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Open-ended Working Group of
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on Substances that Deplete the Ozone Layer
Resumed thirty-eighth meeting
Kigali, 8 October 2016

Twenty-Eighth Meeting of the Parties to the
Montreal Protocol on Substances that Deplete the
Ozone Layer
Kigali, 10–14 October 2016

Updated consolidation of the amendment proposals submitted by parties to the Montreal Protocol

Note by the Secretariat

1. At its thirty-seventh meeting (Geneva, 4–8 April 2016), the Open-ended Working Group of the Parties to the Montreal Protocol agreed that the Secretariat would prepare an information document that would consolidate the four amendment proposals put forward by parties to amend the Montreal Protocol to phase down the consumption and production of hydrofluorocarbons (HFCs). The document would show how each of the proposals would affect the text of the Montreal Protocol, article by article, and would serve as information for the ensuing discussions.¹ In response, the Secretariat prepared the requested document,² which consolidated the four amendment proposals submitted by a total of 41 parties, namely:

- (a) Canada, Mexico and the United States of America, whose proposal is referred to as the North American proposal;³
- (b) India, whose proposal is referred to as the Indian proposal;⁴
- (c) The European Union and its 28 member States, whose proposal is referred to as the European Union proposal;⁵
- (d) Kiribati, the Marshall Islands, Mauritius, the Federated States of Micronesia, Palau, the Philippines, Samoa and Solomon Islands, whose proposal is referred to as the Island States proposal.⁶

¹ UNEP/OzL.Pro.WG.1/37/7, para. 44.

² UNEP/OzL.Pro.WG.1/resumed.37/INF/1–UNEP/OzL.Pro.WG.1/38/INF/1–UNEP/OzL.Pro.ExMOP/3/INF/1.

³ UNEP/OzL.Pro.WG.1/resumed.37/3 and Add.1; UNEP/OzL.Pro.WG.1/38/3 and Add.1; UNEP/OzL.Pro.ExMOP/3/3 and Add.1; UNEP/OzL.Pro.28/5 and Add.1.

⁴ UNEP/OzL.Pro.WG.1/resumed.37/4; UNEP/OzL.Pro.WG.1/38/4; UNEP/OzL.Pro.ExMOP/3/4; UNEP/OzL.Pro.28/6.

⁵ UNEP/OzL.Pro.WG.1/resumed.37/5; UNEP/OzL.Pro.WG.1/38/5; UNEP/OzL.Pro.ExMOP/3/5; UNEP/OzL.Pro.28/7.

⁶ UNEP/OzL.Pro.WG.1/resumed.37/6; UNEP/OzL.Pro.WG.1/38/6; UNEP/OzL.Pro.ExMOP/3/6; UNEP/OzL.Pro.28/8.

2 The document served as a background information and reference document during the deliberations of the contact group on the Dubai pathway on hydrofluorocarbons (established by the Twenty-Seventh Meeting of the Parties in decision XXVII/1) at the resumed thirty-seventh and thirty-eighth meetings of the Open-ended Working Group and at the Third Extraordinary Meeting of the Parties, which were held in Vienna from 15 to 23 July 2016.

3. During the Third Extraordinary Meeting of the Parties, the contact group developed a table listing the baseline ranges, freeze dates and first reduction step preferences of various parties and groups of parties, along with associated explanatory notes⁷ (see annex II to the present note). Subsequently, the Extraordinary Meeting of the Parties decided, inter alia, that the Secretariat would update the consolidation of proposals to amend the Montreal Protocol based on the latest developments. The present note is prepared in response to that request.

4. The aforementioned latest developments that are taken into consideration in the present consolidated document are the additional proposals put forward by parties and groups of parties listed in the table set out in annex II to the present note, along with a statement by the European Union during the July 2016 deliberations of the contact group indicating that it would withdraw from its amendment proposal the “basket” approach and the definition of substances that were to be listed in the new proposed annex to the Protocol.

5. It is also important to note that the text of all the amendment proposals consists of articles or sections,⁸ which are referred to as articles hereafter. All proposals include Articles I, II, III and IV, entitled as follows:

- Article I: Amendment;
- Article II: Relationship to the 1999 Amendment;
- Article III: Relationship to the United Nations Framework Convention on Climate Change and its Kyoto Protocol;
- Article IV: Entry into force.

The North American proposal also includes a fifth article that introduces additional text for the proposed amendment, entitled:

- Article V: Provisional application.

6. The present document comprises two annexes:

- **Annex I** presents the consolidation of the provisions of the four amendment proposals and refers to additional proposed elements put forward at the Third Extraordinary Meeting of the Parties for the text of the Montreal Protocol. Consistent with the statement by the European Union that it would not pursue its originally proposed distinction between “substances listed in Annex F” and other “controlled substances”, the corresponding text is marked for deletion. For simplicity, wherever this distinction leads to deletions in the text of the Protocol, the deletions have been removed without this action being marked.
 - Section A of the Annex sets out the text of the Protocol, highlighting all new text proposed for Article I of each of the four amendment proposals and the additional proposals on preferred baseline ranges and freeze dates put forward at the Third Extraordinary Meeting of the Parties for further consideration;
 - Section B of the Annex sets out Articles II–V of the four amendment proposals, highlighting textual differences between them.

For ease of reference, the proposed text and textual differences between the various proposals are indicated as follows:

- Each passage of proposed text is bracketed and the proposals to which textual amendments relate are indicated at the end of each passage of bracketed text (or at the beginning in the case of a few lengthy passages). The four amendment proposals are

⁷ UNEP/OzL.Pro.ExMOP.3/7, Annex VI.

⁸ In the Island States proposal, articles of the amendment are referred to as sections. For ease of reference in the present note those sections are referred to as “articles”.

indicated in abbreviated form, while other proposals bear the names (in full or abbreviated form) of the parties or groups of parties supporting them.

