



# Legal Consultant to Support the Ratification of the Kigali Amendment

**Final Report** 

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### Acronyms

CEO	Chief Executive Officer
CFCs	Chlorofluorcabons
GHGs	Greenhouse Gases
GoJ	Government of Jamaica
HCFCs	Hydrochlorofluorocarbons
HFCs	Hydrofluorocarbons
JARVA	Jamaica Air-Conditioning, Refrigeration and Ventilation Association
JCA	Jamaica Customs Agency
MAJ	Maritime Authority of Jamaica
MEGJC	Ministry of Economic Growth and Job Creation
MICAF	Ministry of Industry, Commerce, Agriculture and Fisheries
NEPA	National Environment and Planning Agency
ODS	Ozone Depleting Substance
RAC	Refrigeration and Air Conditioning
UNDP	United Nations Development Programme

### Acknowledgement

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The Consultant also acknowledges the inputs of Professor Noel Brown, Caribbean Maritime University, Dr. Earl Wilson, University of Technology and Mr. Colin Roberts, President of JARVA.

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### **Executive Summary**

The main approach has been to review the text Kigali Amendment to the Montreal Protocol<sup>1</sup> and also to examine the existing policy and legislative and institutional framework within which the Kigali Amendment will be implemented. Consideration has also been given to the timetable and methodology for the implementation of the Kigali Amendment to the Montreal Protocol. Interviews were also conducted with relevant stakeholders from key government agencies and the private sector.

The Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) a protocol to the Vienna Convention for the Protection of the Ozone Layer (a Protocol of the Vienna Convention for the Protection of the Ozone Layer is an international treaty designed to protect the ozone layer by phasing out the use of ozone-depleting substances such as chlorofluorocarbons (CFCs). It is widely considered to be the most successful international environmental protection agreement.

The Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer reached agreement at their 28th Meeting of the Parties on 15 October 2016 in Kigali, Rwanda to phase down hydrofluorocarbons (HFCs) – the Kigali Amendment.

The Kigali Amendment requires developing countries such as Jamaica to begin phasing down HFCs in 2019. Most developing countries will follow with a freeze of HFC consumption levels in 2024, and some in 2028. The phase down schedule will see developed countries phase down HFC consumption by 85 per cent of their calculated baseline by 2036, with developing countries achieving this reduction by 2045.

This Amendment is one of the most significant the global community has made towards keeping the global temperature rise "well below" 2 degrees Celsius, a target agreed at the Paris climate conference in 2015 and referred to in the Paris Agreement on climate change.

Kigali amendment entered into force on 1<sup>st</sup> January 2019 (in November 2018 20 countries acceded to the Kigali Amendment).

As at 21<sup>st</sup> December 2018 ratification to the Kigali Amendment were received from 65 countries. As at February 1, 2019 there were ratifications received from 69 countries. These include-

Trinidad and Tobago (17/11/17) Barbados (19/4/2018) Grenada (29/5/2018)

Montreal Protocol parties continue to ratify the Amendment, which has so far been ratified by 48 parties. The parties, listed alphabetically, are: Austria, Australia, Barbados, Belgium, Benin, Bulgaria, Burkina Faso, Canada, Chile, Comoros, Costa Rica, Côte d'Ivoire, Czech Republic, Democratic People's Republic of Korea, Ecuador, Estonia, European Union,

<sup>&</sup>lt;sup>1</sup>Jamaica is a party to the Montreal Protocol

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Finland, France, Gabon, Germany, Greece, Grenada, Guinea Bissau, Hungary, Ireland, Kiribati, Lao People's Democratic Republic, Latvia, Lithuania, Luxembourg, Malawi, Maldives, Mali, Marshall Islands, Mexico, Micronesia (Federated States of), Netherlands, Niger, Niue, Norway, Palau, Panama, Paraguay, Portugal, Rwanda, Samoa, Senegal, Slovakia, Sri Lanka, Sweden, Switzerland, Togo, Tonga, Trinidad and Tobago, Tuvalu, Uganda, United Kingdom of Great Britain and Northern Ireland, Uruguay, Vanuatu.

Under the Amendment, all countries will gradually phase down HFCs by more than 80 per cent over the next 30 years and replace them with more planet-friendly alternatives.

Developed countries will start reducing HFCs as early as 2019, while developing countries will start later. Phasing down HFCs under the Protocol is expected to avoid up to 0.5°C of global warming by the end of the century, while continuing to protect the ozone layer.

In respect of trade in HFCs with non-parties to the Kigali Amendment the following provision applies-

"...The changes to Article 4 of the Protocol, Control of trade with non-Parties, set out in Article I of this Amendment shall enter into force on 1 January 2033, provided that at least seventy instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer.

In essence, under the Kigali Amendment there will be a gradual phase down of currentlyused HFCs to allow for a more cost-effective transition to next generation technologies such as hydrofluoroolefins (HFOs) which have significantly less environmental impact.

The phase down of the production and consumption of HFCs under the Kigali Amendment aims to cut emissions of HFCs used in items like aerosols and refrigerants as HFCs are powerful warming agents.

HFCs are commonly used alternatives to ozone depleting substances (ODS). While not ozone depleting substances themselves, HFCs are greenhouse gases which can have high or very high global warming potentials (GWPs) relative to CO<sub>2</sub>.

The phase down of HFCs under the Montreal Protocol has been under negotiation by the Parties since 2009 and the successful agreement on the Kigali Amendment (Decision XXVIII/1 and accompanying Decision XXVIII/2) continues the historic legacy of the Montreal Protocol.

The policy, institutional and legal framework established in Jamaica to support the phase out of HCFC's was examined and adjustments made, as necessary, to support the phase down of HCFCs and phase down of HCFCs. New legislation is needed to implement the Kigali Amendment. In addition, administrative arrangement will also be necessary for the full implementation of the Kigali Amendment and these are more fully discussed in the text of this document.

The key recommendations proposed in this Report include:

- a) Extending the regulatory framework to monitor and control trade in HFCs. The key elements will include quotas, phase-down of imports of HFC-based equipment at the appropriate time and labelling of refrigerants and equipment;
- b) Training of enforcement personnel to ensure compliance with the expanded regulatory regime;
- c) Introduction of market-based incentives/disincentives to encourage wider applications of emerging environmentally friendly refrigerants;
- d) Closer collaboration with industry stakeholders, particularly Jamaica Air Conditioning, Refrigeration and Ventilation Association (JARVA) ; and
- e) Finalization of policies for the safe handling, transportation and storage of refrigerants.

### 1.0 Background

Hydrofluorocarbons (HFCs) are purely man-made substances commonly used as cooling agents for various purposes, such as air-conditioning, refrigeration systems, fire retardants, and solvents for cleaning products. They are classified as short-lived climate pollutants (SLCPs), generally staying in the atmosphere for shorter periods than greenhouse gases such as carbon dioxide.

HFCs were manufactured as substitutes for ozone-depleting substances (ODS) such as CFCs and HCFCs. The ODS phase-out has led to the gradual recovery of the ozone layer, which is necessary for maintaining environmental stability.<sup>2</sup>

Nearly half (47 percent) of global HFC consumption comes from refrigeration and nonmobile air-conditioning from residential and commercial areas. Around a quarter (24 percent) of HFC use is for automobile air-conditioning, and 11 percent comes from industrial foaming agents.

However, HFCs have high global warming potential (GWP), or a measure of how much heat a greenhouse gas traps in the atmosphere. For instance, HFC-23, a common refrigerant and fire suppressant, has a GWP that is 14,800 times higher than that of carbon dioxide. Its emissions have also increased six-fold from 1978 to 2005. One of the most common air-conditioning SLCPs, HFC-134a was previously undetected before the 1990s.

Currently, HFCs are responsible for only 1 percent of global warming. However, higher temperatures will lead to increased emissions due to a projected increased usage of air-

<sup>&</sup>lt;sup>2</sup>CFC phase out was in 2010; HCFC phase out is 2040.

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conditioning and refrigeration among consumers, especially in developing nations. Without proper measures to reduce emissions, HFCs would constitute around 7-19 percent of total greenhouse gas emissions by 2050. A study<sup>3</sup> published in 2013 reveals that an accelerated global HFC phasedown can prevent a 0.5 degree Celsius of global warming by 2050, which is around 90 percent of the temperature increase they would have caused otherwise. This makes the HFC phasedown important for achieving the 1.5-degree Celsius target under the Paris Agreement. Thus, it is crucial for all countries to rapidly reduce their emissions.

The Kigali Amendment was adopted in October 2016 in Rwanda as an addition to the Montreal Protocol, one of the most successful international agreements on environmental protection in history. Aiming to reduce HFC emissions, it will enter into force on January 1, 2019 after having been ratified by at least 20 States.

Under the Amendment, Parties will commit to an HFC phasedown based on the principle of "common but differentiated responsibilities and respective capabilities". Developed countries (or non-Article 5 Parties) will follow a more stringent reduction schedule, needing to cut 85 percent of their emissions by 2036.

The Kigali Amendment to the Montreal Protocol proposes different HFCs phase down schedules for developed countries and for developing countries (as defined in the Article 5 of the Montreal Protocol).

The key obligations of a party that has ratified the Kigali Amendment are as follows<sup>4</sup>-

- The Montreal Protocol is amended to include a new Annex F which lists HFCs, separated into two groups.
- Article 5 and non-Article 5 parties are required to phase down the production and consumption of the HFCs listed in Annex F.
- Article 5 and non-Article 5 Parties are each divided into two groups with different baseline years and phase down schedules. Article 5 countries are divided in 2 groups: Group 2: countries with high environmental temperatures (Arabian countries) and Group 1 the other countries. The schedules are different for each group.
- Carbon dioxide equivalents (CO2, eqCO<sub>2</sub>eq) are used to measure production, consumption, imports and exports as well as consumption and production baselines and emissions from HFC-23 which is in group 2 of Annex F.
- Baselines are calculated from both HFC and HCFC production and consumption. There is a new Baseline (BL) for HFCs, but the BL for HCFC is the BL before (period 2009-2010). And BL definition is Consumption= Production + Imports Exports.

<sup>&</sup>lt;sup>3</sup> The text at <u>http://web.unep.org/ozonaction/who-we-are/about-montreal-protocol</u> states .......global CO<sub>2</sub> emissions by 2050...;

<sup>&</sup>lt;sup>4</sup> Briefing Note – Ratification of Kigali Amendment UN environment, United Nations Environment Programme, Ozone Depleting Secretariat (February, 2017).

- Destruction of HFC-23 emissions to the extent practicable is required using technologies approved by the parties<sup>5</sup>.
- Import and export licensing systems for HFCs must be in place by 1 January 2019, except that an Article 5 party that decides it is not in a position to meet that deadline may delay until 1 January 2021.
- Trade in HFCs with States that have not ratified the Amendment must be banned from 1 January 2033 (provided that at least 70 parties have ratified the Amendment, otherwise restrictions are applied on the 90<sup>th</sup> day following the 70<sup>th</sup> instrument of ratification).
- High ambient temperature parties have an exemption. Other exemptions will be also considered.
- Monitoring and reporting of HFC production and consumption, and HFC-23 emissions where relevant, is required.

