The price for individual membranes does not need to be supplied. The value of the elements that must be supplied per the Specifications shall be included in the LS item for the "RO Building", specification section 01025, section 1.22 item 4.
Question 19:	In case of inconsistencies between the Engineer's Tabulation of Quantities, the specifications, process schedule (part of drawings) and the drawings. Please advise the order of precedence of the documents. Some examples as mentioned here below: a) Referring to "Engineer's Tabulation of Quantities"; pumps in residual handling building and plate settler pumps were mentioned as rotary lobe type which is not matching with process pump schedule (D-006). Please advise. b) Flow rate of Plate settler (PS) mentioned as 90,234 CMD in Hydraulic profile and as 119,228 CMD in SECTION 11217 INCLINED PLATE SETTLER. Kindly advise us with the correct flow. c) It is mentioned in SECTION 01950 CONTRACT OPERATION AND MAINTENANCE OF THE ADVANCED WATER PURIFICATION PLANT that AWPP will provide up to 120,000 m3/day of treated water while hydraulic profile mentioned flow rate as 75,165 CMD. Kindly advise us with the correct flow. d) Kindly confirm the quantity of centrifuge feed pumps. Quantity mentioned as Three pumps in process pump schedule and Two Pumps in "Engineer's Tabulation of Quantities." e) Kindly confirm the quantity of plate settlers' residual pumps. Quantity mentioned as Four pumps in process pump schedule and Five Pumps as per "Engineer's Tabulation of Quantities." f) Kindly confirm the capacity of Aerators. It is mentioned as 140 L/Sec in Engineer's Tabulation of Quantities" and as 16,465 CMD in section 11374.
Answer 19:	a) For question a) as well as d) e) f), refer to IFB Section V, sub section 1, "*The Bidder shall prepare priced bids based upon the Technical Specifications and Drawings. An unpriced breakdown of the Engineer's Tabulation of Quantities is provided as an attachment to the Technical Specifications to help the Bidder understand the nature of the project but is not intended to supplement the Bid and neither the Employer nor the Engineer are liable for any damages to the Bidder as a result of this attached breakdown. The Bidder shall make its own*

	determination of all quantities and requirements as described in Technical Specification 01025". The Drawings and Specifications govern the Contractor's Scope of Services, not the Engineer's Tabulation of Quantities. b) Section 11217 in the Specifications governs the scope of Supply for the Plate Settlers. c) Section 01950 of the specifications is being removed by Addendum #3. The Contract Specifications govern the AWPP capacity. d) The Drawings and Specifications govern the Contractor's Scope of Services, not the Engineer's Tabulation of Quantities. e) The Drawings and Specifications govern the Contractor's Scope of Services, not the Engineer's Tabulation of Quantities. f) The Drawings and Specifications govern the Contractor's Scope of Services, not the Engineer's Tabulation of Quantities.
Question 20:	Referring to clause 2.05 /A/ SECTION 11374 MECHANICAL AERATION EQUIPMENT; the Dimension of each fabricated column Unit described as 0.3m (L) x 0.3m (W) x 3 m (H), approximately. Kindly advise us with the correct dimensions as it seems there is a typing error.
Answer 20:	Refer to the mechanical drawing Sheet 10 D-121 for size of aeration units.
Question 21:	Kindly confirm the O & M preparatory work if it is 6 months then to be followed by O & M option year 1 and O & M option year 2.
Answer 21:	Specification 01950 was removed by Addendum #3 to the IFB issued to all Bidders on January 21, 2021. Please refer to section 01951 and 01952 of the Technical Specifications.
Question 22:	In the Bidding document – Section IV – Letter of bid 1.P Training *and support USUG (Water Utility Operator of Ulan Bator City) operators as specified prior to and during the one-year Defect Notification Period (DNP).* In Technical Specifications Section 01950 – 1.03 Scope of work: *The initial term of the operations and maintenance contract is for a period of one (1) year, with one (1) additional one (1) year renewal option. Preparatory work activities and initial mobilization are expected to commence 6 months in advance of the start of the first-year operations and maintenance period (refer to project schedule in bid documents).* As seen in above copied phrases of bidding document, in the letter of bid, contractor is required to train and support USUG operators. However, in technical specifications it is required that the Contractor itself will do the operation and maintenance work. Please clarify the operation and maintenance period in scope method and payment subjects.
Answer 22:	Specification 01950 was removed by Addendum #3 to the IFB issued to all Bidders on January 21, 2021. Please refer to section 01951 and 01952 of the Technical Specifications.
Question 23:	In Section 01950 – 1.03 Scope of work it is stated that, *the initial term of the operations and maintenance contract is for a period of one (1) year, with one (1) additional one (1) year renewal option.* If optional Operation and maintenance period will be valid,

	how will be the payment for the optional part.
Answer 23:	Specification 01950 was removed by Addendum #3 to the IFB issued to all Bidders on January 21, 2021.
Question 24:	Kindly advise if we have to follow flow rate in hydraulic profile in order to calculate consumable chemicals in the operation and maintenance period.
Answer 24:	Specification 01950 was removed by Addendum #3 to the IFB issued to all Bidders on January 21, 2021. The Contractor will not be responsible for payment for chemicals for operations during the period of technical support with the exception that per Specification 01952, 1.09 for Contractor's responsibility of chemical cost, "*Contractor shall provide at own cost, as part of Support to Owner under this specification, spare parts as required in other specifications and ensure* ***that all chemical storage tanks are full at the time of Taking Over****."*
Question 25:	Kindly advise if SECTION 02545 PACKAGE WASTEWATER TREATMENT SYSTEM is part of this contract and if drawings are available.
Answer 25:	Package wastewater treatment system is part of the contract as described in specification 02545. Please refer to Drawing 99-C-001 to 005. Bidders should provide information following the requirement in the amended Form TECH-1 in the Addendum #3, Table of Main Equipment and Items.
Question 26:	Kindly advise if the contactor has the right to change the quantity of electro-mechanical equipment. For example; to change the quantity of RO cartridge filters from four filters to three filters and to change the orientation from horizontal type to vertical type.
Answer 26:	Please refer to ITB 14.1. In order to be considered for award, the Bidder must submit its Bid based on the drawings and specifications. The Contract that will result from this procurement will provide for potential value engineering opportunities. Refer to IFB Section VII, FIDIC (1st Edition, 1999) General Conditions, Sub-clause 13.2, Value Engineering, for submission, evaluation and approval of value engineering ideas.
Question 27:	Kindly advise if technical data sheets or catalogues for electromechanical equipment shall be submitted at this stage.
Answer 27:	Technical data sheets do not need to be provided with the bids; the Contractor needs to submit data sheets after award based on requirements in the specifications. However, Bidders are required to submit name of vendors and model name in Form TECH-1 as detailed in Addendum #3 issued to all Bidders on January 21, 2021.
Question 28:	Kindly advise when the revised Sections of the Technical Specifications that are modified by the Design Consultant will be issued in addition to the new sections (TRAINING FOR OWNER'S DESIGNATED PERSONNEL and SUPPORT TO OWNER AFTER TAKING OVER CERTIFICATE).
Answer 28:	Refer to Addendum #3 issued to all Bidders on January 21, 2021, specification 01951 and 01952.
Question 29:	Kindly advise us with electrical tariff rate in Mongolia.
Answer 29:	Please refer to the answer to clarification #21. The Bidder shall determine its own cost to supply electricity prior to the Taking Over Certificate. The Contractor will not be responsible for payment for operating electricity.
Question 30:	Kindly advise us with the drawings in "AutoCAD" format.
Answer 30:	Drawings in AutoCAD will be provided to the successful Bidder after Award.

Question 31:	Project drawings have been given in PDF documents. In order us to make proper quantity calculations, we need the AutoCAD versions of the drawings. We kindly ask you to send us the AutoCAD versions of the drawings.
Answer 31:	Drawings in AutoCAD will be provided to the successful Bidder after Award.
Question 32:	Process piping schedule is referring to section 02630. Kindly note that this section is not included in the technical specifications.
Answer 32:	Noted. Please disregard reference to 02630. Piping specifications can be found in 02615, 02625, 15066, 15072, 15370.
Question 33:	Sections 13320, 13321 and 13322 are not included in technical specifications.
Answer 33:	Noted. These are not part of the Contract specifications. Please disregard reference to these specifications.
Question 34:	Clause 1.03 / B / SECTION 13026 CARTRIDGE FILTERS is referring to General Equipment Stipulations. Kindly advise us with these Stipulations.
Answer 34:	No additional stipulations are provided in response to this question. The Bidder may interpret this reference to refer to the requirements of all other specifications. Contractor shall comply with all requirements of all specifications provided for all items they are applicable to. The requirements of Division 1 (specifications starting with 01XXX) are drawn to the Bidder's attention.
Question 35:	Kindly advise if IEC standards will be acceptable instead of ANSI standards.
Answer 35:	IEC standards are acceptable.
Question 36:	In technical specifications we see that American and Mongolian norms are referenced. We kindly ask your confirmation that equivalent European and GOST norms and standards are also acceptable and can be used within this project.
Answer 36:	European and GOST standards are acceptable provided they are equal or more stringent than the standards referenced in the Technical Specifications.
Question 37:	Is it possible to use equivalent EN norms for the flanges and valves, in accordance with their working pressures i.e. PN10, PN 16 , PN 25 , instead of American Standards?
Answer 37:	EN standards are acceptable provided they are equal or more stringent than the standards referenced in the Technical Specifications.
Question 38:	We found that certain names of manufacturers have been specified in Engineer's Tabulation of Quantities, process schedule (part of drawings) and technical speciation such as Westech, Atlas Copco, Velodyne, Polyblend, Infilco, Leopold, Siemens, Robert Filters, Nsul, Howell, Duct O Wire, Cole Parmer, Fishers, Hach, Komax, Meurer, Pulsatron, Prominent, Pentair, Netzsch, Grundfos, Finish Thompson, Whipps, Trojan, Calgon, Andritz, KSB. Kindly advise if we have to keep with these manufacturers or if equivalent manufactures will be acceptable.
Answer 38:	The manufacturers listed above were used on the basis of design but the project can use equivalent manufacturers provided they meet the project specifications.
Question 39:	a) Is there a vendor/model list for the project? b) Please confirm that the EU and the Turkey origin mechanical, hydromechanical, electrical equipment are acceptable if the proposed equipment complies the technical requirements.