- Explanatory comments by the Secretariat at the beginning of bracketed text appear in italics.
 - Text introduced by any of the four amendment proposals appears in blue.
 - Text that is common to the four amendment proposals, or groups of proposals, appears in green.
 - References to the baseline ranges, freeze dates and first reduction step preferences proposed by a number of parties and groups of parties at the Third Extraordinary Meeting of the Parties appear in purple.
- **Annex II** sets out the document that was developed at the Third Extraordinary Meeting of the Parties on the baseline ranges, freeze date and first reduction step preferences of various parties and groups of parties. It is reproduced as presented in Annex VI of the report of that meeting and is included in the present document for ease of reference.

Annex I

Consolidation of the provisions of the amendment proposals and additional proposed elements into the text of the Montreal Protocol

Section A: Incorporation into the text of the Montreal Protocol of text proposed in Article I of the amendment proposals and additional elements proposed at the Third Extraordinary Meeting of the Parties¹

Preamble

The Parties to this Protocol,

Being Parties to the Vienna Convention for the Protection of the Ozone Layer,

Mindful of their obligation under that Convention to take appropriate measures to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer, **[including changes in climate which have significant deleterious effects (EU)],**

Recognizing that world-wide emissions of certain substances can significantly deplete and otherwise modify the ozone layer in a manner that is likely to result in adverse effects on human health and the environment,

Conscious of the potential climatic effects of emissions of these substances **[, and substances commonly used to replace ozone depleting substances (EU)],**

Aware that measures taken to protect the ozone layer from depletion should be based on relevant scientific knowledge, taking into account technical and economic considerations,

Determined to protect the ozone layer by taking precautionary measures to control equitably total global emissions of substances that deplete it, with the ultimate objective of their elimination on the basis of developments in scientific knowledge, taking into account technical and economic considerations and bearing in mind the developmental needs of developing countries,

Acknowledging that special provision is required to meet the needs of developing countries, including the provision of additional financial resources and access to relevant technologies, bearing in mind that the magnitude of funds necessary is predictable, and the funds can be expected to make a substantial difference in the world's ability to address the scientifically established problem of ozone depletion and its harmful effects,

¹ *Explanatory notes*

- All new text is bracketed.
- Text introduced by any of the four amendment proposals appears in blue.
- Text that is common among the four amendment proposals, or groups of proposals, appears in green.
- Explanatory comments by the Secretariat appear in italics.
- The proposals to which textual amendments refer are indicated at the end of each bracketed text or at the beginning of a few lengthy parts; they are abbreviated as follows:
 - NA: North American proposal submitted by Canada, Mexico and the United States of America;
 - IN: Indian proposal submitted by India;
 - EU: European Union proposal submitted by the European Union and its 28 member States;
 - IS: Island States proposal submitted by Kiribati, Marshall Islands, Mauritius, Micronesia (Federated States of), Palau, Philippines, Samoa and Solomon Islands.
- Minor editorial differences among the proposed texts may not be indicated.

Noting the precautionary measures for controlling emissions of certain chlorofluorocarbons that have already been taken at national and regional levels,

Considering the importance of promoting international co-operation in the research, development and transfer of alternative technologies relating to the control and reduction of emissions of substances that deplete the ozone layer, bearing in mind in particular the needs of developing countries,

HAVE AGREED AS FOLLOWS:

Article 1: Definitions

For the purposes of this Protocol:

1. "Convention" means the Vienna Convention for the Protection of the Ozone Layer, adopted on 22 March 1985.
2. "Parties" means, unless the text otherwise indicates, Parties to this Protocol.
3. "Secretariat" means the Secretariat of the Convention.
4. "Controlled substance" means a substance in Annex A, Annex B, Annex C ~~[or, (NA)(IN)(IS)]~~ Annex E ~~[, (IN)]~~ ~~[or Annex F (NA)(IS)]~~ ~~[Annex F or Annex G (IN)]~~ to this Protocol, whether existing alone or in a mixture. It includes the isomers of any such substance, except as specified in the relevant Annex, but excludes any controlled substance or mixture which is in a manufactured product other than a container used for the transportation or storage of that substance.

~~[4 bis. Substance listed in Annex F" means a substance specified in Annex F to this Protocol, whether existing alone or in a mixture. It includes the isomers of any such substance, except as specified in the Annex, but excludes any substance or mixture which is in a manufactured product other than a container used for the transportation or storage of that substance. These substances are not controlled substances as defined in paragraph 4 of this Article. (EU)]²~~

5. "Production" means the amount of controlled substances produced, minus the amount destroyed by technologies to be approved by the Parties and minus the amount entirely used as feedstock in the manufacture of other chemicals. The amount recycled and reused is not to be considered as "production".
6. "Consumption" means production plus imports minus exports of controlled substances ~~[or of substances listed in Annex F (EU)]~~.
7. "Calculated levels" of production, imports, exports and consumption means levels determined in accordance with Article 3.
8. "Industrial rationalization" means the transfer of all or a portion of the calculated level of production of one Party to another, for the purpose of achieving economic efficiencies or responding to anticipated shortfalls in supply as a result of plant closures.
- ~~[9. "Full conversion costs" means the total cost of converting a chemical production plant from HFC(s) to low-GWP/zero-GWP alternative(s) and/or manufacturing unit of equipment(s)/product(s) from HFCs to low-GWP/zero-GWP alternative(s) including capital costs, costs of Intellectual Property Rights, patents, technology transfer, research and development, in-house development, lost profit due to shutdown/closure of plant/manufacturing facility, change in structure design, layout of plant and machinery, civil, electrical and mechanical works. (IN)]~~
- ~~[9. "UNFCCC" means the United Nations Framework Convention on Climate Change, adopted on 9 May 1992.~~

² The European Union does no longer wish to pursue the originally proposed distinction between 'substances listed in Annex F' and other 'controlled substances' since this clarification seems no longer necessary and would unnecessarily complicate the text. Wherever this distinction led to deletions in the Protocol's text, they have been removed without marking the removed EU proposal. This approach is applied throughout the consolidated text.

