GOVERNMENT OF GRENADA
SOUTHERN ST. GEORGE WATER SUPPLY EXPANSION PROJECT

CONSULTANCY SERVICES FOR
DEVELOPMENT OF AN INFORMATION TECHNOLOGY PLAN FOR THE NATIONAL
WATER AND SEWERAGE AUTHORITY

DRAFT TERMS OF REFERENCE

1.   BACKGROUND

1.01   The Government of Grenada (GOGR) has received financing from the Caribbean Development Bank (CDB), towards the cost of the Southern St. George Water Supply Expansion Project (the Project). The financing is from funds provided by the United Kingdom, through the Foreign, Commonwealth and Development Office (FCDO), to CDB, under the United Kingdom Caribbean Infrastructure Partnership Fund (UKCIF). The Project is primarily a response to water shortages in the dry season in the south of mainland Grenada. The expected outcome of the Project is increased access to a reliable and sustainable supply of potable water within the targeted water network in Grenada.

1.02   The Project will be executed by the National Water and Sewerage Authority (NAWASA), through its Planning and Development Department (PDD). PDD is headed by a manager, and is the unit responsible for the overall planning, management and execution of projects. The Manager, PDD is the Project Team Leader (PTL). A Project Coordinator (PC) has been engaged to manage the Project. NAWASA is a statutory body, responsible for the provision of a safe, adequate and reliable water supply and safe disposal of wastewater for the population of Grenada, which comprises the islands of Grenada, Carriacou and Petit Martinique.

1.03   NAWASA is overseen by the Ministry of Infrastructure & Physical Development, Public Utilities, Civil Aviation & Transportation. The Project will be overseen by a Project Steering Committee established as a sub-committee of GOGR's Project Oversight Committee. The Ministry of Mobilisation, Implementation and Transformation (MOMIT), and the Department of Economic, Sustainable Development and Planning (DESDP) within the Ministry of Economic Development, Planning, and Cooperatives; Agriculture & Lands, Forestry and Marine Resources are key entities in GOGR's governance structure for public sector investments.

1.04   Information Technology (IT) is a key enabler for NAWASA to maximise its operational efficiency. To that end, the Authority is conducting an IT audit, which is expected to be completed by end of September 2024, focusing on the (a) state assessment and risk analysis, (b) an assessment of cybersecurity, and (c) an assessment of IT human resources capacity. However additional support for detailed project implementation is required for undertaking some initiatives with respect to NAWASA's IT systems and processes as follows:

(a)   The Customer Information System (CIS) which performs the billing and collections functions is not integrated with the Enterprise Resource Planning (ERP) system, which executes accounting activities. Therefore, information must be manually transferred from the CIS to the ERP instead of being done automatically.

(b)   The utility is undertaking three smart meter pilot projects in Grenada, Carriacou and Petite Martinique to gain experience with these systems. Further assessment is needed to assist NAWASA with deciding whether to operationalise smart meter technology across the

customer network, including guidance on procurement and integration with other systems; and

(c)   A pilot project implementing a Supervisory Control and Data Acquisition (SCADA) system.

(d)   Further, NAWASA is implementing an IT asset management system to digitise all of its operations and maintenance processes. To maximise the benefits of this system, integration with the asset management and work order systems would be required, so they can be updated seamlessly as assets are deployed, replaced or repaired.

1.05   NAWASA wishes to engage a Consultant to support the development of a detailed project and implementation plan to address the above listed projects.

2.   OBJECTIVE

2.01   The objectives of the consultancy are:
   a.   enable NAWASA to determine the most suitable hardware and software requirements and capacity development measures to facilitate the procurement and/or implementation of
      i.   CIS to ERP integration
      ii.   smart meter operations; and
      iii.   SCADA operations according to the recommendations of the IT audit; and
   b.   to define process mapping and adjustment of procedures for implementation of the IT asset management software.

