**technical Specifications – Annex 1 of the contract**

1. **General information**

|  |  |
| --- | --- |
| Assignment name | Procurement, Installation, Commissioning & Training of a seawater reverse osmosis plant in Carriacou (Grenada) |
| Beneficiary | National Water & Sewerage Authority of Grenada |
| Country | Grenada |
| Total duration | 12 months |
| Deadline for delivery | 9 months |

1. **Context and justification of the need**
2. **Expertise France**

Expertise France (EF) is a public agency and the inter-ministerial actor in international technical cooperation, subsidiary of the Agence Française de Développement Group (AFD Group). As the second largest agency in Europe, it designs and implements projects that sustainably strengthen public policies in developing and emerging countries. Governance, security, climate, health, education… It operates in key areas of development and contributes alongside its partners to the implementation of the Sustainable Development Goals (SDGs). For a world in common.

For more information: www.expertisefrance.fr

1. **The Euroclima programme**

Euroclima is the European Union’s (EU) flagship cooperation programme on environmental sustainability and climate change in Latin America and the Caribbean (LAC). It aims to contribute to the LAC region’s green transition, through efforts to mitigate and adapt to climate change and to protect and conserve biological diversity. Two main outcomes are expected:

* The enabling environment for a green transition (integrated policies, legal frameworks, sector plans and financial instruments) will be strengthened, in line with climate, biodiversity and circular economy objectives.
* Transformative approaches in key areas for the green transition will be developed, demonstrated and scaled up through the mobilization of public and private funding.

 Euroclima contributes to the implementation of the Global Gateway Investment Agenda in the region. Global Gateway is the EU’s offer to bridge the infrastructure investment gap by using public financing to leverage private capital and investment for projects that contribute to the green and digital twin transition. In the Caribbean region, Euroclima is funded by the European Commission, for a 5-year period, and is implemented by EU Member States agencies or MSAs (AECID, Expertise France, FIIAPP, GIZ) and the UN (ECLAC, UNDP, UN Environment). The programme forms part of the regional Team Europe Initiatives “Latin America and Caribbean Green Transition” and "A Partnership for a Caribbean Green Deal".

Through Euroclima, the EU has initiated Country Dialogues to enhance its role in defining cooperation priorities. The Country Dialogue is conducted with the key institutions for climate action in each country, which allows for the alignment of the program’s strategies with nationally established priorities to ensure cohesion and synergies with other activities. In consultation and coordination with the country and under the leadership of the National Focal Point (NFP), the programme supports the design of the Dialogue process on a case-by-case basis.

For more information: https://www.euroclima.org/

1. **Background of the action**

The Euroclima programme has adopted a tailored approach in Grenada following the devastation caused by Hurricane Beryl in July 2024. The hurricane severely impacted the Lesser Antilles, including Carriacou, an island home to approximately 5,000 inhabitants, where 91% of households rely on rainwater harvesting stored in cisterns for their domestic water supply. The extreme weather event triggered a water crisis, reducing the availability of drinking water and increasing demand. To address this, the National Water & Sewerage Authority (NAWASA) of Grenada transported desalinated water from the island's sole saltwater reverse osmosis (SWRO) plant to affected areas.

However, since the hurricane, the existing SWRO plant has been operating at its maximum capacity of 272 m³/day, posing a high risk of critical failure. Furthermore, ongoing reconstruction efforts and limited progress in restoring rainwater capture and storage systems will not allow adequate water capture and storage in case of severe drought.

In this context, NAWASA plans to install a second SWRO plant in Carriacou, alongside the existing facility in the Beausejour/Hillsborough area. This additional plant aims to reduce excessive reliance on the current system, create a buffer for preventative maintenance, extend the operational life of both plants, and ultimately prevent future water crisis.

In parallel of the present tender, NAWASA is working to expand the water distribution network to cover 75% of Carriacou’s territory. To support this initiative, NAWASA will finance and oversee the construction of a dedicated building to safely house all components of the new SWRO plant.

1. **Objectives and desired results**
   1. **General objective**

The objective of the assignment is to install a turnkey skid-mounted SWRO plant in Carriacou, operating as a back-up of the existing plant. At the end of the assignment, NAWASA must have the capacities to operate and maintain the system.