#### **Ratification Process**

The process to ratify the Kigali Amendment involves three steps:

- Ratification at a national level, in accordance with the constitutional provisions of each Party.
- Execution of an instrument of ratification (i. e. acceptance or approval) by the Head of State, Head of Government, or Minister for Foreign Affairs of the Party. Model instruments are available on the United Nation Treaty Collection website.
- Deposit of the instrument of ratification by delivering the relevant instrument, by hand or by mail, to the Treaty Section of the United Nations in New-York. The status of ratification of the Kigali Amendment is regularly updated by the United Nations.<sup>6</sup>

The Montreal Protocol (UNEP, 2007) has successfully worked to phase out the use of ozone depleting substances (ODSs) primarily by substituting the use of chlorofluorocarbons (CFCs) and hydrochloroflourocarbons (HCFCs) with hydrofluorocarbons (HFCs) in various sectors such as refrigeration, air-conditioning, aerosols, fire extinguishers and foam blowing. As well, HFC-23 is generated as a by-product of HCFC-22 production for feedstock and emissive use. The high Global Warming Potential (GWP) of HFCs replacing ODSs is a climate concern and the reason behind the Kigali Amendment of the Montreal Protocol adopted during the 28th Meeting of the Parties 8-14 October 2016 in Kigali, Rwanda (UNEP, 2016a) to phase down the use of HFCs globally by 2050. HFC emissions have increased significantly in recent years and can without a targeted HFC phase down be expected to rise further in response to increased demand for cooling services and the phase-out of ODSs.

<sup>&</sup>lt;sup>5</sup> This is applied only for production of HFC-23

<sup>&</sup>lt;sup>6</sup>No reservations may be made to the Kigali Amendment in accordance with Article 38 of the Montreal Protocol.

The Kigali Amendment sets targets for the phase down of HFCs consumption for four different Party groups. The first group<sup>7</sup> primarily includes 136 developing countries that make up all Article 5 countries as specified under the Montreal Protocol with the exception of Bahrain, India, Iran, Iraq, Kuwait, Oman, Pakistan, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). These ten countries are characterized by high ambient air temperatures and make up a second and separate group of Article 5 countries. Countries specified as non-Article 5 countries under the Montreal Protocol are primarily developed countries and under the Kigali Amendment are divided into two separate groups with 45 countries in a first group and five countries, namely Belarus, the Russian Federation, Kazakhstan, Tajikistan and Uzbekistan comprising a separate second group. Table 1 presents the baseline years and HFC phase down schedule of Article 5 and non-Article 5 Parties. These four Party groups can be referred to as Article 5 Group I, Article 5 Group II, non-Article 5 Group I, and non-Article 5 Group II.

#### Licensing and Reporting of HFCS

- Article 7 requires each party to provide to the Secretariat statistical data on its production, import and export of each HFC listed in Annex F;
- Each party is also required to report statistical data on production, production for feed stocks, amounts destroyed, imports and exports to parties and non-parties respectively;
- Each party must report statistical data on emissions of HFC-23 per facility manufacturing Annex C or Annex F substances.
- The reporting begins for each party upon entry into force of the Kigali Amendment for the party and is to be submitted annually.
- Parties must report the establishment and operation of the licensing systems within three months of their introduction.

<sup>&</sup>lt;sup>7</sup>Jamaica is within this group.

#### TABLE 1: Article 5 Parties

Developing countries (also called Article 5 Parties): They are divided into two groups:<sup>8</sup>

Group 2	Group 1
Bahrain, India, Iran, Iraq, Kuwait, Oman,	The 137 other Parties of the Montreal
Pakistan, Qatar, Saudi Arabia, and the United	Protocol.
Arab Emirates.	

The HFCs phase down schedule depends on the level of development of each Party. It is summarised in the following table and graphs:

	Article 5:	Group 1	Article 5:	Group 2	Non A (Main gro	rticle 5 oup)	Non A (exceptio	Article 5 ons)
Baseline Formula	for 2020,	HFC tion levels , 2021 & 65% of aseline	for 2024,	HFC tion levels , 2025 & 65% of aseline	-	HFC tion levels 2012 & 15% of seline	-	tion levels , 2012 & 25% of
Freeze	20	24	20	28				
Step 1	2029	-10%	2032	-10%	2019	-10%	2020	-5%
Step 2	3035	-30%	2037	-20%	2024	-40%	2025	-35%
Step 3	2040	-50%	2042	-30%	2029	-70%	2029	-70%
Step 4	2045	-80%	2047	-85%	2034	-80%	2034	-80%
Plateau					2036	-85%	2036	-85%

#### TABLE 2: PHASE-DOWN COMMITMENTS: CALCULATING THE HFCS BASELINE

Formula for the calculation of HFCs Baseline	Article 5 (develo		Non-Article 5 Parties (developed and some of CEIT)		
(in CO2-eq)	Group 1*	Group 2**	5 Countries***	All Others	
HFCs	Average 2020-2022	Average 2024-2025	Average 2011-2013	Average 2011-2013	
Baseline = Average HFCs in base years	+	+	+	+	
% of HCFCs Baseline	65% of the Baseline	65% of the Baseline	25% of the Baseline	15% of the Baseline	

#### Baseline is calculated in CO2-equivalent.

\*Group 1 Article 5 Countries - all developing countries not part of Group 2.

\*\*Group 2 Article 5 Countries

Algeria, Bahrain, Benin, Burkina Faso, Central African Republic, Chad, Côted'Ivoire, Djibouti, Egypt, Eritrea, Gambia, Ghana Guinea, Guinea-

Bissau, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Libya, Mali, Mauritania, Niger, Nigeria, Oman, Pakistan, Qatar, Saudi Arabia, Senegal, Sudan, Syrian Arab Republic, Togo, Tunisia, Turkmenistan, United Arab Emirates.

\*\*\*Belarus, Kazakhstan, Russian Federation, Tajikistan, and Uzbekistan.

<sup>&</sup>lt;sup>8</sup>Jamaica would be categorized as a Group 1 country

#### Use of HFCs in Jamaica

Bulk HFCs are not manufactured in Jamaica, but are imported. The imported HFCs are used by domestic manufacturers in refrigeration and air-conditioning equipment in homes, commercial and industrial facilities, as well as for air conditioning in vehicles. Smaller amounts are used in foam products, aerosols, such as metered dose inhalers, fire protection services and solvents.

#### Alternatives to HFCs

Alternatives available in most sectors include either synthetic lower global warming HFCs or hydrofluoroolefins (HFOs), or natural alternatives. The alternatives can have increased health and safety risks due to higher pressure, flammability or toxicity.

Below is a summary of the sectors that are currently using HFCs, some of these are generally imported pre-charged, i.e., 'in the product'. 'Pre-charged equipment' is outside the scope of the phase down; however, in the event of a leakage, equipment would need to be serviced by bulk HFC imports. There are five main market sectors using HFCs:

- refrigeration and air-conditioning (main user):
  - commercial refrigeration
  - industrial refrigeration
  - o transport refrigeration
  - domestic refrigeration
  - $\circ$  chillers
  - mobile air conditioning
- foam insulation
- aerosols
- fire protection systems
- solvents

#### Costs and Benefits of Phasing Down HFCs

The actual cost implications of a phase down of HFCs will vary from user to user.

### 2.0 Key Requirements of the Kigali Amendment

Becoming a party to the Kigali Amendment will involve some of the following aspects/issues:

- adapting existing laws or introducing new ones to achieve the HFC phase down;
- extending the ODS import and export licensing system to cover HFCs;

- adequate arrangements for monitoring and reporting of HFC production and consumption;
- putting in place, where appropriate, any practical arrangements that may be required for customs officers to assume extra responsibilities concerning HFCs;
- surveying existing HFC consumption and production;
- developing the resources to report under the Amendment; and
- developing a strategy for HFC phase down, including monitoring and enforcement.
- Provision for enforcement of laws that implement the Protocol.

(Source: Briefing Notes – Ratification of the Kigali Amendment, UNEP Ozone Secretariat, Feb. 2017).

The Kigali Amendment controls the importation and exportation of certain bulk HFCs, such as those bought in cylinders. Substances in the scope of the Kigali Amendment are:

- Imports of the 18 HFCs included in Table 3.
- HFC components of a blended substance being imported (HFCs are often used in blends with a range of HFCs, or with other substances). Non-HFC components of the blend will not be covered.

Out of scope of the Kigali Amendment:

• HFCs in products ('pre-charged' equipment, e.g., HFCs imported in a refrigerator) are not covered by the Kigali Amendment. The consumption of bulk HFCs used to fill new equipment will be counted as that of the country in which the equipment was filled.

#### Hvdrofluorocarbon **100-year global warming Chemical compound** Substance name potential CHF2CHF2 HFC-134 1,100 CH2FCF3 HFC-134a 1,430 HFC-143 353 CH2FCHF2 HFC-245fa 1,030 CHF2CH2CF3 794 CF3CH2CF2CH3 HFC-365mfc 3,220 CF3CHFCF3 HFC-227ea CH2FCF2CF3 HFC-236cb 1,340 CHF2CHFCF3 HFC-236ea 1,370 CF3CH2CF3 HFC-236fa 9.810 CH2FCF2CHF2 HFC-245ca 693 CF3CHFCHFCF2CF3 HFC-43-10mee 1,640 675 CH2F2 HFC-32 CHF2CF3 HFC-125 3,500 4,470 CH3CF3 HFC-143a CH3F HFC-41 92 CH2FCH2F HFC-152 53 CH3CHF2 HFC-152a 124 HFC-23 CHF3 14.800

### Table 3: Eighteen HFCs<sup>9</sup> included in the Kigali Amendment

### Preferred Option (for inclusion in the import permitting system)

It is proposed that there be import permits for the 18 bulk HFCs, outlined above, to comply with international obligations.<sup>10</sup>

#### Implementing the Kigali Amendment

There are both legal and administrative requirement for implementing the Kigali Amendment.

<sup>&</sup>lt;sup>9</sup> Applications for import of HFC from this list would see HFC-134 being the most commonly applied for. A small number of importers have also applied for other HFCs such as HFC-404A, HFC-407A/B/C, HFC-410A. The phase out is specifically in respect of matters set out in Table 3.

<sup>&</sup>lt;sup>10</sup>It is understood that the Ministry of Health already issues import permits but the legal basis for this is not clear. Also a quota system for importers to support the phase down process is required.

### Required Legislation

The Legislation that must be put in place will be legislation to enable the implementation of the Kigali Amendment.