10. “Kyoto Protocol” means the Kyoto Protocol to the UNFCCC, adopted 11 December 1997. (IS)]

Article 2: Control Measures

1. *Incorporated in Article 2A.*
2. *Replaced by Article 2B.*
3. *Replaced by Article 2A.*
4. *Replaced by Article 2A.*
5. Any Party may, for one or more control periods, transfer to another Party any portion of its calculated level of production set out in Articles 2A to 2F, ~~and (NA)(IN)(EU)~~ Article[s (NA)(IN)(IS)] 2H ~~and 2J (NA)(IS)]~~, ~~2J and 2K (IN)]and Article 2J (EU)~~, provided that the total combined calculated levels of production of the Parties concerned for any group of controlled substances ~~for of substances listed in Annex F (EU)~~ do not exceed the production limits set out in those Articles for that group. Such transfer of production shall be notified to the Secretariat by each of the Parties concerned, stating the terms of such transfer and the period for which it is to apply.
- 5 *bis.* Any Party not operating under paragraph 1 of Article 5 may, for one or more control periods, transfer to another such Party any portion of its calculated level of consumption set out in Article 2F, provided that the calculated level of consumption of controlled substances in Group I of Annex A of the Party transferring the portion of its calculated level of consumption did not exceed 0.25 kilograms per capita in 1989 and that the total combined calculated levels of consumption of the Parties concerned do not exceed the consumption limits set out in Article 2F. Such transfer of consumption shall be notified to the Secretariat by each of the Parties concerned, stating the terms of such transfer and the period for which it is to apply.
6. Any Party not operating under Article 5, that has facilities for the production of Annex A or Annex B controlled substances under construction, or contracted for, prior to 16 September 1987, and provided for in national legislation prior to 1 January 1987, may add the production from such facilities to its 1986 production of such substances for the purposes of determining its calculated level of production for 1986, provided that such facilities are completed by 31 December 1990 and that such production does not raise that Party’s annual calculated level of consumption of the controlled substances above 0.5 kilograms per capita.
7. Any transfer of production pursuant to paragraph 5 or any addition of production pursuant to paragraph 6 shall be notified to the Secretariat, no later than the time of the transfer or addition.
8. (a) Any Parties which are Member States of a regional economic integration organization as defined in Article 1 (6) of the Convention may agree that they shall jointly fulfil their obligations respecting consumption under this Article and Articles 2A to 2~~H J (NA)(IS)]~~ ~~H K (IN)]~~ provided that their total combined calculated level of consumption does not exceed the levels required by this Article and Articles 2A to 2~~H J (NA)(IS)]~~ ~~H K (IN)]~~. ~~[Any such agreement may be extended to include obligations respecting consumption or production under Article 2J provided that the total combined calculated level of consumption or production of the Parties concerned does not exceed the levels required by Article 2J. (EU)]~~
- (b) The Parties to any such agreement shall inform the Secretariat of the terms of the agreement before the date of the reduction in consumption ~~or production for the substances (EU)]~~ with which the agreement is concerned.
- (c) Such agreement will become operative only if all Member States of the regional economic integration organization and the organization concerned are Parties to the Protocol and have notified the Secretariat of their manner of implementation.

9. (a) Based on the assessments made pursuant to Article 6, the Parties may decide whether:
- (i) Adjustments to the ozone depleting potentials specified in Annex A, Annex B, Annex C and/or Annex E should be made and, if so, what the adjustments should be; ~~and~~ (NA)(IN)(EU)(IS)
 - [(EU only)*
 - (ii) Adjustments to the global warming potentials specified in Annex C or in Annex F should be made and, if so, what the adjustments should be; and**
 - ~~(ii)-(iii)~~ Further adjustments and reductions of production or consumption of the controlled substances ~~for of substances listed in Annex F]~~ should be undertaken and, if so, what the scope, amount and timing of any such adjustments and reductions should be;
-]
- (ii) Further adjustments and reductions of production or consumption of the controlled substances should be undertaken and, if so, what the scope, amount and timing of any such adjustments and reductions should be; ~~and~~ (NA)(IN)(IS)
 - [(iii) Adjustments to the global warming potentials specified in Annexes C and F should be made, and, if so, what the adjustments should be; (NA)(IS)]**
 - [(iii) Adjustments to the global warming potentials specified in Annexes C, F and G should be made and, if so, what the adjustments should be; (IN)]**
- (b) Proposals for such adjustments shall be communicated to the Parties by the Secretariat at least six months before the meeting of the Parties at which they are proposed for adoption;
 - (c) In taking such decisions **[under subparagraphs 9(a)(i) and (ii) (NA)(IN)]**, the Parties shall make every effort to reach agreement by consensus. If all efforts at consensus have been exhausted, and no agreement reached, such decisions shall, as a last resort, be adopted by a two-thirds majority vote of the Parties present and voting representing a majority of the Parties operating under Paragraph 1 of Article 5 present and voting and a majority of the Parties not so operating present and voting **[§. In taking such decisions under subparagraph 9(a)(iii), the Parties shall reach agreement by consensus only; (NA)(IN)]**
 - (d) The decisions, which shall be binding on all Parties, shall forthwith be communicated to the Parties by the Depositary. Unless otherwise provided in the decisions, they shall enter into force on the expiry of six months from the date of the circulation of the communication by the Depositary.
10. Based on the assessments made pursuant to Article 6 of this Protocol and in accordance with the procedure set out in Article 9 of the Convention, the Parties may decide:
- (a) whether any substances, and if so which, should be added to or removed from any annex to this Protocol, and
 - (b) the mechanism, scope and timing of the control measures that should apply to those substances;
11. Notwithstanding the provisions contained in this Article and Articles 2A to 2**[F J (NA)(EU)(IS)] [F K (IN)]** Parties may take more stringent measures than those required by this Article and Articles 2A to 2**[F J (NA)(EU)(IS)] [F K (IN)]**.