* 1. **Specific objectives**

The specific objectives of this assignment are:

1. Design a skid-mounted SWRO treatment plant tailored to NAWASA’s operational and technical requirements
2. Install and commission a skid-mounted SWRO plant including all associated equipment and material
3. Develop comprehensive technical manuals and deliver training to ensure NAWASA personnel can efficiently operate and maintain the plant
   1. **Anticipated results**

The expected results of this assignment are:

* The skid-mounted SWRO plant is fully operational and integrated into the local water supply system
* The skid-mounted SWRO plant is fully operational before the hurricane season, approximatively in May
* NAWASA personnel has the technical knowledge and resource to independently operate and maintain the plant

1. **Description of the assignment**
   1. **Planned activities**
   2. **Project Progress Report**

The Contractor shall submit a Monthly Project Progress Report to EXPERTISE FRANCE no later than the 5th working day of each month, covering the progress made during the previous calendar month.

The report shall provide an overview of the implementation status of the project, including:

* Progress against the approved work schedule
* Status of design, manufacturing, shipping, installation, testing and commissioning activities
* Key milestones achieved and anticipated
* Photographic documentation of major equipment, installations and works
* Identified risks or delays, with mitigation measures
* Any non-conformities or technical issues encountered and corrective actions taken
* Updated list of deliverables and compliance with contractual deadlines

The report shall be submitted in English in PDF format.

Deliverable: Project Progress Report

* 1. **Phase 0 : Assignment preparation**
* A kick-off meeting shall be held at the start of the assignment, at the latest two weeks after the contract signature. The meeting will gather relevant representatives from the Contractor, Expertise France, the EUD, and NAWASA.
* Two weeks after this meeting, an inception report will be produced by the Contractor. The inception report is to remain internal. It shall provide a revised and consolidated version of the methodology and work plan, along with a detailed schedule, based on the kick-off meeting. The minutes of the kick-off meeting shall be provided as an appendix to the inception report.

Deliverable: Inception Report

* 1. **Phase I: Design of a skid-mounted SWRO treatment plant**
     1. **Location and characteristics**

The new treatment plant is proposed to be located at Hillsborough, Carriacou.



*Coordinates to the site – 12°29'17"N 61°27'14"W.*

The raw water intake pumps currently installed on-site will supply both treatment plants, their specifications are detailed below. Each plant will operate in sequence, delivering treated water to a distribution reservoir with a capacity of 454 m³. According to the Contractor’s design & documentation, NAWASA will implement all necessary modifications to the existing infrastructure, including pipeline connections and control systems, to ensure operational integration of the new treatment plant.

As-built documentation of the existing SWRO plant are given in Annex 1 and battery limits in Annex 2.

Intake pump characteristics:

|  |  |
| --- | --- |
| Process and environment | * Sea Water Reverse Osmosis application * Sea water Density ≈ 1100 kg/m3 @ 23 deg. Celsius |
| Power | 400 volts 50Hz, 3-phase |
| Flow rate | 173 GPM (47 m3/h) @ 75 psi |
| Pressure | * Suction head ≈ 25 feet (Self-priming) * Discharge head continuous: 175 feet (76 psi) |
| Other pump properties | * Material – Nickle Aluminum Bronze or Duplex 2205 (Optional) * Self-priming * Close coupling (preferred) * Flange or Threaded NPT port connection * Port should be sized to connect to 4” – 6” pipes. |
| Motor properties | * Electrical: 400 volts 50Hz, 3-phase @ 20HP * VFD inverter compatible * Enclosure type: Totally Enclosed Washed Down (TEWD) * Close coupling (preferred) |
| Variable Frequency Drive (VFD) | The pump should be accompanied with a suitable VFD:   * 400 volts, minimum of 20HP to match the motor / pump application * Enclosure type IP66 or comes with its enclosure cabinet. * Protection must be provided by the VFD for the following conditions.   + Over voltage   + Under voltage   + Motor short circuit protection   + Motor over-current   + Instantaneous over-current   + Phase loss Detection   + Phase imbalance Detection   + Under load supervision   + Over load supervision   + Stall protection   + VFD over-temperature   + External trip input   + Motor thermistor input   + Loss of reference / feedback (4-20mA) * Dry run protection * Display and control panel should be in English, easy for navigation and should allow for onsite configuration.   + Should display operating parameters: - Voltages, Current, Frequency and rotational direction.   + Should show faults and fault history   + Allow for remote monitoring and or PLC connectivity. |
| Other specifications | * Item No: GS8108790 * Model No: ABRCH2-3310-280 (AMPCO pump) * SN: 2051879-5-1 * Motor Spec: 30HP, 2900 RPM, 324JM |

