



## Department of Health and Wellness

### WORLD BANK - OECS REGIONAL HEALTH PROJECT - P168539

#### TERMS OF REFERENCE

#### Consultancy for the Design and Supervision for SMART<sup>1</sup>ing of Health Facilities in the Public Sector in Saint Lucia

##### I. Introduction

Like the rest of the countries participating in the [OECS Regional Health Project](#), Saint Lucia is faced with limited capacity and fiscal space, as well as high levels of exposure to economic and weather shocks. The country has had limited success in adequately preparing for public health emergencies. Recent extreme weather events such as Hurricanes Irma and Maria (2017) and regional outbreaks of Chikungunya (2014), Zika (2016) and more recently COVID-19, have highlighted weaknesses in the preparedness of health systems in the Eastern Caribbean region to manage public health emergencies. Saint Lucia is no exception.

Approved in August 2019, the OECS Regional Health Project aims to improve preparedness of health systems' capacities for public health emergencies across four countries (Dominica, Grenada, Saint Lucia, and Saint Vincent and the Grenadines) and two regional agencies (OECS Commission and the Caribbean Regional Public Health Agency (CARPHA)). Preparedness refers to a range of health and non-health capabilities and operational capacities put in place at various levels (local, national, regional) to ensure prevention, protection, response and recovery from public health emergencies, such as infectious disease outbreaks and extreme weather events. In the Caribbean, preparedness improvement efforts in the health sector have been hampered by limited in-country capacity and a lack of resources. As such, a regional approach is warranted, whereby country level investments in preparedness are harmonized and subsequently complemented at the regional level.

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<sup>1</sup> SMART: The definition of a Smart Health Facility/Hospital is defined as Health Safety Index (HSI) A and minimum Green 70%, simplified as A70. Low HSI scores such as low B and C, generally correspond to facilities with low structural and non-structural scores. Therefore, a target of an HSI score of A and a green score of 70% is combined as A70. Health care facilities are 'smart' when they link their structural and operational safety with green interventions, at a reasonable cost-to-benefit ratio.

The project finances activities through two main components: (i) improved health facilities and laboratory capacity; and (ii) strengthened public health surveillance and emergency management. Complementary investments at the regional level focus on targeted areas such as the development of regional training programs and strengthening regional resources, such as the Regional Reference Laboratory.

*Under Component 1*, national level activities focused on health facility resilience will build on the Smart Health Facilities Initiative implemented by the Pan American Health Organization (PAHO). Under this initiative, in-depth assessments of health facilities in all four participating countries have been conducted. Using the assessment findings, select health facilities will be upgraded to improve their resilience to climate change and extreme weather conditions.<sup>2</sup> Examples of climate resilient and energy-efficient upgrades include structural improvements, roofing, electrical safety, improvements in lighting, telecommunications, plumbing and water storage as well as the inclusion of ramps to facilitate access for people who are disabled.

A critical aspect of strengthening national emergency management and response capacities is the ability to respond swiftly and effectively to outbreaks, threats, manmade and natural disasters. The project interventions will provide support to improve country and regional surge capacity to ensure rapid response during an emergency, including those induced by climate change. Given Saint Lucia's location and size, it is extremely vulnerable to natural disasters exacerbated by climate change. It is therefore of paramount importance that Saint Lucia strengthens its health facilities to reduce its vulnerability to natural disasters such as hurricanes as well as reducing its health carbon footprint by ensuring our facilities are 'SMART' - more resilient, Safe and 'GREENER'.  
Safe + Green = Smart

## II. Background

The SMART Hospital Project was funded by the UK Foreign, Commonwealth & Development Office [formerly the Department for International Development (DFID)] and implemented by PAHO. The project sought to develop resilient and climate-adapted health care facilities in the Caribbean. The tools used to assess the facilities are the Health and Safety Index (HSI) which is a series of questions when answered, provides a snapshot of the level of vulnerability of a health facility to hazard with levels rating as follows:

- A - 65% -100%
- B - 45%-64%
- C - Below 45%

To assess the 'greenness' of a facility, the level of adaption to climate change and mitigation measures for reducing its carbon footprint, the Green-checklist was utilised. The minimum green standard was set at 70%. In order for a facility to be considered SMART, it therefore has to earn an alpha-numeric score of A70.