#### Required Administration System

The following systems are required:

- a) Monitoring and reporting of HFCs: a system to monitor the production<sup>11</sup>, import and export of HFCs is required. Annual data will need to be reported to the Montreal Protocol Secretariat.
- b) Licensing of the quota for the production and import of HFCs: a system to licence the production and import of HFCs is required to ensure that the phase-down targets are met. This also requires a quota allocation method to define which companies are allowed to produce or import HFCs.<sup>12</sup>
- c) Verification of imports: customs officials need an administrative system to check that imports are being made only by companies holding a quota allocation.

#### Monitoring and Reporting

Under the existing Montreal Protocol, each Party collects data on production, import and export of bulk ODS and reports summary data on an annual basis to the Montreal Protocol Secretariat. The administrative systems to collect this data must be extended to include data about all the HFCs listed in Annex F of the amended Protocol.

Reporting must start no later than for the beginning of the baseline period and must be carried out annually thereafter. See Kigali Fact Sheet 5 for details of the baseline periods for each group of countries under the Kigali Amendment. For most Article 5 countries (A5 Group 1) the baseline period is 2020 to 2022. For A5 Group 2 countries the baseline period is 2024 to 2026.

There are significant benefits to setting up a reporting system as soon as possible, without waiting for the start of the baseline period. Without good data on current HFC consumption it will be very difficult to start making plans for the HFC phase-down. See Kigali Fact Sheet 6 for guidance on the data required to develop an HFC phase-down strategy.

<sup>&</sup>lt;sup>11</sup> In the case of Jamaica there is no production of HFCs. However the draft legislation could ban any future production.

<sup>&</sup>lt;sup>12</sup> The legislation will outline the procedure for import and export.

#### Licensing and Allocation of Quotas

An administrative system to monitor and control the levels of HFC production and consumption is required in order to meet the Kigali Amendment phase-down obligations. The required system will be an extension to the existing system used to control the phase-out of ODS.

The Montreal Protocol specifies the need for a licensing system. Article 4B, paragraph 2bis states:

"Each Party shall, by 1 January 2019 or within three months of the date of entry into force of this paragraph for it, whichever is later, establish and implement a system for licensing the import and export of new, used, recycled and reclaimed controlled substances in Annex F. Any Party operating under paragraph 1 of Article 5 that decides it is not in a position to establish and implement such a system by 1 January 2019 may delay taking those actions until 1 January 2021".

The requirements to licence the import and export of new, used, recycled and reclaimed HFCs are precisely the same as the current requirements for licencing of HCFCs.<sup>13</sup>

The licencing system needs to be linked to a methodology for allocating the rights to produce or import HFCs to individual companies. The method of doing this is not prescribed in the Montreal Protocol – each Party is free to implement a suitable system – often referred to as a quota allocation method. It is likely that the quota allocation method currently used for HCFCs can be extended for the control of HFCs. The most commonly used allocation method is "grandfathering", which creates an allocation based on the activities of individual producers or importers during the baseline period. However, other methods such as auctions can also be considered.

#### Verification of Imports

It is important that all HFCs being imported have received a quota allocation via the licencing system. An administrative system needs to be put in place to enable customs officials to check that importers hold the required licence.

### 3.0 Existing Policies

There are not many policies that directly relate to the Kigali Amendment. However, given that one of the main objectives of the Kigali Amendment is to reduce greenhouses gases the Climate Change Policy Framework would have some relevance. In particular as the Climate Change Policy Framework has received Cabinet approval this would provide a policy framework for the ratification of the Kigali Amendment.

<sup>&</sup>lt;sup>13</sup> A policy needs to be developed for the disposal of used, recycled or reclaimed HFCs.

#### Vision 2030

While the Vision 2030 Jamaica National Development Plan does not speak explicitly to the Kigali Amendment, Outcome 14.4 speaks to contributing to the effort to reduce the global rate of climate change and makes reference to implementing mitigation measures to reduce greenhouse gas emissions.

Climate Change Policy Framework

The Climate Change Policy Framework for Jamaica is intended primarily to support the goals of Vision 2030 by reducing the risks posed by climate change to all of Jamaica's sectors and development goals. It outlines the objectives, principles and strategies that the country will employ in order to effectively respond to the impacts and challenges of climate change, through measures which are appropriate for varying scales and magnitudes of climate change impacts. A number of Special Initiatives have been identified for early implementation.

Specifically, the goal of the Policy Framework is to create a sustainable institutional mechanism to facilitate the development, coordination and implementation of policies, sectoral plans, programmes, strategies, and legislation to address the impacts of climate change.

The objectives of the Policy Framework are:

- To mainstream climate change considerations into national policies and all types and levels of development planning and to build the country's capacity to develop and implement climate change adaptation and mitigation activities.
- To support the institutions responsible for research, data collection, analysis and projections at the national level on climate change, its impacts, and appropriate adaptation and mitigation measures, to facilitate informed decision-making and strategic actions at all levels.
- To facilitate and coordinate the national response to the impacts of climate change and promote low carbon development.
- To improve communication at all levels on climate change impacts and also adaptation and mitigation related opportunities so that decision makers and the general public will be better informed.
- To mobilize climate financing for adaptation and mitigation initiatives.

# Draft National Policy and Strategy for the Environmentally Sound Management of Hazardous Waste

The (draft) National Policy and Strategy for the Environmentally Sound Management of Hazardous Waste is based on an integrated life cycle approach to hazardous wastes management from generation to reuse/recovery/refurbishment/final disposal. It also provides guidance to public sector decision-makers, the private sector, public interest non-

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governmental organization and the general public on issues related to the management of hazardous wastes, including the special arrangements for labelling, packaging, storage, transportation and treatment.

The Policy points out that none of the island's solid waste disposal sites are engineered or sufficiently equipped to treat or dispose of hazardous waste in a manner that provides for environmentally sound management. In addition, it is pointed out that there is no centralized facility for the interim storage or treatment of hazardous waste.

### 4.0 Existing Jamaican Legislation

As the Kigali Amendment is new there is no specific legislation that is applicable to the Kigali Amendment. What is required is the enactment/promulgation of new legislation. However several pieces of legislation are relevant to the ratification and implementation of the Kigali Amendment. These include the Trade Act (a new Order could be promulgated under this Act to implement the Kigali Amendment), Customs Act (relevant to imports and exports), the Standards Act (standards could be promulgated under this Act), the Natural Resources Conservation Act and the Natural Resources (Permits and Licences) Regulations, 1966 as amended and the Natural Resources (Hazardous Waste) (Control of Transboundary Movement) Regulations are relevant to aspects of the Kigali Amendment.

#### Trade Act

Section 8(b) of the Trade Act empowers the Minister to prohibit the importation or exportation of goods or any class or description of goods from or to any country except under the authority of a licence granted by the Minister. Section 2 of the Trade Act defines "import" as to bring or to be concerned in bringing into Jamaica or the territorial waters thereof, and "importation" shall be continued accordingly.

Trade Act, section 8 empowers the Minister through the use of Orders to control imports and exports. The following Orders were promulgated in respect of ODS:

- The Trade (Prohibition of Importation) (Equipment Containing Chlorofluorocarbons) Order, 1998 [Prohibition Order] bans with effect from March 1, 1998 the importation of equipment and appliances which use or contain CFCs. It also prohibits the importation of certain aerosols, foams, solvents and fire-fighting equipment. A oneyear grace period was allowed for the importation of CFC-based mobile-air conditioning (MAC) systems, so that the ban on MAC imports actually came into effect on March 1, 1999.
- Trade (Restriction on Importation) (CFCs) Order, 1999, to comply with its Montreal Protocol obligations to freeze and subsequently phase out the importation of CFCs. This legislation provides a schedule for phasing out importation of CFCs through the administration of quotas for importers covering the period July 1999 to December 2005. By virtue of the Restriction Order, CFCs could only be imported under a permit issued by the Ministry of Health/Pharmaceutical and Regulatory Affairs

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Division. Import permits are based on the country's baseline consumption and the CFC consumption quotas allowed

• The Trade (Prohibition of Importation) (Halon) Order, 2002 banned the importation of virgin Halons effective July 2002. It supported the Halon Bank Management Plan for the Caribbean Region.

All the above Orders were repealed and replaced by the Trade (Montreal Protocol) (Trade in Ozone Depleting Controlled Substances) Order, 2014 which revised and consolidated the legislative framework in respect of the trade in Ozone Depleting Substances.

This 2014 Order seeks to regulate the importation of ODS, ensuring that imports to Jamaica do not exceed the prescribed quota for each party. An annual quota allocation is given to each entity, where failure to comply constitutes a breach of the Trade Order.

Paragraph 2 of the Order defines "State Party" as meaning a party to the Montreal Protocol.

Paragraph 3(1) of the Trade (Montreal Protocol) (Trade in Ozone Depleting Controlled Substances) Order, 2014 Order imposes a prohibition on the import of controlled substances identified in-

- a) Annex A Group 1 and Group 2
- b) Annex B Group 1
- c) Annex C Group 1
- d) Annex C Group 2
- e) Annex C Group 3

of the Montreal Protocol.

Also paragraph 3(2) imposes a prohibition on the importation of any equipment specified in the Second Schedule containing or using the chlorofluorocarbons specified in Annex A Group 1 of Annex B Group 1 of the Montreal Protocol.

Paragraph 3(3) provides that sub-paragraph (2) shall not apply to the importation of chlorofluorocarbon-based propellants in metered dose inhalers.

Sub-paragraph 6 specifies that no person shall import a controlled substance in breach of the conditions of a licence granted to that person under the Order.

Paragraph 3 of the Order imposes a prohibition on the import of hydro-chlorofluorocarbons unless-

- a) that person is a company specified in Part 1 of the First Schedule of the Order;
- b) the company has been issued a licence to import HCFC under this Order;

c) the hydro-chlorofluorocarbons are of a type approved for import (hereinafter referred to as "HCFC") as specified in Part II of the First Schedule and are imported from a State Party.

Paragraph 6 of the Order specifies the procedure for applying to import HCFC and specifies that an application shall be made to the Minister in the form set out in Form 1 in the Third Schedule.

Paragraph 7 of the Order makes provision for an import quota system for the importation of HCFC. This import quota system means the amount of HCFC allocated for the import of a particular period specified in the First Schedule of the Order.

Paragraph 9 imposes a prohibition on the importation of methyl chloroform except under a licence. Sub-paragraph (3) permits a university, college, or other institution conducting research or experiments requiring the use of methyl chloroform for research or experimental purpose may apply to the Minister for a licence to import methyl chloroform from a State Party.

Paragraph 10 imposes a prohibition on the importation of carbon tetrachloride except under a licence.

Subparagraph (3) allows a university, college or other institution conducting research experiments requiring the use of carbon tetrachloride for research or experimental purposes to apply for a licence to import carbon tetrachloride from a State Party.

Under paragraph 11(1) where a person imports HCFC in a breach of its annual quota the Minister may-

- reduce the annual quota of HCFC in respect of any year in which the company next makes an application to import HCFC after the year in which the breach occurs;
- require the company, at its expense, to export for disposal the quantity of HCFC imported in breach of its annual quota allocation;
- revoke the company's licence to import HCFC.