The design requirements of the new plant are as follows:

|  |  |
| --- | --- |
| Desalinated water output flow | 300m3/day (12.5 m3/h) |
| Energy supply | Powered by the municipal grid  Presence of a transformer of 200 kVA capacity and a backup generator of 150 kV |
| Desalinated water quality | Must meet WHO standards for potable water |
| Pre-treatment | The Contractor is expected to provide a dedicated pre-treatment unit exclusively for the new treatment plant. |
| Reverse Osmosis membrane | The new treatment plant shall be equipped with LG Chem 400R reverse osmosis membrane |
| Post treatment | The existing system utilizes chlorine disinfection, with on-site storage of liquid chlorine in two 23 m3 tanks. The new treatment plant shall implement an identical post-treatment process (incl. two 5 000 Gallons tanks), to be provided by the Contractor. |
| Chemical | The raw water pH ranges between 6.4 and 7.0, therefore no additional chemical treatment is required. |
| Performance | An overall plant reliability of no less than 98% is required. |

The new SWRO plant shall be provided by the Contractor as a complete unit including but not limited to the following:

* Chemical Injection pumps, and high pressure pumps and required accessories
* Pressure vessel and membranes
* Seawater filters
* CIP/flushing system including pump and filter
* Chemical storage tank(s)/drum(s)
* Power/Control Panel including motor starters
* Low voltage electric motors, 400V/3ph/50hz
* All necessary instrumentation, junction boxes and controls
* Piping and valves
* All tubing/ impulse piping (Tube: 904L, Fitting: 316L)
* Regulators and control valves
* One common skid supporting pumping equipment, vessels, piping, valves and relief valves and chemical tank(s) with piping, valves, instrumentation
* Earthing system and related connections
* Workshop testing and Factory Acceptance Tests (FAT).
* Special tools and equipment required for installation, operation and maintenance.
* Certified Lifting frames/beams, slings and shackles (one set of each type).
  + 1. **Design and layout of the SWRO plant**

The SWRO shall be compactly installed on a skid-mounted structure. The Contractor must account for the design, layout, procurement, shipment and commissioning of the plant taking into account the existing infrastructures such as open seawater intake & pump, brine evacuation system, permeate tanks piping & electrical supply.

NAWASA will be in charge of:

* the construction of the building according to minimum space requirements of the Contractor;
* the transportation of Contractor’s containers between St-George’s Port (Grenada) and the site;
* offloading of containers and installation of the plant under Contractor’s instructions & responsibility (Contractor’s representatives to be present on-site during installation).

The timeframe to be considered between the arrival at St.-George’s Port and the completion of the plant installation by NAWASA within the civil works is three (3) weeks.

Within two (2) weeks from the issuance of the Notice to Proceed (NTP), the Contractor shall provide the Minimum Space Requirements for Civil Works, including detailed layout drawings indicating the required footprint, access clearances, anchor points, utility connection points (electrical, piping), and minimum internal height for safe operation and maintenance. These specifications shall be used by NAWASA to design and construct the hosting building and associated civil works in accordance with the Contractor’s installation needs.

The Contractor shall carry out a detailed site assessment and survey of the existing infrastructure. This activity aims to verify the technical compatibility of the new system with the existing intake, brine evacuation, product output, and electrical installations. The survey shall include measurements, documentation of current equipment layout and conditions, and identification of any required modifications to ensure seamless integration.

The entire SWRO plant, including all structural components, equipment, and auxiliary systems, shall be designed and dimensioned for a minimum operational life of 25 years under standard operating conditions in a tropical coastal environment.

The design shall take into account environmental factors such as temperature, humidity, salinity, UV exposure, and potential corrosion from airborne salt and moisture.

All materials, coatings, and components selected shall be corrosion-resistant, durable, and suitable for long-term use with minimal degradation. Stainless steel, marine-grade alloys, and protective coatings shall meet internationally recognized standards (e.g., ISO 12944, ISO 9223, ASTM B117 or equivalent).