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<sup>2</sup> Facility upgrades are expected to apply universal access and design approaches with respect to persons with disabilities.

The first phase of the SMART Healthcare Initiative PAHO completed two demonstration projects, one at the Georgetown Hospital in St. Vincent and the Grenadines, and the other at the Pogson Medical Centre St. Kitts and Nevis. Both demonstration projects aimed to establish an integrated approach to health facility design, featuring both disaster-resilient (safe) and environmentally green (green) institutions. The success of Phase I expanded to Phase II in which more islands would be involved, namely Grenada, Saint Lucia, St. Vincent and the Grenadines and Dominica. The project started in Saint Lucia 2013, where fifteen persons within the various government departments were trained in the HSI and Green Tool Kit and assessed thirty-four facilities. In Saint Lucia, the results of this assessment led to the rehabilitation of thirteen (13) health facilities on the island to date.

The Department of Health and Wellness (DoHW) is at the end of the Construction Phase of the Smart Health Facilities project in Saint Lucia. In July 2020, the Department conducted re-assessments of the health facilities as per the original project five (5) year cycle. This coincided with our end of project cycle, which requires reassessment of the facilities that were retrofitted under the SMART Project. The re-assessments included the application of the health safety index (HSI) and green checklist questionnaires for thirty-two (32) additional health facilities.

### **III. Objectives**

The overall objective of this consultancy is to reduce health sector vulnerability and protect investments in health sector infrastructure. The ultimate aim is to produce designs and supervise the retrofitting for SMARTing of fourteen (14) health facilities to help reduce the downtime and potential damage to a facility in the event of a disaster as well as reduce operational expenditures with water and energy management improvements and ensure energy auto-sufficiency to support continuity of healthcare delivery in the event of a major disaster. The retrofitted facilities are intended to meet the PAHO 'Smart' Health Facilities' standard of being SAFE and GREEN using a toolkit and guidelines.<sup>3</sup>

### **IV. Scope of Work**

The core activities expected to be carried out by the consulting firm in relation to the objectives, shall be as follows and executed in two (2) phases. Each phase will be implemented by a separate contract. Phase 1 – lumpsum contract and Phase 2 – time-based contract.

#### **Phase 1 (Assessment & Design)**

- a) Assessment of the selected 14 facilities (structural, potential for energy efficiency, environmental)

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<sup>3</sup> [http://www.paho.org/disasters/index.php?option=com\\_content&view=article&id=1742%3Asmart-hospitals-toolkit&Itemid=911&lang=en](http://www.paho.org/disasters/index.php?option=com_content&view=article&id=1742%3Asmart-hospitals-toolkit&Itemid=911&lang=en)

- b) Determine scope of works required to bring 14 facilities to A70 rating based on an assessment provided
- c) Develop all construction drawings to facilitate the retrofitting works for the 14 facilities based on the OECS Building Code of 2015.
- d) Develop technical specifications based on the minimum standards of PAHO Smart Health Facilities and future maintenance requirements.
- e) Develop Bills of Quantities to facilitate works for each of the 14 facilities.
- f) Develop Environmental and Social Management Plans (ESMPs) based on template(s) provided by the DoHW. Include occupational health and safety protocols as well as a community health and safety plan, infection prevention and control plan, and waste management plan adhering to biomedical waste management requirements.
- g) Assist with the Development of Tender Documents (commercial and technical) to undertake the retrofitting works on the facilities and in the evaluation of all bids received for the same.
- h) Assist with the evaluation at the construction tender stage, including recommendation of suitable contractors to invite to tender, participation in tender site visits with bidders and evaluation of bids.

### **Phase 2: Supervision during Construction**

- a) Coordinate construction activities, interact with relevant stakeholders and report at least once weekly to the officer designated by the Permanent Secretary, DoHW. Copies of coordination meetings, reports should also be forwarded to the Corporate Planning.
- b) Provide fulltime supervision and contract administration services during the construction period.
- c) Provide post construction services including quality assurance reviews / checks during the defects liability period.

### **Construction services:**

The Consulting Firm will undertake the contract management services, supervision and certification of works:

- i. Carry out technical inspections and supervision of the various activities included in the construction contract in a manner that ensures the contractor remains obligated to the timely and qualitative implementation of the works.
- ii. Prepare quality assurance plan in consultation with the contractor, consistent with the conditions of the contract. The Plan should be reviewed and approved by the technical unit within the DoHW.
- iii. Certify all completed physical works, ensuring quality and standards are maintained before acceptance by the Government of Saint Lucia - DoHW.

