

United Nations Children's Fund

WASH Programme



Terms of Reference

Provision and installation of chlorine generation unit in Taq Taq water project (200M3/hr.) in Koya district-Erbil governorate and in Ganjan WTU (100M3/hr.) in Khormal- Halabja

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October - 2023

Provision and installation of chlorine generation unit in Taq Taq water project (200M3/hr.) in Koya district-Erbil governorate and in Ganjan WTU (100M3/hr.) in Khurmal- Halabja

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Background	Project Description: The Taq Taq water project (Compact unit), is a critical water supply system located in the Koya district, Erbil governorate, and it serves the essential needs of approximately 5,000 individuals in the area. The water source for this project is derived from the lesser Zab River, offering a substantial capacity of 200 cubic meters per hour to meet the growing water demands of the community. Currently, the disinfection process at this facility relies on a chlorine gas system using 1,000 kg (790 kg) chlorine cylinders. However, this system was originally designed for 65 kg cylinder sizes, which has prompted the project team to implement a makeshift solution by connecting the cylinders in a non-practical manner. This makeshift setup not only demands regular refills and maintenance but also poses severe health and safety risks to the operational staff due to potential injuries and asphyxiation risks arising from the handling of chlorine gas. Simultaneously, the Ganjan Water Treatment Plant (WTU) in Halabja plays a pivotal role in supplying water to 30-35% of the population in Khurmal Town, amounting to approximately 4,000 to 5,000 individuals. The WTU operates at a capacity of 100 cubic meters per hour, serving the community for about 10 hours each day. The primary source of water for this facility is a local natural spring. However, for over a decade, the Ganjan WTU has been relying on chlorine gas for water disinfection, a process that necessitates regular refills of gas bottles, with these cylinders being sent to Iran for replenishment. Recent concerns have arisen regarding the safety and cost-effectiveness of this reliance on chlorine gas. Additionally, budget constraints have compelled the usage of low-quality bottles and chlorine gas, which have raised concerns regarding the sustainability and safety of this approach. In light of these concerns over safety, cost, and sustainability, the implementation of chlorine generation units for both the Taq Taq water project in Koya and the Ganjan Water Treatment Plant in Halabja is imperative. This strategic intervention aims to enhance the overall efficiency of the projects by ensuring the on-site availability of chlorine, a fundamental element in the disinfection process. This transition from chlorine gas to on-site chlorine generation not only promises increased operational efficiency but, most importantly, mitigates the prevalent safety and health risks to the dedicated staff, who have been exposed to dangers associated with chlorine gas.

	By introducing chlorine generation units to these essential water treatment projects, we are not only safeguarding the health and well-being of the operational staff but also ensuring the continued provision of clean and safe water to the communities they serve. Furthermore, this transition is expected to yield substantial cost savings, significantly enhancing the overall efficiency and sustainability of these critical water Projects, and ultimately improving the lives of thousands of individuals who rely on these water sources for their daily needs. The intervention includes the following key components: - Provide two chlorine generation units for two different locations as follows: • Sulaymaniyah- Halabja- Khormal Water Project (100 Cubic meters per hr.). The required capacity of the Chlorine generation unit for this project is at least 220 g/hr. • Erbil- Koya- Taqtaq Water Project (200 Cubic meters per hr.). The required capacity of the Chlorine generation unit for this project is at least 450 g/hr. - Installation of the whole system and the provision of the necessary materials, fittings, pipes, valves, parts, etc. for the installation purpose of the units. And also, provide a comprehensive operation and maintenance manual for the units. - Train at least three operators and maintenance personnel in each location on the operation and maintenance of the unit.
Key Objective	In line with the UNICEF Rolling Work Plan 2023 and under Output 2: “Sustained access to and use of water, sanitation, and hygiene practices for all children and young people particularly the most disadvantaged and those living in humanitarian situations”. The preliminary objective of the project is to focus on Improving access to safely managed drinking water in communities, with a special focus on making WASH systems more resilient to climate change. Upon completion of the project, around 10,000 individuals residing in Koya and Khormal will gain access to safe water through an enhanced water supply system. Additionally, the project will mitigate the current safety and health risks that the staff is exposed to due to the chlorine gas.
Location	1- Sulaymaniyah- Halabja- Khormal Water Project (100 Cubic meters per hr.). 2- Erbil- Koya- Taqtaq Water Project (200 Cubic meters per hr.). Remark: The submitted technical specification shall meet the below-attached requirement  Chlorine generation unit ANNEX B.docx