The Contractor shall clearly identify in the detailed design documents any components with shorter life expectancy and shall propose a maintenance and replacement strategy to ensure overall system performance over the 25-year design period.

The electricity panel should be properly isolated from the rest of the equipment.

The physical-chemical characteristics of the source water that should be taken as reference are as follow:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Analysis** | **Range to be considered** |
| pH | 7.83 | 6.4 – 8.3 |
| Temperature | 28.70C | 26 – 32 °C |
| Electrical Conductivity (EC) | 54300 µS/cm | 50 000 – 58 000 µS/cm |
| Total Dissolved Solids (TDS) | 61 000 ppm | 35 000 – 65 000 ppm |

The plant manufacturer should conduct its due diligence and provide reasonable assurance of the plant reliability to produce the target flow of water meeting WHO standards for drinking water.

The Contractor is encouraged to reduce the energy consumption as much as possible.

All materials must be corrosion-resistant. All pressure vessels must be guaranteed by means of a certificate of the corresponding hydrostatic test of 1.5 times the nominal pressure.

The system is expected to operate either in an intermittent mode or continuously at full capacity, 24/7.

The Contractor shall provide a complete Detailed Design for the SWRO plant. This package shall include, at a minimum:

* Site Assessment and Existing Infrastructure Survey
* General layout drawings (plan and elevations) of the entire system
* Piping and Instrumentation Diagrams (P&ID)
* Process Flow Diagrams (PFD)
* Electrical single-line diagrams and cable routing plans
* Equipment layout (skid and container configuration)
* Civil interfaces: loading requirements, anchor locations, openings locations
* Utility requirements (power, drainage, chemical storage, etc.)
* Manufacturer datasheets for all key components (pumps, membranes, valves, instrumentation, etc.)
* Certificates of conformity (CE, ISO, etc.)
* Expected performance curves (e.g., for pumps, membranes)
* Lifespan and replacement schedule of consumables and critical parts

The membrane selection should at minimum possess the following characteristics, including,

* Highest boron rejection, to meet the World Health Organization’s (WHO) and other drinking water standards;
* High operating lifetime performance without the use of oxidative post-treatments;
* Low overall fouling effect and maximum membrane efficiency;
* Excellent performance at low and high seawater flow rate.

The Reverse Osmosis membrane has to have an average life span of no less than 3 years.

Deliverable:

* Minimum space requirements for civil works
* Detailed Design
  + 1. **Control and Monitoring System**

The supervision and operation system of the new SWRO plant shall be compatible with future integration into a SCADA system.

The plant must have appropriate control system to ensure that output water not meeting the drinking standards does not reach the users. Moreover, basic quality parameters of permeate have to be monitored constantly to ensure acceptable drinking standards. Monitoring of power consumption by the SWRO has to be carried out.

* + 1. **Operation and maintenance**

The Contractor shall prepare a comprehensive maintenance program for the SWRO plant which shall include:

* A corrective maintenance program;
* A preventive maintenance program;
* A program for all maintenance activities required to maintain any warranties related to the new equipment;
* The identification of essential spare parts and the maintenance of practicable inventory levels of such essential spare parts; and
* A system of planning, scheduling and recording all maintenance activities.

The Contractor shall supply a comprehensive set of spare parts sufficient to ensure the uninterrupted operation and preventive maintenance of the SWRO plant over a period of two (2) years from the date of commissioning. The list of spare parts shall be prepared by the Contractor and submitted for approval by EXPERTISE FRANCE prior to shipment.

The spare parts package shall include, at minimum:

* Consumables
* Replacement components subject to wear
* Electrical and control system components
* Special tools or accessories required for routine maintenance

All spare parts shall be:

* Clearly identified and labeled with part numbers and descriptions
* Supplied with relevant manufacturer datasheets and installation instructions
* Compatible with the equipment supplied under this Contract
* Packaged and protected to prevent corrosion or damage during transport and storage

The Contractor shall provide an inventory list of all spare parts with quantities, unit prices, country of origin, and warranty conditions.

The plant must be equipped with automated system for cleaning and rinsing of critical equipment, an auxiliary flushing and chemical (if used) cleaning system. Capacity of the SWRO plant to work autonomously, or to be remotely operated, is required.

The Contractor shall supply all platform galleries, stairways, access ways and ladders necessary for providing safe and easy access to the plant items for operation and maintenance. The Contractor shall ensure that the whole of the access ways are of uniform design and pattern throughout the Facilities.