- iv. Represent the interest of the Government vis-à-vis the contract in any manner related to the construction contracts and the proper execution thereof.
- v. Organization of necessary consultations with appropriate agencies, authorities, and other relevant stakeholders as is approved by the Permanent Secretary, DoHW on all matters.
- vi. Develop and implement in line with the works implementation program a comprehensive stakeholder engagement program to keep potential project affected people, and other key stakeholders informed prior to and during construction, about the types and duration of disruptions and impacts, as well as mitigation measures. The stakeholder engagement should include but not be limited to, timely disclosure of ESMPs and other relevant information, direct consultations as appropriate for the level of risk involved at each facility, as well as, socialization, implementation and reporting of a grievance redress mechanism.
- vii. Supervise and monitor the ESMP(s) requirements and create weekly checklists for all applicable requirements for evaluation of Contractor performance.
- viii. Provide training to the Contractor and all relevant DoHW staff on the ESMP requirements on a periodic basis (at least weekly) to ensure proper understanding and implementation.
- ix. Ensure that the contractor mobilizes and supplies to the contract all personnel, equipment and machinery that has been committed in the Contract and that all such items remain on site until the appropriate approval for release is granted.
- x. Review equipment and personnel on site for compliance as per contract.
- xi. Check the adequacy of the Contractor's project experience, technical competence, and equipment to ensure proper execution of the works contracts.
- xii. Review and approve any workshop drawings required from the Contractor.
- xiii. Approve all sources of materials and fixtures including technical inspections, the results of laboratory testing of all construction materials and the quality of all permanent fixtures prior to their use.
- xiv. Examine any technical proposals by the contractor and furnish the employer with the necessary technical advice and recommendation in respect of materials and fixtures as compared with the specifications and bill of quantities.
- xv. Maintain a complete set of field records, timesheets, diary, and minutes of site meetings. Attend site meetings as and when required, review contractor's work schedule, monthly progress report and results of laboratory testing, in accordance with the agreed quality assurance plan.

- xvi. Verify interim and final payment statements submitted by the contractor and certify the quality and quantity of completed work activities for payment after checking their consistency with the technical specifications, terms of contract and agreed quality assurance plan.
- xvii. Examine and make recommendations to the DoHW on all claims from the Contractors including variations (scope, cost and time), extension of time, compensation for work and expenses or other matters of a similar nature.
- xviii. Review and prepare any necessary variation orders after securing the employer's approval and prepare all relevant amendments to the contract including drawings to suit any modifications to the existing approved works.
- xix. Review the breakdown of unit rates and justification submitted by the contractor for the unit price of work activities relating to provisional sums identified in the BOQ and other work activities that are not included in the original contract (including variation orders), and make recommendations for the approval by the employer.
- xx. Provide timely assistance and direction to the Contractors on all matters related to the interpretation of the Contract Documents, ground survey controls, quality control, laboratory testing of construction material, work performance and other matters related to contract compliance and progress of the project.
- xxi. Organize the supervision of the works by engaging necessary full-time site personnel to ensure effective execution of the works.
- xxii. Inspect the safety aspects of the construction and temporary works to ensure that adequate measures have been taken to protect life and property.
- xxiii. Preparation of progress reports and hold consultation with the client on the progress of the works.
- xxiv. Participate in meetings of the management committee, which consist of relevant stakeholders to provide oversight and ensure stakeholder engagement throughout the project.
- xxv. Prepare and submit progress reports on the progress of works, the Contractors' performance, and the quality of works. The report should highlight problems or potential problems that may arise in connection with the works contracts and make recommendations for possible solutions.
- xxvi. Prepare and submit a final report on the completed works, the Contractors' performance, and the quality of works. The report should highlight problems experienced in connection with the works contracts and the recommended solutions.