The permit and licence system established under the Trade (Montreal Protocol) (Trade in Ozone Depleting Controlled Substances) Order has been effective to control the import and export of ODS. Many of the provisions of this Order can be adapted to meet the requirements of the HFC phase down requirements of the Kigali Amendment.

#### Customs Act

Under section 210 of the Customs Act there is a penalty for evading customs laws regarding the importation or exportation of goods. Further section 211 imposes a penalty in relation to persons who import, export or cause to be imported or exported or attempt to export goods that are concealed in any way. Section 209 also imposes a penalty for false declaration.

#### Standards Act

Under section 7(1) of the Standards Act, the Bureau shall formulate for the Minister specifications for such commodities, processes and practices. By section 7(2) the Bureau on formulating a specification may, with the consent of the Minister, declare it to be a standard specification for the commodity, process or practice to which it relates. Section 7(4) requires that the Bureau shall as soon as practicable after the declaration of a standard specification cause notice thereof to be published in the *Gazette* and in such other manner as the Minister may direct.

Under section 11(a) the Minister may make regulations for regulating the promulgation of standard, specifications and compulsory standard specification.

In 1999 the Bureau of Standards published the Jamaica Standard Specification for the labelling of products and equipment containing or manufacturing ozone depleting substances to their substitutes. The standard describes the labelling requirements for the equipment and products that utilize ozone depleting substances or their substitutes. The equipment includes, but is not limited to-

- (a) aerosol sprays
- (b) foam products
- (c) cleaning solvents
- (d) vehicular air conditioning units
- (e) halon based firefighting equipment
- (f) domestic, commercial and industrial air-conditioning units
- (g) domestic, commercial and industrial refrigeration units.

There is a 2015 version – JS 1: Part 29: 2015- Jamaican Standard Specification for the Labelling of Commodities Part 29: Labelling of products and equipment containing or manufactured using ozone depleting substances and/or their substitutes.

The Bureau of Standards has also published a Final Draft Standard Specification for the transportation, handling and storage of refrigerants. The standard is intended to be voluntary. The Standard was prepared to meet Jamaica's requirements to phase out targets set under the Montreal Protocol. The aim is to ensure that refrigerants are transported, handled and stored in a safe manner to reduce harm and risk to human health and the environment.

The Standard describes the requirements for the transportation, handling and storage of refrigerants and their blends. It is to be used for the heating, ventilation, air conditions and refrigeration (HVAC-R) section.

Natural Resources Conservation Authority Act

The Natural Resources Conservation Authority Act provides for the management, conservation and protection of the natural resources of Jamaica: various regulations have been promulgated on the Act to address different aspects of environment or natural resource management. Among the many provisions of the Act are section 32(1)(a) of the Natural Resources Conservation Authority Act where the Authority reports to the Minister the existence of any local condition in any part of the island tending to endanger the environment, and there are no powers under any law other than this section whereby any condition may be removed or guarded against the Minister may by order, direct the enforcement of any measures recommended by the Authority or any measures that he thinks expedient for removing or otherwise guarding against any such condition and the guarding against any such condition or degradation.

The Natural Resources Conservation (Permits and Licences) Regulations, 1996 defines "hazardous waste" as meaning any substance which by reason of its chemical activity, toxicity, explosivity, corrosivity or other characteristics, causes or is likely to cause danger to health or the environment, whether of itself or on contact with other waste.

The 1996 Regulations were amended by the Natural Resources Conservation (Permits and Licences) (Amendment) Regulations 2015 (hereinafter referred to as the 2015 Amendment). Under the 1996 Regulations as amended by the 2015 Amendment permits are required, *inter alia*, for-

- Construction and operation of facilities for the storage of dangerous materials, toxic chemicals and other similar substances (item 17).
- Construction and operation of hazardous waste removal, storage, transportation, treatment or disposal facility (mobile or fixed).

In circumstances where HFCs are stored for disposal or transported for disposal it is likely that the permit requirement of the Natural Resources Conservation (Permits and Licences) Regulations), 1996 as amended in 2015 would be applicable.<sup>14</sup>

- Regulation 6, 7 and 9 of the Natural Resources (Hazardous Waste) (Control of Transboundary Movement) Regulations, 2002 are relevant. These Regulations address the importation, movement, and the export of hazardous waste and equipment which contains hazardous waste.
- The Natural Resources (Hazardous Waste) (Control of Transboundary Movement) Regulations provides the regulatory regime for permits related to the transboundary movement of hazardous wastes.<sup>15</sup>

<sup>&</sup>lt;sup>14</sup>There does not appear to be any relevant legislation relating to the manufacture or use of ODS.

<sup>&</sup>lt;sup>15</sup> However the definition of 'hazardous' under these regulations are aligned with the definition as used by the Basel Convention (i.e. explosive, flammable, oxidising, poisonous, corrosive, toxic, exo-toxic, etc.), and does

iii. The Regulations also empower the Minister to declare particular waste as hazardous.

Legislation	Institution
Trade Act	Trade Board
Standards Act	Bureau of Standards
Natural Resources Conservation Act	NEPA

### 5.0 Implementing International Conventions

The development of national legislation in Jamaica governing environmental issues has been pushed by the growth of international environmental law. Jamaica like other developing countries has gradually begun to understand the importance of negotiating environmental agreements. The incorporation of principles and rules into domestic law has happened at a slower pace. National programmes have been adopted and existing laws and regulations have been adapted to implement various treaty obligations but there are only a few conventions for which there has been a comprehensive legal framework promulgated. Work to adopt appropriate frameworks however is progressing. In Jamaica this has taken on even greater importance after the decision of <u>DYC and Seafood and Ting</u> vs. <u>NRCA</u> which is recognized as the first judicial decisions to clarify the position of the implementation of multilateral environmental agreements in the Commonwealth Caribbean.

#### In <u>DYC and Seafood and TingvNRCA</u>, Downer J.A stated:

"that legislation necessary to implement the provision of the treaty is a constitutional imperative...this court was compelled to decide the important issues in this case on common law principles".

It is clear therefore that without national legislation, international environmental agreements may not be enforced in the Jamaican courts. It is accepted law that international instruments between states only create legal obligations between states and not between state and individual or two individuals. Thus a treaty does not have domestic effect until there is national legislation to implement the treaty.

Conventions have been implemented by a variety of means including comprehensive legal frameworks, regulations under current Acts including the declaration of orders, by use of existing legislation and through the adoption of policies, action plans and programmes.

not include the extent of the definition of 'hazardous' in the Permit and Licences Regulations of 'other characteristics, causes or is likely to cause danger to health or the environment'. HFCs and HCFCs do not display the properties or have the characteristics of the definition of 'hazardous' under the Convention

#### Vienna Convention and the Montreal Protocol

The Vienna Convention for the Protection of the Ozone Layer (Vienna Convention) provided the general framework for the tools to protect the ozone layer that surrounds the globe. Generally, "The objectives of the Convention were for Parties to promote cooperation by means of systematic observations, research and information exchange on the effects of human activities on the ozone layer and to adopt legislative or administrative measures against activities likely to have adverse effects on the ozone layer." Scientists first published their hypothesis that man-made chemicals could harm the stratospheric ozone layer in 1974.The ozone layer is important in keeping out harmful ultraviolet radiation from the sun. Losing this protective layer would cause serious problems to humans, plants, and animals alike. The damaging radiation could not only cause mutations in any of the human, plant, or animal cells, but it would also cause increases in skin cancer and other serious health issues. "The scientists found that the chlorofluorocarbon gases (CFCs), which were widely used and viewed as posing no harm, could migrate to the stratosphere, remain intact for decades to centuries, and by releasing chlorine, break down the ozone layer."

The Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) went into effect in 1989. The purpose of the Protocol was to provide a system of backing the framework that was established in the Vienna Convention, in order to further the environmental goals and address the concerns that were established. "The ozone agreements are remarkable, in that they are the first to address a long-term problem in which the cause of the damage occurs today, but the effects are not evident for decades hence... Since scientific understanding of the problem would change, the agreements needed to be flexible and capable of being adapted to accommodate new scientific assessments. No single country or group of countries could address the problem of ozone depletion alone, so maximum international cooperation was needed." In doing so, the Montreal Protocol had to address the interests of a number of different groups, which usually has the effect of plaguing further progress in many treaties. The treaty controls the consumption and production of certain nonnatural chemicals, and also sets out a timeframe for reduction targets for these chemicals for each of the ratifying states to abide by. Without the Montreal Protocol, it is estimated that the ozone depletion would have been 10 times worse than current depletion (in 2012) by 2050. The Protocol is estimated to have prevented 19 million more cases of non-melanoma cancer, 1.5 million more cases of melanoma cancer, and 130 million more cases of eye cataracts. Furthermore, 98 percent of the ozone depleting substances controlled by the Montreal Protocol have been phased out, and that because of the implementation of the treaty and its provisions, the ozone layer is estimated to return to pre-1980 levels by 2050 to 2075. Because these chemicals are also greenhouse gases, this treaty has had a mitigating effect on climate change.

Jamaica became a party to Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol and its London Amendment on March 31, 1993. The country subsequently acceded to the Copenhagen Amendment on November 6, 1997, and the Montreal and Beijing Amendments on September 24, 2003. Jamaica is classified as an Article 5 country under the Protocol.

The Protocol requires State Parties to gradually phase out the production and consumption of Chlorofluorocarbons (CFCs), hydrochlorofluorocarbons, halons, methylbromide and other

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ozone depleting substances. Jamaica has implemented its obligations under the Protocol through the promulgation of Regulations and Orders and the implementation of a Country programme. Jamaica began implementation of the Protocol through the design of a "country program" in March 1997. The Country Program sets out the projects that need to be implemented to achieve the phase out under the Protocol.

Jamaica does not manufacture any ozone depleting substances or refrigeration equipment and therefore implementation of the convention has been through the restriction of imports into the country and export from the country. The Protocol requires developing countries to phase out consumption of ozone depleting substances and equipment using ODS to prescribed levels required by the Protocol. The Trade (Prohibition of Importation) (Equipment containing CFCs) Order was passed in 1998 to ban the importation of equipment containing CFCs and halons (except propellants in metered dose inhalers). The items listed in the Schedule of the Order include halon-based firefighting equipment, refrigerators, deep freezers, air conditioning units, soda fountains, aerosols, foams and solvents using CFC 11, 12, 113, 114 and 115. A ban on motor vehicles air conditioners using CFCs was made effective April 1, 1999.

On July 1, 1999, Jamaica instituted a programme to restrict its consumption of CFCs to the average of consumption levels as recorded in 1995/7 as required under the Protocol through the Trade (Restriction on Importation) CFCs) Order. These Regulations introduce a quota system for the establishment of levels for all importers and a schedule for phasing out from July 1999 to December 2005.