* + 1. **General quality standards of equipment and installation works**

All equipment and installation work of the SWRO plant shall comply with the General Quality Standards. These standards encompass international engineering and construction methodologies, compliance with national and local regulations, and the use of appropriate technology and materials suitable for coastal and tropical environments.

The term “General Quality Standard” means a standard of performance which,

* is competent, efficient, economical and in accordance with internationally accepted techniques used in the SWRO and civil works construction industries;
* is in accordance with professional engineering, accounting and consulting standards, as applicable, recognized by national or international professional bodies;
* is in accordance with sound management, commercial, technical, design and engineering practices;
* employs appropriate technology and safe and effective equipment, machinery and methods;
* is in accordance with national and local standards and codes at the destination country;
* protects the interests of the Beneficiary;
* is in accordance with the Applicable Law.

In the event of any conflict or inconsistency between any standards that comprise the General Quality Standard, local and national standards in the Beneficiary’s Country shall prevail over international standards.

Acceptable reference standards include, but are not limited to:

* ISO (International Organization for Standardization), e.g. ISO 9001 (quality management), ISO 12944 (corrosion protection), ISO 5199 (centrifugal pumps)
* IEC (International Electrotechnical Commission), for electrical and automation systems
* ASTM (American Society for Testing and Materials), for construction materials, piping and coatings
* AWWA (American Water Works Association), for water treatment components
* EN (European Norms), for equipment and safety conformity
* BS (British Standards), particularly where widely accepted in water and infrastructure works (e.g. BS 6920 for potable water contact materials, BS 7671 for electrical installations)

In the event of any conflicts or inconsistency between any standards that comprise the General Quality Standards, local and Grenadian national standards shall prevail over international standards.

Within one (1) month following the issuance of the Notice to Proceed (NTP), the Contractor shall prepare and submit a dedicated Quality Management Plan (QMP) for the project, describing the quality assurance and control procedures applicable throughout the design, procurement, supply, installation, and commissioning phases. The QMP shall be compliant with the principles of ISO 9001 and shall include a tailored Inspection and Test Plan (ITP) that specifies the types, scope, frequency, and responsibilities for inspections and tests at key milestones. Both documents shall be submitted to EXPERTISE FRANCE for review and approval prior to the start of fabrication or on-site works.

* + 1. **Warranty**

The Contractor shall offer a warranty of 12 months from the effective date of commissioning and after sales services for 5 years from the end of warranty period.

* 1. **Phase II: Procurement, Installation and commissioning of the SWRO plant**
     1. **Procurement**

The Contractor shall be fully responsible for the procurement of all equipment, materials, spare parts, and components required for the complete and functional delivery of the SWRO plant, as described in the present specifications.

All procured items shall be new, unused, and of proven industrial quality, and shall conform to the specified technical characteristics and applicable international standards. The Contractor shall prioritize the use of energy-efficient and corrosion-resistant materials suitable for coastal and tropical environments.

The Contractor shall provide full traceability of the procurement process, including manufacturer datasheets, certificates of origin, factory acceptance test (FAT) results where applicable, and quality certifications.

* + 1. **Shipment**

Supplies shall be delivered DAP St.-George’s Port, Grenada and shall be packaged in standard 20-foot or 40-foot containers, which may be high cube or open-top, as required.

NAWASA will be in charge of custom clearance process and transportation up to the final location.

The Contractor shall be responsible for preparing and transmitting all Logistics Documentation required for smooth customs clearance and reception of the goods at St.-George’s Port.

This shall include, at minimum:

* Packing list detailing the contents of each container (in English)
* Commercial invoice including Incoterm reference (DAP – Delivered at Place)
* Bill of Lading or Airway Bill
* Certificate of Origin (if required by local authorities)
* Equipment datasheets and serial numbers
* Material Safety Data Sheets (MSDS) for any chemical products
* Handling and storage instructions

All documents shall be transmitted electronically to EXPERTISE FRANCE at least 5 working days before vessel arrival at the port of destination. Physical copies shall also be provided with the shipment, in waterproof and clearly labelled packaging.

Deliverable: Logistics Documentation

* + 1. **Installation**

The installation works must comply with the General Quality Standards set in the previous section.