- xxvii. Update of the Maintenance Manual in accordance with the final scope of the works.
- xxviii. Prepare as built drawings for DoHW acceptance and for Development Control Authority approval. Submissions should be made in hard copies - (3) and in electronic (AutoCAD) form.
- xxix. Certify practical completion and issue Completion Certification to the contractor.
- xxx. The Consulting Firm shall facilitate the inspection of the substantially completed works by representatives of the DoHW and Department of Infrastructure, Ports and Energy before the issuance of the Taking Over certificate.
- xxxi. Perform all other tasks not specifically mentioned above but which are necessary and essential to successfully supervise and control all construction activities in accordance with the terms of the works contract.
- xxxii. Advise on the extension of performance security

#### **Services during the Defects Liability Period:**

The Consulting Firm shall carry out inspections during the defects liability period (185 days) to assess the quality of the whole works completed, prior to issuance of the Defects Liability Certificate. Where possible defects are identified the Consulting Firm shall specify the requirements to address these defects, notify the Contractor and supervise the execution of the proposed remedial works to be carried out during the defects liability period.

This would require the Consulting Firm to undertake the following:

- i. Inspection of works periodically (at a maximum of two (2) months intervals) prior to the expiration of the Contractors six (6) months defects liability
- ii. Preparation of a final deficiency or 'snag' list for correction by the contractor, where required
- iii. Certificate on Liquidated Damages for Delay, if required.
- iv. Certificate of Final Amendment of the Contract, if required.
- v. Supervision of remedial works and make recommendations to the Client, as to the date of the final inspection of the whole works.
- vi. Carrying out Completion Inspection of Works together with the representatives of the DoHW and the Department of Infrastructure, Ports and Energy
- vii. Certificate on Removal of all Surplus Material and Site Cleared
- viii. Preparation and Issuance of the Defects Liability Certificate
- ix. Review and update the Maintenance Manual in accordance with the final scope of the works
- x. Preparation of the Final Payment Certificate (Final Account)

- xi. Certificate on Return of all Bank Guarantees (Performance Security, Environmental, Social, Health and Safety (ESHS) Performance Security and other Financial Documents)
- xii. Issuance of a No Claim Certificate.

## V. Expected Deliverables

- i. Inception Report
- ii. Preliminary design, including Technical Drawings and Specifications, and Bill of Quantities to undertake interventions to bring selected facilities to A70 rating (Phase I)
- iii. Review and “sign off” on agreed damage/disaster mitigation and green measures
- iv. Tender documents for construction (Phase I)
- v. Monthly reports for the supervision of works during construction (Phase II)
- vi. Final certification and receipt of all manuals and as-built drawings
- vii. Monthly reports on ESMP compliance including stakeholder consultations (including list of participants, date of the consultations, topics addressed during consultations, feedback received during consultations and actions to be taken to address that feedback).

## VI. Special Working Conditions of the Consultancy

The Consulting Firm will work under the supervision of a Project Officer designated by the Permanent Secretary, DoHW. The final deliverables of the consultancy will be approved by the Permanent Secretary, DoHW or whoever he/she so delegates.

## VII. Duration and Characteristics of the Consultancy

- **Type of consultancy:** Firm
- **Assignment Location:** The assignment requires extensive stakeholder consultation during the first phase of the assignment, and must be physically located on island during the second phase of the assignment. Therefore, consideration should be given to the COVID-19 situation and the proposal of strategies towards achieving the scope of works in the terms of reference (TOR).
- The consultancy will have an estimated duration of **three (3) years:**
  - Phase I – 6 months to 9 months maximum
  - Phase II – 30 months maximum



## VIII. Proposed Payment Schedule

### Phase 1: Assessment and Design

<b>Deliverable</b>	<b>Period</b>	<b>Condition</b>	<b>Percentage</b>
<b>Deliverable No. 1 Inception Report</b>	10 weeks after the signature of the contract	Inception Report containing current situation analysis, after undertaking assessments of all 14 facilities, and detailing the methodology and work plan for the intervention proposed to be undertaken and accepted by the Permanent Secretary, DoHW.	15% of the total value of the Phase 1 consultancy.
<b>Deliverable No. 2</b>	2 weeks after the inception report, deliverable 1	Preliminary design, and ESMPs to undertake interventions to bring Babonneau & Ciceron Wellness Centers to A70 rating (Phase I) accepted by the DoHW	10% of the total value of the Phase 1 consultancy
<b>Deliverable No. 3</b>	6 weeks after the inception report, deliverable 2	Preliminary design, and ESMPs to undertake interventions to bring other 12 facilities to A70 rating (Phase I) accepted by the DoHW	30% of the total value of the Phase 1 consultancy
<b>Deliverable No. 4</b>	4 weeks after deliverable 3	Monitoring and Evaluation Plan accepted by the DoHW.	15% of the total value of the Phase 1 consultancy
<b>Deliverable No. 4</b>	10 weeks after deliverable 1	Tender documents including: Tender Drawings, Technical Specifications and Bill of Quantities for construction (Phase II)	30% of the total value of the Phase 1 consultancy

**Phase 2: Supervision during construction.** The Consulting Firm shall carry out the Services in accordance with the provisions of the Contract; and the Client will make payments to the Consulting Firm in accordance with the provisions of the Contract.

