



**Programa de las  
Naciones Unidas  
para el Medio Ambiente**



Distr.  
GENERAL

UNEP/OzL.Pro/ExCom/78/1/Add.1  
6 de marzo de 2017

ESPAÑOL  
ORIGINAL: INGLÉS

COMITÉ EJECUTIVO DEL FONDO MULTILATERAL  
PARA LA APLICACIÓN DEL  
PROTOCOLO DE MONTREAL  
Septuagésima octava Reunión  
Montreal, 4 – 7 de abril de 2017

**ORDEN DEL DÍA PROVISIONAL ANOTADO**

1. Considerando que la 78ª reunión del Comité Ejecutivo es una reunión especial que el Comité Ejecutivo convocó para abordar asuntos relacionados con la Enmienda de Kigali derivados de la decisión XXVIII/2, y las posibles contribuciones adicionales al Fondo Multilateral, el orden del día de la reunión especial es completamente diferente del orden del día de una reunión ordinaria del Comité Ejecutivo.
2. Para información de los miembros del Comité Ejecutivo, el Orden del día provisional anotado explica brevemente los antecedentes que condujeron a la elaboración del orden del día y presenta un resumen indicativo de los documentos preparados por la Secretaría para cada tema del orden del día.

**Antecedentes**

3. En el contexto de la cuestión 10 del orden del día de la 77ª reunión, el Comité Ejecutivo deliberó acerca de una nota de la Secretaría sobre cuestiones pertinentes para el Comité Ejecutivo derivadas de la 28ª Reunión de las Partes en el Protocolo de Montreal<sup>1</sup>, dirigida a solicitar orientación del Comité Ejecutivo respecto de la forma de avanzar para abordar la decisión XXVIII/2 sobre la Enmienda de Kigali en relación con la reducción de los HFC. En la decisión XXVIII/2, las Partes pidieron al Comité Ejecutivo, entre otras cosas, que elaborase, en el plazo de dos años a partir de la aprobación de la Enmienda de Kigali, las directrices para la financiación de la reducción de la producción y el consumo de HFC en los países que operan al amparo del artículo 5, y que presentase esas directrices a la Reunión de las Partes para recabar opiniones y aportaciones de las Partes antes de su finalización por el Comité Ejecutivo. En el Anexo I del presente documento se presenta un extracto del Informe de la 77ª reunión en relación con la cuestión 10 del orden del día<sup>2</sup>, en el que se sintetizan las deliberaciones de los miembros del Comité Ejecutivo en la 77ª reunión.

<sup>1</sup> UNEP/OzL.Pro/ExCom/77/70/Rev.1.

<sup>2</sup> Párrafos 205 a 213 del documento UNEP/OzL.Pro/ExCom/77/76.

4. Durante las deliberaciones, hubo un reconocimiento general de la importancia histórica de la aprobación de la Enmienda de Kigali y los desafíos que enfrentaba el Comité Ejecutivo para formular una respuesta oportuna y apropiada a la decisión XXVIII/2. Varios miembros señalaron que era necesario buscar un punto de equilibrio entre la necesidad de tomar medidas urgentes y decisivas, y la necesidad de avanzar de forma sopesada, juiciosa y bien fundamentada. El proceso habrá de ser iterativo, y habrá que consultar con el Comité Ejecutivo a cada paso. Hubo consenso en que el Comité tenía que adoptar un planteamiento estructurado y estratégico, haciendo uso de los parámetros y directrices apropiados al caso, antes de definir medidas y actividades específicas.

5. Hubo consenso en que debería celebrarse una reunión especial del Comité Ejecutivo a principios de 2017 para deliberar sobre asuntos relativos a la Enmienda de Kigali, y sobre cómo gestionar las potenciales contribuciones adicionales de un grupo de países donantes<sup>3</sup>. Algunos miembros expresaron que sería útil que el Comité Ejecutivo pidiera a la Secretaría que preparara los documentos estratégicos pertinentes para orientar las deliberaciones en dicha reunión.

6. Hubo también varios miembros que dijeron que era imperativo y prioritario que el Comité Ejecutivo decidiera aceptarlas o no y cómo tratar y considerar las contribuciones voluntarias adicionales procedentes de un grupo de países donantes cuya intención era financiar actividades destinadas a la ejecución de los HFC. Inicialmente, el enfoque habrá de centrarse en apoyar la ejecución de manera que ésta empiece rápidamente, incluyendo en ello las actividades de apoyo en los países que operan al amparo del artículo 5, con objeto de tomar impulso desde un principio. Las esferas prioritarias que se han identificado incluyen la eficiencia en el consumo energético y el sector de equipos de refrigeración y de climatización.

7. El Comité Ejecutivo convino en crear un grupo de contacto para deliberar sobre cómo habría el Comité de proceder para abordar los asuntos atinentes a la Enmienda de Kigali y a la decisión XXVIII/2, así como la cuestión de las potenciales contribuciones adicionales procedentes de países donantes.

8. Después del informe del responsable del grupo de contacto, el Comité Ejecutivo decidió (decisión 77/59):

- a) Celebrar una reunión especial de cuatro días a principios de 2017 para abordar asuntos relacionados con la Enmienda de Kigali al Protocolo de Montreal que derivan de la decisión XXVIII/2 de la Reunión de las Partes, y las contribuciones adicionales potenciales al Fondo Multilateral;
- b) Pedir a la Secretaría que prepare un documento que contenga la información preliminar en respuesta a los elementos de la decisión XXVIII/2 de la Vigésimo Octava Reunión de las Partes que pidió al Comité Ejecutivo tomar medidas y abordar las cuestiones siguientes:
  - i) Información disponible sobre el consumo y la producción de HFC y sobre el subproducto HFC-23, proveniente de encuestas de alternativas de las SAO financiadas por el Fondo Multilateral y otras fuentes;

---

<sup>3</sup> Con anterioridad a la 28ª Reunión de las Partes, en un comunicado dado a conocer por la Casa Blanca de los Estados Unidos de América, el 22 de septiembre de 2016 (<https://obamawhitehouse.archives.gov/the-press-office/2016/09/22/leaders-100-countries-call-ambitious-amendment-montreal-protocol-phase>), se anunció la intención de 16 países donantes (es decir, Partes que no operan al amparo del artículo 5) de suministrar 27 millones de \$EUA en 2017 para prestar asistencia a los países que operan al amparo del artículo 5 por medio de apoyo a corto plazo para la aplicación en el caso de que en 2016 se aprobara una enmienda ambiciosa sobre los HFC con una fecha congelación suficientemente temprana. Esta sería una contribución por única vez, y en lo sucesivo no sustituiría las contribuciones de los donantes.

- ii) Las actividades favorables requeridas para asistir a países del Artículo 5 a comenzar su presentación de informes y actividades reguladoras en relación con las medidas de control de HFC;
  - iii) Aspectos clave relacionados con las tecnologías de control del subproducto HFC-23;
  - iv) Identificación de las cuestiones que el Comité Ejecutivo pudiera querer considerar en relación con actividades existentes de eliminación de los HCFC;
  - v) Información pertinente al desarrollo de las directrices relativas a los costos pedidas al Comité Ejecutivo;
- c) Invitar a miembros del Comité Ejecutivo de la 77<sup>a</sup> reunión a que compartan la información pertinente con la Secretaría relativa pero sin limitarse a los elementos enumerados en los subapartados b) i) a v) *supra*, antes del 31 de enero de 2017 sobre una base excepcional debido al tiempo limitado hasta finales de 2016;
- d) En cuanto a las contribuciones de 27 millones \$EUA a corto plazo en 2017 de algunas de las Partes que no están al amparo del Artículo 5:
- i) Aceptar, con beneplácito, las contribuciones adicionales anunciadas por varias Partes que no están al amparo del Artículo 5 para proporcionar ayuda a corto plazo para la aplicación de la Enmienda de Kigali, observando que tal financiamiento era de naturaleza no recurrente y no desplazaría las contribuciones de los donantes;
  - ii) Que las contribuciones adicionales mencionadas en el subapartado d) i) *supra* deberían ponerse a disposición de los países del Artículo 5 que tuvieran un año básico de consumo de HFC entre 2020 y 2022 y que habían indicado formalmente su intención de ratificar la Enmienda de Kigali y adquirir obligaciones tempranas de reducir progresivamente los HFC para apoyar sus actividades favorables, tales como creación de capacidad y capacitación en el manejo de alternativas de los HFC, el otorgamiento de licencias conforme al Artículo 4B, la presentación de informes, y las actividades de preparación de proyecto, teniendo en cuenta, pero sin restringirse a las directrices pertinentes y las decisiones del Comité Ejecutivo;
  - iii) Pedir a la Secretaría que prepare un documento que describa los procedimientos posibles para los países identificados en el subapartado d) ii) *supra* sobre el acceso a las contribuciones adicionales a corto plazo para las actividades favorables;
  - iv) Que el Tesorero se comunicase con los países que no están al amparo del Artículo 5 que hacen contribuciones sobre los procedimientos para poner las contribuciones adicionales a disposición del Fondo Multilateral con el fin de actuar tempranamente respecto a la Enmienda de Kigali;
  - v) Que la Secretaría informase al Comité Ejecutivo sobre las contribuciones adicionales a corto plazo recibidas separadamente de las contribuciones prometidas al Fondo Multilateral; y

- e) Pedir a la Secretaría que prepare un orden del día para la reunión especial a la que se hizo referencia en el subapartado a) *supra* basado en las cuestiones identificadas en los subapartados b) a d) anteriores.

#### Preparación del orden del día y documentos de apoyo

9. La Secretaría examinó todos los párrafos individuales de la decisión XXVIII/2<sup>4</sup> a la luz de la decisión 77/59 y elaboró un proyecto de orden del día provisional. De conformidad con el artículo 8 del Reglamento interno de las reuniones del Comité Ejecutivo del Protocolo de Montreal, el proyecto de orden del día provisional se remitió al Presidente y al Vicepresidente y, tras su acuerdo, el Orden del día provisional se publicó como documento UNEP/OzL.Pro/ExCom/78/1.

10. El Orden del día provisional para la 78ª reunión incluye las siguientes cuestiones de fondo del orden del día y los documentos correspondientes:

- a) La cuestión 3 del orden del día, sobre Actividades de la Secretaría, presenta el informe de las actividades desempeñadas por la Secretaría desde la 77ª reunión para abordar la decisión 77/59; es decir, asuntos relacionados con la Enmienda de Kigali derivados de la decisión XXVIII/2, y posibles contribuciones adicionales al Fondo Multilateral;
- b) La cuestión 4 del orden del día, sobre la Situación de las contribuciones adicionales al Fondo Multilateral, se incluyó con arreglo a la decisión 77/59 d) v), en la que se pidió a la Secretaría que informase sobre las contribuciones adicionales a corto plazo recibidas separadamente de las contribuciones prometidas al Fondo Multilateral. Este informe será presentado por el Tesorero del Fondo Multilateral;
- c) La cuestión 5 del orden del día, sobre Información disponible sobre el consumo y la producción de HFC en los países que operan al amparo del artículo 5, se incluyó con arreglo a la decisión 77/59 b) i) a fin de presentar un informe sobre los HFC de varias fuentes, tales como, entre otras, los informes preparados por los Equipos de tareas del GETE con arreglo a las decisiones XXV/5 y XXVI/9, las encuestas sobre alternativas a las SAO financiadas por el Fondo Multilateral y otras fuentes;
- d) La cuestión 6 a) del orden del día, sobre Información pertinente para la elaboración de las directrices sobre los costos para la reducción de los HFC en los países que operan al amparo del artículo 5, se incluyó con arreglo a la decisión 77/59 b) y la decisión XXVIII/2. El documento presenta información preliminar y las políticas, directrices y decisiones pertinentes del Comité Ejecutivo y las Partes, así como información remitida por los miembros del Comité Ejecutivo que participaron en la 77ª reunión en respuesta a la decisión 77/59 c). Tras dar debida consideración a la cantidad de información que debía presentarse, se decidió organizar esta cuestión del orden del día en tres subcuestiones, a saber: i) Proyecto de criterios para la financiación; ii) Actividades de apoyo y iii) Fortalecimiento institucional, y presentar un documento separado para cada subcuestión;
- e) La cuestión 6 b) del orden del día, sobre Identificación de cuestiones que se han de considerar en relación con las actividades de eliminación de HCFC existentes, se incluyó con arreglo a la decisión 77/59 b) iv) y presenta una reseña de las principales cuestiones que se han identificado durante la eliminación de los HCFC mediante la aprobación y ejecución de los planes de gestión de eliminación de HCFC, especialmente en relación con la introducción de tecnologías de bajo potencial de calentamiento atmosférico (PCA);

---

<sup>4</sup> UNEP/OzL.Pro.28/12.