Answer 39:	a) A vendor list for the project will not be provided. The Bidder shall select vendors/manufacturers that meet the requirements described in the specifications. Bidders are required to submit the names of vendors and model name in Form TECH-1 as detailed in the Addendum #3 issued to all Bidders on January 21, 2021. b) See answer for Question 9.
Question 40:	Kindly advise us with the solid percentage for pumps located in residual handling building.
Answer 40:	"Approx. 1.5 % to 2% solids from thickened sludge storage will be fed to the centrifuges, 17 % - 20 % solids will be discharged out of centrifuge". Please refer to specification 13300B, page 13300B-76, section 24.
Question 41:	It is listed in Clause 2.02/B/1 Section 13026 (Cartridge Filters) that operating temperature range: 1-10 deg F. We need to advise us If water temperature will be decreased to the level of freezing and if heater shall be taken into consideration.
Answer 41:	Temperature in the specification should be changed to 0.1 degrees centigrade to 40 degrees centigrade. Vendors design shall be suitable for water of this temperature.
Question 42:	It is listed in Section 13025 (Reverse osmosis membrane system) and Section 13025A (Reverse osmosis membranes) to submit Qualification documents. Kindly note that there is no form for these qualifications in section IV Bidding forms. Kindly advise how to proceed.
Answer 42:	Bidders shall select vendors for reverse osmosis membrane system and reverse osmosis membrane that meet requirements in the Specification 13025 and 13025A. Bidders shall provide relevant information following requirement in the amended Form TECH-1 in IFB Addendum # 3 issued to all Bidders on January 21, 2021. Upon award, the Contractor should submit required documentation specified in Submittals in the specifications.
Question 43:	Kindly advise us with the Process Description and the main parameters that should be treated in this plant.
Answer 43:	Process flow diagrams provided in Drawing D501-507.
Question 44:	Referring to SECTION 01650 TESTING AND STARTUP REQUIREMENTS EXHIBIT 2: WATER QUALITY STANDARDS (Finished water unless noted otherwise) shows the quality of treated water that shall be meet. Kindly advise us with the same parameters for the inlet water.
Answer 44:	Inlet water quality is shown in specification 13025.
Question 45:	Referring to Clause 1.17 SECTION 01650 TESTING AND STARTUP REQUIREMENTS; kindly advise if AWPP Lab is an existing lab at site or a new Lab that is part of this contract.
Answer 45:	There will be a new lab to be constructed as part of this contract in AWPP building as shown in the Drawings and described in the Specifications.
Question 46:	Kindly advise us with Battery Limit for the following: a) Inlet piping Well field 900 mm. b) Inlet piping Well field 800 mm. c) RO piping of Startup dump d) RO Brine piping to waste

	e) Centrifuge outlet piping f) Plant water g) Distribution
Answer 46:	Bidder shall review all drawings provided, in particular for these items refer to Drawings 00 C-112 and 00 C-113 for limits of work and piping.
Question 47:	Surge Tank Suppression System is listed in "Engineer's Tabulation of Quantities". Kindly confirm that you are referring to Diaphragm tank that is described in SECTION 15809 PLANT WATER SKID SYSTEM.
Answer 47:	The Engineer's Tabulation of Quantities is provided for guidance only. Bidders shall include all Work shown in the drawings and Specifications. There is a bladder tank as shown on drawing D-505 which is a part of the plant water system.
Question 48:	High pressure pumps, CIP pumps and flushing pumps have no technical sections. Kindly advise.
Answer 48:	The design of the RO system is to be provided by the RO System Supplier as described in specification 13025. Minimum requirements for these pumps are included in that specification. See also Drawing D-007: Process Schedules II where approximate flow and pressure information is provided for example.
Question 49:	Kindly advise if any special insulation is requested for the piping in case of low temperature in Mongolia.
Answer 49:	Insulation requirements are provided in specifications, for example see specification 15370.
Question 50:	In the PDF document namely "Measurement and Payment 01025", B. Engineer's Estimated Quantities article 1, it is stated that "*A copy of the unpriced breakdown of design engineer's estimate has been provided as an attachment to the Contract Documents".* In the same article it is also stated that, this *table of quantities are given as estimate of the design Engineer and will not be taken as real quantities of the work on site.* We could not see any methodology describing the calculation of the monthly payment certification, measurement inside the bidding document. - Please confirm that Engineer's Estimated quantities will not be used as the breakdown of the real quantities or at any percentage for "work done" calculation during execution. - Please explain method of measurement and calculation for monthly payments of Lump Sum items listed in the Letter of Bid. - Please confirm that bidders will not submit any "breakdown of quantities and unit price list" within their bids. - Please explain the payment of the items which are quoted with the unit prices? Also, please confirm that the quantities of the civil work items (excavation, backfilling, lean concrete, structural concrete, steel bars, etc.) are going to be paid with the multiplication of the unit prices and the re-measured quantities which are measured and controlled by the Engineer at site.
Answer 50:	- Refer to IFB Section V, sub section 1, "*The Bidder shall prepare priced bids based upon the Technical Specifications and Drawings. An unpriced breakdown of the Engineer's Tabulation of Quantities is provided as an attachment to the Technical Specifications to help the Bidder understand the nature of the project but is not intended to supplement the Bid and neither the Employer nor the*

	Engineer are liable for any damages to the Bidder as a result of this attached breakdown. The Bidder shall make its own determination of all quantities and requirements as described in Technical Specification 01025." - Refer to IFB Section III, 1 Process for evaluation and selection procedure. - Although the Bidder does not need to submit a breakdown for the lump sum items with their bids, the Contractor will need to provide the break down within 28 days after the commencement date as per IFB Section VII, FIDIC (1st Edition, 1999) General Conditions, Sub-clause 14.1. - Refer to IFB Section VII, FIDIC (1st Edition, 1999) General Conditions, sub-clauses 14.3 to 14.7, and IFB Section VIII, sub-clause 14.3 for conditions and terms with regard to measurement and payment. In accordance with these conditions of contract, the Contractor shall submit a detailed breakdown to the Engineer and Employer with its applications for interim payment certificates. - Bidders shall submit price and quantity in accordance with IFB, Section IV, Letter of Bid, in the Lump Sum Bill of Quantities. - Civil works are included in the lump sum values and will not be remeasured and paid with unit prices.
Question 51:	We could not see any place for the temporary site facilities in the general layout plans. Please confirm that enough place for the site facilities will be available for the contractors within the indicated project area.
Answer 51:	Bidders are responsible for estimating and managing the areas of the temporary site facilities required during construction (as described under specifications 01500). Locations of some temporary facilities are shown in drawings such as civil site plan 00 C-101 to 00 C-104
Question 52:	In the drawing no 00-D-501 –Process Flow diagram, Knife valve is DN1200, On the other hand, in the drawing no 10-D-121 – AWWP Building level Plan Knife valve is shown as DN600. Which diameter must be taken into consideration?
Answer 52:	Valve diameters shall be compatible with the diameters of piping on which the valves are installed, as shown on the mechanical layout drawings such as 10-D-121.
Question 53:	In the drawing no 00-D-507 –Process Pump Schedule, "Progressing Cavity Pump", On the other hand, in the technical specification page 2673 same pump is given as "Lobe Pump". Please indicate the Pump Type which must be considered.
Answer 53:	The Specification determines the type of pump.
Question 54:	In the technical specification no 15101 in page 31 article 2.24 a mud valve is described. But we did not see any mud valve on the related drawings, please clarify.
Answer 54:	There are no mud valves included in the project.
Question 55:	Technical specifications no 15072 we could not find any thickness information for the pipes in the pipe and fittings section. Please send us required pipe thicknesses.
Answer 55:	The Process Piping Schedule on Sheet 00 D – 005 lists the class and schedule for the various pipes. The class and schedule dictate the pipe wall thickness.
Question 56:	With regard to Technical specifications and Performance requirements (with Appendix A-E) Section 01010 Summary of Work. The Specification states *"The Work to be performed under these Contract Documents consists of the construction of the Advanced Water Purification Plant (AWPP) as described in the Project Specifications and/or shown on the Drawings."*