The NEPA<sup>16</sup> is the lead agency implementing the Montreal Protocol. However, the core of the current regulatory framework is the Trade Act (which allows restriction and prohibition of goods), the Pesticides Act (methylbromide is a registered pesticide) and the Customs Act. The Customs Act s. 215 addresses the import of prohibited or restricted goods without the required licences and permits and can result in forfeiture of the goods or a fine of treble the value of the goods.

### 6.0 Gaps in Jamaica Legislation<sup>17</sup>

No specific legislation is in place to implement the Kigali Amendment, A new order needs to be prepared or the existing 2014 Order under the Trade Act needs to be amended. Other relevant legislation would include the Standards Act (promulgate/amend standards to deal with the implementation of the Kigali Amendment).

Once legislation is in place the existing powers under section 209, 2010 and 2011 of the Customs Act can be utilized by Jamaica Customs.

United Nations (UN) Framework Convention on Climate Change (UNFCCC) Obligations.

<sup>&</sup>lt;sup>16</sup>NEPA is implementing projects geared towards meeting the phase out/phase down targets of substances controlled under the Montreal Protocol.

<sup>&</sup>lt;sup>17</sup> In addition to legislation, effective mechanisms will need to be put in place to facilitate the proper monitoring and enforcement of existing and new legislation.

HFCs are potent greenhouse gases. Under the UN Framework Convention on Climate Change (UNFCCC), its Kyoto Protocol, and the Paris Agreement, Jamaica is obliged to limit and report greenhouse gas emissions, including HFC emissions (from both bulk HFCs and products), and account for progress toward targets.

These climate agreements and the Montreal Protocol work together. Although the climate change agreements impose broad obligations on Parties to reduce emissions, they do not place specific limits on HFC production or use. In comparison, Kigali amendment to the Montreal Protocol requires a freeze or phase down of consumption and production of HFCs.

Some of the obligations under the Kigali Amendment such as reporting and monitoring of consumption need not be addressed by legislation but can be implemented by administrative arrangements. NEPA could coordinate the collection of this information and this could then be transmitted to the Ministry of Economic Growth and Job Creation.

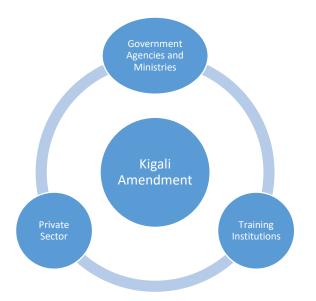
### 7.0 Comparative Developments

The governments of other countries<sup>18</sup> are already putting regimes in place. Other countries are taking measures such as:

- Australia's HFC phase down will be a gradual reduction in the maximum amount of bulk HFCs permitted to be imported into Australia, beginning in January 2018. This will be managed through a quota system for imports.
- The legislative basis for the Australian response is the Ozone Protection and Synthetic Greenhouse Gas Management Act and the Ozone Protection and Synthetic Greenhouse Gas Management Regulations.
- The European Union (EU) recently updated their Fluorinated-gas (F-gas) regulations to reduce the availability of HFCs by 79 per cent between 2015 and 2030.

<sup>&</sup>lt;sup>18</sup>It is to be noted that the requirements for both Australia and the European Union (developed countries) would be different from Schedule 5 countries. No overarching legislation so far has been found from Article 5 countries.

### 8.0 Institutional Framework



*Figure 1. Relationship between Government, Training Institutions and the Private Sector in Implementing the Kigali Amendment to the Montreal Protocol* 

### Government

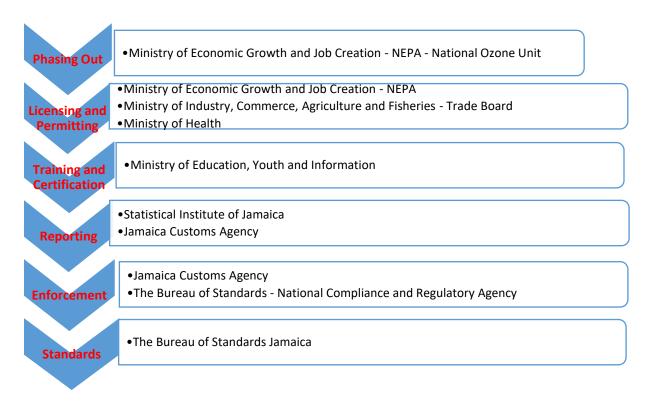


Figure 2. Government Agencies Involved with Various Aspects of Regulation, Permitting, Licensing, Reporting, Enforcement and Training

- The Ministry of Economic Growth and Job Creation (MEGJC) is the Focal Point for the Montreal Protocol. These matters fall within the purview of the Environment and Risk Management Branch of MEGIC. As the focal point for the Montreal Protocol it is also responsible for the ratification of the Kigali Amendment.
- National Environment and Planning Agency (NEPA)– responsible for the implementation of the Montreal Protocol. Within NEPA the following Divisions are of particular relevance:
  - Applications Management Division
    - Under this Division falls the Applications Processing Branch and the Application Secretariat. The Applications Processing Branch would have responsibility for Permits and Licences.
  - Environmental Management and Conservation Division
    - The Pollution Prevention Branch falls under this Division and its mandate would include the responsibility for hazardous waste.
- Also of particular relevance is the National Ozone Unit. The National Ozone Unit (NOU) sits inside the National Environment and Planning Agency (NEPA). It was set up in 1997 to facilitate the phase out of chlorofluorocarbons (CFCs) and other Ozone Depleting Substances (ODSs) in Jamaica. The phase out is part of Jamaica's obligations under the Montreal Protocol on substances that deplete the ozone layer, an agreement between countries to phase out the use of ODSs within stipulated time frames.
- Ministry of Education Youth and Information matters relating to training and education.<sup>19</sup>
- The Jamaica Customs Agency responsible for the enforcement of import restrictions and prohibitions under Ministerial Orders; provides statistical information.
- The Statistical Institute of Jamaica provides import data to assist with data reporting.<sup>20</sup>
- Trade Board issues licences to importers for the importation of motor vehicles.
- Ministry of Health responsible for issuing import permits for the importation of ODSs based on quotas established annually by the National Ozone Unit (NEPA).

<sup>&</sup>lt;sup>19</sup>HEART Trust NTA is under the Ministry of Education

<sup>&</sup>lt;sup>20</sup>However data is now obtained directly from Customs as STATIN has gaps.

- The Bureau of Standards Jamaica responsible for developing and enforcing labelling standards for refrigerants and ODS based equipment offered for sale.
- National Compliance and Regulatory Agency (NCRA) enforcing standards developed by the Bureau of Standards.

#### Stakeholders

- Jamaica Air-conditioning Refrigeration and Ventilation Association (JARVA) supports the execution of programmes and projects aimed at improving servicing practices in the industry. JARVA, once it becomes functional, it could assist with the training of technicians.
- Refrigerant Importers provide support by adhering to the requirements of the quota system.
- Equipment Importers support the phase out effort through the introduction of ozone friendly technologies.
- Training Institutions provide relevant training in refrigeration and air-conditioning technologies.

#### Institutional Strengthening

As part of the institutional framework to respond to the Kigali Amendment it will be necessary to effect training in two key areas: training of customs and environmental officers and training and certification of refrigeration technicians.

As part of the process of institutional strengthening the following matters would have to be addressed:

#### • Training of customs officers

In view of the provisions concerning HFC licensing contained in the Kigali Amendment, new training programmes need to be designed in order to train customs officers on monitoring and control of HFCs including detection of HFC consignments at the border check-points. Customs officers need to be aware of the new HFC-related requirements under the Montreal Protocol as well as national legislation, licensing system, quotas and bans related to HFCs and HFC-containing equipment/products.

The HFC-related training may consist of a train-the-customs trainers programme and a subsequent train-the-customs-officers programme. The training sessions should include interactive discussions and working groups as well as practical exercises and case studies. Certificates of Competence will be issued upon successful completion of the course.

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The availability of appropriately trained customs and environment officers is a pre-condition for effective control and monitoring of HFC-related trade including products/equipment. Such training would also strengthen the links between enforcement bodies and environmental authorities. The training, if well designed, will provide all necessary information regarding HFCs and their alternatives and the issues related to identification of HFCs and possible illegal trade both in bulk HFCs and in products and equipment containing or relying on HFCs.

#### • Support measures required for effective implementation

An important support measure would be publication of an updated manual for customs and environmental officers where all aspects of new legislation involving HFCs will be covered. Other effective support measures include the organization of workshops for stakeholders directly involved in the process of HFC phase down, i.e. for importers, exporters, dealers and users of HFCs.<sup>21</sup>

Since so far all HFCs are classified under one HS code together with some other chemicals (2903.39) and HFC-containing mixtures have only one code in HS system (3824.78) a very effective measure which will help the customs to monitor and control imports and exports of HFCs and HFC-containing mixtures would be establishment of separate 8 or 10 digits customs codes for the most commonly used HFCs and mixtures in the national customs classification system.

#### • Training and certification of Refrigeration technicians

In the light of the Kigali Amendment, new training and certification programmes need to be designed as part of HFC phase down related projects in order to train refrigeration technicians on using alternative technologies as well as on HFC containment. Appropriate training of refrigeration technicians will ensure the proper management of HFC alternatives and HFC containment and thus facilitate compliance with the Montreal Protocol.

The HFC-related training may consist of a train-the-trainers programme and a subsequent train-the-technicians programme. In terms of technology choice to replace HFCs, the energy efficiency and climate benefits of "natural" refrigerants and low- GWP unsaturated HFCs (HFOs) should be taken into account compared with HCFCs and high-GWP HFCs.

The national competent authorities in consultation with national stakeholders should decide whether there will be a general certificate covering all activities or several activity-specific certificates corresponding to different levels of competence, the programme of training it should include both a theoretical and practical part and the examination at the end of the training should also consist of a theoretical and practical part. There is also the possibility of identifying existing internationally certified training updating current national programmes to incorporate new elements and facilitate certification if this is not already being done.

<sup>&</sup>lt;sup>21</sup> Additional financial resources should be provided/committed to the government ministries, departments and agencies that will be responsible for the monitoring and reporting on the implementation of the Kigali Amendment.

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Important topics to be covered by such training programmes or teaching curricula in schools should be standards (international or local, if in place in the country) related to the management of alternative refrigerants, specifically highly flammable hydrocarbons and moderately flammable lower GWP HFCs and HFOs.

Currently training of refrigeration technicians is conducted by the HEART Trust NTA as well as the University of Technology (UTech).<sup>22</sup> JARVA (once it is revived) could play a critical role in coordinating training as well as providing clearing house facilities for refrigeration technicians and also persons in the air-conditioning sector.

While there is existing training the trainers need to be updated with the requirements of the Kigali amendment as well as developing expertise as to the alternatives to HFC.

#### • Awareness raising of stakeholders

Consumers/public who purchases products and equipment containing HFCs with high GWP should be educated about avoiding such transactions. This will ensure their well-informed participation in collective efforts and awareness that such environmental issues directly influence quality of their lives. They can be guided to also demand efficient servicing with all preventive measures. Servicing centres can display certificates/commendations about their compliance with the phase down demands to inspire confidence in their consumers. Every effort should be made to incorporate commercial enterprises which may be wholesale purchasers of equipment containing targeted refrigerants....improving knowledge and awareness to influence purchasing decisions.