3.   SCOPE OF SERVICES

3.01   The activities of this consultancy will include, but not be limited to, the following:

   a.   Assess the IT audit recommendations

      (i)   Review the final report and recommendations from the existing IT audit.
      (ii)   Make recommendation for hardware and software specifications to address gaps as identified in the IT audit.
      (iii)   Identify and prioritize investments in cyber security projects informed by the outcomes of the IT audit.

   b.   Make recommendation for the most suitable CIS and ERP systems

      (i)   Conduct an assessment of the current state of the CIS and ERP interlink.
      (ii)   In consultation with the NAWASA staff, determine options for improved software operations, such as, user friendliness of CIS and ERP software.
      (iii)   Make recommendation for an improved CIS and ERP including providing the specifications for the same.
      (iv)   Prepare an investment plan for the procurement of CIS and ERP including tender documents.

   c.   Assess the viability of smart meter implementation and make recommendations for operationalising and upscaling

(i)   Conduct assessment of the existing smart metering pilot project focusing on challenges related to data communication.
(ii) Identify the specification and requirement for the integration of smart meters to the recommended CIS software.
(iii) Prepare a cost benefit analysis for comprehensive smart metering on the NAWASA distribution network.
(iv) Prepare an investment project for the procurement of smart meters.

d. Define specification and planning for the integration of data to and from the SCADA pilot into the O&M procedures.

(i)   Assess the ongoing SCADA pilot in relation to IT and data communication.
(ii) Prepare the data communication tools to interlink SCADA to the IT asset management software.

e. Define process mapping and adjustment of procedures for implementation of the IT asset management software

(i)   Identify the main business processes for O&M.
(ii) Prepare standardized description of work flows.
(iii) Assist NAWASA in the preparation of adjustments of work flows for the IT asset management software.

4.   REPORTING REQUIREMENTS

4.01   The Consultant will be required to submit one (1) electronic copy of each report in .pdf format and original editable Microsoft Office format, to NAWASA as follows:

No.	Deliverable	Cumulative timeline (weeks)
1.	**Inception Report:** Within two weeks of commencement of the assignment, an Inception Report outlining the Consultant's work schedule and methodology, including information requested/obtained and meetings requested/suggested/had.	2
2.	**Report 1:** An assessment of the CIS and ERP interlink, assessment of results of the smart meter and SCADA pilot. The report should also include a review of the consultant's workplan.	10
3.	**Report 2:** The Consultant shall submit a Draft Recommendations report containing proposed hard and software requirements etc. for CIS and ERP as well as cost benefit analysis for smart metering and proposed tools for the SCADA interlink.	15
4.	**Report 3:** The Consultant shall submit a report on the core business procedures including visual workflows according to the templates of the IT asset management software.	17
5.	**Report 4:** the consultant shall present the Investment project for both the CIS, ERP and smart meters.	20
6.	**Tool:** The consultant shall demonstrate the functionality of the data communication tool for SCADA.	22

No.	Deliverable	Cumulative timeline (weeks)
7.	**Final Report:** The Consultant shall submit a Final Report containing: (i) An overview of the project implementation (ii) Tender documents for the CIS and ERP (iii) Adjusted workflows of O&M for the IT asset management.	26

4.02   NAWASA, through the PC, will provide feedback to each of the deliverables described above within 14 days of receiving the Report.

4.03   Deliverables will be reviewed and certified as satisfactory by NAWASA.

5.   **IMPLEMENTATION ARRANGEMENTS**

5.01   NAWASA has appointed a Project Team Lead (PTL) and has engaged a Project Coordinator (PC), who will be supported by the NAWASA IT, engineering, and administrative staff. The PTL will facilitate participation of NAWASA's IT Manager and staff, and the engineering and administrative staff. The PC, to whom the Consultant shall report directly, will facilitate the work of the Consultant and make available all relevant project-related reports and data relevant to completion of the assignment. The PC will act as liaison between the consultants and other project participants and will assist as necessary with arranging meetings with stakeholders.

5.02   It is expected that the Consultant will conduct the research, develop the evaluation methodology and strategy, conduct the baseline, interim and final data collection, analyse the data, and produce the corresponding reports.

5.03   The Consultant will be responsible for their own logistics such as local and air transportation, as necessary, and accommodation in Grenada for the purpose of the assignment.

6.   **QUALIFICATIONS AND EXPERIENCE**

6.01   The Consultant should be experienced with IT best practices in public sector utilities and specific experience in the water sector shall be an asset. The Consultant shall have the following minimum qualifications and experience:

(a) A post-graduate degree or equivalent in MIS, Computer Science or a related subject area

(b) A minimum of ten (10) years of relevant practical experience with designing and implementing MIS in similar operational environments

(c) At least five (5) years' experience with implementation or operation of SCADA systems

(d) Knowledge of billing systems and software applications evidenced by training and/or experience with similar systems; and

(e) Experience/certification in project management and service and support models would be assets

7.   **<u>DURATION</u>**

7.01   The services are expected to be delivered over a period of 7 months, from October 2024 to May 2025, with an estimated total level of effort for this consultancy of 28 person-weeks.