	Please clarify if the Work under the tender CP-2 also includes the following activities: a) Detail Design of the AWPP b) Procurement of all the permanent material and equipment (i.e., water treatment packs, bulk materials, auxiliaries).
Answer 56:	a) Detailed Design of the AWPP has been completed by another company, a separate consultant service's contract, and it is not a part of the scope of the bid. b) Procurement of all permanent material and equipment is part of the bid. Refer to IFB Section V Works Requirements.
Question 57:	With regard to Technical specifications and Performance requirements (with Appendix A-E) Section 01025A Letter of Bid. The Specification states *"The Work to be performed under these Contract Documents consists of the construction.* *of the Advanced Water Purification Plant (AWPP) as described in the Project."* Bidder understands that the lump sum prices will be based on the quantities included in the bid document. In the event that the Engineer will change such quantities then lump sum prices will be changed applying the relevant unit prices (lump sum bill of quantities). Please confirm or advise otherwise.
Answer 57:	Refer to IFB Section V, sub section 1, *"The Bidder shall prepare priced bids based upon the Technical Specifications and Drawings. An unpriced breakdown of the Engineer's Tabulation of Quantities is provided as an attachment to the Technical Specifications to help the Bidder understand the nature of the project but is not intended to supplement the Bid and neither the Employer nor the Engineer are liable for any damages to the Bidder as a result of this attached breakdown. The Bidder shall make its own determination of all quantities and requirements as described in Technical Specification 01025."* All Work shown in the drawings and required by the specifications shall be included in the lump sum bid. Should the Engineer change the drawings and specifications during delivery, the impacts on Contract Price will be determined following the management of Variations under Clause 13 of the Conditions of Contract.
Question 58:	With regard to Technical specifications and Performance requirements (with Appendix A-E) Appendix D Engineer's Tabulation of Quantities. Please clarify if Bidders have to provide a quotation for each item listed in Appendix D and in the same format as per bid document.
Answer 58:	See answers for Question 57. Bidders shall submit price and quantity in accordance with IFB, Section IV, Letter of Bid, in the Lump Sum Bill of Quantities. Bidders are not required to provide quotations for each line item listed in Appendix D.
Question 59:	With regard to Technical specifications and Performance requirements (with Appendix A-E) RO/NF plant capacity Section 01950, contract operation and maintenance Of the advanced water purification plant / 1.03 scope of work / Clause E • The newly constructed AWPP will provide up to 120,000 m^3/day of treated water to the city of Ulaanbaatar. • Design permeate flow rate per train 4542 m^3/d, The aforesaid clauses mentions 2 different plant capacities. Please provide the bidder:

	a) Please confirm the final treated water (Product) RO/NF plant capacity to be built by ROSS under CP-02 contract. b) Total final treated water plant capacity including RO/NF + Bypass
Answer 59:	The maximum treated water production from the AWPP, assuming redundancy of unit operations, is 75,000 m^3/day and assuming 40% of the filtered water is delivered to RO. The peak production of treated water is approximately 105,000 m^3/day although this is a short term flow which assumes no redundancy in unit operations and all unit processes operate at peak capacity. Not all water for supply to the distribution is treated in the RO system. Refer to section 13025 and 13025A for the RO membrane capacity. Drawing D-0111 Hydraulic Profile shows the flow to the RO system as 53,058m^3/day. Specification 01950 was removed in IFB Addendum # 3 issued to all Bidders on January 21, 2021.
Question 60:	With regard to Technical specifications and Performance requirements (with Appendix A-E) SECTION 13025 REVERSE OSMOSIS MEMBRANE SYSTEM The Specification states "*B) The system shall be designed to operate initially with reverse osmosis RO membranes, with flexibility to accommodate future use of loose nanofiltration (NF) type membranes and associated operating pressures. Use of NF membranes will be determined over the life of the facility in response to future raw water degradation. The NF / RO system is referred to herein as the RO system."* *CONTROL STRATEGY NO. 20-02 Reverse Osmosis Membrane Skids,* *Page no. 13300 B-48* The Specification states "*The initial installation will require NF membranes, although RO membranes can be added in the future if necessary."* a) The aforesaid clauses contradicts each other. Please clarify. b) ROSS to either supply RO membranes or NF membranes & not both; please clarify if bidder's understanding is correct
Answer 60:	The RO system shall be equipped with RO membranes, as described in Specification 13025 and 13025A. The ROSS will be required to supply only RO membranes.
Question 61:	With regard to Technical specifications and Performance requirements (with Appendix A-E) Cost of Mobilization SECTION 01025, MEASUREMENT AND PAYMENT / 1.02 / A Letter of bid . The Specification states *"Costs of Mobilization, Demobilization, and Daywork are excluded from the firm fixed unit prices for various items of Work and shall be priced and paid for separately."* Please elaborate on this clause.
Answer 61:	Bidder shall provide cost of mobilization, demobilization and general conditions in accordance with IFB Section IV, Letter of Bid, Number 2, Item 1.A. There shall be no compensation for Mobilization and Demobilization included in any other Lump Sum pay item.
Question 62:	With regard to Technical specifications and Performance requirements (with Appendix A-E) System requirement (RO/NF) SECTION 13025 REVERSE OSMOSIS MEMBRANE SYSTEM. The Specification states "*The system shall be designed to operate initially with reverse osmosis RO membranes, with flexibility to accommodate*

	future use of loose nanofiltration (NF) type membranes and associated operating pressures." Please provide us the reference condition or design basis to consider future eventualities.
Answer 62:	Bidders shall include RO membranes only as specified in 13025 and 13025A. Bidders are not responsible for future eventualities, except that the RO system shall be compatible to allow use of NF membranes in the future.
Question 63:	With regard to Technical specifications and Performance requirements (with Appendix A-E) Future Raw water degradation SECTION 13025 REVERSE OSMOSIS MEMBRANE SYSTEM / 2.02 DESIGN AND PERFORMANCE AND WARRANTY REQUIREMENTS: Raw Water Quality. The Specification states "*Use of NF membranes will be determined over the life of the facility in response to future raw water degradation."* a) Bidder understands that ROSS to design the system considering feed Raw water quality as specified in the tender specifications; please confirm if bidder's understanding is correct. b) What will be the maximum % of potential variation in feed water quality as future raw water degradation?
Answer 63:	a) Bidders shall include RO membranes based on the requirements of 13025, 13025A and other specifications and the drawings. Bidders are not responsible for future changes in raw water quality. b) The range of water conditions is shown in 13025.
Question 64:	With regard to Technical specifications and Performance requirements (with Appendix A-E) Treated water quality SECTION 13025 REVERSE OSMOSIS MEMBRANE SYSTEM, 2.02 DESIGN AND PERFORMANCE AND WARRANTY REQUIREMENTS. The Specification contains a table with the Permeate Water Quality Requirements. Permeate water quality has been provided for 1st 6 months for RO & 181st day to Warranty Period for NF. a) Please confirm if bidder (ROSS in particular) to design & supply the system for both NF & RO membranes with common RO pressure vessels? b) Please reconfirm the permeate water quality for Total alkalinity as > 30% of feed water alkalinity & Ca as > 25% of feed water Ca
Answer 64:	a) Yes, the system including the pressure vessels shall be compatible with either RO or NF membranes, although the initial installation will include RO membranes. b) For RO membranes, as required by the specification, the following permeate quality shall be provided: RO Permeate from each Train 1st 6 months of operation TDS < 5 mg/L and Sodium < 0.5 mg/L; RO Permeate from each train 181st day to warranty period: TDS < 10 mg/L, Sodium < 0.75 mg/L

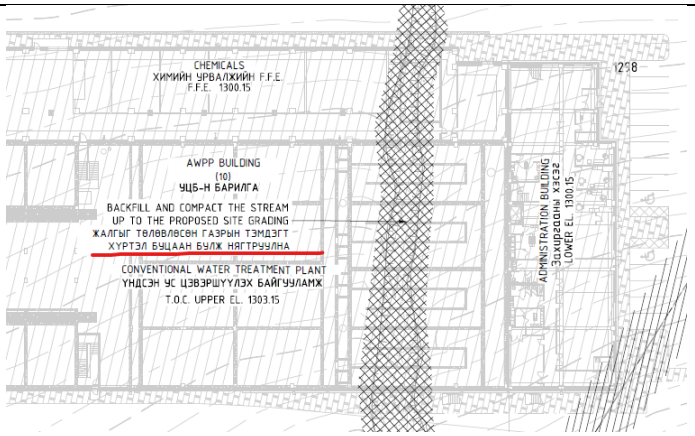
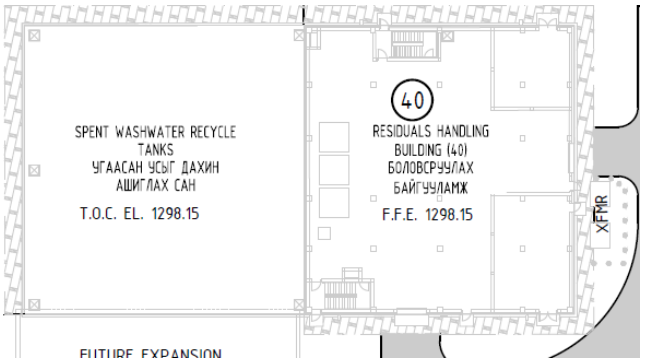
Question 65:	With regard to Technical specifications and Performance requirements (with Appendix A-E) SECTION 13025 - 14, REVERSE OSMOSIS MEMBRANE SYSTEM / 2.02 DESIGN AND PERFORMANCE AND WARRANTY REQUIREMENTS. Raw Water Quality Please provide total suspended solids.
Answer 65:	Contractor shall evaluate the total suspended solids which it can achieve from the upstream treatment and the raw water quality data provided. A turbidity of <1 and an SDI of <5 is provided in specification 13025. The feed water to the RO will have passed through coagulation, flocculation, sedimentation, conventional filters and cartridge filters before being filtered by the RO membranes.
Question 66:	With regard to Technical Specifications and Performance Requirements (with Appendix A-E) EXPLANATORY NOTE ON THE TECHNICAL SPECIFICATIONS The note states: "*Bidders should be aware that the following Sections of the Technical Specifications are currently being revised and modified by the Design Consultant. Once all revisions have been completed and approved, the revised Technical Specifications will be provided to Bidders through the issuance of an Amendment to this IFB.* " Please provide us the revised documents, Amendment.
Answer 66:	The Explanatory Note to the Technical Specifications was removed by Addendum #3 to the IFB issued to all Bidders on January 21, 2021 and revised Technical Specifications issued.
Question 67:	With regard to Technical specifications and Performance requirements (with Appendix A-E) RO System Supplier SECTION 13025 / 1.05 ROSS QUALIFICATIONS / C / 2 (Pg 13025-5). The Specification states "*Should have installed a minimum of 5 groundwater RO systems that have been in operation for at least 3 years at the time of the bid. Each plant shall have a minimum capacity of at least 3785 m3/d (1 MGD), shall have at least 2 trains, and shall include RO systems with feed water temperature below 4 Degrees Centigrade*." The aforesaid criteria about supply of 5 groundwater RO system with feed water temperature of 4 degree C is very specific in nature & would restrict the participation of well reputed global RO system suppliers. Hence, we request to assess the ROSS capabilities separately at the time of finalization of ROSS after award of main contract based on the global footprint, design and execution capabilities for various challenging water conditions & proven plant performance track record/
Answer 67:	Acknowledged. The qualifications can be assessed separately at the time of finalization of ROSS; however, this does not waive the technical requirements. Therefore, assessing the supplier's qualifications at a later time will be entirely at the risk of Bidder.
Question 68:	With regard to Technical specifications and Performance requirements (with Appendix A-E) UV Disinfection system SECTION 11286 / UV DISINFECTION SYSTEM / 1.04 / C /2 (Pg 11286-1). The Specification states *"Should have installed a minimum of 5 groundwater UV systems that have been in operation for at least 3 years at the time of the bid. Each plant shall have a capacity of at least 60,560 m3/d (16 MGD), shall have at least one duty and one standby train, and shall include UV systems with feed water temperature below 4 Degrees Centigrade."*