The following instruments could be considered:

- 1. Media releases
  - a) Press releases in the case of HFCs these should be mainly sponsored articles in technical journals devoted to particular sectors, e.g. refrigeration, while articles in newspapers could focus for example on the links between ozone layer and climate protection. A much needed news wire service can assist journalists/bloggers and online communication for rapid and consistent messaging. This is to highlight the immediacy of the HFC phase down challenge and the opportunity to change over to the alternatives at the earliest. News media institutions can also be supported in a focussed manner with precise and substantiated news inputs. Media representatives could also be included in training events.
  - b) TV spots brief announcements could be considered in order to raise general public awareness or to change consumer behaviour.
  - c) radio broadcasts expert discussion could be considered in order to address particular stakeholder groups.

<sup>&</sup>lt;sup>22</sup>UTech offers the refrigeration course as part of its engineering degree. There is a similar situation at the Caribbean Maritime University.

- 2. Distribution of leaflets, posters and films different leaflets could be designed separately for:
  - a) importers, exporters and dealers;
  - b) servicing companies operating in refrigeration sector;
  - c) HFC end users in each sector, specifically those who exploit (i.e. the operators of) RAC&HP, fire protection and solvent equipment;
  - d) Posters promoting leakage control designed for equipment servicing workshops and the production of sector-oriented videos promoting new alternative technologies may be useful support measures.
- 3. Organization of technical seminars or stake-holder consultations those could be organized in the form of sponsored events, such as expert panel discussions in the presence of major stakeholders.
- 4. Making the best use of social media tools through downloadable applications in smart phones. This will ensure pointed and rapid messaging. Consideration may also be given to exploring the creation of an App for Jamaica providing wide scale access to information and supporting the work of customs/environmental officers.

In all of this awareness raising activities the important role of HFC phase down in overall reduction of greenhouse gases emission and consequently in achieving measurable local and global environmental benefits should be emphasized.

### 9.0 Drafting Instructions

Drafting Instructions were prepared in accordance with the Consultancy. A summary of the Drafting Instructions is set out in Appendix 3.

### 10.0 Validation Session

The Validation session for the Consultancy was held on Wednesday 6<sup>th</sup> February 2019 from 9:30am to 12:00 noon.

At the Validation Session the Consultant gave a powerpoint presentation on the consultancy including the key recommendations.

During discussions following the Consultant's presentation a range of matters were discussed. These include:-

- Alternatives to the HFC.

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- The need for an Ozone Act was also raised. It was pointed out that a draft Ozone Act had been prepared but had been shelved.
- Setting of the quota for HFCs. In respect of the quota established for the phasing out of the ODS a survey was conducted prior to the establishment of this quota. A 3-year period was used for the basis for this quota.
- Disposal of existing HFCs and also the disposal of ODS. The issue of destruction of HFCs and ODS is a critical issue. There are however various issues that needs to be discussed. These include: location of the material, the cost of destruction.
- Training: the issue of training was raised as a major issue. Existing training capacity needs to be improved. In addition continuous training was needed for Customs Officers and other concerned with the enforcement of the Kigali Amendment. Training was also required for technicians. There is a need for a comprehensive Training Plan.
- The issue of air condition in motor vehicles was also raised and extensively discussed;
- The role of the Bureau of Standards. The Bureau of Standards was of critical importance of labelling and testing.
- Training and certification of private sectors. It is necessary to establish the framework for training and certification of private sector so that persons (eg. Technicians) should only be operating in the private sector if they were certified.

A list of the persons attending the Validation Session is set out as Appendix 4.

### 11.0 Recommendations

Jamaica does not currently have adequate rules in place to ratify the Kigali Amendment to the Montreal Protocol.

The key recommendations are as follows:

- promulgate a new Order under the Trade Act. The new Order would establish a permit system for the phase-down of HFCs.
- establish a suitable regulatory support framework;
- train service technicians on good practices in refrigeration and recovery and recycling;
- train customs officers in the control and monitoring of HFC imports and exports;
- conduct public awareness campaigns.

A new Order will need to be promulgated under the Trade Act. The new Order would include the following requirements-

- phase down requirements for HCFs in accordance with the Kigali Amendment.
- a quota system;<sup>23</sup>
- expansion of the category of 15 importers;
- requirement that applicant obtain a permit from the Standards Division, Ministry of Health; and (It is our understanding that Trade Facilitation discussions are underway to rationalize the most suitable Border Regulatory Agency (BRA) to regulate items of trade, which includes, issuing of permits. We recommend liaising with the working group for this project before making such a decision.)
- new standards promulgated under the Standards Act for compliance with the Kigali Amendment.

The proposed legislation aims to reduce the supply of HFCs that enter into Jamaica and the demand for HFC manufactured products thereby averting future HFC releases to the environment.

An import permitting system is one of the key requirements to ratify the Kigali Amendment. Under the Kigali Amendment, so it is necessary to put in place a 'licensing'/permitting system and impose upper limits ('caps') on imports. In summary, it is proposed putting in place a permitting system to control the importation of HFCs. Permits would be allocated to importers to allow them to import HFCs up to a certain upper limit each year.

The amendments also introduce prohibitions by specific dates, on the manufacture of certain products and equipment that contain or are designed to contain, HFC and HFC blends with a global warming potential above a certain limit.

The Bureau of Standards should finalize the Final Draft Standard Specifications for the transportation, handling and storage of refrigerants.

#### How the baseline and phase down steps should be designed

The baseline can be thought of as the quantity of HFCs at a given time, from which point a country will be required to start phasing down HFCs. Under the Montreal Protocol, the baseline and phase down is based on HFC consumption; that is, the quantity of HFC imports minus their exports. The phase down provides an upper limit ('cap'), which cannot be breached. The phase down steps are a percentage-based reduction of the baseline in certain years.

#### International Obligations (for the baseline and phase down steps)

The controls on HFCs under the Kigali Amendment are on the importation and exportation of bulk HFCs ('consumption'). Under the Amendment, each country needs to limit its annual consumption of HFCs to within the cap/upper limit.

<sup>&</sup>lt;sup>23</sup>Quota system is not necessary in this moment, but is very important in 2024 when the first control measure begins (freeze consumption).

HFC consumption is expressed in  $CO_2$ -eq tonnes; that is, tonnes multiplied by the global warming potential of each HFC. This is designed to incentivise a move to low-GWP alternatives. For example, if the quantity upper limit was 100CO<sub>2</sub>-eq tonnes, you would be able to import 1 tonne of a substance with a GWP of 100, or 5 tonnes of a substance with a GWP of 20.

#### How HFC imports should be reported

Jamaica needs to submit data on its controlled HFC consumption annually to the UN Ozone Secretariat. Reporting imports of HFCs is important to ensure we are able to monitor how the phase down is going. Permits will include conditions regarding reporting on volumes and uses.

This proposal on HFC reporting will meet the objectives by ensuring the international obligations imposed by the Kigali Amendment are met.

#### Non-party Trade Provisions

Similarly, to HCFCs, Parties are required to ban the import and export of HFCs with countries that are not party to the Amendment.

It is proposed to mirror the required Kigali Amendment obligations on non-party trade provisions. This proposal will meet the objectives by ensuring we meet the international obligations imposed by the Kigali Amendment.

#### Implementation

To ratify the Kigali Amendment to the Montreal Protocol, it would be necessary to include the proposed import permitting system for HFCs, and other controls outlined above.

One aspect of implementation that has to be considered is that while the treaty ratification process for the Kigali Amendment will be the responsibility of MEGJC the responsibility for the final approved Drafting Instructions and also any required Cabinet Submission will be the responsibility of the Ministry of Industry, Commerce, Agriculture and Fisheries.<sup>24</sup> This therefore will require coordination between Ministries.

#### Permits for HFC transit

At present, a significant portion of illegal HCFC shipments occurs because of the lack of control of goods moving from one country to another through a third transit country. Following the control of HFCs under the Kigali Amendment, a similar situation is expected to occur with regard to HFCs. Such HFC trade often takes place in duty free zones or free trade zones, which can be considered to be a specific form of transit. The main reason that

<sup>&</sup>lt;sup>24</sup> Ministry of Foreign Affairs and Foreign Trade will also have to be involved with the implementation.

### AMENDMENT

these transit hubs attract illegal activity is that goods "in transit" do not undergo the standard customs procedure of "release for free circulation", and therefore they usually remain outside the domain of customs. This attracts criminal elements to redirect, mislabel, or otherwise falsify the shipments. Permits for HFCs in transit are then an important means to combat illegal trade in HFCs (and in HCFCs, as HCFCs are often shipped under the name of HFCs) under these circumstances. The usefulness of permits for transit has been proven to help reduce illegal HCFC trade, therefore it is logical that they may be equally useful to address illegal HFC trade.

### 12.0 Timeline for Implementation

Activity	Timeline
Final Review of Drafting Instructions (Ministry of Economic Growth in conjunction with Ministry of Industry, Commerce, Agriculture and Fisheries <sup>25</sup>	March 2019
Submission of Drafting Instructions to the Chief Parliamentary Counsel by Ministry of Industry, Commerce, Agriculture and Fisheries	April 2019
Preparation of Draft Order by Chief Parliamentary Council (CPC)	August 2019
Promulgation of Draft Order (when finalized by CPC draft Order will be sent to be Gazetted).	September 2019
Preparation and Submission of Cabinet Submission for the Ratification of the Kigali Amendment By Cabinet (Ministry of Economic Growth and Job Creation)	October 2019
Cabinet approval for the Ratification of the Cabinet Submission	November 2019
Ratification of Kigali Amendment (responsible Ministry would be the Ministry of Economic Growth and	November 2019

<sup>&</sup>lt;sup>25</sup>This is a rough estimate as the finalization of draft legislation by CPC is subject to various constraints).

Job Creation)

### Training Customs Officers

Additional resources will be required for training of Customs Officers

#### Public Awareness

Additional funds will be required for a public awareness campaign.

#### **Estimates to Conduct 1-Day Workshops (Ja\$)**

#### Kingston Based Workshops:

• For Custom Officers:

Consultant/Presenter: \$104,000

Recommended Location: A central hotel with adequate parking (best) (cost to be determined)

or

UTech, (**\$450,000 - \$550,000**) depending on numbers with meals included.