NAWASA will be responsible for the offloading of supplies from containers under instructions and responsibility of Contractor’s representatives and for the installation of the SWRO plant (including anchoring systems).

The Contractor shall inspect and confirm the content of the shipment and its good condition prior to installation.

NAWASA will be in charge of the integration of the new plant to the existing intake, brine evacuation system and clear water tanks as well as to the electrical supply system, upon provision of design drawings and schematics.

The Contractor is the sole responsible of adequate plant installation, taking into account the specifics of the site. For this reason, the Contractor is encouraged to visit the site and the pre-assigned location space, in order to customize the SWRO packaging and installation to the specifics of the site. The Contractor shall execute all the necessary work to appropriately install the SWRO plant.

NAWASA shall perform the electrical connection of the plant to the grid. The Contractor shall ensure all power needs and demands from the SWRO plant are compatible with GRENLEC electrical grid. The electrical supply will be at three-phase 400V/50Hz.

* + 1. **Environmental Compliance**

During installation, the Contractor shall take all reasonable steps to protect the environment, both on and off the site, and to limit damage and nuisance to people and property resulting from pollution, noise, dust and other results of its services, including:

* Adopting working practices that prevent or minimize the transfer of any pollutant off-site;
* Using appropriate dust suppressant methods when applicable;
* Restricting trucking and loud machinery and equipment use to daylight hours, unless previously agreed with the community;
* Using appropriate methods to minimize soil erosion and prevent the contamination of surface water and the transportation of soil and sediment off-site onto adjacent properties;
* Installing of an air-conditioning system to regulate the temperature of the system and mitigate noise disturbance.
* Maintaining a clean site free of garbage and debris.
  + 1. **Commissioning**

The Contractor is expected to deliver a well performing SWRO desalinization plant that complies with all requirements numbered previously.

Once all works for the installation have been carried out, the Contractor is responsible for testing and commissioning of the system. During the commissioning, the SWRO plant will have to be operated both continuously (for 72 hours) and discontinuously (for three days at 16h operation per day) and be able to produce output water in compliance with the WHO drinking water standards, with the power consumption under the specified values, with the specified flow of minimum 12.5 m3/h and with the well performing control and monitoring systems and remote control and operation systems.

All water quality compliance with WHO drinking water standards shall be demonstrated by the Contractor through certified laboratory analysis, conducted by a laboratory approved by EXPERTISE FRANCE.

The Contractor shall document the commissioning phase through comprehensive Performance Test Report, including water quality analyses (certified by an approved laboratory), energy consumption, flow rates, system behavior, alarms, and control functionalities. These results shall be reviewed and validated by EXPERTISE FRANCE.

Only when all those requirements are complied with will the plant be considered acceptable.

**It is to be understood that the SWRO plant is fully delivered before the expected hurricane season, approximatively around May.**

Deliverable: Performance Test Report

* 1. **Phase III: Transfer of knowledge**
     1. **Manuals**

The Contractor shall provide well structured, comprehensive and coordinated manuals to fully described all aspects of design, installation, commissioning, operating and maintenance of the plant and equipment provided. The manual shall include the following sections:

* Installation manual
* Commissioning manual
* Operation manual
* Maintenance manual

The manuals shall include instructions only for the actual equipment supplied and not for alternative or optional equipment.

* + 1. **Trainings**

During commissioning, the Contractor shall train local personnel in the operation and maintenance of the SWRO plant, in order to leave professionals from NAWASA of Grenada fully trained and capable to operate and perform maintenance of the SWRO plant. The training will be customized to suit the experience and skills of maximum five (5) NAWASA’s personnel who are already familiar with the operation and maintenance of the existing plant.

The training shall be conducted by experienced instructors in the plant and equipment installed. Each of the instructors shall be fluent in English. The objectives of the program shall be to maximize learning and minimize maintenance and operational errors.

At the end of the training sessions, the Contractor shall provide individual training certificates to each participant and shall organize a short feedback and satisfaction survey. The results of the surveys and a summary report shall be included in the training deliverables.

* + 1. **Handover Package**

At the end of the commissioning & training phase, the Contractor shall compile and submit a comprehensive Handover Package to EXPERTISE FRANCE.