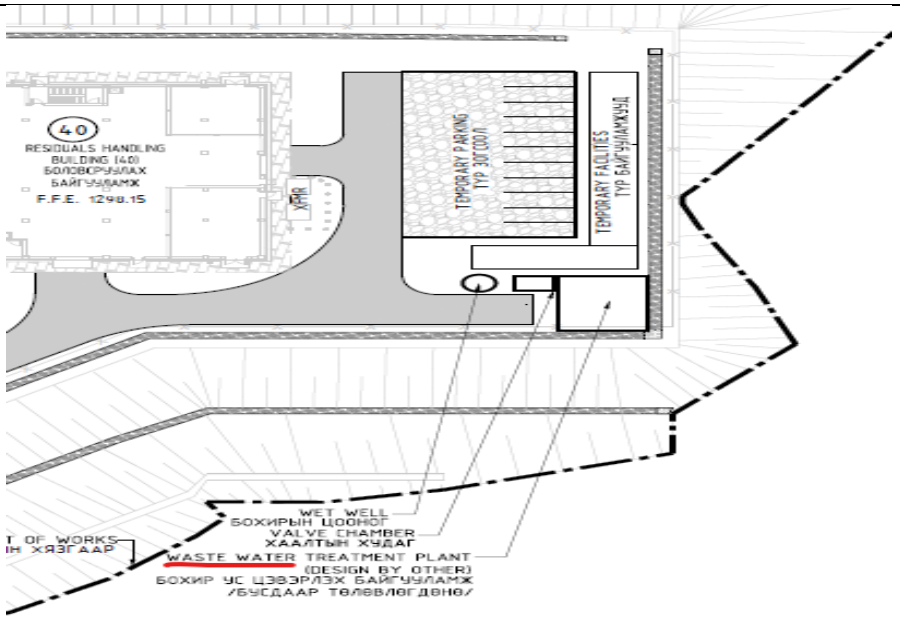
	Please confirm if the aforesaid criteria about each plant of capacity at least 60,560 m3/d (16 MGD) can be met through UV system supplied for any drinking water treatment system & not specific to groundwater source since the purpose of UV application remains unchanged. We also request to assess the UV supplier capabilities separately at the time of finalization of UV system based on the UV experience stipulated after award of main contract.
Answer 68:	Yes, these qualifications can be associated with either groundwater or surface water supplies. The qualifications can be assessed separately at the time of finalization of UV system; however, this does not waive the technical requirements. Therefore, assessing the suppliers qualifications at a later time will be entirely at the risk of Bidder.
Question 69:	With regard to Drawings or RO / NF system capacity & details Hydraulic Profile PE 05/2019 / Sheet No. 00 D-011 / Pg 330 of 985 - Hydraulic Flow Diagram/ Table for basis of Hydraulic Profile, Phase I & Phase II plant equipment capacity. Is Phase II (as indicated in drawing) is a scope of CP-2 contract or will it be integrated in future thru a separate contract? Please clarify.
Answer 69:	The Drawings and Specifications generally describe the scope of work for Phase I. Phase II will be a future expansion project for the AWPP and will be subject to a separate design and a separate construction procurement. Areas for future expansion are shown on the Contract Drawings and in some limited instances the Drawings and Specifications show elements to facilitate Phase II. The Contractor shall build all items shown in the Drawings and Specifications.
Question 70:	With regard to Drawings for PFD - 331 00 D-501 to 507, Process Flow Diagram-Process Flow Diagram I to VII. The process scheme proposed vide drawings thru aforesaid clause is minimum mandatory requirement or bidder can suitable modify/reduce/add the necessary process scheme & equipment. Please confirm.
Answer 70:	Please refer to the response to Question #26 Per Instructions to Bidders 14.1, alternative Bids will not be considered. However, the Contract resulting from this procurement provides for potential value engineering.
Question 71:	With regard to Drawings for Hydraulic Profile PE 05/2019 / Sheet No. 00 D-011 / Pg 330 of 985 - REVERSE OSMOSIS PART HYDRAULIC PROFILE. Is bidder allowed to optimize the process scheme & equipment provided in the tender specifications/drawings meeting the desired treated water outlet quality parameters? Please confirm.
Answer 71:	See the response to Question 70. Note that the Contractor is responsible for the RO System Supplier who will provide the design of the RO system in accordance with specification 13025. Bidder may seek to clarify any specific details of the RO design in questions during this procurement process. The Bidder shall provide a price proposal for the scope as described in the drawings and specifications. See also the response to Question 70 regarding value engineering during execution of the works.

Question 72:	a) I would like to inquire about the possibility of Chinese-State-Owned-Enterprises to take part on biddings with the MCA. Is this a possibility? b) What commercial structure is encouraged to participate? Local JV, Consortiums, International Corporations?
Answer 72:	a) Please refer to the responses to Questions 2, 3 and 4 in IFB Clarification 1 issued to all registered Bidders on January 11, 2021. b) MCA-Mongolia cannot advise a potential Bidder on how formulate the corporate structure of its Bid. It is critical however that Bidders understand the requirements of Section III of the IFB and factor that into your decision to Bid as a Single Entity with Specialized Subcontractors or as a formal JV that meets MCA-Mongolia definitions and requirements. Notwithstanding this response, the response to Q72 (a) still applies.
Question 73:	We could not find the required amount of Owens Corning extruded polystyrene (XPS) from the drawing. Could you please advise the amount needed?
Answer 73:	The calculation of amounts of all materials and equipment quantities are the responsibility of the bidder. All materials and equipment are included under the lump sum BOQ items. The cost for insulation should be included in the pipe installation. Note that specific manufacturers (such as Owens Corning) are not required, see responses to other related questions.
Question 74:	With regard to the Scope of Work - On the BOQ page 11, activity "MOV Butterfly Valve – furnished by Vendor - labor for tagging only." Referred butterfly and shows that these valves shall be supplied by other vendors and bidder scope is limited to tagging of these valves. Please clarify if otherwise.
Answer 74:	It is not clear what is referenced here. If the Bidder is referring to the Appendix D Engineer's Tabulation of Quantities, it is reminded that this Appendix is not a definition of scope. The Contractor shall perform all work shown on the drawings or required in the specifications. Refer to IFB Section V, sub section 1 *"The Bidder shall prepare priced bids based upon the Technical Specifications and Drawings. An unpriced breakdown of the Engineer's Tabulation of Quantities is provided as an attachment to the Technical Specifications to help the Bidder understand the nature of the project but is not intended to supplement the Bid and neither the Employer nor the Engineer are liable for any damages to the Bidder as a result of this attached breakdown. The Bidder shall make its own determination of all quantities and requirements as described in Technical Specification 01025*." The specifications related to Instrumentation and Control (I/C) are contained within the specifications volume. Please refer to Specification 13300 for data sheets. The specifications related to Instrumentation and Control (I/C) are contained within the specifications volume. Please refer to Specification 13300 for data sheets. It is the Contractor's responsibility to determine the scope of work between their own forces and those of selected subcontractors and vendors.
Question 75:	With regard to the Scope of Work – On the BOQ page 11, activity "3/4" Solenoid Valve - cost covered in Mechanical Est - labor for tagging only." Bidders understands that the referred valve is included in mechanical package and bidder scope is limited to tagging. Please clarify if otherwise.