- f) La cuestión 6 c) del orden del día, sobre Aspectos clave relacionados con las tecnologías de control del subproducto HFC-23, se preparó con arreglo a la decisión 77/59 b) iii) a fin de considerar la situación actual de las emisiones de HFC-23 y los posibles medios para reducir esas emisiones de HFC-23 mediante la optimización de procesos, la destrucción o el acopio para el uso o la conversión a otras sustancias químicas ambientalmente seguras; y
- g) La cuestión 7 del orden del día, sobre Procedimientos para que los países que operan al amparo del artículo 5 cuyo año básico de consumo de HFC está comprendido entre 2020 y 2022 accedan a contribuciones adicionales para actividades de apoyo, se preparó con arreglo a la decisión 77/59 d) y presenta los posibles procedimientos para que aquellos países que operan al amparo del artículo 5 que han indicado oficialmente su intención de ratificar la Enmienda de Kigali y asumir obligaciones de reducción temprana de los HFC accedan a las contribuciones adicionales a corto plazo para actividades de apoyo.

11. En respuesta a la decisión 77/59 c), los Gobiernos de Alemania, la Argentina, los Estados Unidos de América y el Japón compartieron información pertinente con la Secretaría. El texto completo de la información facilitada por esos gobiernos figura en el Anexo II del presente documento.

12. Los documentos para la 78ª reunión se prepararon sobre la base de un exhaustivo examen de las políticas, directrices y decisiones del Fondo Multilateral, el estudio de la información facilitada por los miembros del Comité Ejecutivo con arreglo a la decisión 77/59 c) y un intercambio de opiniones respecto a la aplicación de la Enmienda de Kigali entre la Secretaría y los organismos bilaterales y de ejecución en la Reunión de coordinación interinstitucional realizada en febrero de 2017<sup>5</sup>. En esta reunión, la Secretaría del Ozono, por invitación del Director, hizo una presentación sobre la Enmienda de Kigali y las decisiones pertinentes de la 28ª Reunión de las Partes<sup>6</sup>.

13. De conformidad con la decisión 77/59 b), el documento para cada cuestión/subcuestión del orden del día preparado por la Secretaría contiene solo información preliminar y no un análisis. Se incluye toda la información relacionada con la reducción de los HFC y, por lo tanto, en algunos casos, los documentos individuales son extensos. En cada documento se hace referencia a las fuentes de información.

---

<sup>5</sup> Los miembros del Comité Ejecutivo podrán consultar el Informe de la reunión de coordinación interinstitucional (MLF/IACM.2017/1/19) en el sitio web para el período de sesiones de la 78ª reunión.

<sup>6</sup> Decisiones XXVIII/2 relacionada con la enmienda por la que se reducen los hidrofluorocarbonos, XXVIII/3 sobre eficiencia energética, XXVIII/4 sobre establecimiento de consultas periódicas sobre normas de seguridad y XXVI/8 sobre medidas para facilitar el control del comercio de hidroclorofluorocarbonos y las sustancias sucedáneas.

## **Orden del día provisional anotado**

### **1. Apertura de la reunión**

Discurso de apertura del Presidente del Comité Ejecutivo.

### **2. Cuestiones de organización:**

#### **a) Aprobación del orden del día**

El documento UNEP/OzL.Pro/ExCom/78/1 contiene el orden del día provisional para la 78ª reunión del Comité Ejecutivo.

El Comité Ejecutivo tal vez desee aprobar el orden del día de la reunión en base al orden del día provisional que figura en el documento UNEP/OzL.Pro/ExCom/78/1 y, si fuera necesario, en su forma enmendada verbalmente en la sesión plenaria.

#### **b) Organización de los trabajos**

El Presidente propondrá al plenario la organización de los trabajos.

### **3. Actividades de la Secretaría**

El documento UNEP/OzL.Pro/ExCom/78/2 presenta un informe sobre las actividades desempeñadas por la Secretaría desde la 77ª reunión para abordar la decisión 77/59 sobre asuntos relacionados con la Enmienda de Kigali derivados de la decisión XXVIII/2, y posibles contribuciones adicionales al Fondo Multilateral.

El Comité Ejecutivo tal vez desee tomar nota del informe de las actividades de la Secretaría que figura en el documento UNEP/OzL.Pro/ExCom/78/2.

### **4. Situación de las contribuciones adicionales al Fondo Multilateral**

El documento UNEP/OzL.Pro/ExCom/78/3 presenta un informe, preparado con arreglo a la decisión 77/59 d) v), sobre las contribuciones adicionales a corto plazo.

El Comité Ejecutivo tal vez desee tomar nota del documento UNEP/OzL.Pro/ExCom/78/3 sobre la Situación de las contribuciones adicionales al Fondo Multilateral.

### **5. Información disponible sobre el consumo y la producción de HFC en los países que operan al amparo del artículo 5**

El documento UNEP/OzL.Pro/ExCom/78/4 se preparó de conformidad con la decisión 77/59 b) i) y presenta un análisis del consumo y la producción de HFC en los países que operan al amparo del artículo 5 basado en informes del Grupo de Tareas del GETE (sección I) e información preliminar sobre el consumo de HFC basada en los informes de las encuestas sobre alternativas a las SAO que presentaron los organismos de ejecución, al 27 de febrero de 2017 (sección II). También se incluye información sobre el subproducto HFC-23.

El Comité Ejecutivo tal vez desee tomar nota del documento UNEP/OzL.Pro/ExCom/78/4 sobre Información disponible sobre el consumo y la producción de HFC en los países que operan al amparo del artículo 5.

**6. Elementos que se someten a la consideración del Comité Ejecutivo en relación con la Enmienda de Kigali al Protocolo de Montreal que surgen de la decisión XXVIII/2 de la Reunión de las Partes**

**a) Información pertinente para la elaboración de las directrices sobre los costos para la reducción de los HFC en los países que operan al amparo del artículo 5**

**i) Proyecto de criterios para la financiación**

El documento UNEP/OzL.Pro/ExCom/78/5 presenta información pertinente para la elaboración de criterios para financiar la reducción de los HFC. Los elementos propuestos de las directrices de costos que se han de elaborar para la reducción de los HFC se presentan siguiendo los elementos para los criterios para la financiación de los HCFC. Cada elemento propuesto se presenta con los párrafos o apartados pertinentes de la decisión XXVIII/2, la información pertinente comunicada por los miembros del Comité Ejecutivo con arreglo a la decisión 77/59 c) y las decisiones y la práctica anteriores del Comité Ejecutivo.

El Comité Ejecutivo tal vez desee tomar nota del documento UNEP/OzL.Pro/ExCom/78/5 sobre el Proyecto de criterios para la financiación.

**ii) Actividades de apoyo**

El documento UNEP/OzL.Pro/ExCom/78/6 presenta un examen de las decisiones y directrices relativas a las actividades de apoyo que han adoptado las Partes en el Protocolo de Montreal y el Comité Ejecutivo y que podrían servir como un marco para la reducción sostenible, eficaz en función del costo y exitosa del consumo y la producción de HFC en los países que operan al amparo del artículo 5. La información también podría ayudar al Comité Ejecutivo a decidir qué actividades de apoyo se podrían financiar con las contribuciones adicionales voluntarias de 27 millones de \$EUA para medidas a corto plazo para la aplicación de la Enmienda de Kigali para los países que operan al amparo del artículo 5 cuyo año básico de consumo está comprendido entre 2020 y 2022.

El Comité Ejecutivo tal vez desee:

- a) Tomar nota del documento UNEP/OzL.Pro/ExCom/78/6 sobre Información pertinente para la elaboración de las directrices sobre los costos para la reducción de los HFC en los países que operan al amparo del artículo 5: actividades de apoyo;
- b) Proporcionar a la Secretaría orientación acerca de cómo se considerarán estas actividades como parte de las directrices sobre los costos para la reducción de los HFC; y
- c) Proporcionar orientación acerca de qué actividades de apoyo se podrán incluir para la financiación en el marco de la contribución adicional de 27 millones de \$EUA de un grupo de países donantes, como se señala en el documento sobre Procedimientos para que los países que operan al amparo del artículo 5 cuyo año básico de consumo de HFC está comprendido entre 2020 y 2022 accedan a contribuciones adicionales para actividades de apoyo (UNEP/OzL.Pro/ExCom/78/10).

**iii) Fortalecimiento institucional**

En el documento UNEP/OzL.Pro/ExCom/78/7 se presenta un examen e información actualizada del contenido del documento UNEP/OzL.Pro/ExCom/74/51, específicamente en lo que respecta a las actividades de fortalecimiento institucional y las dificultades previstas en relación con la

Enmienda de Kigali. En el Anexo I del documento se presenta un resumen de la elaboración de normas y políticas para la financiación de proyectos de fortalecimiento institucional, y en el Anexo II se indica una lista de los principales documentos sobre la política de fortalecimiento institucional.

El Comité Ejecutivo tal vez desee tomar nota del documento UNEP/OzL.Pro/ExCom/78/7 sobre Información pertinente para la elaboración de las directrices sobre los costos para la reducción de los HFC en los países que operan al amparo del artículo 5: fortalecimiento institucional.

**b) Identificación de cuestiones que se han de considerar en relación con las actividades de eliminación de HCFC existentes**

El documento UNEP/OzL.Pro/ExCom/78/8 presenta una reseña de las principales cuestiones que se han identificado durante la eliminación de los HCFC en los países que operan al amparo del artículo 5 mediante la experiencia adquirida en la aprobación y ejecución de las etapas I y II de los planes de gestión de eliminación de HCFC. Presenta un resumen de las medidas adoptadas en la mayoría de los países que operan al amparo del artículo 5 para introducir tecnologías de bajo potencial de calentamiento atmosférico (PCA) en los sectores de espumas y de fabricación de equipos de refrigeración y aire acondicionado y, en menor medida, en los sectores de aerosoles y disolventes. Describe brevemente las dificultades encontradas para introducir tecnologías de bajo PCA, incluidos los principales aspectos relacionados con el sector de servicio y mantenimiento de refrigeración. El documento también incluye información pertinente facilitada por los miembros del Comité Ejecutivo en respuesta a la decisión 77/59 c).

El Comité Ejecutivo tal vez desee tomar nota del documento UNEP/OzL.Pro/ExCom/78/8 sobre Identificación de cuestiones que se han de considerar en relación con las actividades de eliminación de HCFC existentes.

**c) Aspectos clave relacionados con las tecnologías de control del subproducto HFC-23**

El documento UNEP/OzL.Pro/ExCom/78/9 presenta información preliminar procedente de varias fuentes sobre los aspectos clave relacionados con las tecnologías de control del subproducto HFC-23, incluida una reseña de las emisiones de HFC-23 en los países que operan al amparo del artículo 5; y una descripción de las posibles oportunidades para reducir las emisiones de HFC-23, incluida información preliminar limitada sobre los costos relacionados. El documento también describe brevemente las actividades de apoyo que podrían iniciar el proceso de presentación de informes y reducción de emisiones de HFC-23.

El Comité Ejecutivo tal vez desee tomar nota del documento UNEP/OzL.Pro/ExCom/78/9 sobre Aspectos clave relacionados con las tecnologías de control del subproducto HFC-23.

**7. Procedimientos para que los países que operan al amparo del artículo 5 cuyo año básico de consumo de HFC está comprendido entre 2020 y 2022 accedan a contribuciones adicionales para actividades de apoyo**

El documento UNEP/OzL.Pro/ExCom/78/10 se preparó con arreglo a la decisión 77/59 d) y presenta los procedimientos para que los países que operan al amparo del artículo 5 cuyo año básico de consumo de HFC está comprendido entre 2020 y 2022, y que han indicado oficialmente su intención de ratificar la Enmienda de Kigali y abordar la reducción temprana de los HFC, accedan a contribuciones adicionales para actividades de apoyo.