Description of the assignment	1. It is crucial that the tenderer shall visit the site before submitting the bid and tender and be acquainted with the type of required work. The tenderer shall submit a certificate of site visit enclosed with the bidding document issued by the relevant water directorates. Otherwise, the bidder will automatically be disqualified. Pre-bid meeting shall be arranged by the supply officer, and WASH officer/ specialist, and the meeting invite, and time will be included in the tender documents. Bidders are encouraged to attend to ensure they fully understand the scope of work to have clarity on UNICEF technical requirements and to also ask any questions in regard to the tender. 2. The work will be executed by the selected bidder according to the required activities and specifications) and the work conditions are clearly explained in this TOR. 3. Bidder shall supply the catalogs for the bidding with detailed technical specifications of all components including the manufacturing origin certificates and detailed specifications. 4. The contractor shall submit samples of materials used in the project to the supervising committee for approval before using them in work. Additionally, the contractor shall submit a certificate of origin (CoO). The supervising committee may reject any equipment/supply that does not comply with the specifications, in which case the contractor without any extra cost shall replace the materials, only approved materials/ equipment and workmanship shall be used. 5. The contractor is responsible and required to supply all the required materials, machines, manpower, highly experienced management, technical staff, and laborers (skilled and unskilled) to implement all the required activities. 6. The work will be supervised by a supervision committee assigned by UNICEF and will be consistent with (UNICEF WASH staff- Government-authorized staff/members from the relevant water directorates) 7. The final quantity measurement and project handover need to be certified by the handover committee assigned by UNICEF and will be consistent with (UNICEF WASH staff- Government-authorized staff/members from the relevant water directorates) 8. The work will not be considered approved/completed unless approved by the UNICEF WASH programme. 9. The contractor shall appoint qualified site Engineers with at least five years of professional experience to work full time in supervising the implementation of work and with sufficient numbers to cover the work on a daily basis during the whole contract and warranty periods and should work closely with the Supervision and handover Committee members. It is not acceptable that work to be done without the presence of the contractor's site engineer 10. The contractor must assign within his team for this project a sufficient number of work crews (supervisors, engineers, skilled and unskilled labors with all-sufficient machinery and equipment and tools) to implement the work according to the approved schedule and up to standards. 11. Child labor is forbidden. 12. Corruption and fraud are zero tolerance when working with UNICEF. 13. It is not permissible for employees of official or semi-official government departments to participate directly or indirectly in a tender. 14. The technical specifications for the proposed system shall ensure sustainability, safeguarding of the environment, and health and safety measures for the workers and the surrounding community. 15. Ensure the best safety and security practices on the site for his own employees, and everyone on the site. The bidder shall use all required safety measures including safety
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	equipment, personal protection equipment, safety signs, safety training, and inductions when, and where required on the site. UNICEF is not responsible for any accident to any type of injury or death that occurred. 16. No alterations or modifications shall be allowed without prior written approval from UNICEF. In case such approval is granted, it will not relieve the bidder from his responsibilities under the contract. All works shall cover the provision of all required complementary supplies and works (not necessarily mentioned in the specifications such as fittings and washers, elbows, bolts, nuts, screws, welding, pipes if needed, etc., and laborers (skilled and unskilled)
Reporting requirements	The following reports for project milestones are required and as follows: 1. The contractor must report the official date of site handover in coordination with UNICEF and the supervision committee of the authorities. 2. The contractor should submit a weekly progress report and submit it to UNICEF officially by email. 3. The contractor may also be requested to prepare and share periodic progress reports as requested by supervision members. 4. The contractor should report to the UNICEF supervisor officer for any miscommunications either with beneficiaries or the government representative staff/supervision committee. 5. The contractor should follow up and submit the work completion certificates signed and stamped by the nominated government/ handover committee and approved by UNICEF WASH. 6. Preliminary handover reports: One technical report shall be submitted by the physical completion of all works and preliminary handing over. This report shall contain all implementation details, time correction, and signed good receipt notes enclosed with an official cover letter from the relevant water directorates. 7. Final report: Final report shall be submitted after the completion of the warranty period.
Deliverables and Duration	1. The implementation period should not exceed four months (120 calendar days) after the site handing over. The implementation period is the actual period of provision, installation, and proper operation of the whole system. Operation and warranty period shall not exceed 6 months from the date of the official preliminary handing over. 2. The implementation shall be scheduled by the contractor, while the time schedule shall be agreed upon among three parties and approved by the established-supervising committee. 3. The contractor must commence the works within a maximum period of 7 calendar days from the signing date of the contract and receipt of the sites via official site handover from the relevant water directorate. 4. The contractor shall submit a detailed progress chart/activities schedule highlighting the activities to be conducted with their duration within 5 days after site handover. The planned progress chart shall also include the dates and durations of all tests that are to be made for quality assurance. and will be used to guide all parties with the monitoring and supervision of the progress of the works. 5. The Contractor shall execute the activities in accordance with the TOR.