Answer 75:	The question appears also to ask for division of supply between various suppliers and vendors to the Bidder. MCA does not provide clarifications between sub-contractor or supplier packages and it is the responsibility of the Bidder to include all required Work.
Question 76:	With regard to the Scope of Work – Data Sheets - BoQ. Is the Bidder is required to provide the data sheets of control valve against each tag number?
Answer 76:	Bidders need to provide the name of the manufacturer and model number listed in Form TECH-1 in IFB Addendum #3. After award, the Contractor needs to submit data sheet as described in specification 15101 and all other specifications.
Question 77:	With regard to the Scope of Work – Data Sheets/Specification - BoQ. a) Please provide us data sheets / Specification of PLC/Scada System. b) Please advise the preferred vendor for the PLC/Scada System.
Answer 77:	a) The specification for the PLC is included in various specifications including 13340 PLC Control Panels. Data sheets and product specifications shall be provided by the supplier after contract award in compliance with the specifications. The specifications related to Instrumentation and Control (I/C) are contained within the specifications volume. Please refer to Specification 13300 for data sheets. b) There is no preferred vendor. Bidders are responsible for selecting vendors. Bidders shall provide the name of manufacturer and model in Form TECH-1 per Addendum #3.
Question 78:	With regard to the Scope of Work. Bidder understands that we should follow the given BoQ for the quantities. Please clarify is BoQ quantities are mismatched from drawings and if so, which document would be superseded.
Answer 78:	Refer to IFB Section V, sub section 1, *"The Bidder shall prepare priced bids based upon the Technical Specifications and Drawings. An unpriced breakdown of the Engineer's Tabulation of Quantities is provided as an attachment to the Technical Specifications to help the Bidder understand the nature of the project but is not intended to supplement the Bid and neither the Employer nor the Engineer are liable for any damages to the Bidder as a result of this attached breakdown. The Bidder shall make its own determination of all quantities and requirements as described in Technical Specification 01025."* Also, refer to response to questions 19(a), 50,57 and 58. Please refer to Specification 01025 and the Letter of Bid. Any bid form that is received that does not comply with 01025 will be rejected.
Question 79:	With regard to the Scope of Work - BoQ. It is requested to provide the native (excel file) for BOQ "60598209_Mongolia_AWPP_100_BOQ.xlsm"
Answer 79:	Please note that Appendix D is not a definition of the scope of works. Refer to IFB Section V, Sub section 1, *"The Bidder shall prepare priced bids based upon the Technical Specifications and Drawings. An unpriced breakdown of the Engineer's Tabulation of Quantities is provided as an attachment to the Technical Specifications to help the Bidder understand the nature of the project but is not intended to supplement the Bid and neither the Employer nor the Engineer are liable for any damages to the Bidder as a result of this attached breakdown. The Bidder shall make*

	its own determination of all quantities and requirements as described in Technical Specification 01025."
Question 80:	With regard to the Scope of Work – Data Sheets - BoQ. Please provide us data sheets of CCTV.
Answer 80:	Please note that Appendix D is not a definition of the scope of works. Refer to IFB Section V, Sub section 1, *"The Bidder shall prepare priced bids based upon the Technical Specifications and Drawings. An unpriced breakdown of the Engineer's Tabulation of Quantities is provided as an attachment to the Technical Specifications to help the Bidder understand the nature of the project but is not intended to supplement the Bid and neither the Employer nor the Engineer are liable for any damages to the Bidder as a result of this attached breakdown. The Bidder shall make its own determination of all quantities and requirements as described in Technical Specification 01025;"* The Contractor is responsible for providing all works shown in all drawings and in all specifications. There is no data sheet for CCTV. Please refer to specification 16760, 1.06 B, contractor shall provide equipment and arrangement details such that it meets the system description (1.05) and CCTV requirements shown in drawings.
Question 81	With regard to the Scope of Work. We understand that the scope is limited to Procurement and Construction works. All the detail design activities shall be performed by others and not included under Contractor Scope. Please confirm.
Answer 81:	Please refer to response to question 56. The design of the AWPP is complete. In some specifications such as 13025 for the Reverse Osmosis system the Contractor is required to provide some vendor designed items. The Contractor shall comply with all requirements of the drawings and the specifications.
Question 82:	With regard to the Scope of Work. We understand that the project will be on Unit rate basis, please confirm.
Answer 82:	No. Refer to IFB, Section IV, Letter of Bid, Lump Sum Bill of Quantities. Please refer to response to questions 19(a), 50, 57 and 58
Question 83:	With regard to the Scope of Work - 60598209_Mongolia__AWPP_100_BOQ.xlsm. We observed that in document "60598209_Mongolia__AWPP_100_BOQ.xlsm" page 3 and 4 the word "by Prestige". Kindly advise such scope execution is under Contractor or it will be executed by Prestige.
Answer 83:	The referenced "xlsm" file is only the Engineers' Estimated quantities. The scope of work shall be executed by the Contractor. Please refer to Specifications Section 01010 and Section 01025.
Question 84:	With regard to the Scope of Work - 60598209_Mongolia__AWPP_100_BOQ.xlsm

	 We understand that the scope and quantities are covered under price table section"00-Site Works" for backfilling and compaction of Stream. Please confirm.
Answer 84:	Bidders are responsible for determining all quantities and Work based on the Drawings and Specifications. For this item, the associated price should be captured under IFB Section IV, Letter of Bid, Lump Sum Bill of Quantities, item 2, Site Work.
Question 85:	With regard to the Scope of Work - 60598209_Mongolia__AWPP_100_BOQ.xlsm  It is our understanding that quantities are considered for "Spent washwater recycle tanks" under section "40-Residuals Handling Building" of 60598209_ Mongolia_ AWPP_100_BOQ.xlsm. Please Confirm.
Answer 85:	Bidders are responsible for estimating quantities based on the Drawings and Specification. Refer to response to questions 50, 57 and 58.
Question 86:	With regard to the Scope of Work - 60598209_Mongolia__AWPP_100_BOQ.xlsm

	 a) We understand that the wastewater treatment plant near temporary facility to be provided by the Contractor for its personnel only. Please confirm. b) Also advise, that after project is complete, Contractor has to remove from the site or if it will remain at the site.
Answer 86:	a) The Contractor shall supply all work specified and shown in the drawings. The project includes the installation of a permanent wastewater treatment facility as described by Specification 02545. The Contractor is also responsible for temporary facilities as described in the specifications. b) Unless otherwise instructed by the Engineer, the contractor shall remove temporary works after the project is complete. The work included in Specification 02545 shall be permanent. The WWTP must remain for permanent use for the AWPP.
Question 87:	With regard to the Scope of Work - Site Facility. Please confirm if MCA will provide the area free of cost for Camps, Store and warehouses, Mess facility, Site offices etc at AWPP site. Please advise. Also advise the location.
Answer 87:	The area of the site facility is part of the project construction site and will be made available to the contractor free of charge during the construction period. Locations of temporary facilities are shown in drawings such as civil site plan 00 C-101 to 00 C-104. See also the response to question 51.
Question 88:	With regard to the Scope of Work - Vendor Origin. MCA is requested to advise any specific requirement for Vendor Origin. We understand that China and CIS origin vendors are acceptable. Please Confirm.
Answer 88:	The requirements and restrictions for Eligible Materials, Equipment, and Services are set forth in IFB Section I - Instructions to Bidders - ITB 6. This is to be interpreted in conjunction with Sub-section ITB 5.3 of IFB Section I - Instructions to Bidders - ITB 5 - Eligibility / Eligible Bidders. Bidders are required to submit the names of vendors and model name in Form TECH-1 as detailed in Addendum 3 issued to all Bidders on January 21, 2021.
Question 89:	With regard to the Scope of Work. - Vendor Origin. It is requested to provide project Approved vendor list.

Answer 89:	Please refer to response to question 77 (b).
Question 90:	With regard to the Scope of Work - Project Schedule. Once the project is awarded, MCA will provide all the AFC drawings/documents to Contractor. Kindly advise how many days it will take for MCA to issues AFC documents/Drawings to Contractor.
Answer 90:	MCA-Mongolia will provide drawings/documents to Contractor within 14 days after Contract is signed.
Question 91:	There is a very detailed flowsheet and design proposed in the tender. Are variations to the flowsheet possible to reduce the pre-treatment requirements before the RO?
Answer 91:	Please refer to the response to Question 26.
Question 92:	We are studying the construction drawings of Detailed design for bulk water supply expansion - AWPP facilities construction - Contract No. CP-2 and found out that there is no rebar list in the drawing. According to Mongolian drawings there is a rebar list in every single concrete element which informs us rebar diameters, quantities and dimensions. Would you give us a response regarding this matter?
Answer 92:	Reinforcing is shown on the Structural Standard Details such as for example Drawing 50-S-601 (page 308 of 985) and for the second example see Section 8 – Interior Foundation Beam on drawing 50-S-501 (page 307 of 985). For additional reference please see specifications Sections 03200-1.04-B-1, 03200-1.04-B-2, and 03200-1.04-B-3.
Question 93:	The Contractor shall provide a reinforced concrete structure which will generally consist of primary settling basin, two chambers to house the biological treatment process, a vault which houses the disinfection process, and inspection ports with the dimensions shown on the Contract Drawings. _ Does it mean that the tank are made from concreate or can be done from PE inserted in a concrete shell ?
Answer 93:	The Contractor shall supply a complete and operable package wastewater treatment plant in accordance with specification 02545. As a substitution, the Contractor may submit a proven package system which does not include reinforced concrete tanks in accordance with specification 01630 if the Engineer deems the solution to be acceptable and advantageous to the Owner as described in Section 01630.
Question 94:	a) Generally, there are mentioned specifications in the Bidding Document (see list below), but we did not get them, where can we receive those specifications? b) For the items in red (form the list below) - Is there Recommended manufacturer stated in Schedule? c) 11286 - UV Disinfection System - Can this installed the UV disinfection system only member of consortium? d) 02545 - Package Wastewater Treatment System - The Contractor shall provide a reinforced concrete structure which will generally consist of primary settling basin, two chambers to house the biological treatment process, a vault which houses the disinfection process, and inspection ports with the dimensions shown on the Contract Drawings. Does it mean that the tank is made from concreate or can be done from PE inserted in concrete shall? e) 11377 - Rotary Positive Displacement Blowers and Appurtenances. At the drawing list is ATLAS COPPO and Westech - can we use different manufacturer?