Introduction to the adjustments

The Second, Fourth, Seventh, Ninth, Eleventh and Nineteenth Meetings of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer decided, on the basis of assessments made pursuant to Article 6 of the Protocol, to adopt adjustments and reductions of production and consumption of the controlled substances in Annexes A, B, C and E to the Protocol as follows (the text here shows the cumulative effect of all the adjustments):

Article 2A: CFCs

1. Each Party shall ensure that for the twelve-month period commencing on the first day of the seventh month following the date of entry into force of this Protocol, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed its calculated level of consumption in 1986. By the end of the same period, each Party producing one or more of these substances shall ensure that its calculated level of production of the substances does not exceed its calculated level of production in 1986, except that such level may have increased by no more than ten per cent based on the 1986 level. Such increase shall be permitted only so as to satisfy the basic domestic needs of the Parties operating under Article 5 and for the purposes of industrial rationalization between Parties.
2. Each Party shall ensure that for the period from 1 July 1991 to 31 December 1992 its calculated levels of consumption and production of the controlled substances in Group I of Annex A do not exceed 150 per cent of its calculated levels of production and consumption of those substances in 1986; with effect from 1 January 1993, the twelve-month control period for these controlled substances shall run from 1 January to 31 December each year.
3. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed, annually, twenty-five per cent of its calculated level of consumption in 1986. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, twenty-five per cent of its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1986.
4. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by a quantity equal to the annual average of its production of the controlled substances in Group I of Annex A for basic domestic needs for the period 1995 to 1997 inclusive. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.
5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2003 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex A for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed eighty per cent of the annual average of its production of those substances for basic domestic needs for the period 1995 to 1997 inclusive.
6. Each Party shall ensure that for the twelve-month period commencing on 1 January 2005 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex A for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed fifty per cent of the annual average of its production of those substances for basic domestic needs for the period 1995 to 1997 inclusive.
7. Each Party shall ensure that for the twelve-month period commencing on 1 January 2007 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex A for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed fifteen per cent of the annual average of its production of those substances for basic domestic needs for the period 1995 to 1997 inclusive.
8. Each Party shall ensure that for the twelve-month period commencing on 1 January 2010 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex A for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed zero.

9. For the purposes of calculating basic domestic needs under paragraphs 4 to 8 of this Article, the calculation of the annual average of production by a Party includes any production entitlements that it has transferred in accordance with paragraph 5 of Article 2, and excludes any production entitlements that it has acquired in accordance with paragraph 5 of Article 2.

Article 2B: Halons

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1992, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex A does not exceed, annually, its calculated level of consumption in 1986. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1986.
2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex A does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may, until 1 January 2002 exceed that limit by up to fifteen per cent of its calculated level of production in 1986; thereafter, it may exceed that limit by a quantity equal to the annual average of its production of the controlled substances in Group II of Annex A for basic domestic needs for the period 1995 to 1997 inclusive. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.
3. Each Party shall ensure that for the twelve-month period commencing on 1 January 2005 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group II of Annex A for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed fifty per cent of the annual average of its production of those substances for basic domestic needs for the period 1995 to 1997 inclusive.
4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2010 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group II of Annex A for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed zero.

Article 2C: Other fully halogenated CFCs

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1993, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed, annually, eighty per cent of its calculated level of consumption in 1989. Each Party producing one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually, eighty per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.
2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed, annually, twenty-five per cent of its calculated level of consumption in 1989. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, twenty-five per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.
3. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure

that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may, until 1 January 2003 exceed that limit by up to fifteen per cent of its calculated level of production in 1989; thereafter, it may exceed that limit by a quantity equal to eighty per cent of the annual average of its production of the controlled substances in Group I of Annex B for basic domestic needs for the period 1998 to 2000 inclusive. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2007 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex B for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed fifteen per cent of the annual average of its production of those substances for basic domestic needs for the period 1998 to 2000 inclusive.
5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2010 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex B for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed zero.

Article 2D: Carbon tetrachloride

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, its calculated level of consumption of the controlled substance in Group II of Annex B does not exceed, annually, fifteen per cent of its calculated level of consumption in 1989. Each Party producing the substance shall, for the same period, ensure that its calculated level of production of the substance does not exceed, annually, fifteen per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.
2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group II of Annex B does not exceed zero. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1989. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

Article 2E: 1,1,1-Trichloroethane (Methyl chloroform)

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1993, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed, annually, its calculated level of consumption in 1989. Each Party producing the substance shall, for the same period, ensure that its calculated level of production of the substance does not exceed, annually, its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.
2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed, annually, fifty per cent of its calculated level of consumption in 1989. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, fifty per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.
3. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed zero. Each Party producing the substance shall, for the same periods, ensure that its calculated

level of production of the substance does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production for 1989. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

Article 2F: Hydrochlorofluorocarbons

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, the sum of:
 - (a) Two point eight per cent of its calculated level of consumption in 1989 of the controlled substances in Group I of Annex A; and
 - (b) Its calculated level of consumption in 1989 of the controlled substances in Group I of Annex C.
2. Each Party producing one or more of these substances shall ensure that for the twelve-month period commencing on 1 January 2004, and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex C does not exceed, annually, the average of:
 - (a) The sum of its calculated level of consumption in 1989 of the controlled substances in Group I of Annex C and two point eight per cent of its calculated level of consumption in 1989 of the controlled substances in Group I of Annex A; and
 - (b) The sum of its calculated level of production in 1989 of the controlled substances in Group I of Annex C and two point eight per cent of its calculated level of production in 1989 of the controlled substances in Group I of Annex A.

However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production of the controlled substances in Group I of Annex C as defined above.

3. Each Party shall ensure that for the twelve month period commencing on 1 January 2004, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, sixty-five per cent of the sum referred to in paragraph 1 of this Article.
4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2010, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, twenty-five per cent of the sum referred to in paragraph 1 of this Article. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the controlled substances in Group I of Annex C does not exceed, annually, twenty-five per cent of the calculated level referred to in paragraph 2 of this Article. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production of the controlled substances in Group I of Annex C as referred to in paragraph 2.
5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2015, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, ten per cent of the sum referred to in paragraph 1 of this Article. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the controlled substances in Group I of Annex C does not exceed, annually, ten per cent of the calculated level referred to in paragraph 2 of this Article. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production of the controlled substances in Group I of Annex C as referred to in paragraph 2.