This package shall serve as the official project close-out documentation and shall include, at a minimum:

* Final As-built drawings (in editable and PDF format)
* Full Commissioning Report detailing tests performed, results, and system performance
* Operation & Maintenance manuals for all installed equipment
* Manufacturer datasheets and certificates for major components
* Warranty certificates and terms for all equipment and materials
* Training documentation, including attendance sheets, training content, and evaluation results
* Final spare parts inventory with quantities and storage recommendations
* Contact list for after-sales service and technical support

The Handover Package shall be submitted in both digital and hard copy formats and shall be subject to approval by EXPERTISE FRANCE before the project is considered fully delivered.

Deliverable: Handover Package

* 1. **Anticipated deliverables**

|  |  |  |
| --- | --- | --- |
| **Item** | **Deliverables** | **End date** |
| 0.1 | Kick-off meeting | NTP + 2 weeks |
| 0.2 | Inception Report | NTP + 4 weeks |
| 1.1 | Detailed Design | NTP + 1 month |
| 1.2 | Quality Management Plan incl. Inspection & Test Plan | NTP + 1 month |
| 2.1 | Procurement | NTP + 5 months |
| 2.2 | Shipment to St.-George’s Port, Grenada | NTP + 7 months |
| 2.3 | On-site offloading & installation of equipment | NTP + 8 months |
| 2.4 | Commissioning | NTP + 9 months |
| 2.5 | Spare parts for 2 years maintenance | NTP + 9 months |

* 1. **Coordination**

The Contractor shall designate a single contact person for project implementation purposes.

Loelia Maire and Orion Vienne of the Sustainable Development Department will be the Contractor’s main contact persons for Expertise France

E-mail: [loelia.maire@expertisefrance.fr](mailto:loelia.maire@expertisefrance.fr) ; [orion.vienne@expertisefrance.fr](mailto:orion.vienne@expertisefrance.fr)

Close collaboration must take place with NAWASA personnel from assignment preparation right up to completion. Furthermore, regular exchanges must take place with Mr. Todd LA BARRIE on assignment progress and any difficulties that may be encountered.

1. **Place, duration and terms of performance**

**Place of the assignment:** the works will be conducted at the premises of the Contractor and installation and commissioning of the equipment will be delivered in Carriacou, Grenada. The preparation of the delivery will be coordinated with DIPT and Expertise France. The Contractor is expected to provide a detailed planning for the execution of the tender as part of the technical proposal.

**Implementation period:** 9 months

In addition to the deadlines specified in the deliverables table, the Contractor shall provide a monthly progress report throughout the duration of the contract, detailing the status of design, procurement, manufacturing, and any other relevant activities.

Furthermore, within no more than two weeks after the Notice to Proceed (NTP), the Contractor shall submit the minimum space requirements for the civil works, including all necessary technical details to allow the timely commencement of the associated site preparations.

**Effective duration per assignment:** 9 months

The Contractor will provide a detailed workplan in its technical proposal, based on the provisional

programme. Any changes made to the provisional programme shall be properly justified.

1. **Practical information**
2. Language of assignment: English
3. All travels shall be borne by the Contractor and be included as part of the financial proposal. Experts remain solely responsible for organizing their own travel, accommodation, transport, insurance, communication and internet costs.
4. The Government of Grenada will arrange the following during field missions: meeting room and internet while at the Government building.
5. The Government of Grenada shall facilitate meetings with the stakeholders when deemed appropriate.
6. NAWASA shall assist with necessary documentation for entry and work in Grenada.
7. NAWASA shall be responsible for covering all applicable local taxes and duties.
8. During the implementation of the assignment, the visibility of the European Union as donor of the Euroclima Programme must be ensured, in accordance with the Euroclima Programme's rules on communication and visibility, which take into account the European Union's requirements for communication and visibility: <https://international-partnerships.ec.europa.eu/knowledge-hub/communicating-and-raising-eu-visibility-guidance-external-actions_en>. All reports and deliverables must include the emblem of the European Union (with the words "Financed by the European Union"), the logos of the Euroclima Programme and Expertise France, as well as the following "standard" disclaimer: “This publication has been produced with the financial support of the European Union. The contents are the sole responsibility of <name of author/partner> and do not necessarily reflect the views of the European Union"
9. **Annexes**
10. Annex 1 – As-built documentation of the existing SWRO Plant.
11. Annex 2 – Battery limits

**Annex 1 – As-built documentation of the existing SWRO Plant**

**Annex 2 – Battery limits**