Section	Title
01380	Construction Photographs
01400	Quality Assurance
01500	Temporary Facilities
01501	Weather Protection Standard
01568	Erosion Control, Sedimentation & Containment of Construction Materials
01600	Control of Materials
01610	Delivery, Storage and handling
01630	Substitution Procedures
01650	Testing and Startup Requirements
01700	Contract Closeout
01710	Cleaning Up
01730	Operation and Maintenance Data
01740	Warranties and Bonds
01900	Seismic and Wind Requirements
01950	Contract Operation and maintenance of the Advanced Water Purification Plant
02100	Site Preparation
02140	Dewatering
02160	Excavation Support Systems
02210	Earth Excavation, Backfill, Fill and Grading
02211	Rock Excavation and Disposal
02223	Screened Gravel
02224	Bank-Run Gravel
02225	Selected Backfill Material
02230	Site Clearing
02268	Erosion Control Barrier
02271	Riprap
02273	Geotextile Fabric
02275	Polystyrene for Pipeline Trench
02431	Catchbasins
02435	Crushed Stone
02444	Precast Concrete Fence, Metal Gates and Appurtenances
02480	Landscaping
02483	Planting Operations
02485	Loaming and Seeding
02522	Concrete Sidewalk, Curb and Gutter
02545	Package Wastewater Treatment System
02604	Manholes
02606	Precast Manhole Structures for Submersible Pump Stations
02609	Reinforced- Concrete Drainpipe
02615	Ductile Iron Pipe
02625	Polyvinyl Chloride Sewer Pipe
02675	Hydrostatic Testing and Disinfection
02725	Electric Manholes and Handholes
02950	Bituminous Pavement

		03100	Concrete Formwork	
		03200	Concrete Reinforcement	
		03250	Concrete Joints and Accessories	
		03255	Non-Expanding Waterstops	
		03256	Expanding Waterstops	
		03300	Cast-in-Place Concrete	
		03345	Concrete Floor Treatment	
		03600	Grout	
		03800	Leakage Testing of Containment Structures	
		04200	Unit Masonry and Accessories	
		05120	Structural Steel	
		05400	Cold-Formed Metal Framing	
		05500	Miscellaneous Metal	
		05515	Steel Stairs, ladders & Platforms	
		05519	Post-Installed Concrete Anchors	
		05520	Metal railings	
		05540	Aluminum Plate Covers & Frames	
		06129	Fiberglass Baffles, Weirs and Troughs	
		06160	Sheating	
		06200	Rough Carpentry	
		06400	Architectural Woodwork	
		06600	Fiberglass Reinforced Plastic Grating & Structural Fabrications	
		07160	Bituminous Dampproofing	
		07200	Building Insulation	
		07270	Air/Vapor Barrier membrane	
		07421	Metal Composite Material Wall Panel	
		07550	Modified Bituminous Membrane Roofing	
		07600	Wall Flashing and Sheet Metalwork	
		07840	Firestopping	
		07900	Joint Sealants	
		07950	Expansion Joint Cover Assemblies	
		08100	Metal Doors and Frames	
		08331	Insulated Overhead Coiling Doors	
		08350	Multipanel Folding Aluminum - Framed Glass Doors	
		08420	Aluminum- Framed Entrances	
		08440	Glazed Aluminum Curtain Walls	
		08500	Aluminum Windows and Frames	
		08710	Finish Hardware	
		08713	Automatic Door Operators	
		08810	Glass and Glazing	
		08880	Fire-Rated Glass and Framing	
		09250	Dry Wall Construction	
		09300	Tile Work	
		09340	Stone Flooring	
		09500	Acoustical Ceilings	
		09650	Resilient Flooring	
		09800	Protective Coating	

		09940	Shop Painting	
		09941	Field Painting	
		10162	Metal Toilet Partitions	
		10200	Louvers	
		10506	Metal Lockers	
		10525	Safety, First Aid and Fire Fighting Equipment	
		10530	Prefabricated Aluminum Canopy	
		10600	Identification Systems	
		10801	Toilet and Bath Accessories	
		10999	Building Specialties	
		11217	Inclined Plate Settler	
		11218	Lamella Thickeners	
		11220	Flocculators and Appurtenances	
		11250	Vertical Shaft Mixer	
		11286	UV Disinfection System	
		11300	Double Suction Pumps and Appurtenances	
		11301	Vertical Turbine Pumps and Appurtenances	
		11304	Dry Pit Solids Handling Pump and Appurtenances	
		11305	Submersible Solids Handling Pumps and Appurtenances	
		11309	Hose Pumps and Appurtenances	
		11310	Processing Cavity Pumps and Appurtenances	
		11321	Chemical Handling Pumps and Appurtenances	
		11323	Chemical Diaphragm Metering Pumps and Appurtenances	
		11325	In-Line Static Mixers	
		11338	Mechanical Mixing Equipment	
		11339	Submersible Mixers and Appurtenances	
		11350	Polymer Blend Feed Equipment & Appurtenances	
		11351	Chemical Peristaltic and Hose Pumps and Appurtenances	
		11354	FRP and HDPE Chemical Tanks and Appurtenances	
		11371	Horizontal Solid Bowl Centrifuges and Appurtenances	
		11374	Mechanical Aeration Equipment	
		11377	Rotary Positive Displacement Blowers and Appurtenances	
		11398	Diesel Engine Generator Set	
		11600	Laboratory Equipment and Supplies	
		12500	Furniture	
		12641	Laboratory Furniture	
		13025	Reverse Osmosis Membrane System	
		13025A	Reverse Osmosis Membranes	
		13026	Cartridge Filters	
		13300	Instrument and Control System- General	
		13300A	Instrument Datasheet CP-2	
		13300B	Control Strategies-CP2	
		13330	Process Instruments	
		13331	Control System Integration	
		13340	PLC Control Panels	
		13345	Data Network	
		13350	SCADA Equipment and Software	
		13355	HMI Design Philosophy	

		13530	Filter Underdrain System	
		13540	Filter Media	
		13550	Washwater Troughs	
		13930	Wet-Pipe Fire Suppression	
		14240	Hydraulic Passenger and Service Elevators	
		14300	Hoisting Equipment	
		14547	Shafted Screw Conveyors and Appurtenances	
		15056	Pipe Supports	
		15066	Stainless Steel Pipe and Fittings	
		15072	Steel Pipe and Fittings	
		15081	HVAC Insulation	
		15082	Plumbing Insulation	
		15101	Process Valves and Appurtenances	
		15103	Stainless Steel Slide Gates and Appurtenances	
		15109	Electric Motor Actuators and Appurtenances	
		15112	Stop Logs and Appurtenances	
		15113	Short Body Tilting Disc Check Valves and Appurtenances	
		15370	Process Piping and Appurtenances	
		15420	Plumbing Insulation	
		15491	Fuel Oil System	
		15806	Heating, Ventilating and Air Conditioning	
		15809	Plant Water Skid System	
		15900	HVAC Control Systems	
		15950	Testing, Adjusting and Balancing	
		16050	Electrical Work- General	
		16110	Electrical Raceway System	
		16120	Electric Wires & Cables	
		16124	Medium Voltage Cable	
		16133	Cable Trays for Electrical Systems	
		16160	Panelboards	
		16220	Electric Motors	
		16260	Low Voltage Variable Frequency Drive Unit	
		16322	Outdoor Padmount Transformer	
		16346	Medium Voltage Switchgear	
		16359	Electrical System Studies	
		16362	Medium Voltage Switchgear	
		16366	Low Voltage Switchgear	
		16368	Power Monitoring System	
		16400	Surge Protection Devices (SPD)	
		16402	Underground Distribution System	
		16450	Grounding	
		16601	Lightning protection	
		16721	Fire Alarm System	
		16760	Video Surveillance System	
		16761	Security Access System	
		16900	Electrical Controls and Miscellaneous Electrical Equipment	
		16920	Low Voltage Motor Control Centers	
		16998	Field Inspection and Acceptance Tests	