6. Each Party shall ensure that for the twelve-month period commencing on 1 January 2020, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the controlled substances in Group I of Annex C does not exceed zero. However:
 - (a) Each Party may exceed that limit on consumption by up to zero point five per cent of the sum referred to in paragraph 1 of this Article in any such twelve-month period ending before 1 January 2030, provided that such consumption shall be restricted to the servicing of refrigeration and air-conditioning equipment existing on 1 January 2020;
 - (b) Each Party may exceed that limit on production by up to zero point five per cent of the average referred to in paragraph 2 of this Article in any such twelve-month period ending before 1 January 2030, provided that such production shall be restricted to the servicing of refrigeration and air-conditioning equipment existing on 1 January 2020.
7. As of 1 January 1996, each Party shall endeavour to ensure that:
 - (a) The use of controlled substances in Group I of Annex C is limited to those applications where other more environmentally suitable alternative substances or technologies are not available;
 - (b) The use of controlled substances in Group I of Annex C is not outside the areas of application currently met by controlled substances in Annexes A, B and C, except in rare cases for the protection of human life or human health; and
 - (c) Controlled substances in Group I of Annex C are selected for use in a manner that minimizes ozone depletion, in addition to meeting other environmental, safety and economic considerations.

Article 2G: Hydrobromofluorocarbons

Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex C does not exceed zero. Each Party producing the substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

Article 2H: Methyl bromide

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, its calculated level of consumption in 1991. Each Party producing the substance shall, for the same period, ensure that its calculated level of production of the substance does not exceed, annually, its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.
2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1999, and in the twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, seventy-five per cent of its calculated level of consumption in 1991. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, seventy-five per cent of its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.
3. Each Party shall ensure that for the twelve-month period commencing on 1 January 2001, and in the twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, fifty per cent of its calculated level of consumption in 1991. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not

exceed, annually, fifty per cent of its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2003, and in the twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, thirty per cent of its calculated level of consumption in 1991. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, thirty per cent of its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.
5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2005, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed zero. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may, until 1 January 2002 exceed that limit by up to fifteen per cent of its calculated level of production in 1991; thereafter, it may exceed that limit by a quantity equal to the annual average of its production of the controlled substance in Annex E for basic domestic needs for the period 1995 to 1998 inclusive. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be critical uses.
- 5 bis. Each Party shall ensure that for the twelve-month period commencing on 1 January 2005 and in each twelve-month period thereafter, its calculated level of production of the controlled substance in Annex E for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed eighty per cent of the annual average of its production of the substance for basic domestic needs for the period 1995 to 1998 inclusive.
- 5 ter. Each Party shall ensure that for the twelve-month period commencing on 1 January 2015 and in each twelve-month period thereafter, its calculated level of production of the controlled substance in Annex E for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed zero.
6. The calculated levels of consumption and production under this Article shall not include the amounts used by the Party for quarantine and pre-shipment applications.

Article 2I: Bromochloromethane

Each Party shall ensure that for the twelve-month period commencing on 1 January 2002, and in each twelve-month period thereafter, its calculated level of consumption and production of the controlled substance in Group III of Annex C does not exceed zero. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

[Article 2J: Hydrofluorocarbons ^{3,4}

[(IN and IS proposals only - Common proposed text indicated in green)]

1. Each Party shall ensure that for the twelve-month period commencing on 1 January

[[2016 (IN)]]

[[2017 (IS)]]

³ Article 2J is proposed to be a new Article under the Montreal Protocol. The common language in all proposals is indicated in green. To facilitate inter-comparison of the four amendment proposals, differences in corresponding elements are highlighted in light blue.

⁴ For the sake of simplicity, the source of minor editorial differences in the texts of the amendment proposals is not always indicated. e.g., the difference between “calculated levels” and “calculated level” is marked as “calculated level[s]” without indicating the respective amendment proposal.

, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually,

[[one hundred] per cent of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[[eighty-five] per cent of the average of its calculated levels of consumption in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

Each Party producing one or more of these substances, shall, for the same period, ensure that its calculated level[s] of production of the substances does not exceed annually

[[one hundred] per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C Group I controlled substances. (IN)]

[[eighty-five] per cent of the average of its calculated levels of production in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances (IS)]

However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of the average of its calculated level of production

[of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C Group I controlled substances. (IN)]

[in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

]

[(Baseline and freeze date, proposed by Belarus and the Russian Federation at the Third Extraordinary Meeting of the Parties, are shown in Annex II of the present note)]

[(NA, IN and IS proposals only - in NA as paragraphs 1 to 4 - Common proposed text indicated in green)]

2. Each Party shall ensure that for the twelve-month period commencing on 1 January

[[2019] (NA)]

[[2018] (IN)]

[[2021] (IS)]

, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually,

[[ninety] per cent of the average of its calculated levels of consumption of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[[ninety] per cent of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[[sixty-five] per cent of the average of its calculated levels of consumption in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

Each Party producing one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually,

[[ninety] per cent of the average of its calculated levels of production of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[[ninety] per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[[sixty-five] per cent of the average of its calculated levels of consumption in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of the average of its calculated level[s] of production

[of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

[(Baseline and⁵ first reduction step proposed by EU and JUSSCANNZ⁶ at the Third Extraordinary Meeting of the Parties as shown in the table in Annex II of the present note)]

3. Each Party shall ensure that for the twelve-month period commencing on 1 January

[[2024] (NA)]

[[2023] (IN)]

[[2025] (IS)]

, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually,

[[sixty-five] per cent of the average of its calculated levels of consumption of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[[sixty-five] per cent of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[[forty-five] per cent of the average of its calculated levels of consumption in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

Each Party producing one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually,

⁵ The words “Baseline and” were added on 27 September 2016, after the posting of the present document on the Secretariat’s website on 22 September 2016.