El Comité Ejecutivo tal vez desee:

- a) Tomar nota del documento UNEP/OzL.Pro/ExCom/78/10 sobre un Proyecto de procedimientos para que los países que operan al amparo del artículo 5 cuyo año básico de consumo de HFC está comprendido entre 2020 y 2022 accedan a contribuciones adicionales para actividades de apoyo;
- b) Estudiar si:
  - i) Las actividades de apoyo que figuran en el documento son aquellas que se requieren para las medidas a corto plazo para aplicar la Enmienda de Kigali;
  - ii) Las posibles modalidades de financiación descritas en el documento se podrán utilizar para la distribución de los fondos adicionales entre los países que operan al amparo del artículo 5 (Grupo I); y
  - iii) Pedir a los organismos bilaterales y de ejecución que preparen un plan administrativo especial que siga estrictamente los mismos requisitos que para la presentación de los planes administrativos y que contenga solicitudes de financiación para actividades de apoyo en los países que operan al amparo del artículo 5 (Grupo I), para las contribuciones adicionales de un grupo de países donantes al Fondo Multilateral.

**8. Otros asuntos**

Se examinarán en esta cuestión del orden del día las cuestiones de fondo que se haya acordado incluir en la cuestión 2 a) del orden del día.

**9. Aprobación del informe**

El Comité Ejecutivo tendrá ante sí el proyecto de informe de la 78ª reunión para su consideración y aprobación.

**10. Clausura de la reunión**

Se prevé que la clausura de la reunión tendrá lugar el viernes 7 de abril de 2017.



**Anexo I**

**EXTRACTO DEL INFORME DE LA SEPTUAGÉSIMA SÉPTIMA REUNIÓN  
DEL COMITÉ EJECUTIVO (UNEP/OzL.Pro/ExCom/77/76)**

**CUESTIÓN 10 DEL ORDEN DEL DÍA: CUESTIONES PERTINENTES PARA EL COMITÉ EJECUTIVO DERIVADAS DE LA VIGÉSIMO OCTAVA REUNIÓN DE LAS PARTES EN EL PROTOCOLO DE MONTREAL**

205. La representante de la Secretaría presentó una nota de la misma, como documento UNEP/OzL.Pro/ExCom/77/70/Rev.1, dirigida a que el Comité Ejecutivo oriente sobre cómo abordar la decisión XXVIII/2 de la Vigésimo Octava Reunión de las Partes respecto de la enmienda atinente a la reducción de los HFC solicitada por el Comité Ejecutivo, entre otras cosas, para desarrollar, en el plazo de dos años de haberse adoptado la Enmienda de Kigali, directrices para financiar la reducción del consumo y producción de los HFC por las Partes que operan al amparo del artículo 5.

206. Todos los miembros que integran el Comité disertaron sobre unos u otros aspectos del asunto. Hubo una aceptación general de la importancia histórica de adoptar la Enmienda de Kigali y de las dificultades a las que se enfrenta el Comité Ejecutivo para formular puntual y debidamente una respuesta a la decisión XXVIII/2. Al respecto del enfoque general a tomar, varios miembros expresaron que era necesario buscar un punto de equilibrio entre la necesidad de tomar medidas urgentes y decisivas, y la necesidad de avanzar de forma sopesada, juiciosa y bien fundamentada. El proceso habrá de ser iterativo, y habrá que consultar con el Comité Ejecutivo a cada paso. Uno de los miembros dijo que el proceso habrá de ser justo, transparente y eficiente. Se demostró haber consenso en que el Comité tenía que adoptar un planteamiento estructurado y estratégico, haciendo uso de los parámetros y directrices apropiados al caso, antes de definir medidas y actividades específicas.

207. Varios miembros indicaron que la nota de la Secretaría facilitaba unos antecedentes útiles sobre cuestiones relevantes a la Enmienda de Kigali, así como sugerencias también útiles sobre las medidas potenciales que el Comité Ejecutivo pudiera estimar oportuno considerar. Algunos otros miembros dijeron que la nota debería haberse elaborado bajo consulta con el Comité Ejecutivo, y que, sea como fuere, era prematura, dado que el Comité no había solicitado su preparación. Uno de los miembros dijo que la decisión XXVIII/2 debería constituir el fundamento de todo programa de trabajo sobre la Enmienda de Kigali desarrollado por el Comité, y que la determinación de los temas principales y prioridades habrían de incluirse en dicho programa.

208. En lo tocante a cómo avanzar, hubo consenso en que debería celebrarse una reunión especial del Comité Ejecutivo a primeros de 2017, habiendo varios miembros que se inclinaban por la primera semana de abril, para deliberar sobre asuntos relativos a la Enmienda de Kigali, y sobre cómo gestionar las potenciales contribuciones adicionales procedentes de los donantes. Algunos miembros expresaron que sería útil que el Comité Ejecutivo pidiera a la Secretaría que preparara los documentos estratégicos pertinentes para orientar las deliberaciones en dicha reunión.

209. Hubo también varios miembros que dijeron que era imperativo y prioritario que el Comité Ejecutivo decidiera aceptarlas o no y cómo tratar y considerar las contribuciones voluntarias adicionales procedentes de un grupo de países donantes cuya intención era financiar actividades destinadas a la ejecución de los HFC. Las modalidades relativas a las contribuciones podrían decidirse en debates bilaterales entre los países donantes y el Tesorero, dadas las variaciones existentes en los mecanismos de financiación que aplican los diferentes países, todo lo que exigiría y necesitaría un planteamiento personalizado a cada caso. Hubo un miembro que dijo que el Comité Ejecutivo tendrá primeramente que definir la finalidad e intencionalidad de estas contribuciones antes de pasar a considerar peticiones y propuestas más específicas procedentes de los organismos de ejecución. Varios de los miembros señalaron que, inicialmente, el enfoque habrá de centrarse en apoyar la ejecución de manera que ésta

empiece rápidamente, incluyendo en ello las actividades de apoyo en los países que operan al amparo del artículo 5, con objeto de tomar momento desde un principio. Las esferas prioritarias que se han identificado incluyen la eficiencia en el consumo energético y el sector de equipos de refrigeración y de climatización. Un miembro hizo hincapié en que algunas cuestiones deberían recibir la atención específica debida, incluyendo en ello la protección y seguridad y la recopilación de datos. Otro de los miembros señaló que el enfoque debería centrarse en los países que sean activos y estén listos para avanzar en la toma de medidas tempranas sobre la reducción de los HFC.

210. En lo tocante a los nuevos retos planteados para afrontar los HFC, uno de los miembros dijo que sería fructuoso y útil considerar las modalidades creadas para abordar los HCFC como el punto de partida y adaptarlas a las necesidades específicas de las actividades sobre HFC, ante el hecho de que será necesario tener una mayor flexibilidad habida cuenta de la Enmienda de Kigali. Otro de los miembros realzó las incertidumbres relativas a las fuentes y a la modalidad de ejecución de la financiación, incluyendo el hecho de que los fondos procedentes de las fundaciones no se canalizarían por mediación del Fondo Multilateral. Así mismo, este miembro dijo que las cuestiones de equidad deberían recibir mayor prioridad cuando se tomen decisiones sobre la asignación de los fondos de financiación.

211. Tras las deliberaciones, el Director aclaró el procedimiento por el que se ha elaborado la nota. En armonía con la práctica habitual en tales casos, el Director consultó con la Presidencia y la Vicepresidencia sobre si un tema que verse sobre la Enmienda de Kigali debe incluirse o no en el orden del día de la presente reunión. Una vez se hubo confirmado, la Secretaría elaboró una nota informativa para poner en conocimiento del Comité Ejecutivo, habida cuenta de la complejidad y del amplio espectro de las deliberaciones que abocan en la Vigésimo Octava Reunión de las Partes, las diversas decisiones tomadas sobre la materia, el fuerte compromiso por parte de los países donantes y la necesidad de desarrollar modalidades financieras, junto con la necesidad generalizada de tomar medidas urgentes para aplicar la Enmienda de Kigali. Así mismo, dicho miembro declaró que, a menos que así lo prescribiera el organismo de políticas-normativas, la Secretaría no consultó con los miembros respecto de la preparación de documentos, ni dadas las circunstancias hubo tiempo para ello. En el documento se hacía hincapié en dos esferas principales especialmente necesitadas de que se tomen medidas urgentemente: el sector de servicio y mantenimiento de equipos de refrigeración y la eficiencia en el consumo energético. El documento no contenía recomendaciones, si bien estaba destinado a facilitar información que ayudara al Comité en sus procesos de toma de decisiones.

212. El Comité Ejecutivo convino en crear un grupo de contacto, convocado por el representante de Canadá, para deliberar sobre cómo habría el Comité de proceder para abordar los asuntos atinentes a la Enmienda de Kigali y a la decisión XXVIII/2 de la Vigésimo Octava Reunión de las Partes, amén de la cuestión de las potenciales contribuciones adicionales procedentes de países donantes.

213. Después del informe del responsable del grupo de contacto, el Comité Ejecutivo decidió:

- a) Celebrar una reunión especial de cuatro días a principios de 2017 para abordar asuntos relacionados con la Enmienda de Kigali al Protocolo de Montreal que derivan de la decisión XXVIII/2 de la Reunión de las Partes, y las contribuciones adicionales potenciales al Fondo Multilateral;

- b) Pedir a la Secretaría que prepare un documento que contenga la información preliminar en respuesta a los elementos de la decisión XXVIII/2 de la Vigésimo Octava Reunión de las Partes que pidió al Comité Ejecutivo tomar medidas y abordar las cuestiones siguientes:
- i) Información disponible sobre el consumo y la producción de HFC y sobre el subproducto HFC-23, proveniente de encuestas de alternativas de las SAO financiadas por el Fondo Multilateral y otras fuentes;
  - ii) Las actividades favorables requeridas para asistir a países del Artículo 5 a comenzar su presentación de informes y actividades reguladoras en relación con las medidas de control de HFC;
  - iii) Aspectos clave relacionados con las tecnologías de control del subproducto HFC-23;
  - iv) Identificación de las cuestiones que el Comité Ejecutivo pudiera querer considerar en relación con actividades existentes de eliminación de los HCFC;
  - v) Información pertinente al desarrollo de las directrices relativas a los costos pedidas al Comité Ejecutivo;
- c) Invitar a miembros del Comité Ejecutivo de la 77ª reunión a que compartan la información pertinente con la Secretaría relativa pero sin limitarse a los elementos enumerados en los subapartados b) i) a v) *supra*, antes del 31 de enero de 2017 sobre una base excepcional debido al tiempo limitado hasta finales de 2016;
- d) En cuanto a las contribuciones de 27 millones \$EUA a corto plazo de 2017 de algunas de las Partes que no están al amparo del Artículo 5:
- i) Aceptar, con beneplácito, las contribuciones adicionales anunciadas por varias Partes que no están al amparo del Artículo 5 para proporcionar ayuda a corto plazo para la aplicación de la Enmienda de Kigali, observando que tal financiamiento era de naturaleza no recurrente y no desplazaría las contribuciones de los donantes;
  - ii) Que las contribuciones adicionales mencionadas en el subapartado d) i) *supra* deberían ponerse a disposición de los países del Artículo 5 que tuvieran un año básico de consumo de HFC entre 2020 y 2022 y que habían indicado formalmente su intención de ratificar la Enmienda de Kigali y adquirir obligaciones tempranas de reducir progresivamente los HFC para apoyar sus actividades favorables, tales como creación de capacidad y capacitación en el manejo de alternativas de los HFC, el otorgamiento de licencias conforme al Artículo 4B, la presentación de informes, y las actividades de preparación de proyecto, teniendo en cuenta, pero sin restringirse a las directrices pertinentes y las decisiones del Comité Ejecutivo;
  - iii) Pedir a la Secretaría que prepare un documento que describa los procedimientos posibles para los países identificados en el subapartado d) ii) *supra* sobre el acceso a las contribuciones adicionales a corto plazo para las actividades favorables;

- iv) Que el Tesorero se comunicase con los países que no están al amparo del Artículo 5 que hacen contribuciones sobre los procedimientos para poner las contribuciones adicionales a disposición del Fondo Multilateral con el fin de actuar tempranamente respecto a la Enmienda de Kigali;
  - v) Que la Secretaría informase al Comité Ejecutivo sobre las contribuciones adicionales a corto plazo recibidas separadamente de las contribuciones prometidas al Fondo Multilateral; y
- e) Pedir a la Secretaría que prepare un orden del día para la reunión especial a la que se hizo referencia en el subapartado a) *supra* basado en las cuestiones identificadas en los subapartados b) a d) anteriores.