## IX. Qualification and Experience

### General Areas of Expertise/Experience of the Consulting Firm

1. Minimum of ten (10) years' experience in design and construction of buildings
2. Proven record of at least three (3) completed assignments related to the health sector that demonstrate the quality of works; time of the project; scope of works; ability to conduct structural assessments related to natural hazards; ability to conduct non-structural checks related to government compliance and OECS Building Code 2015; and contract value
3. Proven ability to engage (coordination and working) with national counterparts (including senior government officials at national and state level), partners, stakeholders of Public Health;
4. The Firm shall have a team leader and at least the following team members with the following qualifications:

The Team Leader will integrate the work of the various disciplines on the Team and other ad hoc specialists. The team will comprise, but is not limited to, a Civil/Structural Engineer, Mechanical, Electrical and Plumbing (MEP) designers, an Architect, a Quantity Surveyor, and an Environmental and Social Officer. The team must consist of a locally certified Civil/Structural, Mechanical and Electrical Engineer for the approval of all drawings by the National Development Control Authority (DCA)<sup>4</sup>.

### Team Leader

- Masters' Degree in Civil Engineering or Architecture; and
- Have at least twelve (12) years working experience in the related field
- Ability and experience in coordination and project management including liaising and collaborating with multiple agencies and sectors

### OR

- Bachelor's in Civil Engineering or Architecture; and
- Have at least ten (10) years working experience in the related field
- Preferably understand the environmental, social, policy and legislative conditions in relation to construction in Saint Lucia,
- Ability and experience in coordination and project management including liaising and collaborating with multiple agencies and sectors Experience in environmental and social management activities
- Training in the HSI and Green Toolkit or any similar green building toolkit will be an asset

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<sup>4</sup> <https://realtystlucia.com/dca-checklist/>

### **Civil/ Structural Engineer**

- Bachelor's Degree in Civil or Structural Engineering;
- Have at least ten (10) years working experience in the related engineering field; and
- Knowledge and experience in designing for hazards and climate change, structural analysis, retrofit projects, experience in construction stage of projects.

### **Mechanical, Electrical and Plumbing (MEP) design lead**

- Masters' Degree in Electrical or Mechanical Engineering;
- Have at least five (5) years working experience in the related engineering field; and
- Knowledge and experience in electrical load checks; rainwater harvesting systems; PV systems; knowledge and experience in greening and climate change, healthcare facilities, retrofit projects, experience in construction stage of projects.

**OR**

- Bachelor's in Electrical or Mechanical Engineering; and
- Have at least ten (10) years working experience in the related engineering field.

### **Architect**

- Bachelor's Degree in Architecture;
- Have at least seven (7) years' experience in build designing; and
- Knowledge and experience in greening, healthcare facilities, retrofit projects, knowledge of designing for hazards, experience in construction stage of projects, climate change experience.

### **Quantity Surveyor**

- Bachelor's Degree in Quantity Surveying;
- Have at least seven (7) years' experience in building estimating; and
- Knowledge and experience preparation of bills of quantities for building projects, experience in construction stage or contract administration.

The Consulting Firm shall make provision for services of approximately thirty (30) man-months during the construction period (Phase II) for the services of the following key personnel:

- Team Leader
- Clerk of Works

Additionally, the Consulting Firm shall have on retainer the services during the construction period for the services of the following key personnel:

- Structural Engineer
- Mechanical Engineer
- Electrical Engineer
- Quantity Surveyor

#### **Clerk of Works**

- Associate Degree/Diploma in Civil/Structural/Construction Engineering; and
- Have at least Five (5) years working experience in the related engineering field

#### **Environmental and Social Officer**

- Associate Degree/Diploma in Earth Science, Safety, Social Studies, or related field and;
- Have at least Two (2) years working experience in the related fields.