⁶ JUSSCANNZ refers to the group of the following countries: Australia, Canada, Japan, New Zealand, Norway, Switzerland and the United States of America.

[[sixty-five] per cent of the average of its calculated levels of production of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[[sixty-five] per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[[forty-five] per cent of the average of its calculated levels of consumption in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of the average of its calculated level[s] of production

[of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

4. Each Party shall ensure that for the twelve-month period commencing on 1 January

[[2030] (NA)]

[[2029] (IN)(IS)]

, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually,

[[thirty] per cent of the average of its calculated levels of consumption of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[[thirty] per cent of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[[twenty-five] per cent of the average of its calculated levels of consumption in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

Each Party producing one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually,

[[thirty] per cent of the average of its calculated levels of production of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[[thirty] per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[[twenty-five] per cent of the average of its calculated levels of consumption in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of the average of its calculated level[s] of production

[of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

5. Each Party shall ensure that for the twelve-month period commencing on 1 January

[[2036] (NA)]

[[2035] (IN)]

[[2033] (IS)]

, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Annex F does not exceed, annually,

[[fifteen] per cent of the average of its calculated levels of consumption of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[[fifteen] per cent of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[[ten] per cent of the average of its calculated levels of consumption in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

Each Party producing one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually,

[[fifteen] per cent of the average of its calculated levels of production of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[[fifteen] per cent of the average of its calculated level of production of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[[ten] per cent of the average of its calculated levels of consumption in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of the average of its calculated level[s] of production

[of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012 and 2013. (NA)]

[of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty-five per cent of the baseline of Annex C, Group I controlled substances. (IN)]

[in [2011, 2012, and 2013] of Annex F, Group I plus ten per cent of the baseline of Annex C, Group I controlled substances. (IS)]

]

[(EU Only)]

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 2019 and in each twelve-month period thereafter, its calculated level of consumption of the substances listed in Annex F,

expressed in CO2 equivalents, does not exceed the percentage, set out for the respective year, of the annual average of its calculated levels of consumption of substances ~~listed~~ in Annex F during the period 2009 to 2012 plus forty-five per cent of the annual average of the limits for its calculated level of consumption of controlled substances in Annex C, Group I as determined in Article 2F for the same reference period, expressed in CO2 equivalents:

- (a) 2019 to 2022: 85%
- (b) 2023 to 2027: 60 %
- (c) 2028 to 2033: 30 %
- (d) 2034 and following years: 15 %.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 2019 and in each twelve-month period thereafter, its calculated level of production of the substances ~~listed~~ in Annex F, expressed in CO2 equivalents, does not exceed the percentage set out for the respective year of the annual average of its calculated levels of production of substances ~~listed~~ in Annex F during the period 2009 to 2012 plus forty-five per cent of the annual average of the limits for its calculated level of production of controlled substances in Annex C, Group I as determined in Article 2F for the same reference period, expressed in CO2 equivalents:

- (a) 2019 to 2022: 85%
- (b) 2023 to 2027: 60 %
- (c) 2028 to 2033: 30 %
- (d) 2034 and following years: 15 %.

]

[(NA, IS and EU only – in NA as paragraphs 5 and 6; in EU as paragraphs 3 and 4- Common proposed text indicated in green)

6. **Each party**

[manufacturing Annex C Group I or Annex F substances (NA)]

[producing Annex C, Group I substances, or substances ~~listed~~ in Annex F (EU)]

shall ensure that for the twelve-month period commencing on 1 January,

[2018 (NA)]

[2017 (IS)]

[2019 (EU)]

, and in each twelve-month period thereafter, its calculated level of

[emissions of Annex F, Group II substances generated as a byproduct in each production line that manufactures Annex C, Group I or Annex F substances does not exceed [0.1] per cent of the mass of Annex C, Group I or Annex F substances manufactured in that production line. (NA)]

[production of Annex F, Group II controlled substances generated as a byproduct in each production line that manufactures Annex C, Group I or Annex F controlled substances shall not exceed [0.1] per cent of the mass of Annex C, Group I substances or Annex F substances manufactured in that production line. (IS)]

[substances ~~listed~~ in Annex F, Group II resulting directly or indirectly, inadvertently or coincidentally from each production line that produces Annex C, Group I substances, or substances ~~listed~~ in Annex F does not exceed 0.1 per cent of the quantity of Annex C, Group I substances or substances in ~~listed~~ Annex F produced in that production line in the same twelve-month period. (EU)]

7. **Each Party shall ensure that any destruction of**

[Annex F, Group II substances generated by facilities that produce Annex C, Group I or Annex F substances shall occur only by technologies to be approved by the Parties. (NA)]

[Annex F, Group II controlled substances generated by facilities that produce Annex C, Group I controlled substances shall occur only by technologies to be approved by the Parties. (IS)]

[substances listed in Annex F, Group II resulting directly or indirectly, inadvertently or coincidentally from each production line that produces Annex C, Group I substances, or substances listed in Annex F shall occur only by technologies approved by the Parties. (EU)]

]

]

[(IN Only)

Article 2K: Other Hydrofluorocarbons

Annex G substances generated as a by-product in facilities that produce Annex C, Group I or Annex F substances shall not be controlled under the Montreal Protocol.