**(Decisión 77/59)**

**Annex II****ARGENTINA  
COMMENTS SUBMITTED RELATED TO DECISION 77/59**

In response to Decision 77/59 where ExCom members were invited to share relevant information on certain specific elements, but not limited to, of Decision XXVIII/2 of the Twenty-Eighth Meeting of the Parties, Argentina is submitting for consideration at the 78<sup>th</sup> Meeting of the ExCom the following comments/proposals.

- (i) Available information on HFC consumption and production, as well as on HFC-23 by-product, including from surveys of ODS alternatives funded by the Multilateral Fund and other sources;

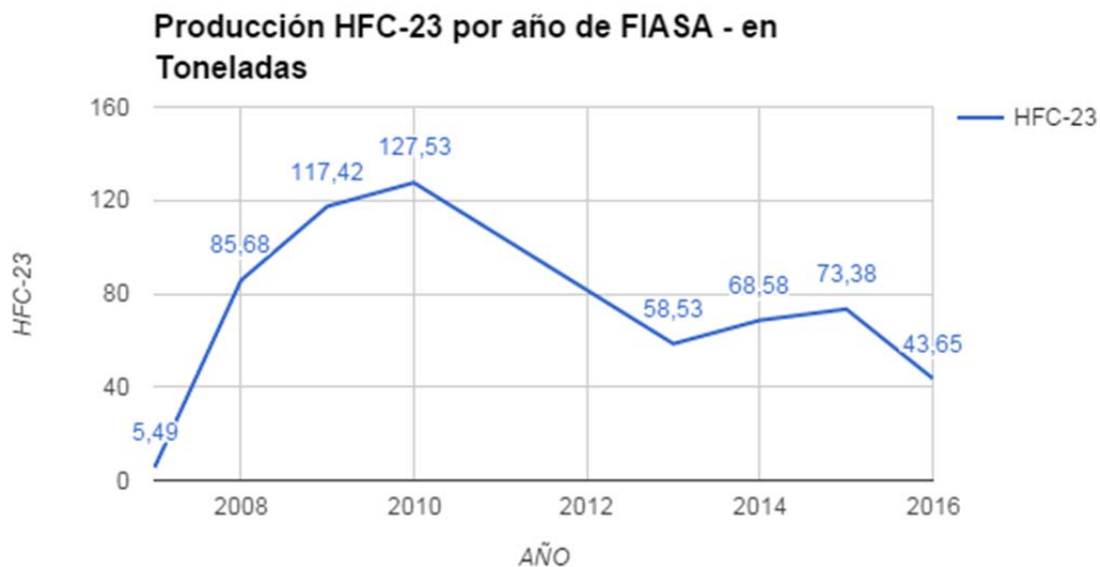
**BRAZIL – HFC IMPORTS 2014-2015**

Substances	2014	2015
HFC-23	1.82	0.46
HFC-32	1,219.17	1,541.05
HFC-125	2,065.59	2,688.24
HFC-134A	10,832.33	9,418.71
HFC-143A	828.25	794.41
HFC-152A	32.20	52.16
HFC-43ME	0.0	0.00
HFC-365	0.00	17.86
HFC-227	0.0	1.82
HFO 1234yf	0.00	0.52
HFC-236fa		0.32
<b>Total</b>	<b>14,979.37</b>	<b>14,515.55</b>

- (ii) The enabling activities required to assist Article 5 countries in commencing their reporting and regulatory activities in relation to the HFC-control measures;

Are included in paragraph 20 of Decision XVIII/2.

- (iii) Key aspects related to HFC-23 by-product-control technologies;
- (iv) The following information refers to Argentina's report production of HFC-23 from FIASA. Since 2013, the Ministry of Production of Argentina carries out the audit of the company FIASA on a quarterly basis, under the coordination of UEPRO - PRESAO of the National Directorate of Sustainable Industry Development.
- (v) Based on the audits and considering the relationship between the production of HCFC-22 and its by-product, HFC-23 gas, the present generation is of approximately 6TN of HFC-23 per month. In the following table, the production of HFC-23 in the last 10 years can be observed:



The company FIASA SA does not perform any treatment of destruction of the HFC-23, but that the gas is vented.

At the time that FIASA worked under the CDM, a project was implemented from which the production of HFC-23 was destroyed in a tower they had for this purpose. This tower is currently in disuse and the company believes that to start up the HFC-23 destruction plant again, investments should be made to:

- Replace damaged absorption tower.
- Repair valves.
- Buy zeolite for the oxygen generator PSA, among other issues.

According to the company, the estimated operating cost for the destruction of HFC-23 is 90 Argentinian pesos per kilogram of HFC-23 for a monthly production of 200TN of HCFC-22 and 6TN of HFC-23.

Please find below our comments on different items of Decision XXVIII/2:



Decision XXVIII/2	Element	Comments/Proposals
<b><i>Financial Issues</i></b>		
<b><i>Overarching principles and timelines</i></b>	9. To recognize that the Amendment maintains the Multilateral Fund for the Implementation of the Montreal Protocol as the financial mechanism and that sufficient additional financial resources will be provided by parties not operating under paragraph 1 of Article 5 to offset costs arising out of HFC obligations for parties operating under paragraph 1 of Article 5 under the Amendment;	
	10. To request the ExCom to develop, within two years of the adoption of the Amendment, guidelines for financing the phase-down of HFC consumption and production, including cost-effectiveness thresholds, and to present those guidelines to the Meeting of the Parties for the parties' views and inputs before their finalization by the ExCom;	Since the ExCom only has 2 years to develop the financing guidelines for HFC phase down, including the c.e. thresholds and submitting them for consideration of the Parties, this delegation thinks it should be ranked as a first priority in the ExCom work.
	11. To request the Chair of the ExCom to report back to the Meeting of the Parties on the progress made in accordance with this decision, including on cases where ExCom deliberations have resulted in a change in a national strategy or a national technology choice submitted to the ExCom;	To ensure transparency and equity across ExCom approvals, the Secretariat should prepare an overview table for the project review agenda item, summarizing for each and all country proposals (regardless if recommended for blanket approval or not), proposed and agreed strategy, technology choice and recommended level of funding, as well as: information on sectors and selected technologies covered by each project, the total eligible cost and C.E. based on eligible consumption for each sector as well as overall coverage (percentage of the baseline level) and the reason why the Secretariat is suggesting the changing of the proposed strategy chosen by the Country, if this is the case.
	12. To request the ExCom to revise the rules of procedure of the ExCom with a view to building in more flexibility for parties operating under paragraph 1 of Article 5;	Decisions that are clearly directed at individual investment projects approved prior to the performance-based project modality should be retired to prevent misuse (i.e. to limit country flexibility or funding levels). The ExCom should commission a report, to be updated periodically, containing a rolling list of decisions that no longer can be applied to sector/national plans.
<b><i>Flexibility in implementation that enables parties to select their own strategies and priorities in sectors and technologies</i></b>		
	13. That parties operating under paragraph 1 of Article 5 will have flexibility to prioritize HFCs, define sectors, select technologies and alternatives and elaborate and implement their strategies to meet agreed HFC obligations, based on their specific needs and national circumstances, following a country-driven approach;	Needs to be included in a Decision

<i>Decision XXVIII/2</i>	Element	Comments/Proposals
	14. To request the ExCom of the Multilateral Fund to incorporate the principle referred to in paragraph 13 above into relevant funding guidelines for the phase-down of HFCs and in its decision-making process;	

**Guidance to the Ex Com with respect to the consumption, production and servicing sectors**

	<p>15. To request the ExCom, in developing new guidelines on methodologies and costs calculations, to make the following categories of costs eligible and to include them in the cost calculation:</p>	
<p><i>Elegible costs in the HFC manufacturing sector</i></p>	<p>(a) Incremental capital costs;</p>	<p>The decision made at the MOP should be the main guiding document as well as the lessons learnt during HPMP implementation, which proved that for some sectors the ICC provided was not sufficient and the IOC should be extended for a much longer period in order to provide sufficient incentive for the conversion to new alternatives. The A2 countries may wish to demonstrate to A5 countries successful conversions to low-GWP alternatives in their countries and share their experience, especially with those countries, which are facing difficulties in introducing new alternatives. • Cost-effectiveness thresholds should be developed using actual incremental costs of HFC phase-out . Those actual incremental cost items should become the basis for a list of standard, eligible equipment for the particular sector. • The ExCom should then approve new C.E. thresholds and the associated standard list of equipment for each subsector. The Secretariat would be required to apply the thresholds and the standard list of equipment in its project review to ensure transparency and equity. • To implement this approach, a cost template should be developed by the Secretariat and Implementing Agencies (as was done for CFCs) for reviewing project costs. • With the above standard costs and set of equipment, there would be no need to maintain artificial levels of IOC. • Where required information for establishing the above thresholds is not available, the ExCom would commission an external technical review by experts selected by the ExCom to determine actual costs as experienced in developed countries and/or approve demonstration projects with an aim to obtain this information.</p>
	<p>(b) Incremental operating costs for a duration to be determined by the ExCom;</p>	
	<p>(c) Technical assistance activities;</p>	
	<p>(d) Research and development, when required to adapt and optimize low-GWP or zero-GWP alternatives to HFCs;</p>	
	<p>e) Costs of patents and designs, and incremental costs of</p>	

<i>Guidance to the Ex Com with respect to the consumption, production and servicing sectors</i>		
	royalties, when necessary and cost-effective;	
	(f) Costs of safe introduction of flammable and toxic alternatives.	
<i>Elegible costs in the HFC production sector</i>	(a) Lost profit due to shutdown/closure of the production facilities as well as production reduction;	<ul style="list-style-type: none"> <li>• Approval of HFC funding guidelines should not preclude the approval of HFC phase-down activities, particularly for HFC-23 emissions that must be eliminated by 2020.</li> <li>• Most important action would be to agree on the HCFC and HFC production guidelines and ensure that funding is swiftly provided to swing plants for production closure/conversion. The most effective way to reduce HFC-23 by-product is to close HCFC-22 production and provide guidance and sufficient funding for that.</li> <li>• Reduction of emission of HFC-23, a byproduct from the production process of HCFC-22, by reducing its emission rate in the process, destroying it from the off-gas, or by collecting and converting to other environmentally safe chemicals, should be funded by the MLF, to meet the obligations of A5 countries specified under the HFCs Amendment.</li> </ul>
	(b) Compensation to displaced workers;	
	(c) Dismantling of production facilities;	
	(d) technical assistance activities;	
	(e) Research and development related to the production of low/zero-GWP alternatives to HFCs with a view to lowering the cost of alternatives;	
	(f) Costs of patents and designs or incremental costs of royalties;	
	(g) Costs of converting facilities to produce low/zero-GWP alternatives to HFCs when technically feasible and cost-effective;	
(h) Costs of reducing the rate of emissions of HFC-23, destroying HFC-23 from off-gas, or collecting HFC-23 and converting it to other environmentally safe chemicals.		
	16. To request the ExCom to increase in relation to the servicing sector the funding available under ExCom Decision 74/50 above the amounts listed in that decision for parties with total HFC baseline consumption up to 360 metric tonnes when needed for the introduction of alternatives to HFCs with low-GWP and zero-GWP alternatives to hydrofluorocarbons and <b>maintaining energy efficiency also in the servicing/end-user sector;</b>	Need a clarification to what is intended with this request. How is servicing sector related to energy efficiency??
<i>Energy efficiency eligible costs</i>	22. to request the ExCom to develop cost guidance associated with maintaining and/or enhancing the energy efficiency of low/zero-GWP replacement technologies and equipment, while taking note of the role of other institutions addressing energy efficiency, when appropriate.	<ul style="list-style-type: none"> <li>• Energy efficiency is not included in agreed incremental costs. Are we going to finance energy efficiency?. This is the first decision that should be taken into account and be taken to the Parties consideration, and then decide whether we should invest time in developing this cost guidance.</li> <li>• There is a need to establish a definition for low-GWP alternatives.</li> </ul>