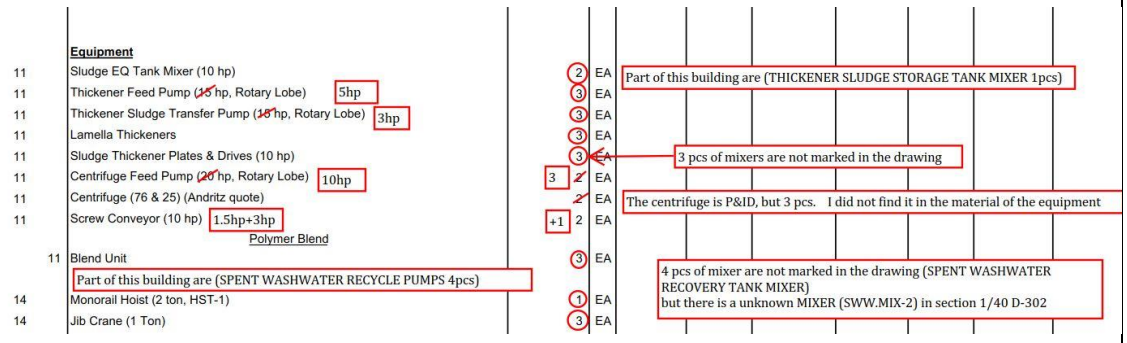
Appendix A	Geotechnical Report
Appendix B	List of owner's provided permits
Appendix C	Environment & Social Management Plan
	ESMP Implementation Training Plan
	Emergency Preparedness and Response Plan
	Mongolian Marmot Monitoring and Evaluation Plan
	Waste Management Plan
	Labor Management Plan
	Construction Camp Management Plan
	Cultural Heritage Training Plan
	Cultural and Sacred Landscape and Place
	Tangible Cultural Heritage Protection
	Health and Safety Management Plan
Appendix D	Engineer's Tabulation of Quantities (Part of Cost Estimate Report)
Appendix E	Illustrative Construction Schedule

Answer 94:

a) All specification section numbers and Appendixes referenced are included under the Technical Specification, Addendum #3 dated January 21, 2021.
b) There is no preferred vendor. Bidders are responsible for selecting vendors. Bidders shall provide the names of manufacturer and model in Form TECH-1 as detailed in Addendum #3 issued to all Bidders on January 21, 2021.
c) The question is not clear. The UV system shall be provided by the Contractor and shall meet the requirements of specification 11286. In terms of meeting the qualification requirements in the ITB Bidder may include experience of a specialized sub-contractor to meet UV system experience requirements.
d) The Package Waste Water Treatment System must be provided and installed in accordance with the Specification 02545. See also response to question 93 with respect to substitution procedures.
e) There is no preferred vendor. Bidders are responsible for selecting vendors. Bidders are required to submit name of vendors and model name in Form TECH-1 as detailed in Addendum 3 issued to all Bidders on January 21, 2021.

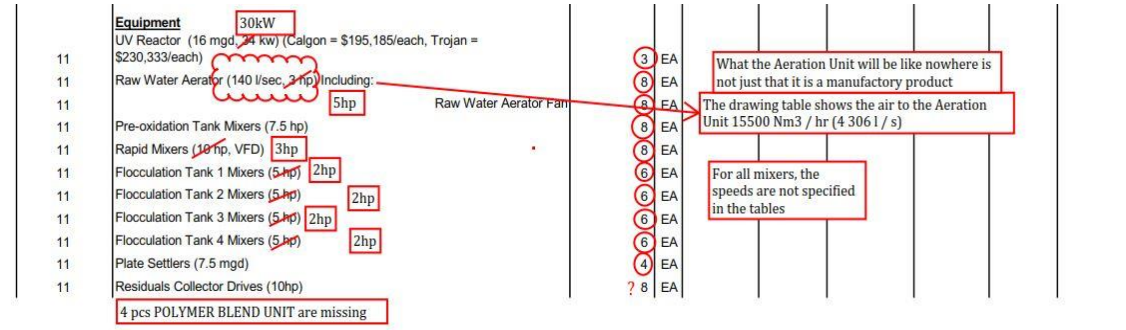
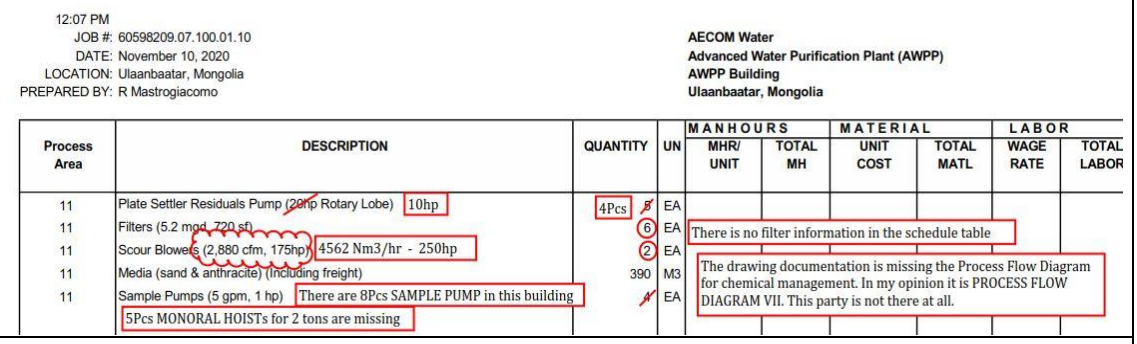
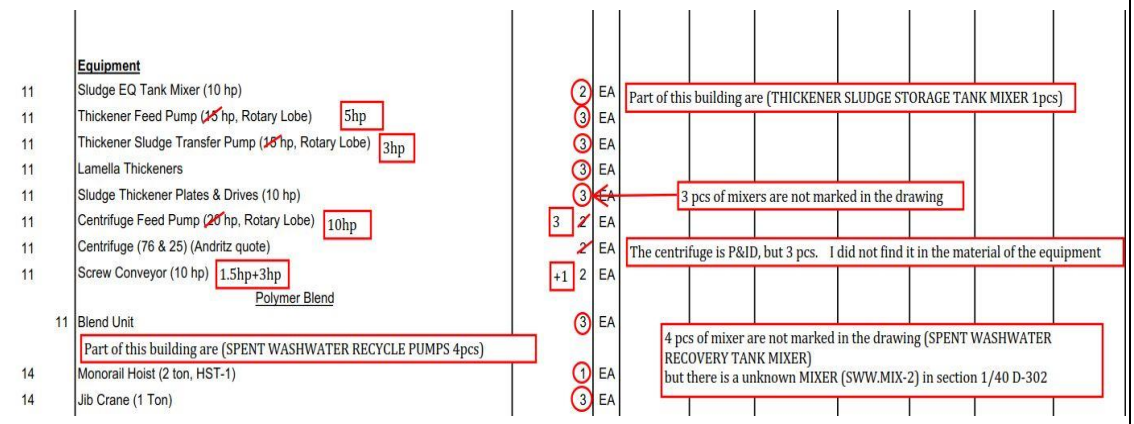
Question 95:

There are uncertainties in drawings and list of equipment in Residuals Handling Building - some of horsepower rating and equipment number are not matching. See below:



Answer 95:

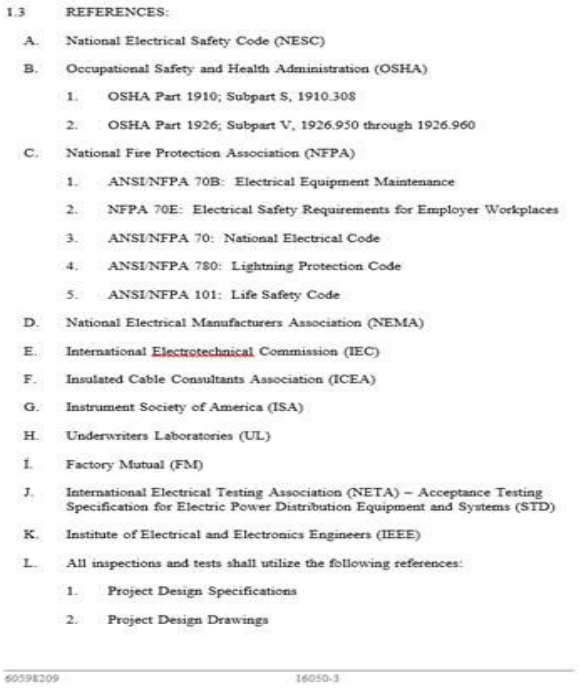
The section included in the question is from Appendix D. Refer to IFB Section V, Sub section 1, "*The Bidder shall prepare priced bids based upon the Technical*

	Specifications and Drawings. An unpriced breakdown of the Engineer's Tabulation of Quantities is provided as an attachment to the Technical Specifications to help the Bidder understand the nature of the project but is not intended to supplement the Bid and neither the Employer nor the Engineer are liable for any damages to the Bidder as a result of this attached breakdown. The Bidder shall make its own determination of all quantities and requirements as described in Technical Specification 01025."
Question 96:	There are uncertainties in drawing and list of equipment in AWP Building some of horsepower rating and equipment number are not matching. See below:  ate Printed 12/11/2020 Page 23 of 159 605 
Answer 96:	Please refer to response to question 95.
Question 97:	There are uncertainties in drawing and list of equipment in Clearwell & Finished Water & Backwash Water PS some of horsepower rating and equipment number are not matching. See the table Clearwell & Finished Water & Backwash Water PS – See below: 