]

Article 3: Calculation of control levels

~~[For the purposes of Articles 2, 2A to 2I and 5, each Party shall, for each group of substances in Annex A, Annex B, Annex C or Annex E determine its calculated levels of: (NA)(IN)]~~

[For the purposes of Articles 2, 2A to 2J and 5, each Party shall, for each group of substances in Annex A, Annex B, Annex C, Annex E or Annex F determine its calculated levels of: (IS)]

[1. Except as specified in paragraph 2, for the purposes of Articles 2, 2A to [2J (NA)] [2K (IN)] and 5, each Party shall, for each group of substances in Annex A, Annex B, Annex C, Annex E or Annex F determine its calculated levels of: (NA)(IN)]

- (a) Production by:
 - (i) multiplying its annual production of each controlled substance by the ozone depleting potential specified in respect of it in Annex A, Annex B, Annex C or Annex E [, except, for the purposes of Article 2J, by its global warming potential as specified in Annex C or Annex F (IS)];
 - (ii) adding together, for each such Group, the resulting figures;
 - (b) Imports and exports, respectively, by following, *mutatis mutandis*, the procedure set out in subparagraph (a); ~~and (NA)(IS)(IN)]~~
 - (c) Consumption by adding together its calculated levels of production and imports and subtracting its calculated level of exports as determined in accordance with subparagraphs (a) and (b). However, beginning on 1 January 1993, any export of controlled substances to non-Parties shall not be subtracted in calculating the consumption level of the exporting Party [; and (NA)(IN)(IS)]
 - [(d) Emissions of Annex F, Group II substances generated as a byproduct in each production line that manufactures Annex C, Group I or Annex F substances by including, among other things, amounts emitted from equipment leaks, process vents, and destruction devices, but excluding amounts destroyed, sold for use, or stored. (NA)]
 - [(d) Emissions of Annex F, Group II controlled substances by adding together all emissions of such substances from facilities that produce Annex C, Group I or Annex F controlled substances. For facilities that produce Annex C, Group I or Annex F controlled substances, emissions shall equal the amount of Annex F, Group II controlled substances generated at the facility, including amounts emitted from equipment leaks, process vents, and destruction devices, but excluding amounts destroyed, stored on site for destruction, shipped off site for destruction, or sold for a subsequent use approved by the Parties. (IS)]
- [2. When calculating average levels of production, consumption, imports, exports and emissions of Annex F and Annex C Group I substances for purposes of Article 2J, paragraph 5ter of Article 2, and paragraph 1(d) of

Article 3, each Party shall use the global warming potentials of these substances as specified in Annexes C and F. (NA)]

2. When calculating average levels of production, consumption, imports, exports and emissions of Annex F, Annex G and Annex C Group I substances for purposes of Article 2J and 2K, each Party shall use the global warming potential of these substances as specified in Annexes C, F and G. (IN)]

[(EU only)

~~2. For the purposes of Articles 2, 2J and paragraph 8 qua of Article 5, each Party shall, for each group of substances listed in Annex F determine its calculated levels, expressed in CO₂ equivalents, of:~~

~~(a) Production by:~~

~~(i) multiplying its annual production of each substance listed in Annex C, Group I, or in Annex F by the global warming potential specified in respect of it in these Annexes;~~

~~(ii) adding together the resulting figures;~~

~~(b) Imports and exports, respectively, by following, *mutatis mutandis*, the procedure set out in subparagraph (a); and~~

~~(c) Consumption by adding together its calculated levels of production and imports and subtracting its calculated level of exports as determined in accordance with subparagraphs (a) and (b). From the date referred to in paragraph 2 sept of Article 4 onwards, any export of substances listed in Annex F to non-Parties shall not be subtracted in calculating the consumption level of the exporting Party;~~

~~(d) For the calculation of the calculated levels of substances in Annex C, Group I, referred to in Article 2J and in Article 5 paragraph 8 qua, the share of the individual substances reported for the reference period shall be taken into consideration for each Party.~~

3. Each Party shall determine its calculated levels, expressed in CO₂ equivalents, of substances listed in Annex F, Group II, resulting inadvertently or coincidentally from each production line that produces Annex C, Group I substances or substances listed in Annex F by multiplying the amounts generated by the global warming potential specified in Annex F, Group II, including amounts that are leaked or released from equipment, process vents, and destruction devices, but excluding amounts destroyed, recovered for use or stored.

]

Article 4: Control of trade with non-Parties

1. As of 1 January 1990, each party shall ban the import of the controlled substances in Annex A from any State not party to this Protocol.

1 *bis*. Within one year of the date of the entry into force of this paragraph, each Party shall ban the import of the controlled substances in Annex B from any State not party to this Protocol.

1 *ter*. Within one year of the date of entry into force of this paragraph, each Party shall ban the import of any controlled substances in Group II of Annex C from any State not party to this Protocol.

1 *qua*. Within one year of the date of entry into force of this paragraph, each Party shall ban the import of the controlled substance in Annex E from any State not party to this Protocol.

1 *quin*. As of 1 January 2004, each Party shall ban the import of the controlled substances in Group I of Annex C from any State not party to this Protocol.

1 *sex*. Within one year of the date of entry into force of this paragraph, each Party shall ban the import of the controlled substance in Group III of Annex C from any State not party to this Protocol.

[1 sept. Within one year of the date of entry into force of this paragraph, each Party shall ban the import of the [controlled (NA)(IN)(IS)] substances [listed EU] in Annex F [and G (IN)] from any State not party to this Protocol. (NA)(EU)(IS)(IN)]

2. As of 1 January 1993, each Party shall ban the export of any controlled substances in Annex A to any State not party to this Protocol.
- 2 bis. Commencing one year after the date of entry into force of this paragraph, each Party shall ban the export of any controlled substances in Annex B to any State not party to this Protocol.
- 2 ter. Commencing one year after the date of entry into force of this paragraph, each Party shall ban the export of any controlled substances in Group II of Annex C to any State not party to this Protocol.
- 2 qua. Commencing one year of the date of entry into force of this paragraph, each Party shall ban the export of the controlled substance in Annex E to any State not party to this Protocol.
- 2 quin. As of 1 January 2004, each Party shall ban the export of the controlled substances in Group I of Annex C to any State not party to this Protocol.
- 2 sex. Within one year of the date of entry into force of this paragraph, each Party shall ban the export of the controlled substance in Group III of Annex C to any State not party to this Protocol.