*Guidance to the Ex Com with respect to the consumption, production and servicing sectors*

		<ul style="list-style-type: none"><li>• In terms of energy efficiency, the Executive Committee has not approved funding for improved energy efficiency of refrigeration and air-conditioning equipment, as this is not considered as an eligible incremental cost under the MLF and because the focus was on phasing-out of ODS. Past Executive Committee decisions determined that technological upgrades go beyond what is covered as eligible incremental costs and would not be funded unless they were unavoidable as part of the project</li></ul>
--	--	--

**Requests to consider by the secretariat in the preparation of a document containing preliminary information in response to the elements in decision XXVIII/2 of the Twenty-Eighth Meeting of the Parties.**

30.01.2017 prepared by the German Constituency

**Background**

In the Conference Room Paper *UNEP/OzL.Pro/ExCom/77/CRP.3/Rev.1* "DRAFT DECISION ON AGENDA ITEM10: ISSUES RELEVANT TO THE EXECUTIVE COMMITTEE ARISING FROM THE TWENTY EIGHTH MEETING OF THE PARTIES TO THE MONTREAL PROTOCOL: KIGALI AMENDMENT – NEXT STEPS FOR THE EXECUTIVE COMMITTEE"

"The Executive Committee decided:

- a) *To invite members of the 77<sup>th</sup> Executive Committee, to share relevant information with the Secretariat on the elements listed but not limited to the sub-paragraphs (b) (i) to (v) above, no later than 31 January 2017 on an exceptional basis noting the limited time between now and the end of the year"*

The following document entails requests/relevant information of the German Constituency for consideration of the secretariat. The document has been structured according to the decision 77/59 and includes additional issues raised in excom doc. 7770 and decision XXVIII/2 of the MOP. However, in keeping the contextual structure of dec 77/59, there are necessarily a number of overlapping issues that need to be mentioned at multiple places.

**Table of Content**

- I. General remarks ..... 2
- II. Available information on HFC consumption and production, as well as on HFC-23 by-product, including from surveys of ODS alternatives funded by the Multilateral Fund and other sources; ..... 3
- III. The enabling activities required to assist Article 5 countries in commencing their reporting and regulatory activities in relation to the HFC-control measures; ..... 3
- IV. Key aspects related to HFC-23 by-product control technologies ..... 4
- V. Identification of the issues that the Executive Committee might want to consider in relation to existing HCFC phase-out activities; ..... 5
- VI. Information relevant to the development of the cost guidelines requested from the Executive Committee; ..... 5
  - a Sustained aggregate reductions ..... 5
  - b Multiple staged conversions of HFC –based manufacturing enterprises ..... 6
  - c Eligible incremental costs of HFC phase-out projects ..... 6
    - i Guidelines for enabling activities ..... 6
    - ii Institutional strengthening ..... 7
    - iii Eligible production costs: ..... 7
    - iv Eligible manufacturing costs: ..... 7
  - d Aspects related to the refrigeration and air conditioning servicing sector ..... 9
  - e Key aspects for improving the energy efficiency of refrigeration and air-conditioning equipment ..... 10
    - i Proofing readiness of A5 to facilitate energy efficiency ..... 12
    - ii Donor coordination and integration with other initiatives ..... 11
    - iii Strategic planning under the Kigali Amendment ..... 12
    - iv Role of UNEP CAP ..... 13
    - v Plus up Administration ..... 13

## I. General remarks on funding issues when implementing the Kigali amendment

In the following we describe the challenges we see in developing the HFC guidelines. As a principle we would like to maintain the existing ODS guidelines as much as possible as they are well understood by members and implementing agencies and are operating well. This paper is therefore, mainly associated with the development of guidelines for new issues to the MLF such as energy efficiency, HFC-23 and the integration with the UNFCCC.

In general we believe that the evaluation of requests for financing incremental costs of a given HFC-project shall take into account the following principles:

- the most cost-effective and efficient option should be chosen, taking into account the national industrial strategy of the recipient A5,
- operational policies, guidelines and administrative arrangements, including the disbursement of resources, for the purpose of achieving the objectives of the MLF (Article 10(5)) should:
  - strictly relate to compliance with the provisions of the Protocol, and
  - meet agreed incremental costs (Article 10(6));
  - consequently, all activities which require MLF funding, including energy efficiency, should be strictly related to the phase down of HFCs, and kept within agreed cost thresholds.
- to seek, to the extent possible, co-funding from other multilateral and bilateral funding efforts, for activities not related to compliance and agree operational modalities for effective cooperation that will ensure there is no delay in disbursing funds or double-counting in view of other multilateral and bilateral funding efforts in the targeted sectors, in specific with view on energy efficiency
- when establishing the incremental costs in the various subsectors, to take into account *any savings or benefits that will be gained at both, the strategic and project levels, during the transition process* (dec/4/15)- continue to fund greenhouse gas reductions on the basis of sustained aggregate reductions. Therefore, any request (HFC, energy use) shall be presented with a baseline and the respective reduction targets that are measurable, (independently) verifiable and reportable, matching the requirements of *both, the MP and the UNFCCC*.
- develop together with reknown institutions in the field of energy use reduction on methodologies and procedures for conservatively projecting and measuring greenhouse gas reductions in the RAC sector, for example with view on complex monitoring needs for appliances
- in the evaluation of greenhouse gas reductions, measure and illustrate the impact in tCO<sub>2</sub> eq. on the basis of annual consumption, lifetime emissions and aggregated savings until 2050 vs. a business as usual scenario.
- give priority to funding (incentivize) requests that implement zero/low GWP, HFC-free solutions and eliminate the need for additional conversions and costs (leapfrogging)
- ensure that an overall national (sub)sector management plan will initiate and enforce normative measures, necessary for establishing a qualitative infrastructure that will facilitate a safe supply of alternative services and products.
- when applying a holistic approach in the servicing sector, take into account experiences, components and synergies of ODS management plans and activities (CFC, HCFC, etc.) previously funded under the MLF, such as tools, equipment, infrastructure, vocational sector actors, training

and certification agents

- to design a credible range of enforcement measures in order to raise the perception of risk among recipients of funding.

- when designing guidelines on capital and operational incremental costs, take into account negative experiences of the fund with cash payments for IOCs and consequently the need for seamless monitoring and control on the sustainability of such transitions.

**II. Available information on HFC consumption and production, as well as on HFC-23 by-product, including from surveys of ODS alternatives funded by the Multilateral Fund and other sources;**

Invite the remaining 17 Article 5 countries, that had not yet received assistance to conduct surveys on ODS alternatives from the Multilateral Fund, to provide, consumption and production data for alternatives to ODS in particular HFCs and provide an overall analysis of the results of the surveys for the consideration of the Executive Committee by its first meeting in 2017.

The secretariat should include in its evaluation of the HFC- Inventories

- an overview on the implemented measures of ODS Alternatives inventories (compilation of reports per country) in order to allow the ExCom a differentiated analysis of HFC use patterns in A5 countries
- clearly identify missing information from the ODS Alternatives Surveys
- describe needs to integrate and include emission reporting under the MP
- ways forward to harmonize with tier 2 or 3 (bottom-up) approach used under UNFCCC
- get a full picture on whether the information from ODS Alternatives Surveys are sufficient to build preliminary baselines for HFCs and to include baselines for energy use emissions in the RAC subsectors

Furthermore we support the secretariat to provide information on the studies and investigation of HFC-23 disposal technologies and HFC-23 reductions using best practices that had been funded through the HCFC production phase-out management plan. In addition, we invite other Governments to provide, on a voluntary basis, information on their experience in controlling HFC-23 by-product emissions.

In the evaluation of information on potential HFC-23 funding, we would like include:

- how independent verification of the information on HFC-23 emission will be warranted?
- what the lifetime of existing productions are and timeline for regulations avoid emissions for new productions?
- if and what incentives for early action are needed, incremental costs of establishing HFC-23 destruction capacity

**III. The enabling activities required to assist Article 5 countries in commencing their reporting and regulatory activities in relation to the HFC-control measures;**



According to the XXVIII/2 the following activities would be eligible for funding: implementing HFC phase down strategies and public awareness; data reporting; enforcement and customs training; service sector training and capacity building; measures for safe introduction of hazardous alternatives.

We recommend to integrate service sector funding under the HCFC and HFC phase down as soon as possible in order to support/facilitate early ratification and rapid phase-down of HFCs. Particularly A5 need a systems for import/export licensing, quota, reporting, data collection, customs, amended regulation and new training for f  
UNEP/OzL.Pro/ExCom/78/1/Add.1  
Annex II  
atives to reduce transition to high-GWP in the me

In the HFC Management Strategy/Plan we would like to see the following issues being addressed:

- activities that will speed up phase-down and limit HFC growth most rapidly and effectively, taking into account the lifetime effects of alternatives at realistic leakage rates as established in the HPMPs (72/42)

#### ***HFC- Inventories*** (see chapter i. above)

- methodologies for establishing baselines for both, HFC and energy consumption in the RAC subsectors

Seek for **synergies** when enabling

- the servicing sector activities for capacity-building and training for HFC alternatives in the manufacturing and production sectors;
- the development of national strategies for a combined institutional HCFC and HFC management and support structure;
- Article 4b on licensing and reporting

#### ***Demonstration projects***

- How to identify key subsectors and select demonstration projects enabling HFC and HCFC management, controls and enforcement, funding could be linked to HPMPs

#### ***Implementation***

- Ask countries to advise on which activities that are particularly important for “fast start” phase-down action

### **IV. Key aspects related to HFC-23 by-product control technologies**

With regard to the potential HFC-23 by-product control technologies, we would like to know:

- what is the state of art, what is the incremental cost of destruction?
- what is the mechanism influencing avoidance of new cases of HFC-23 by-production?
- how will HFC-23 mitigation become mandatory for everybody in the long-term?
- what will be the market demand for HCFC-22 feedstock on view of future products (PTFE, Refrigerants?)

**V. Identification of the issues that the Executive Committee might want to consider in relation to existing HCFC phase-out activities;**

In discussing challenge 6 during the OEWG 38, Parties generally acknowledged the linkage between the HFC and HCFC reduction schedules relevant to subsectors and the preference to avoid transitions from HCFC to high-GWP HFC. They are willing to provide flexibility if no other technically proven and economically viable alternatives are available.

In order to avoid double conversions we recommend that parties acknowledge these linkages with respect to certain subsectors, in particular industrial process refrigeration. *Parties are willing to provide flexibility if no other alternatives are available in cases where HCFC supply may be unavailable from existing allowable consumption, stocks as well as recovered/recycled material, and if it would allow for a direct transition at a later date from HCFCs to low-GWP or zero-GWP alternatives.*

In this proposal parties have signalled their alignment with the principle of using resources most cost-effective manner when seeking synergies between the HCFC and HFC phase-down regimes.

With regard to the integration of the consumption sector we would like to include:

- how could leapfrogging of HFC transitions be further maximised?
- could this also apply to HPMP projects where high-GWP alternatives have been approved already, but have not yet been implemented?
- how to account additional funding resources in view of the starting point for HFC, when avoiding the phase-in of high-GWP HFCs?
- how to rationalise costs following the synergizing effects of implementing servicing simultaneously under the HCFC and HFC phase down

With regard to the integration of production sector we would like to know:

- how will the transition to high-GWP production be avoided/minimized?

**VI. Information relevant to the development of the cost guidelines requested from the Executive Committee;**

**a Sustained aggregate reductions**

*Background Principles*

*“Remaining consumption tonnage eligible for funding will be determined on the basis of the starting point of the national aggregate consumption less the amount funded by previously approved projects in future multi-year agreement templates for HFC phase-down plans (consistent with decision 35/57).”*

We agree that for those Article 5 countries that submit projects in advance of their assessed baseline, the starting point for aggregate reduction in HFC consumption would be established at the time of submission of either the HFC investment project or the HFC-Management plan, whichever was submitted first to the Executive Committee. In cases where calculated HCFC baselines, based on reported Article 7 data, were different from the calculated starting point before the baseline, the starting points could be adjusted.

We want to maintain the practice of fixing a starting point on eligible funding, clearly divided in subsectors and respective eligible HFC consumption in kg substance. This will provide predictable clarity about financial needs for the parties in each of the subsectors.