Answer 97:	Please refer to response to question 95.
Question 98:	a) Temporary facilities is decided for only 35 workers, from our understanding it means it is not designed for construction workers and only for management of the project. Please confirm or provided further details. b) Where will be accommodate the construction workers and where will we have the mess and shower?
Answer 98:	a) The Contractor shall provide all facilities it requires for its forces. The Contractor shall in addition provide all temporary facilities required by the specifications including specification 01500. b) It is the Contractor's responsibility to arrange accommodation for its staff.
Question 99:	Given the COVID situation is it possible to have a three (3) week extension to the tender closing so we can engage with suppliers and partners just returning to work after the Christmas & New Year?
Answer 99:	This IFB was released on December 15, 2021 and Bidders were given sufficient time to coordinate both their internal year-end holiday work schedule, and communication channels with suppliers and partners. The Bid Submission date will not be extended beyond March 02, 2021.
Question 100:	Are Bidders allowed to use subcontractors or suppliers of Government owned or controlled enterprises?
Answer 100:	Please refer to: a) the responses to Questions 2, 3 and 4 in IFB Clarification 1 issued to all registered Bidders on January 11, 2021. b) the responses to Questions 72 and 88 in this IFB Clarification 2.
Question 101:	There are some uncertain parts in the bidding documents. Could you please provide more details on following clarification? a) Is the minimum average annual construction turnover of $200,000,000 for the Construction Works of an Advanced Water Purification Plant (AWPP) and SCADA Controls or for all construction procurements under the Compact? b) What would be requirements of company construction turnover for each construction procurement? c) It is our understanding that only the AWPP procurement issued in this IFB, if it is the case, please advise when other construction procurements will be announced? d) When would it be possible to receive detailed drawings for construction procurements? e) Would it be possible to receive an updated list of companies expressed interest in this bid? f) We understand that total length of project is 41 weeks, please elaborate on estimated sequence per each construction procurement?
Answer 101:	There are no uncertain parts in our bidding documents. Please do not confuse this procurement with the overall construction activities for this Compact. a) This Bidding process is for the Construction Works of an AWPP and SCADA Controls only, therefore, the bidders are required to meet the qualification requirement on the minimum average annual construction

	turnover of $200,000,000 for this specific procurement – as per the requirements of the IFB. b) Each procurement will have its own financial and technical requirements specific to that project. Drawings, specifications and construction schedules for other construction contracts will appear in the respective Bidding Document. Interested parties are encouraged to register for and download those documents upon issuance of the Specific Procurement Notices. c) Correct, as per the above response, this is the procurement of the AWPP and SCADA Controls. The dates for the issuance of other construction procurement documents has not yet been published, however any firm that had registered for this current procurement will receive the relevant Procurement Notices. d) Please refer to the response to part b of this question. e) Please refer to the response to Question 5 of IFB Clarification 1 issued on January 11, 2021. Please refer to the response to part b of this question. Please refer Appendix-E The Illustrative Construction Schedule where the Time for Completion is 41 months.
Question 102:	Are there any detailed Bill of Quantities supplied by employer?
Answer 102:	Appendix D provides an unpriced breakdown of the Engineer's Tabulation of Quantities. However please note the requirements of IFB Section V, Sub section 1 which states: "*The Bidder shall prepare priced bids based upon the Technical Specifications and Drawings. An unpriced breakdown of the Engineer's Tabulation of Quantities is provided as an attachment to the Technical Specifications to help the Bidder understand the nature of the project but is not intended to supplement the Bid and neither the Employer nor the Engineer are liable for any damages to the Bidder as a result of this attached breakdown. The Bidder shall make its own determination of all quantities and requirements as described in Technical Specification 01025*."
Question 103:	With regard to Material Take Off (MTO). Please state who is responsible for confirming all part numbers and quantities based on the construction documentation as issued.
Answer 103:	Bidders are responsible for estimating quantities and submit its bid based on the Drawings and the Specification. Per, Sub section 1 of IFB Section V, the Engineer's Tabulation of Quantities is only a reference.
Question 104:	Please confirm that installation and testing of electrical equipment (complete with Site Acceptance Test) mechanical, civil shall be part of contractor's installation scope.
Answer 104:	The Contractor is responsible for installation and testing. Please refer to specification 01650 and other specifications.
Question 105:	Please confirm the FAS (fire alarm) quantity has been considered in this MT, based on input from FSS & for final FSS drawings & MTO.
Answer 105:	Please refer to response to question 103. All fire alarms shown on the drawings and required by the specifications shall be provided.
Question 106:	Please confirm that BMS will be part of HVAC, Mechanical system / building services package as quantity is not included in this MTO.

Answer 106:	It is unclear what is referred to by BMS. Please refer to specification 15900 for direct control and supervisory control requirement for HVAC. Bidders shall submit a bid covering all requirements of the specification and drawings. See response to Question 102.
Question 107:	Please confirm that free issue items like power, control and earthwork, AHU & ACU panels, crac unit panels, lift panel, ICT cabinets and major electrical, HVAC, cold and hot water piping overall, hydraulic services, and items listed in this MTO like electrical, mechanical, civil etc. are by the vendor.
Answer 107:	There is no equipment being supplied to the Contractor by the Owner (no free issue equipment). The Contractor shall provide all items in the drawings and the specifications. See response to Question 102. Contractor shall provide all utilities it requires during construction and for temporary facilities as required by Specification 01500 2.01.K.1.
Question 108:	This MTO does not detail installation material such as down rods, unistruts /angles / channels etc. (as applicable) required for ladders, light fittings, VFDS, DBS, Isolators, SSO, ICS, or any other equipment/devises. Is the Bidder responsible or the specification and the upon award as Contractor responsible for supply of all consumables?
Answer 108:	Contractor shall provide all items in the drawings and the specifications. See response to Question 102.
Question 109:	Kindly specify the Material of construction that required for pumps. In the specification few data can be found.
Answer 109:	Please refer to specifications: 11300, 11301, 11304, 11310,11321, 15809, all pump materials have been specified in Part 2-products. Please refer to the following requirement stated in all these specifications in case of non-specified material: "*a. …… Provide certification from the equipment manufacturer that the materials of construction specified are recommended and suitable for the service conditions specified and indicated……* *b. Where materials are not specified, provide technical data and certification that the proposed materials are recommended and suitable for the service conditions specified and indicated."*
Question 110:	As per Technical Specification, Plate settlers material is requested as SS316 which will reflect on the cost. Kindly advise if other materials will be acceptable.
Answer 110:	Materials in Bids need to comply with the specification requirement. Value Engineering ideas may be discussed after the Contract Award with the Employer following Conditions of Contract Clause 13.2.
Question 111:	Kindly provide us with legend of Instruments and legend of valves.
Answer 111:	Contractor to provide all valves and instruments shown in all drawings and specifications. For legends of process valves, please see drawing 00 D-001. For legends of I&C, please see drawing 00 DI-002.
Question 112:	Please clarify the rating of submersible pump motor written as 460V and 60 Hz in Specifications 11305 / 2.03 /G.

Answer 112:	Please refer to 00 D-006 for more detailed motor ratings. See also 16220 Clause 2.02.G.2.
Question 113:	a) Please provide details on the bowl diameter for choosing suitable decanter model. • Design sludge feed concentration percent dry solids 2.0% • Design Hydraulic loading, m3/hr (each centrifuge) 22.7 • The minimum requested in the specification is 500 mm of Bowl Diameter. b) According to the inlet values, how do we choose according to flow or bowl diameter? c) Can we revise Bowl Diameter?
Answer 113:	a) All required information is included in the Technical Specification. b) The centrifuges shall be supplied by an experienced vendor as required by 11371 and in accordance with that specification. The centrifuge must meet both minimum requirements in that it must meet the specified flow AND have the minimum bowl diameter. c) The bowl diameter provided is a minimum and a smaller bowl shall not be provided. Following Contract Award, the Contractor may propose value engineering ideas as described in Conditions of Contract clause 13.2 or substitutions as described in 01630.
Question 114:	Please clarify the type of Filter Nozzle in Filters. We couldn't find any information. Is it required to comply with any details, or can bidders prepare own design?
Answer 114:	See specification 13530.
Question 115:	Technical Specification combine various Standards such as IEC, Nema, UL etc. Please advise which Standard is acceptable – as IEC Standards are cost effective and easy to reach after sales operations in the Region. Please see under the "SECTION 16050 ELECTRICAL WORK – GENERAL" part 1.3 (as below)  1.3 REFERENCES: A. National Electrical Safety Code (NESC) B. Occupational Safety and Health Administration (OSHA) 1. OSHA Part 1910; Subpart S, 1910.308 2. OSHA Part 1926; Subpart V, 1926.950 through 1926.960 C. National Fire Protection Association (NFPA) 1. ANSI/NFPA 70B: Electrical Equipment Maintenance 2. NFPA 70E: Electrical Safety Requirements for Employer Workplaces 3. ANSI/NFPA 70: National Electrical Code 4. ANSI/NFPA 780: Lightning Protection Code 5. ANSI/NFPA 101: Life Safety Code D. National Electrical Manufacturers Association (NEMA) E. International Electrotechnical Commission (IEC) F. Insulated Cable Consultants Association (ICEA) G. Instrument Society of America (ISA) H. Underwriters Laboratories (UL) I. Factory Mutual (FM) J. International Electrical Testing Association (NETA) – Acceptance Testing Specification for Electric Power Distribution Equipment and Systems (STD) K. Institute of Electrical and Electronics Engineers (IEEE) L. All inspections and tests shall utilize the following references: 1. Project Design Specifications 2. Project Design Drawings 60598209 16050-3

Answer 115:	Bidders shall bid based on the specifications and drawings as provided. The successful bidder may propose substitutions following Specification section 01630. The Contractor will be responsible for demonstrating equivalency to the specifications to the Engineer's satisfaction. The Contractor shall be responsible for coordination between all items including any approved substitution.