Time: 10am - 2pm

• For A/C Retailers/Suppliers:

Consultant/Presenter: \$104,000

Recommended Location: A central hotel with adequate parking (best). (Cost to be determined)

Time: 10am - 2pm

• For Technician Training:

Consultant/Presenter: \$104,000

Recommended Location: A central hotel with adequate parking (best) or UTech, if available (cost to be determined)

### AMENDMENT

Technical Assistant (TA) to provide technical support and onsite logistics for the training equipment if equipment demos are required: **\$30,000** 

Time: 10am - 2pm

### Out of Town 1-Day Workshops:

• For Custom Officers:

Consultant/Presenter: \$104,000

Travel: **\$25,000** 

Recommended Location: A central hotel with adequate parking (best) (Cost to be determined)

Time: 10am - 2pm

• For A/C Retailers/Suppliers:

Consultant/Presenter: \$104,000

Travel: **\$25,000** 

Recommended Location: A central hotel with adequate parking (best). (Cost to be determined)

Time: 10am - 2pm

• For Technician Training:

Consultant/Presenter: \$104,000

Travel: **\$25,000** 

Recommended Location: A central hotel with adequate parking (best) or UTech, if available (cost to be determined)

Technical Assistant (TA) to provide technical support and onsite logistics for the training equipment if equipment demos are required: **\$30,000** 

Time: 10am - 2pm

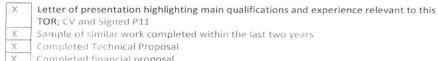
Appendix 1

#### **TERMS OF REFERENCE**



Title: Legal Consultant Project Name : Implementing Enabling Activities for the ratification of the Kigali Amendment Reports to: UNDP Programme Specialist Duty Station: Kingston, Jamaica Expected Places of Travel (if applicable): N/A Duration of Assignment: 45 non-consecutive working days

REQUIRED DOCUMENTATION FROM CONTRACTOR



Completed Technical Proposal

Completed financial proposal

#### BACKGROUND

In 1993, the Government of Jamaica acceded to the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol on Substances that deplete the Ozone Layer, and has ratified all the previous Amendments to the Montreal Protocol. The country is currently taking significant steps towards the ratification of the Kigali Amendment to the Montreal Protocol on substances that deplete the ozone layer, 2016 (Kigali Amendment), which is a significant stride in the fight against climate change.

The Parties to the Montreal Protocol had adopted the Decision XXVIII/2 related to the Kigali Amendment to phase down hydrofluorocarbons (HFCs), which are powerful greenhouse gases. A request was made in paragraph 20 of the Executive Committee to include the enabling activities to be funded in order to support the Article 5 countries<sup>1</sup> in the process of ratification of the Kigali Amendment. In its 79th meeting, the Executive Committee for the Implementation of the Montreal Protocol (ExCom), under the Decision 79/46, decided to provide funding for the implementation of the enabling activities required to support these parties in the ratification process for the early implementation of the Kigali Amendment; based on the country's hydro-chlorofluorocarbons (HCFC) baseline consumption. The country will have the flexibility to undertake a range of enabling activities

<sup>&</sup>lt;sup>1</sup> http://ozone.unep.org/en/article-5-parties-status

to help the National Ozone Unit to fulfil the country's initial obligations with regard to HFC phasedown in line with the Kigali Amendment.

The Government of Jamaica has a well-established Legal and Institutional Framework to implement the Montreal Protocol commitments currently ratified. Notwithstanding, the new Kigali Amendment will bring additional challenges to determine: (a) the national requirements and needs for the ratification of this Amendment, (b) the establishment of a sound foundation to undertake future work towards its implementation and (c) help to bolster the efforts of the Government of Jamaica in the fight against global warming.

It is against this background that UNDP is seeking to engage a Legal Consultant. The Legal Consultant will assist the Government of Jamaica to facilitate the seamless ratification of the Kigali Amendment, identify the legislation and or policies to be reinforced or modified or assist in the development of legislation.

#### IL. SCOPE OF WORK, ACTIVITIES, AND DELIVERABLES

#### DUTIES AND RESPONSIBILITIES

Under the oversight of the UNDP Deputy Resident Representative and direct supervision of the Programme Specialist, the Legal Consultant will review the country's legal framework in support of the country's readiness to ratify the Kigali Amendment.

#### Scope of work:

Specifically, the Legal Consultant will carry out the following tasks:

- Submit an inception report clearly detailing the methodology to be employed to undertake the scope of work below along with a detailed work plan. The report should also include a sample of all tools to be used during the consultancy.
- Draft and submit a report following consultations with the Ministry of Economic Growth and Job Creation, the National Environment and Planning Agency (NEPA) and other key national stakeholders involved in the ratification process of the Kigali Amendment. The report should include a detailed review and assessment of the country's existing policy and legal framework, identify any gaps to prevent the seamless ratification process and indicate the country's state of readiness and provide recommendations for the revision or enactment of new legislation (if applicable) to ratify the Kigali Amendment. This report should also include a roadmap, (including timelines, roles and responsible entities as well as the required resources) outlining the ratification process and the necessary support that will be required.
- Make a presentation to key stakeholders to validate the findings once feedback has been
  received from the draft report. This presentation will be organized by UNDP (date, venue, time,
  and invitation letters). However, the consultant will be expected to provide UNDP with a list of
  the relevant stakeholders to be invited.
- Develop drafting instructions in support of the revision of existing or the development of new legislation as may be appropriate to enable the ratification of the Kigali Amendment.
- Submit a final report, utilizing the feedback from the draft report and the validation session. The Legal Consultant will be expected to make the necessary changes and indicate the country's readiness to ratify the Kigali Amendments, including any existing gaps, lessons learnt and recommendations.

Deliverable	Estimated level of effort	Payment Percentage
Deliverable 1: Inception report	5 days	10%
Deliverable 2: Draft report	15 days	30%
Deliverable 3: Stakeholder presentation of findings and validation session	5 days	15%
Deliverable 4: Drafting Instructions	10 days	25%
Deliverable 5: Final report	10 day	20%
Total	45 days	100%

#### WORKING ARRANGEMENTS

#### IMPLEMENTATION AND REPORTING ARRANGEMENTS

The consultancy will be for forty five (45) non-consecutive working days over a three month period. The duty station for the contract assignment will be Kingston, Jamaica. Under the oversight of the UNDP Deputy Resident Representative and direct supervision of the Programme Specialist, the consultant will work in close collaboration with the National Environment and Planning Agency (NEPA). As Manager of the contract, the UNDP Programme Specialist will provide quality assurance and oversight for the assignment. The substantial technical review and final approval of deliverables by the consultant will be performed by UNDP in collaboration with the Director, Planning, Projects, Evaluation at NEPA. Payments will be made upon receipt and approval of deliverables by UNDP Jamaica. All work/documents associated with this consultancy is the property of UNDP and must be submitted before final payment will be made.

All reports should be submitted using the standard cover page (provided by UNDP) with the draft and final reports developed with respect to the following chapters:

- List of acronyms and abbreviations
- Table of Contents, including list of annexes
- Executive summary (maximum 2 pages)
- Introduction (including purpose, objectives and scope)
- Description/overview of the assignment
- Approach and methodology
- Findings (including limitations)

- Summary and explanation of findings and interpretations
  - Recommendations
  - Lessons learned
    - Conclusions

In addition, the final report should contain the following annexes:

- Terms of reference for consultancy
- Comprehensive list of stakeholders
- Sign-in sheets of any consultation
- List of key reference documents

Any other relevant material

#### REQUIREMENTS FOR EXPERIENCE AND QUALIFICATIONS REQUIRED QUALIFICATIONS AND EXPERIENCE Education: Master's Degree (LLM) in International or Environmental Law and at least two (2) years' experience OR first level university degree in International or Environmental law with five (5) years' experience Experience: At least five years of experience working in Environmental or International Law At least five years' experience working in issues of environmental management and/or related areas; At least five years of experience working with diverse stakeholders on issues of environmental management, climate change, international conventions and protocols Experience working as a consultant (as evidenced by sample of previous work) . At least five years of experience working in developing, reviewing and/or drafting instructions for legislation; Experience in working with government and/or development partners is an advantage. • Skills: Strong analytical, research and writing skills. Language skills: Fluent in English with excellent oral and written communication skills.

EVELUATION METHOD AND CRITERIA		
Individual consultants will be evaluated based on the followir	ng methodology:	
<u>Cumulative analysis</u> When using this weighted scoring method, the award of the c consultant whose offer has been evaluated and determined a a) responsive/compliant/acceptable, and b) Having received the highest score out of a pre-determined s criteria specific to the solicitation. * Technical Criteria weight; 70%	s:	
* Financial Criteria weight; 30%		
Only candidates obtaining a minimum of 49 points will be con	sidered for the Finar	ncial Evaluation
Criteria	Weight	Maximum Point
Technical		
Criteria A: qualification requirements as per TOR:		
<ol> <li>Relevance of Education/ Degree         <ul> <li>Master's Degree (LLM) in International or Environmental Law or first level university degree in International or Environmental law with five (5) years' experience</li> </ul> </li> </ol>	10	
Skills and Experience		
<ul> <li>Demonstrated experience of at least five (5) years working in Environmental or International Law (at least 3 projects)</li> <li>Minimum of 5 years' experience working in</li> </ul>	10	
environmental management and/or related areas)	10	
<ul> <li>Strong communication skills including report writing and presentation (demonstrated by sole authorship of at least two (2) reports</li> </ul>	10	
<ul> <li>Demonstrated experience engaging national/project stakeholders on issues of environmental management;</li> </ul>	10	
<ul> <li>Demonstrated experience in developing, reviewing and/or drafting instructions for legislation;</li> </ul>	10	
Adequacy of Competencies for the Assignment Excellent command of the English Language and drafting ability as demonstrated by technical proposal Points awarded as follows:	10	
Clarity (2 points)		8
Specificity (2 points) Language (2 points)		
Feasibility (2 points)		

• Approach to work (2 points)

TOR Approved by:

Name: <u>Richard Kelly</u> Title: <u>Programme Specialist</u> Date: <u>25 Supp 2018</u>

# Appendix 2

### LIST OF PERSONS CONSULTED

Friday, 28 <sup>th</sup> September 10:00am	Meeting with UNDP Ms. Sharona Napier Ms. Stacey-Ann Tomlinson
Wednesday, 3 <sup>rd</sup> October 9:00 am	Meeting with NEPA Mr. Vivian Blake National Ozone Unit
Thursday, 4 <sup>th</sup> October	Mrs. Kerry-Ann Blagrove Hamilton Pharmaceutical and Regulatory Affairs Department Ministry of Health
2:00pm Department	Ms. Karen Watson-Brown, Manager Standards Development & Certification
	Mr. Demar Cornall, Librarian Bureau of Standards
	Mrs. Doucett Bureau of Standards
	Mr. Shane Slater Standards Development & Certification Officer
Friday, 5 <sup>th</sup> October	Dr. Earl Wilson (401-3858) UTECH Engineering Dept.
Monday, 8 <sup>th</sup> October 10:00 am	Mrs. Marsha Wilson-Maxwell Ms. Francine Dunbar Jamaica Customs
	Mr. Kingsley Henry (Customs – Border)
	Mr. Andre Williams, Chief Information Officer Customs
Tuesday 9 <sup>th</sup> October 10am	Ms. Tamara Morrison, Registrar Ms. Angelique Vickers, Deputy Registrar Pesticides Control Authority