Generally the Multilateral Fund's strategy is based on a compliance-driven business planning approach. Accordingly, the required reduction level for each country is calculated prior to allocating the resources that are needed to achieve it. This calculation is made in case of HFCs on the basis of an agreed baseline of eligible consumption figures in terms of environmental impact (tCO<sub>2</sub>eq). Energy consumption of HFC technologies shall be as well measured in tCO<sub>2</sub>. When energy consumption of alternatives is funded, a subsector baseline on energy consumption is necessary in order to ensure that the funding provided will result in sustained reductions.

#### *Methodological Issues of Impact Assessment*

We need a paradigmatic change for assessing and reporting climate impact in comparison to the approach we have taken so far under ODS controls, when the impact of GHG reduction was a secondary benefit. With regard to projecting and reporting climate impact we need to dramatically improve transparency and reliability of reporting and clearly distinguish between verified (hard) emission reductions (e.g. HFC) and not verifiable (soft) reductions that depend on unpredictable conditions (as for energy use, unless an agreed conservatively proven methodology is applied).

#### **The evaluation of the environmental impact should include in case of HFCs:**

- lifetime emission of conversion of annual productions
- the aggregated impact (tCO<sub>2</sub>) until 2050
- the separated indication of the impact (tCO<sub>2</sub>) of hard and soft reductions

Each data set should include underlying assumption and a description of means of verification.

Any funding should be used in light of the principle of sustained aggregate reductions, however would like to know also:

- on which principles/decisions could we justify incremental costs of energy efficiency, and
- in case we do so, is it confirmed that EE will fall as well under the agreed subsector cost thresholds
- how to maintain the principle of sustained aggregate GHG reductions of energy use in a RAC subsector and avoid diluting/offsetting GHG reductions and cost effectiveness of the HFC phase down
- how would a possible starting point be assessed in such case (bottom up?)
- will in such case the ExCom agreement complement for individual compliance to targets of the a recipient country with regard to GHG reductions in the energy use subsector

#### **b Multiple staged conversions of HFC -based manufacturing enterprises**

We fully support the principles agreed by the Parties, no additional clarification needed.

#### **c Eligible incremental costs of HFC phase-out projects**

##### **i Guidelines for enabling activities**

The Secretariat recommends using \$27m for enabling activities (→ *see comments chapter I. & II. in this report.*)

The secretariat expects funding for HFC enabling activities to be similar to the HPMP development costs. If though, then very little money (if support costs are included) will be left to do any other than enabling activities. Priority should be given to overcome regulatory and other barriers.

ExCom would request bilateral and implementing agencies to submit funding proposals and prepare capacity assistance.

## **ii Institutional strengthening**

Institutional needs to maintain relationship with regard to the replenishment level. Since there are many similarities between the HFC and HCFC management, costs could be rationalized. Relating costs to the total consumption under implementation could be an important aspect.

## **iii Eligible production costs:**

Eligible production sector costs: lost profit from shutdown or reduction, displaced worker compensation, dismantling facilities, technical assistance, R&D to lower cost of alternatives, patents and royalties, conversion costs to low-GWP, reducing HFC-23 from HCFC-22 production.

Note: similar issues are currently being considered for HCFCs by the production sub-group.

- how should we handle the read-across between HCFC and HFC guidelines
- asking China and other producers to provide info to inform HFC-23 destruction options may need independent verification

## **iv Eligible manufacturing costs:**

ICCs and IOCs for a duration to be determined by ExCom

General market considerations

- Technology deployment will definitely develop faster after the ratification of the Kigali Amendment;
- ICC/IOCs need to be seen in light of the early phase down in many A2 countries, the market will be very different in 5 yrs from now;
- Start with cost effective alternatives, conversions where there are no cost-effective alternatives yet should be backloaded;
- Preference, incentive systems need to be developed for low-/zero-GWP versus technologies based on HFC.

ICCs

- Need to take into account on-going review of prices for components, parts and refrigerants;
- Starting point of cost-effectiveness considerations should be the existing HPMP guidelines, considering that with increasing market introduction, prices will go further down

## IOCs

- approval of IOCs need to take into account negative experiences and possible cases of misuse, consequently there is a need for seamless monitoring and control of the sustainability of such transitions.
- IOCs should not be extended over a longer period of time, because IOCs are only meant to compensate for a loss during the initial market introduction that is caused by a lack of established procedures. New products are generally thought to be overall more competitive than predecessor product/service they replace. Therefore, there is no longer-term need for IOC.
- keep the limit to transfer of funds from eligible ICCs to IOCs at 20%
- considering we have an average implementation of 36 month for approved projects, the application of present market prices for some alternatives, e.g. such as HFOs, with presently only marginal production, is highly volatile and speculative. In these cases IOCs need to be based on real production price, rather than on speculative prices stimulated by initially limited supplies. Ask secretariat to describe marginal production costs of HFOs and HFC-32.

**Prioritisation of funding for manufacturing**

- Ask to prioritize subsectors with highest impact, along both the GWP of the alternative and the lifetime consumption (taking into account initial charge and refill).

**Overview:** Average Lifetimes and leakage-rate per year for equipment assumed in the various RAC subsectors for Article 5 Parties by TEAP and the MLF Secretariat.

Subsector	LIFETIME	ANNUAL LEAK TEAP	ANNUAL LEAK MLF (72/42)	LIFETIME REFILL TEAP	LIFETIME REFILL MLF
Domestic refrigeration	20	2%		40%	
Industrial refrigeration	15-30	15-30%	44%	506%	990%
Transport refrigeration	9-30	15-30%	23%	450%	460%
Commercial refrigeration	20	15-40%	38%	550%	760%
Stationary AC	10-25	2-10%	29%	105%	508%
Mobile AC	15-20	10% - 20%		350%	

This table illustrates that early action would have the largest impact in the industrial, commercial and stationary AC sector. The impact in the domestic sector would be exceptional low (less than 10% compared to the other sectors). This has important implications when giving priority in the selection of subsectors.

Based on above the table below table illustrates an example how the impact of lifetime emissions influences the impact of mitigation scenarios when choosing a subsector:

- If 10% of the HFC-410A is replaced with R32 in stationary A/C, the remaining lifetime emissions (33 Mio tCO<sub>2</sub>) would be still be higher than the total emissions of HFC-134a in the domestic refrigeration sector (29 Mio. tCO<sub>2</sub>) and cause a need for additional conversion in the A/C sector.
- If, alternatively, 10 % of the HFC-410A in stationary A/C sector are replaced with an HFC-free alternative (e.g. Propan) the remaining lifetime emissions would fully offset the existing emissions of HFC-134a in the domestic refrigeration sector (in tCO<sub>2</sub>).

This clearly indicates that in evaluating strategic priorities, both consideration of the GWP of the alternative and the lifetime consumption (charge and refill) are decisive/essential for a cost effective reduction. A/C conversion to zero/low GWP has the highest reduction potential and cost-effectiveness compared to measures in the domestic refrigeration sector or conversion of A/C to HFCs (e.g. R-32) and should be taken into account.

SUBSECTOR BAU	Refrigerant	GWP	LT TCO2/ Unit (C&R)*	CONSUMPTION 2020 (KT)	LT Consumption in MTCO2
Domestic refrigeration	134a	1400	1,4	14610	29
Stationary AC	410A	1920	8,0	134702	938
MITIGATION SCENARIO	Refrigerant	GWP	LT TCO2/ Unit (C&R)*	CONSUMPTION 2020 (KT)	LT Consumption in MTCO2
Domestic refrigeration	600a	6	0,0	14610	1
Stationary AC	290	3	0,0	134702	1
Stationary AC	32	675	3,0	134702	330

\* Emissions from charge plus refill over lifetime (20yrs, no EOL recycling)

This shows that priority setting could help to quickly and sustainably remove emissions, it needs to take into account the actual leakage rates of equipment and how the best environmental outcome is achieved by prioritising HFC-free alternatives.

Therefore, enabling activities need to build framework conditions and capacities to manage flammability and toxicity issues for a safe introduction of HFC-free alternatives and initiate the local adaptation of rules and standards in support of demonstration projects.

#### **d Aspects related to the refrigeration and air conditioning servicing sector**

Include aspects related to the refrigeration servicing sector, taking into account previous policy documents, case studies, and monitoring and evaluation reviews, while developing new guidelines on methodologies and cost calculations.

It is important to review the servicing sector activities. In the past servicing sector activities have not been necessarily designed as a package of policies, regulations, enforcement, skill training and conformity monitoring to build a functioning, qualitative service infrastructure in developing countries. Especially with regard to the formulation and enforcement of regulations countries need more support.

Cost categories considered to be eligible and included in the cost calculation:

- training of customs officers;
- preventing illegal trade of HFCs;
- policy development and implementation;
- public awareness activities;
- training of technicians in good practices and the safety of alternatives, including training equipment and servicing tools;
- certification programmes, monitoring conformity of products, equipment and services in the RAC sectors;
- recycling and recovery of HFCs;
- [best practice on energy efficiency]

It is important to integrate servicing activities for HCFC and HFCs and rationalise the implementation of activities. Thus, a strategy needs to be in place that illustrates the necessary actions with regard to the introduction of low-GWP alternatives under both plans.

This requires a larger degree of differentiation between the various subsectors, alternatives and applications in a country. It will require a stricter formalization of servicing sectors in the countries, specifying requirements in terms of education, quality assurance, tools and conditions at which new technologies with low-GWP alternatives need to be serviced and maintained.

This necessarily includes a review of local standards. Countries need to make sure that there is no concession on safety for users, independent from the fact whether new or refurbished equipment is in use. Furthermore, this should include a review of vocational training systems, the qualification and certification that can be provided through them. In addition, for local quality assurance, certifiers may be needed to confirm the scope of local supplies, compliance of services with standards, product checks, final inspection, as required for certification of equipment, and regular inspection.

The secretariat speaks for a holistic approach. A holistic approach would result in robust local qualitative infrastructure that builds capacity throughout the sectors and institutions: national vocational training system, national certification bodies, policy makers in government and associations, code of practice and skill developers, enforcement authorities, local providers of certification, testing and quality assurances.

Therefore, the delivery of a holistic approach will require longer-term formalised structural changes of processes and institutions. It needs to be assisted by agents, which are sufficiently experienced in delivering institution building in A5 countries in the field of national vocational training and certification.

Altogether developing countries need to provide a qualitative infrastructure to install, operate and disassemble products and equipment operating on low-GWP alternatives, with new operational and safety requirements.

In this regard, it needs to be recognised that the ExCom has already anticipated the need and adapted guidelines to significantly increased servicing sector funding for A5s in view of managing the more difficult introduction of low-GWP alternatives, with a priority on those A5 with consumption below 360mt HCFC.

In summary, addressing the servicing sector can have a big impact on emissions and energy use, it should be addressed holistically. Given flammables and toxicity of alternatives, local needs for certification need to be seen in context of regulations and standards and should be reviewed for all MLF funded activities in this sector.

On the mandate and role of UNEP/CAP in this respect please refer to chapter iv Role of UNEP CAP

**e Key aspects for improving the energy efficiency of refrigeration and air-conditioning equipment**

The MOP has requested the Executive Committee “to develop cost guidance associated with maintaining and/or enhancing the energy efficiency of low-GWP or zero-GWP replacement technologies and equipment, when phasing down HFCs, while taking note of the role of other institutions addressing energy efficiency, when appropriate”.

**i Donor coordination and integration with other funding initiatives in the energy sector**

Before hovering into this new aspect we need answer the following questions:

- We need an action plan for parties on how MP and MLF/ExCom can maximise energy efficiency opportunities as part of the HCFC and HFC phase down:
- What are the opportunities?
- What funding is available with us and with others?
- What should we do to release that funding and use it most effectively and in synergy with the HCFC and HFC phase downs? and,
- Do we have a national framework and strategy that is supportive enough that action can start.

There are several sources of environmental and development funding available for energy efficiency, such as the Global Environment Facility (GEF), the \$5.8bn Clean Technology Fund (CTF) administered by the Multilateral Development Banks or the Green Climate Fund which includes as one of its priorities 'reduced emissions from buildings, cities, industries and appliances'. At the moment, these funds are not well integrated with the Multilateral Fund, which means that opportunities to improve energy efficiency as part of MLF funded projects may be missed. Better integration and co-ordination between the funding streams could lead to more rapid and effective improvements in cooling sector energy efficiency, with less disruption for businesses, and achieve greater improvements from the same overall level of funding. The additional funding for the energy efficiency aspects of the plans could come from the existing sources such as the GEF, GCF and CTF. Consequently, mechanisms could be established to ensure funding approval from those sources was co-ordinated with the ExCom to avoid delays in adopting the Management Plans.