	6. The contractor should familiarize him/herself with the characteristics of the project and the location where the contractor will have to deliver the assignment in the actual conditions of the project location as it is. 7. The total cost of each item includes testing costs for all works and materials as they need to be the contractor's responsibility, and sampling to be according to Iraqi Engineering standards: 8. The test pending time (time consumed for test results to be released from the lab) should be factored in the overall project duration, and the contractor should plan in a way that test pending time does not halt the work progress, no extension of contract period shall be given for test pending time. 9. All the tests are to be conducted in a Governmental laboratory or authorized/approved private lab by the supervision committee, and all are the contractor's responsibility with no additional cost or time. 10. The site is to be cleaned and cleared from any debris by the contractor prior to handover, debris is to be disposed of at an authorized location. 11. The Contractor shall be responsible for the preparation and actualization of detailed Health and safety and Accident Prevention Plans, Detailed Time Schedules and Cash Flow Estimates, site Protection, and ensuring people and traffic mobility. 12. It will be the contractor's responsibility to fix all that is damaged/deteriorated/diverted services and/or facilities in the project path or impacted by the project path with no extra cost. 13. UNICEF reserves the right to make any variation in writing and with approval from both sides in the form of quality or quantity of the works that may be necessary, the variation may include: - Increase or decrease the quantity of any work included in the contract. - Omit any work included in the contract. - Change the character or quality or kind of any work included in the contract. - Where there are rates for comparable work in the bills of quantities such rates are to be used. Where no such comparable rates are available from the bills of quantities UNICEF in negotiation with the contractor shall determine such rates as it considers fair and reasonable after a reasonable and documented market assessment, the due allowance shall be made for the market value of articles purchased, the intricacy and the location of the work involved and the current value of similar work in other contracts. The variation must be agreed by both parties and the contract must be amended before execution of the work. 14. Execute additional work (communicated in writing) of any kind necessary for the completion of the works. And no such variation shall in any way violate or invalidate the contract but the value (if any) of all such variations shall be considered in ascertaining the amount of the contract price. No such variation shall be made by the contractor without an order in writing by UNICEF who shall determine the amount (if any) to be added to or deducted from the sum named in the tender in respect of any extra or additional work done or work omitted by its order.
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	15. There will be no variation in the contract price as a result of any variation in the costs due to fluctuation of currency for materials for permanent or temporary works or consumable stores fuel or power or the rates of wages or allowances payable to or in respect of labor or as a result of any changes in the labor employment conditions or as a result of the introduction or operation of any law statute or order. 16. The Contractor shall transport and at his expense all demolished rubbles and exceeded building materials to locations a minimum distance of 10 km or as specified by the municipality and shall be responsible for cleaning out the site and it is surrounding areas at the end of usage. 17. The latest issue of the “UNICEF’s GTCs and Contractual Provisions for Construction” shall be applicable to this contract especially clauses concerning the Settlement of Disputes, Arbitration, etc. 18. Submit a completion certificate certified, signed, and stamped by the nominated handover committee with a cover letter by the relevant water directorate.
Mandatory Technical Requirements	1- <u>Mandatory Requirement:</u> • The bidder has past experience in Water projects. • The bidder has past experience in the Water disinfection and, Salt Chlorine Generation. • Bidder has a well-established presence in Iraq (HQ and branches). The local Iraqi company has legal registration in Iraq (KRG or Baghdad) or The company has a legal registration in the country of origin and has demonstrated capacity to deliver in Iraq, specifically KRG (Provide company registration, joint venture registration/distributorship agreements as part of your tender submission). • The company is to provide proof of site visit to all the locations. • The provided catalogues and data sheets for the units shall be from western European countries (Germany, Spain, UK, France, Italy, Austria, Switzerland, Denmark, Netherlands, Belgium) Note: All bidders are required to submit enough form of evidences for the above requirements, such as Contracts and completion documents (The approved similar projects/works to be submitted within the list supported by contact info of the managing agency. Catalogs, technical specifications Certificates of origins
Qualification requirements	1. The contractor must have a project manager to supervise the overall planning and ongoing activities with high experience in the same field. Qualifications must be endorsed by concrete evidence. 2. The contractor must have within his team the Field engineers and experts to achieve the deliverables. Qualifications must be endorsed by concrete evidence 3. The contractor must have within his team the Field Technicians and experts to achieve the deliverables. Qualifications must be endorsed by concrete evidence. 4. The contractor must have highly skilled staff in communication in English and daily follow-up with any correspondences. Qualifications must be endorsed by concrete evidence. 5. The contractor shall have previously executed in a satisfactory manner works of a similar character and magnitude in a similar area to those for which they are

