**TERMS OF REFERENCE**

**Development of National Strategy to support the uptake of low global warming potential refrigerants by refrigeration and air-conditioning technicians**

**in Saint Lucia**

1. **BACKGROUND**

The Kigali Amendment to Montreal Protocol on Substances that Deplete the Ozone Layer (KA) was adopted at the 28th Meeting of Parties in 2016 in Kigali, Rwanda and entered into force on 1 January 2019, after its ratification by more than 20 countries.

The KA proposes to phase down the production and consumption of hydrofluorocarbons (HFCs) by mid-2040 and offers an opportunity to countries for flexibility in doing so according to the principle of common but differentiated responsibilities. HFCs are synthetic chemicals that are widely used in air-conditioning, refrigeration and foam insulation and are powerful greenhouse gases, more potent than carbon dioxide. As such HFCs can contribute significantly to climate change. The KA is therefore a significant milestone in international environmental protection as achievement of its objectives could help to reduce global temperature rise by about 0.5◦C by the year 2100.

The provisions of the KA include specific targets and timetables for the (i) replacement of HFCs with alternatives that have lower global warming potential (GWP) and (ii) restriction from trading in controlled substances with states that have not ratified it. The KA also highlights the importance of energy efficiency of cooling technologies and proper management of chemicals throughout their life-cycle, including the safe disposal and destruction of refrigerant gases.

In Saint Lucia, the refrigeration and air-conditioning service sector (RSS) is the main user of ozone depleting refrigerants as well as HFCs. In view of the Kigali Amendment which will drive the HFC phase-down in many countries and the ongoing concurrent phase-out of HCFCs, it is expected that between 2020-2040 most developing countries’ markets will have units running with R22, R134a, R410a, R32, R290, HFO and variety of blends. The RSS will become more complex to manage with multiple refrigerants available and suitable only for selected applications and with many alternatives presenting operational challenges due to their toxicity, high pressure and flammability. The Kigali Amendment brings to the forefront the importance of climate impacts of refrigerants and cooling technologies. Energy efficiency is another key consideration for the RSS. In this context, the competence of the servicing sector in installation, maintenance, repair, and disposal of equipment becomes critical. The focus on the Hydrochlorofluorocarbon Phase out Management Plan (HPMP) and future HFC phase down related projects should be on building a sustainable system to support the refrigeration servicing sector, which will in turn be able to support the safe adoption of alternatives consistent with national phase-down obligations.

The new alternatives to existing ODS refrigerants are toxic and flammable and so requires that additional safety measures be employed by refrigeration technicians when using these alternatives. Currently, there is a low uptake of low GWP alternatives technology on the local market however, when Saint Lucia accedes the Kigali Amendment, it is expected that low GWP alternatives will be adopted as the most suitable replacement for HFCs in the refrigeration servicing sector (RSS).

The Government of Saint Lucia is currently undertaking a project entitled “Kigali Amendment Enabling Activities Project” which seeks to facilitate the ratification of the Kigali Amendment and related revision of the licensing system, as well as capacity building and demonstration projects and other related activities for adopting alternatives to HFCs.

The Project consists of four components described below:

* Component 1 Facilitate ratification of the Kigali Amendment: The objective of this component is to attain a broader understanding of the requirements under the Kigali Amendment (KA) and to prepare the necessary instruments in support of ratification.
* Component 2 Capacity-building & training for alternatives: This component seeks to enhance capacity within the RAC servicing sector for the management of alternatives through their life cycle (use, storage, transportation and disposal).
* Component 3: Article 4B licensing & Reporting: The objective of this component is to strengthen the existing regulatory import/export licensing system to include HFCs and HFC alternatives.
* Component 4: Development of National Strategies: This component seeks to effect a change in the mindset of the RAC servicing sector towards low GWP and flammable refrigerants and to increase the uptake of their technologies.
1. **OBJECTIVE**

To achieve greater acceptance by the refrigeration servicing sector of low GWP and flammable refrigerants and to increase the uptake of related technologies. The consultancy responds to component 4 of the Kigali Amendment Enabling Activities Project.

1. **METHODOLOGY**

This assignment will involve desk research and literature review, focused surveys, interviews and consultation workshops with key stakeholders. The Consultant will work closely with the NOU and UN-Environment to complete the assignment.

1. **SCOPE OF SERVICES REQUIRED**

The specific tasks to be undertaken by the Consultant/s will include:

Task 1: Prepare a work plan

An inception meeting will be held between the Consultant/s and other relevant stakeholders to (i) review and discuss the process for conducting the assignment, (ii) determine roles and responsibilities (iii) identify preliminary background information related to the assignment and (iv) finalize a draft work plan and timetable. The final work plan will be prepared by the Consultant and submitted for approval by The Department of Sustainable Development. This work plan will guide this assignment to facilitate timely completion of all tasks and satisfactory end results.

Task 2: Conduct a Knowledge Attitude and Practice (KAP) survey to assess the knowledge level, perceptions and barriers to acceptance of the refrigeration servicing sector of Low GWP and flammable refrigerants

1. Identify and select enumerators
2. Organise training workshop for enumerators
3. Prepare work plan for enumerators
4. Design and produce required copies of the survey instrument
5. Oversee execution of survey and collection of all completed surveys
6. Analyse findings
7. Prepare and submit report based on findings. (The consultant will present a preliminary report to the Department of Sustainable Development of the survey findings for consideration and discussion, before finalisation).

Task 3: Develop a National Strategy on Low GWP alternatives informed by results of the KAP study. The strategy should aim to change the mindset in the refrigeration servicing sector regarding low GWP alternatives, and provide an approach to introducing low GWP alternatives.

1. **DELIVERABLES**

The Consultant/s is expected to deliver the following outputs:

* 1. An inception report, of a Work Plan at the start of the contract period
	2. A Knowledge Attitude and Practice(KAP) Survey report for the Refrigeration Servicing Sector regarding Low GWP and flammable refrigerants
	3. A National Strategy aimed at changing the mindset in the refrigeration servicing sector regarding low GWP alternatives, and provide an approach to introducing low GWP alternatives.
1. **REQUIREMENTS FOR EDUCATION AND EXPERIENCE**

The Consultant/s is expected to possess skills and at least six (6) years experience in the following areas:

1. Mass communications
2. Survey design and implementation
3. Statistical analysis of survey data
4. **REMUNERATION**

The Consultant is required to submit a bid for evaluation, following which negotiations will be held with the successful applicant. In the assessment of submissions, consideration will be given to technical competence, qualifications and experience, demonstrated local and regional experience on similar assignments, proposed cost and existing commitments.

1. **TIMEFRAME**

The Consultant will be contracted for a period not exceeding five (5) months.

1. **SUBMISSION**

Bidders are required to submit two (2) hard copies of their proposal, including both the technical and financial proposals, in a sealed envelope clearly marked **“Consultancy: Development of National Strategy to support the uptake of low global warming potential refrigerants by refrigeration and air-conditioning technicians**

**in Saint Lucia”.**

Submissions must be made to the following address no later than 12 noon on Tuesday 31 December, 2019

**The Secretary**

**Department Tenders Board**

**Department of Sustainable Development**

**Georgiana Court**

**John Compton Highway**

**Vigie**

**CASTRIES**