A co-ordinated approach of this type could bring energy efficiency benefits more rapidly and maximise the potential benefits for both energy efficiency and HCFC/HFC reduction from the available funding.

- The World Bank announced \$1bn for energy efficiency in urban areas by 2020, which could include high efficiency cooling technologies, other development banks and initiatives have similar targets.
- 53 Mio. will be added by Philanthropic Organisations (Kigali Cooling Efficiency Fund)
- There are many bilateral initiatives on energy efficiency worldwide. At present the German Ministry of Economic Cooperation and Development implements 120 Mio. of energy efficiency projects in developing countries. Altogether in the EU several billions are pledged for energy efficiency programs, including RAC technologies, in the EU but also in developing countries
- The Green Climate Fund is still growing, but it has already started disbursing money and includes in its priorities reduced emissions from buildings, cities, industries and appliances.
- Overall funding for energy efficiency programs supersedes the budget of the MLF for HFCs by far. These other funds may also be able to provide funding for energy efficiency activities which the MLF does not have the resources or expertise to address, such as cooling demand reduction.



- Therefore, to maximise funding for energy efficiency in the RAC sector it will be important to link up with these existing funding mechanisms

## **ii Proofing readiness of A5 to facilitate energy efficiency measures**

The other funds above will already have their own criteria and guidelines for approving energy efficiency funding. For any energy efficiency funding provided by the MLF, cost guidance needs to be conservative in light of the possible climate impact. Therefore, it is first of all important to analyse and describe necessary governing structure for energy efficiency funding that includes baselines, mitigation targets and instruments for measuring, reporting and verification of funded activities.

There are a number of policy, technical and costs barriers for the introduction of high energy efficient refrigeration and air-conditioning equipment in A5 that needs to be identified. These barriers need to be sufficiently addressed.

The readiness of countries should be assessed through the following information:

- List of relevant needs and methodologies to assess national baselines and performance metrics, such as energy productivity, intensity, fossil power efficiency, potential emission of residential, commercial, industrial sector consumption, mandatory energy savings policies & goals, tax credits, loan programs, incentives, relevant R&D efforts.
- Measures to implement EE certification processes and testing,
- Options for attaching EE strictly to HFC phase-down activities (not being a stand-alone activity)
- Options for verifying funded energy efficient products' compliance or non-compliance when in operation.
- Existing institutional and organizational readiness to enable necessary policies, legal and regulatory frameworks and their enforcement
- Necessary support from recipient countries in terms of institutional arrangements, stakeholder coordination
- Options for evaluating the financial and economic readiness including review of energy prices and tariffs, market structures, financial support and incentives
- Options for evaluating readiness of existing awareness, stakeholder information, education, training, prevalent skills, technologies, infrastructure
- Options for ensuring compatibility with the other mitigation initiatives under the UNFCCC such as CDM or NAMAs
- Institutional requirements to build synergies between other EE initiatives
- Options to make sure that the climate impact of verified emission reductions (HFC) is not sacrificed by diluting these with not-verifiable emission reductions, which are unpredictable in nature and often depended on behavioural patterns and change of energy use.

## **iii Strategic planning under the Kigali Amendment**

Secretariat proposes to a project-by-project approach. The analysis of the priority sectors illustrates that almost all strategic subsector are also subject to the HCFC phase-down. Therefore, the HCFC

phase-down provides sufficient level playing field to generate best practice examples based on regular implementation modalities.

#### **iv Role of UNEP CAP**

UNEP CAP, the compliance assistance programme, was entrusted by the Parties in 1991 to the political promotion of the objectives of the Protocol, research and data-gathering and Clearinghouse function. It delivers regional assistance to governments in choosing and enforcing policies required to implement the Protocol, when making informed decisions about alternative technologies and sustain compliance obligations.

UNEP has been chosen to host umbrella bodies under the Montreal Protocol, including convention/protocol and fund secretariat, as well as the CAP programme. The actual implementation of country activities is through the multilateral bilateral and implementing agencies. The parties have always been cognizant of this work division in order to avoid a conflict of interest and double counting of country based activities.

We support the idea that CAP should continue its efforts to ensure compliance of countries with the HFC phase down policies and targets, e.g. through regional efforts on regulations and ensuring measures for controlling imports and exports are harmonized and enforced..In addition, CAP should continue to support the investment and capacity building programmes of bilateral and implementing agencies through facilitation of the regional and global exchange of experiences between agency experts and country representatives. Such exchange is not part of the approved HFC- phase down projects and should be financially supported through CAP.

We would be interested to discuss the extent to which the CAP is currently able to deliver the holistic, structural changes needed in A5 institutions to meet the requirements of the Kigali amendment. Therefore, we support the proposal that CAP should include on the agendas of regional network meetings of ozone officers, beginning in 2017, issues related to the ratification of the Kigali Amendment to the Montreal Protocol and the phase-out of HCFCs and the phase-down of HFCs, with the participation of experts that could address issues of relevance to Article 5 countries, and encourage the Secretariat and the bilateral and implementing agencies to attend those meetings and engage in the discussions.

Before discussing any longer term mandates of CAP, we suggest to wait for the outcome of the evaluation of the CAP programme.

#### **v Plus up Administration**

Governments need to have flexibility from which budgets to take the plus up, which may influence their choice of contribution. Regarding the mechanism for providing the plus up, it is our understanding that it would be treated as an earmarked, voluntary contribution, either in the form of bilateral or cash contributions under the fund. Since the contributions are voluntary, limitations to the share of bilateral contributions shall not apply and those contributions could exceed 20% of the total contribution.

## ANNEX

### Leak rates per subsector :

On average between 22 to 44% /annum (EXCOM document 72/42)

Subsector	Estimated annual emission rates in HPMPs		
	Average (%)	Lowest value (%)	Highest value (%)
Residential air-conditioning	29	4	79
Commercial air-conditioning	40	3	70
Industrial air-conditioning	40	8	54
Transport	23	8	40
Chillers	22	14	30
Commercial refrigeration	38	2	82
Industrial refrigeration	44	7	100

*Source: A sample of 38 approved HPMPs in which this data is available. The data corresponds to estimations made by each country and the methods may differ between countries.*

## Government of Japan

**(i) Available information on HFC consumption and production, as well as on HFC-23 by-product, including from surveys of ODS alternatives funded by the Multilateral Fund and other sources;**

According to the data for FY 2015 reported by operators of more than 10,000 t-CO<sub>2</sub> equivalent HFCs production in the previous FY, the total amount of HFCs production from April 2015 to March 2016 in Japan is 47.73 million t-CO<sub>2</sub>. The total amount of HFCs production is estimated to be 48.52 million t-CO<sub>2</sub>, also taking into account the estimated amount of the operators of less than 10,000 t-CO<sub>2</sub> equivalent HFCs production.

**(ii) The enabling activities required to assist Article 5 countries in commencing their reporting and regulatory activities in relation to the HFC-control measures;**

Regarding the enabling activities (a) to (f) below, which are listed in paragraph 30 of the document ExCom77/70/Rev.1, we believe that priority should be given in particular to the activities of (a), (b) and (f).

- (a) Capacity-building and training for handling HFC alternatives in the servicing, manufacturing and production sectors;
- (b) Institutional strengthening;
- (c) Article 4B licensing (e.g., training of customs officers and other enforcement officers on inter alia policies, regulations, import/export licensing and quota systems, preventing illegal trade of HFCs in support of the phase-down of HFCs);
- (d) Reporting (e.g., data reporting under Article 7 of the Montreal Protocol and under the progress report);
- (e) Development of national strategies; and
- (f) Demonstration projects.

**(iii) Key aspects related to HFC-23 by-product-control technologies;**

The emission of HFC-23 has been decreasing in Japan since 2004, when all production facilities were equipped with recovery and destructive device. The

substance is destroyed by the Liquid Injection Incineration technology.  
(2014)

Production of HCFC-22: 51,753 ton

Ratio of HFC-23 as by-product: 1.46%

Emission ratio from HCFC-22 production: 0.003%

Emission amount: 2 metric ton (0.02 Million t-CO<sub>2</sub>)

Source: National Greenhouse Gas Inventory Report of Japan 2016

**(iv) Identification of the issues that the Executive Committee might want to consider in relation to existing HCFC phase-out activities;**

We believe that the activities aimed at securing compliance of Article 5 countries with the HCFC phase-out schedule should not be delayed as they commence HFC phase-down activities.

**(v) Information relevant to the development of the cost guidelines requested from the Executive Committee;**

As evaluation criteria and standard for energy efficiency vary among countries, incorporating energy efficiency into the cost guidelines would be a complicated work. Therefore, it should be given very careful consideration.



United States Department of State

*Bureau of Oceans and International  
Environmental and Scientific Affairs*

*Washington, D.C. 20520*

January 31, 2017

Eduardo Ganem  
Chief Officer  
Montreal Protocol Multilateral Fund  
Suite 4100  
1000, De La Gauchetière Street West  
Montreal, Quebec H3B 4W5  
Canada

Dear Mr. Ganem,

Please accept the U.S. response to Decision 77/59 of the Executive Committee of the Multilateral Fund requesting Executive Committee members to share relevant information to help the Fund Secretariat prepare a document containing preliminary information in response to the elements in decision XXVIII/2. I hope this information is helpful to the Secretariat in preparing for the 78th meeting of the Executive Committee in April 2017. Please let me know if you have any questions.

*Global Mitigation of Non-CO<sub>2</sub> Greenhouse Gases: 2010-2030* (U.S. EPA, 2013).<sup>i</sup> This report lays out several strategies for reducing HFC emissions, among other non-CO<sub>2</sub> greenhouse gases, and then assesses the costs of those strategies. Specifically, the report assesses the cost of (1) transition to low-global warming potential (low-GWP) alternatives in several sectors, (2) servicing practices, and (3) HFC-23 capture and destruction. The following sections of the report are relevant:

- Section IV.2 – HFC Emissions from Refrigeration and Air Conditioning
- Section IV.3 – HFC Emissions from Solvent Use
- Section IV.4 – HFC Emissions from Foams Manufacturing
- Section IV.5 – HFC Emissions from Aerosol Product Use
- Section IV.6 – HFC and PFC Emissions from Fire Protection
- Section IV.8 – HFC-23 Emissions from HCFC-22 Production
- Corresponding Appendices D-II, and J.

In addition to the above report, a prior U.S. EPA document published in 2004 also covers abatement costs of substitutes for ozone-depleting substances. While the figures are outdated, the methodology used may be informative: *Analysis of Costs to Abate International Ozone-Depleting Substance Substitute Emissions* (U.S. EPA, 2004).<sup>ii</sup>

*Analysis of Equipment and Practices in the Reclamation Industry, Draft Report* (U.S. EPA, 2010).<sup>iii</sup> This draft report provides an overview of the reclamation industry in the United States.

*Greenhouse Gas Performance Analysis for Commercial Buildings with Large Refrigeration and Air Conditioning Systems* (ICF International, 2012).<sup>iv</sup> This report proposes twelve refrigerant leak reduction measures (outlined pages 3-8) and a handful of energy conservation measures (outlined pages 13-14) for commercial refrigeration and cold storage systems. The report provides relative



costs of implementing the various leak reduction measures and energy conservation measures and provides the net cost savings and environmental impacts avoided through these practices (provided in charts and tables).

*Technical Support Document: Analysis of the Economic Impact and Benefits of Final Revisions to the National Recycling and Emission Reduction Program* (U.S. EPA, 2016).<sup>v</sup> This report analyzes the costs and benefits of refrigerant servicing practices being proposed in a U.S. regulation. In Section 3.1.1.3 (page 45) of the report there is a description of unit costs and savings for leak inspections and repair activities based on U.S. median earnings for HVAC mechanics and installers. In addition, the document estimates costs and savings for the implementation of the proposed servicing practices by "do-it-yourself" technicians (found in Appendix E, page 117).