	tendering and shall supply evidence to UNICEF to this effect in a letter of capacity accompanying their tender in order that UNICEF may be satisfied that the Bidders are technically and financially capable of executing the proposed works.
Administrative issues	1. The contractor is obliged to attend a pre-bid meeting organized by UNICEF to explain any question raised by the contractor in relation to the project. UNICEF shall notify the contractor of the dates in a pre-bidding meeting. 2. The contractor should be responsible for dealing with all logistical challenges and acquiring all the necessary access letters/permissions to execute the works. 3. The bidder is responsible to report for any technical comments or revisions that need to be made to the bid documents. 4. Whenever possible, the contractor should be requested to provide an all-inclusive cost in the financial proposal. the contractor should be reminded to factor in all cost implications for the required service/assignment (including all costs affiliated with material and works testing). 5. All the submitted documents by the contractor should be in the English language in a well-organized manner, all to be titled/numbered/labeled according to the relevant criteria. 6. The contractor must submit the technical documents and the financial documents separately. 7. The bills of quantities shall be priced. The Bidder shall make sure that all clauses are priced, and the calculations are accurate. The Bidder will bear responsibility for the non-priced clauses and inaccurate calculations in the submitted offer and UNICEF holds the right to reject such bidders. 8. For the site visit please coordinate with Eng. Khozga Ahmed/WASH Officer (Khahmed@unicef.org) and/ or Ranjbar Shareef (rshareef@unicef.org). For procurement queries, kindly coordinate with Mr. Sadegh Rasoul (srasoul@unicef.org).
Project management	- The project will be managed by the WASH section in UNICEF Erbil Field Office. All matters pertaining to the contract regarding this project should be referred to the below focal points: • Eng. Khozga Ahmed- WASH Officer, Email: khahmed@unicef.org, Cell phone: 07833352587 (WASH section in Erbil) • Ranjbar F Shareef- WASH Consultant. Email; rshareef@unicef.org , Cell phone: 07833352539 • Sadegh Rasoul- Supply Officer srasoul@unicef.org, Cell phone: 07833355266 (Supply section in Erbil). - The implementation of the project must be in coordination with the supervision and handover committees' members (UNICEF and relevant DoWs).
Payment Schedule	1. UNICEF shall make payments through electronic bank transfer as per below: The financial offer will be in: i) IQD (Iraq Dinars), it is important for a bidder to have an IQD bank account. ii) If a bidder quotes in any other currency i.e US Dollar (USD), below shall apply: a) Awards will be made based on the currency of their offer. The bidder is required to have a bank account in the currency of their offer. b) If a bidder has quoted in USD (US Dollar) or any other currency, for evaluation purposes only, proposals submitted in USD or any other currency will be converted into IQD using the United Nations rate of exchange in effect on the submission deadline date.

	2. The payments will be as below: 3.1. After 100% work completion (Supply and Installation including the training by the bidder to the water directorate candidates) the awarded company will be paid by 100% of the actual amount of the actual implemented work after approval and certification of the supervision committee and UNICEF. 3.2. Payments within 30 days of receipt of the Bidder's invoice(s) for the completed documentation which should be certified by UNICEF and the assigned committees. 3.3. Measurement of works shall be based on only fully completed activities or works inline items description. Partially completed works underlined items will not be included in the final measurement.
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