### LEGAL CONSULTANT TO SUPPORT THE RATIFICATION OF THE KIGALI **AMENDMENT** 51 HWT Road 1:30pm Ms. Gillian Guthrie, Senior Director Environmental and Risk Management Division MEGJC Ms. Joanne Felix, Environment and Risk Management Division, MEGJC Wednesday, 10<sup>th</sup> October Professor Noel Brown 10am CMU Mr. Colin Roberts 3pm President JARVA Tel: 876-381-4139 Thursday 11th October Ms. Phillipa O'Connor Standards Branch 2pm Friday, 12<sup>th</sup> October Miss Butler (telephone call) Trade Board Tel: 876-967-0507/0674 Email: jbutler@tradeboard.gov.jm Ms. Yvette Sutherland-Reid (Telephone call) Senior Legal Officer MICAF Miss Edwards Legal Officer MICAF Thursday 19th October Miss Lisa Hamilton **HEART Trust NTA** 7 Ashenheim Road Kingston (telephone call) Mr. DerickGoulbourne JARVA Tel: 876-345-8042 (telephone call) Dr. Betsy Bandy Ministry of Energy Tel: 876-929-8990

### AMENDMENT

Mr. Dwayne Barnes NEPA Permits and Licences Tel: 876-754-7540 (telephone call)

Mr. Vivian Blake NEPA National Ozone Unit Tel: 876-754-7540

Friday, 20<sup>th</sup> October

Ms. Phillipa O'Connor Bureau of Standards

#### SUMMARY OF DRAFTING INSTRUCTIONS

#### Scope of New Order

The new Order will seek to regulate the importation of HFCs, ensuring that imports to Jamaica do not exceed the prescribed quota for each party. An annual quota allocation is given to each entity, where failure to comply constitutes a breach of the Trade Order.

The Order would provide that in respect of States which have not ratified the Kigali Amendment trade with such States should as from 1<sup>st</sup> January, 2033 be banned with such States provided that at least 30 States have ratified the Kigali Amendment.

The key elements of the new Order will be as follows:

- establishment of a permitting system;
- requirement for mandatory reporting;

The new Order will specify that no person shall import a controlled substance in breach of the conditions of a licence granted to that person under the Order.

The new Order will impose a prohibition on the import of HFCs unless-

- a) that person is a company specified in Part 1 of the First Schedule of the Order;
- b) the company has been issued a licence to import HFCs under this Order;
- c) the HFCs are of a type approved for import as specified in Part II of the First Schedule and are imported from a State Party;

The new Order will specify the procedure for applying to import HFCs and specifies that an application shall be made to the Minister in the form to be set out in Form 1 in the Third Schedule.

One of the long term features of a permitting system would be the establishment of quotas. Under the Kigali Amendment Jamaica would be a Article 5, Group 1 Party. For Jamaica the baseline for establishing a quota and the phase down process would be as set out below.

#### Table 1 – Kigali Amendment HFCs Baseline Calculation

Formula for the calculation of	Article 5 Parties		None-Articl	
HFCs Baseline	(developing)		(developed and	
(in CO2-eq)	Group 1*	Group 2**	5 Countries***	All Others
Average HFCs in base years HFCs = +	Average 2020-2022	Average 2024- 2026	Average 2011- 2013	Average 2011-2013
Baseline % of HCFCs Baseline	+	+	+	+
	65% of the	65% of the	65% of the	15% of the
	Baseline	Baseline	Baseline	Baseline

AMENDMENT

HFCs Phase- Down Schedule (against baseline level)	Article 5 Parties (developing)		((	Non-Article 5 Parties (developed and some of CEIT)				
	Group1 Group 2		5 Countries***		All Others			
	Year	Reduction	Year	Reduction	Year	Reduction	Year	Reduction
Freeze	2024	Freeze	2028	Freeze	-	-	-	-
Consumption								
Step1	2029	(-) 10%	2032	(-) 10%	2020	(-) 5%	2019	(-) 10%
Step 2	2035	(-) 30%	2037	(-) 20%	2025	(-) 35%	2024	(-) 40%
Step 3	2040	(-) 5%	2042	(-) 00%	2029	(-) 70%	2029	(-) 70%
Step 4	-	-	-	-	2034	(-) 80%	2034	(-) 80%
Final Step (Plateau)	2045	(-) 80%	2047	(-) 85%	2036	(-) 85%	2036	(-) 85%

### Table 2 – Kigali Amendment Phase-down Schedule

\*Group 1 Article 5 Countries: the developing countries not part of Group 2

\*\*Group 2 Article 5 Countries: Bahrain, India, Iran, Iraq, Kuwait, Oman, Pakistan, Qatar, Saudi Arabia, and United Arab Emirates

\*\*\*Belarus, Kazakhstan, Russian Federation, Tajikistan, and Uzbekistan.

It will not be possible to determine a baseline until 2023 when the data gleaned for 2020-22 can be assessed.

In these circumstances it is recommended that there be an Interim Order that covers the period 2019-2024. This Order would expire on 1<sup>st</sup> January 2025. The Interim Order would establish a permitting system for the import of HFCs. This would allow any person to make an application for the import of HFC. The second Order (to be made in 2024) would deal with the permitting system in the context of a quota system to be established under that Order.

The Order will provide that where a person imports HFCs in a breach of its annual quota the Minister may revoke the company's licence to import HFCs.

#### **Permitting System**

A permitting system is to be put in place to control the importation of HFCs. Permits would be allocated to importers to allow them to import HFCs up to a certain upper limit each year. From 2024, we propose regular phase down steps until 2045. This will meet our international obligations under the Kigali Amendment.

Any person could apply to import HFCs.

### What should be included in the permitting system

In Jamaica, there are a range of HFCs with different global warming potentials (GWPs) being imported. This section outlines the substances that are covered by permitting system.

The Kigali Amendment controls the importation and exportation of certain bulk HFCs, such as those bought in cylinders. Substances in the scope of the Kigali Amendment are:

• Imports of the 18 HFCs included in the Kigali Amendment.

- HFC components of a blended substance being imported (HFCs are often used in blends with a range of HFCs, or with other substances). Non-HFC components of the blend will not be covered.
- Recycled HFCs must be controlled, but do not need to be phased down. Controls on this are also outlined under 'Other proposed rules' section.
- Exports of the 18 HFCs must be permitted.

Out of scope of the Kigali Amendment:

- HFCs in products ('pre-charged' equipment, eg, HFCs imported in a refrigerator) are not covered by the Kigali Amendment. The consumption of bulk HFCs used to fill new equipment will be counted as that of the country in which the equipment was filled.
- Other HFCs not included in Table 1 and hydrofluoroolefins (HFOs).

# Appendix 4

#### LIST OF WORKSHOP PARTICIPANTS

NAME	POSITION	<b>TELEPHONE NUMBER</b>	EMAIL ADDRESS
Mr. Derick Goulbourne	Former Technical Assistant	341-8042	dmag85@hotmail.com
	HPMP UNDP project/JARVA		
	member/Senior Lecturer,		
Dr. Earle Wilson	Former National	401-3858	earlewil@yahoo.com;
	Consultant/HPMP		ewilson@utech.edu.jm
	UNDP/Associate Professor,		
	Faculty of Engineering, UTech		
Prof. Noel Brown	Former National Consultant	299-3473	nbrown@cmu.edu.jm
	HPMP UNEP/VP, Innovation		
	and Technology - CMU		
Mr. Kirkland Rowe	Lecturer Utech/Engaged to	822-1416	kirkrowe@hotmail.com
	collect ODS importation data		
Ms. Andrea Donaldson	NEPA/Projects Manager		adonaldson@nepa.gov.jm
Ms. Bethune Morgan	NEPA - Manager, PPB		bethune.morgan@nepa.gov.jm
Ms. Sharona Napier	UNDP- Programme Associate	978-2390 Ext 2029	sharona.napier@undp.org
	Capacity Development		
Mr. Richard Kelly	UNDP - Programme Associate		
	- Policy Support		
Ms. Delores Wade	PIOJ		delores_wade@pioj.gov.jm
Mrs. Saskia Frater Smith	PIOJ		Saskia FraterSmith@PIOJ.gov.jm
Ms. Joanne Felix	MEGJC - Director Environment	427-8910 ; 633-7500 (ext)	joanne.felix@megjc.gov.jm
	& Risk Management Division	2548	

NAME	POSITION	<b>TELEPHONE NUMBER</b>	EMAIL ADDRESS
Ms. Michelle Chambers	Jamaica Customs Agency- Chief Internal Auditor	427-0895; 9485151 ext.3297	michelle.chambers@jacustoms.gov.jm
Mrs. Marsha Wilson – Maxwell		381-5333	marsha.wilson@jacustoms.gov.jm
Mrs. Kerry Ann Blagrove Hamilton	Drug Inspector - Ministry of Health – PRAD	633-7130 /8172/7771 (ext. 7130	blagrove-hamiltonk@moh.gov.jm
Mr. Delano Witter	CEO - Donald Witter Limited	906-4516	dwltdkingston@gmail.com donaldwitterlimited@gmail.com
Mr. Vivian Blake		754-7540 ext. 2313/351-1812	vblake@nepa.gov.jm
Mr. Andre Wilson	Chief Information Officer Jamaica Customs	876-750-3027/876-967-3495	
Ms. Gillian Guthrie	Senior Director Environmental and Risk Management Division Ministry of Economic Growth & Job Creation	876-633-7500	<u>Gillian.guthrie@medjc.gov.jm</u>
Mr. Gregory Bennett	Director, Applications Management Division, NEPA	876-754-7540 ext. 2212	gbennett@nepa.gov.jm
Mr. Dwayne Barnes	NEPA, Permits and Licences	876-592-6592	Dwayne.barnes@nepa.gov.jm
Mr. Ainsworth Carroll	Director, Planning, Projects, Monitoring Evaluation and Research	876-579-8909	ainsworth.carroll@nepa.gov.jm
Ms. Andrea Donaldson	Manager, Projects Branch, NEPA	876-478-8081	adonaldson@nepa.gov.jm
Mr. Webster	Trade Board		

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Inception Workshop for the Implementing Enabling Activities for the Ratification of the Kigali Amendment Reports: Government of Jamaica/UNDP (16<sup>th</sup> May 2018).

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National Policy and Strategy for the Environmentally Sound Management of Hazardous Waste, June 2017 (Ministry of Economic Growth and Job Creation).

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NEPA/UNDP – Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol 64<sup>th</sup> Meeting – HCFC Phase Out Management Plan for Annex C Group 1 Substances for Jamaica (March 2011).

Noel Brown, Montreal Protocol and its Amendments (August 2017).

UN Environment: Briefing Notes Ratification of the Kigali Amendment, February 2017.

UNEP: The Kigali Amendment to the Montreal Protocol: HFC Phase Down

Vienna Convention for the Protection of the Ozone Layer - UNEP