With respect to the HFC-23 byproduct control obligations, the United States would draw the attention of the Secretariat to the Parties approval in 2011 of the technology for Conversion by Chemical Reaction with Hydrogen and Carbon Dioxide. To date, we are aware of HFC-23 being handled at HCFC production facilities at the commercial scale using conventional destruction technology, but we believe the Secretariat should consider the full range of available technologies in helping inform the Executive Committee at its 78<sup>th</sup> meeting, and we want to draw attention to the conversion technology noted above that has been developed by Midwest Refrigerants. In contrast to destruction technology, this conversion technology allows for production of anhydrous hydrogen fluoride, with small amounts of anhydrous hydrogen chloride. These outputs can either be put back into the production cycle or sold as high purity chemicals. There are other possible products with commercial value that can also be produce in this process with commercial value that can help offset capital and operating costs of the technology. Operating costs of the technology are similar to a thermal oxidizer, and while capital costs may be somewhat higher, they will be offset by the sales of the products noted above. We request the Secretariat include information on this technology in documents being prepared for the 78<sup>th</sup> meeting as it relates both to byproduct control provisions of the amendment as well as demonstration projects, and further information can be found at <http://www.midwestrefrigerants.com/>.

The United States has identified several best practices and standards documents related to servicing that may be useful to the Fund Secretariat. These provide information on the proper installation and maintenance of refrigeration and air-conditioning equipment. As documented in the first article listed below, proper installation and maintenance practices can reduce refrigerant leakage and maintain a system's energy efficiency. The below list is just a sample of the many resources that are available.

The National Institute of Standards and Technology (2014) authored a report on the *Sensitivity Analysis of Installation Faults on Heat Pump Performance*. Of particular interest, sections 5.2.2 and 5.2.3 articulate and quantify the effects of heat pump sizing and duct leakage on HVAC equipment.<sup>vi</sup>

"Smart Maintenance for Rooftop Units," *ASHRAE Journal* (Breuker et al. 2000).<sup>vii</sup> This article provides the decrease in rooftop unit capacity and coefficient of performance resulting from various problems with a system that can be addressed by servicing (e.g., refrigerant leakage).

*ENERGY STAR*<sup>®</sup> *Program Requirements for Room Air Conditioners, Version 4.0* (U.S. EPA).<sup>viii</sup> Section D of the Certification Criteria on page 7 of 11 of this document provides specific installation requirements for window air conditioners to minimize air leakage and thermal losses. We are also providing the Fund Secretariat with an Excel spreadsheet titled "ENERGY STAR Draft 1 Version 4.0 Room Air Conditioners Data Package.xlsx,". Tab 5 shows the additional cost of more energy efficient equipment that meets the criteria and the payback time for the consumer in annual energy



savings. Currently for room air conditioners, the initial purchase price of the more energy efficient appliance is higher than less efficient products in most cases. However, the payback period is only three to four years. For many ENERGY STAR products, there is little to no price increase. ENERGY STAR specifications are set so that if there is a cost differential at time of purchase, that cost is recovered through utility bill savings within the life of the product—generally between two and five years.

*GreenChill Best Practices Guideline: Commercial Refrigeration Leak Prevention and Repairs* and *GreenChill Best Practices Guideline: Ensuring Leak-Tight Installations of Commercial Refrigeration Equipment* (U.S. EPA).<sup>ix</sup> These guides provide food retailers with information on best practices for reducing refrigerant leaks from commercial refrigeration systems. Reducing leaks saves equipment owners money on refrigerant and energy costs, and in the case of commercial refrigeration prevents food spoilage.

Installation and Maintenance Standards from numerous organizations are also available.

- ANSI/ASHRAE/ACCA Standard 180-2012: Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems<sup>x</sup>
- ACCA Standard 4: Maintenance of Residential HVAC Systems<sup>xi</sup>
- ACCA Standard 5: HVAC Quality Installation Specification<sup>xii</sup>
- ACCA Standard 14: Quality Maintenance of Commercial Refrigeration Systems<sup>xiii</sup>

Additionally, we would like to note that minimum energy conservation standards by the United States Department of Energy, combined with our highly-successful ENERGY STAR labeling program have resulted in significant benefits in the United States, both for consumers in lower energy bills and for the environment in fewer greenhouse gas emissions. Without a minimum energy efficiency standard for equipment, the manufacturers of refrigeration and air-conditioning manufacturers are likely to continue to produce least-cost, low-energy efficient equipment because there will continue to be a consumer market for it, even while they convert production lines to manufacture energy efficient units. We request that the Secretariat include consideration of the role that adequate and enforceable minimum energy efficiency standards can play in meeting the Parties' goals outlined in Decision XXVIII/2 in documents being prepared for the 78<sup>th</sup> meeting. Several resources are listed below that may be useful in preparing for the 78<sup>th</sup> meeting of the ExCom:

*Energy Conservation Standard Technical Support Documents:* The U.S. Department of Energy's Building Technology Office is responsible for establishing energy conservation standards for numerous appliances. When updating the minimum standard, the program develops detailed technical support documents evaluating the costs and benefits of the department's actions. These documents contain useful information on the various options for improving energy efficiency in a product, the incremental manufacturing production cost of meeting the new standard, and the payback period for consumers, among other topics. One example is listed below. If the Fund Secretariat finds this type of document useful, the United States will provide a more complete list of relevant Technical Support Documents.

*Technical Support Document: Energy Efficiency Program for Consumer Products and Commercial and Industrial Equipment: Small, Large, and Very Large Commercial Package Air Conditioning and Heating Equipment* (U.S. Department of Energy, 2015).<sup>xiv</sup> Chapter 8 of this report provides cost and consumer payback estimates associated with increasing the efficiency standard. This includes the incremental manufacturer production costs, among other elements. Chapter 12, which measures the impacts on manufacturers may also be relevant.



*Lessons Learned from Incenting Programs for Efficient Air Conditioners* (U.S. Department of Energy, 2015).<sup>xv</sup> As shown through this report there are a number of different ways to incentivize more energy efficient appliances. Of particular note, there are a variety of case studies described which cover many countries across the world.

*Achievements of appliance energy efficiency standards and labelling programs* (International Energy Agency, 2016).<sup>xvi</sup> Based on evidence from a wide cross-section of countries with energy efficiency standards and labelling programs, this report finds that energy efficiency standards and labeling programs deliver energy and CO<sub>2</sub> reductions while also reducing total appliance costs as articulated in chapters 3 and 4.

*Cost-Benefit of Improving the Efficiency of Room Air Conditioners in India* (Lawrence Berkeley National Laboratory, 2016).<sup>xvii</sup> In an evaluation of improving the efficiency of room-AC in India, this report found that, despite a small cost increase for manufacturing more energy efficient units requiring a modest increase in retail price, consumers are able to easily recoup the modest retail price increase through significant energy savings leading to short payback periods of 1.2 to 2.4 years.

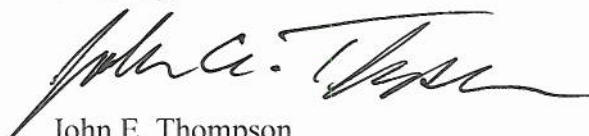
*The Future of Air Conditioning for Buildings* (U.S. Department of Energy, 2016).<sup>xviii</sup> This report provides several useful data points. Section 4.2 shows that many of the low-GWP refrigerant alternatives under consideration can increase energy efficiency with only soft optimization, even in high ambient temperature conditions. Section 6 provides historical equipment cost information for the United States—showing decreasing inflation-adjusted costs even as minimum energy efficiency standards increased and the ODS phaseout took hold—and ways that equipment manufacturers are reducing transition costs.

“A Retrospective investigation of energy efficiency standards: policies may have accelerated long term declines in appliance costs,” *Environmental Research Letters* (Buskirk et al., 2014).<sup>xix</sup> This article also finds decreasing long-term costs for certain refrigeration and air-conditioning equipment while energy efficiency standards became more stringent.

*The Greenhouse Gas Performance Analysis for Commercial Buildings with Large Refrigeration and Air Conditioning Systems* report (ICF 2012) that is referenced above also provides useful information on nine specific energy conservation measures for commercial refrigeration and cold storage, including estimates of costs of installation or implementation of practices, and the environmental and cost savings from these energy efficiency actions over the life of the equipment.

*EPA Energy and Environment Guide to Action* (U.S. EPA, 2015).<sup>xx</sup> Starting on page 4-72, section 4.4 provides an overview of the benefits and best practices when implementing an appliance energy efficiency standard.

Sincerely,



John E. Thompson  
Deputy Director  
Office of Environmental Quality and  
Transboundary Issues

- <sup>i</sup> Available at [https://www3.epa.gov/climatechange/Downloads/EPAactivities/MAC\\_Report\\_2013.pdf](https://www3.epa.gov/climatechange/Downloads/EPAactivities/MAC_Report_2013.pdf) and [https://www3.epa.gov/climatechange/Downloads/EPAactivities/MAC\\_Report\\_2013-Appendixes.pdf](https://www3.epa.gov/climatechange/Downloads/EPAactivities/MAC_Report_2013-Appendixes.pdf)
- <sup>ii</sup> Available at <https://www.epa.gov/sites/production/files/2015-08/documents/odssubstituteemissions.pdf>
- <sup>iii</sup> Available at [https://www.epa.gov/sites/production/files/2015-08/documents/analysis\\_of\\_equipment\\_and\\_practices\\_in\\_the\\_reclamation\\_industry.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/analysis_of_equipment_and_practices_in_the_reclamation_industry.pdf)
- <sup>iv</sup> Available at <https://www.arb.ca.gov/research/apr/past/09-306.pdf>
- <sup>v</sup> Available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0453-0225>
- <sup>vi</sup> Available at <http://nvlpubs.nist.gov/nistpubs/TechnicalNotes/NIST.TN.1848.pdf>
- <sup>vii</sup> Available at <http://alpinems.com/pdfs/Smarter-Maintenance.pdf>
- <sup>viii</sup> Available at <https://www.energystar.gov/sites/default/files/ENERGY%20STAR%20Version%204.0%20Room%20Air%20Conditioners%20Program%20Requirements.pdf>
- <sup>ix</sup> Available at <https://www.epa.gov/sites/production/files/documents/leakpreventionrepairguidelines.pdf>
- <sup>x</sup> Available at [http://resilientenergymanagement.com/ASHRAE\\_180\\_0010.pdf](http://resilientenergymanagement.com/ASHRAE_180_0010.pdf)
- <sup>xi</sup> Available at [http://www.transductiontechnologies.com/uploads/2/7/5/4/27547719/acca\\_standard\\_4\\_quality-maintenance.pdf](http://www.transductiontechnologies.com/uploads/2/7/5/4/27547719/acca_standard_4_quality-maintenance.pdf)
- <sup>xii</sup> Available at <http://www.acca.org/communities/community-home/librarydocuments/viewdocument?DocumentKey=b1d2a39d-fda8-4af9-b8de-0ae579bfe24a>
- <sup>xiii</sup> Available at <http://www.acca.org/communities/community-home/librarydocuments/viewdocument?DocumentKey=12319f89-e8d1-401c-ba48-e7e5607c9511>
- <sup>xiv</sup> Available at <https://www.regulations.gov/document?D=EERE-2013-BT-STD-0007-0105>
- <sup>xv</sup> Available at <http://www.superefficient.org/Research/PublicationLibrary/2015/Lessons%20Learned%20From%20Incentive%20Programs%20for%20Efficient%20Air%20Conditioners>
- <sup>xvi</sup> Available at <http://www.superefficient.org/Research/PublicationLibrary/2016/IEA-4E-Achievements-of-national-EESL-programs-report-2016>
- <sup>xvii</sup> Available at <http://www.superefficient.org/Research/PublicationLibrary/2016/India%20AC%20Cost%20Benefit%20report%202016>
- <sup>xviii</sup> Available at <https://energy.gov/eere/buildings/downloads/future-air-conditioning-buildings-report>
- <sup>xix</sup> Available at <http://iopscience.iop.org/article/10.1088/1748-9326/9/11/114010/pdf>
- <sup>xx</sup> Available at [https://www.epa.gov/sites/production/files/2015-09/documents/guide\\_action\\_chapter4.pdf](https://www.epa.gov/sites/production/files/2015-09/documents/guide_action_chapter4.pdf)