[2 sept. Within one year of the date of entry into force of this paragraph, each Party shall ban the export of the [controlled (NA)(IN)(IS)] substances [listed EU] in Annex F [and G (IN)] to any State not party to this Protocol. (NA)(EU)(IS)(IN)]

3. By 1 January 1992, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of products containing controlled substances in Annex A. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.
- 3 bis. Within three years of the date of the entry into force of this paragraph, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of products containing controlled substances in Annex B. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.
- 3 ter. Within three years of the date of entry into force of this paragraph, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of products containing controlled substances in Group II of Annex C. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.
4. By 1 January 1994, the Parties shall determine the feasibility of banning or restricting, from States not party to this Protocol, the import of products produced with, but not containing, controlled substances in Annex A. If determined feasible, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of such products. Parties that have not objected to the annex in accordance with those procedures shall ban or restrict, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.
- 4 bis. Within five years of the date of the entry into force of this paragraph, the Parties shall determine the feasibility of banning or restricting, from States not party to this Protocol, the import of products produced with, but not containing, controlled substances in Annex B. If determined feasible, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of such products. Parties that have not objected to the annex in accordance with those procedures shall ban or restrict, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

- 4 *ter*. Within five years of the date of entry into force of this paragraph, the Parties shall determine the feasibility of banning or restricting, from States not party to this Protocol, the import of products produced with, but not containing, controlled substances in Group II of Annex C. If determined feasible, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of such products. Parties that have not objected to the annex in accordance with those procedures shall ban or restrict, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.
5. Each Party undertakes to the fullest practicable extent to discourage the export to any State not party to this Protocol of technology for producing and for utilizing controlled substances in Annexes A, B, C [, ~~and (NA)(IN)(EU)(IS)~~] E [and F (NA)(IS)] [F and G (IN)] [~~for of substances listed in Annex F (EU)~~].
6. Each Party shall refrain from providing new subsidies, aid, credits, guarantees or insurance programmes for the export to States not party to this Protocol of products, equipment, plants or technology that would facilitate the production of controlled substances in Annexes A, B, C [, ~~and (NA)(EU)(IN)(IS)~~] E [and F (NA)(IS)] [F and G (IN)] [~~for of substances listed in Annex F (EU)~~].
7. Paragraphs 5 and 6 shall not apply to products, equipment, plants or technology that improve the containment, recovery, recycling or destruction of controlled substances [~~for of substances listed in Annex F (EU)~~], promote the development of alternative substances, or otherwise contribute to the reduction of emissions of controlled substances in Annexes A, B, C [, ~~and (NA)(EU)(IN)(IS)~~] E [and F (NA)(IS)] [F and G (IN)] [~~for of substances listed in Annex F (EU)~~].
8. Notwithstanding the provisions of this Article, imports and exports referred to in paragraphs 1 to 4 *ter* of this Article may be permitted from, or to, any State not party to this Protocol, if that State is determined, by a meeting of the Parties, to be in full compliance with Article 2, Articles 2A to 2 [~~I J (NA)(EU)(IS)~~] [~~I K (IN)~~] and this Article, and have submitted data to that effect as specified in Article 7.
9. For the purposes of this Article, the term “State not party to this Protocol” shall include, with respect to a particular controlled substance [~~for of substances listed in Annex F (EU)~~], a State or regional economic integration organization that has not agreed to be bound by the control measures in effect for that substance.
10. By 1 January 1996, the Parties shall consider whether to amend this Protocol in order to extend the measures in this Article to trade in controlled substances in Group I of Annex C and in Annex E with States not party to the Protocol.

Article 4A: Control of trade with Parties

1. Where, after the phase-out date applicable to it for a controlled substance, a Party is unable, despite having taken all practicable steps to comply with its obligation under the Protocol, to cease production of that substance for domestic consumption, other than for uses agreed by the Parties to be essential, it shall ban the export of used, recycled and reclaimed quantities of that substance, other than for the purpose of destruction.
2. Paragraph 1 of this Article shall apply without prejudice to the operation of Article 11 of the Convention and the non-compliance procedure developed under Article 8 of the Protocol.

Article 4B: Licensing

1. Each Party shall, by 1 January 2000 or within three months of the date of entry into force of this Article for it, whichever is the later, establish and implement a system for licensing the import and export of new, used, recycled and reclaimed controlled substances in Annexes A, B, C and E.
2. Notwithstanding paragraph 1 of this Article, any Party operating under paragraph 1 of Article 5 which decides it is not in a position to establish and implement a system for licensing the import and export of controlled substances in Annexes C and E, may delay taking those actions until 1 January 2005 and 1 January 2002, respectively.

[2 bis. Each Party shall, by 1 January

[2018 (NA)]
[[2016] (IN)]
[2019 (EU)]
[2017 (IS)]

or within three months of the date of entry into force of this paragraph for it, whichever is later, establish and implement a system for licensing the import and export of new, used, recycled and reclaimed [controlled(NA)(IS)(IN)] substances in Annex F [and G (IN)].

Any Party operating under paragraph 1 of Article 5 that decides it is not in a position to establish and implement such a system by 1 January

[2018 (NA)]
[2016 (IN)]
[2019 (EU)]
[2017 (IS)]

may delay taking those actions until 1 January

[2020 (NA)(IS)]
[2031 (IN)]
[2021 (EU)]

.]

3. Each Party shall, within three months of the date of introducing its licensing system, report to the Secretariat on the establishment and operation of that system.
4. The Secretariat shall periodically prepare and circulate to all Parties a list of the Parties that have reported to it on their licensing systems and shall forward this information to the Implementation Committee for consideration and appropriate recommendations to the Parties.

Article 5: Special situation of developing countries

1. Any Party that is a developing country and whose annual calculated level of consumption of the controlled substances in Annex A is less than 0.3 kilograms per capita on the date of the entry into force of the Protocol for it, or any time thereafter until 1 January 1999, shall, in order to meet its basic domestic needs, be entitled to delay for ten years its compliance with the control measures set out in Articles 2A to 2E, provided that any further amendments to the adjustments or Amendment adopted at the Second Meeting of the Parties in London, 29 June 1990, shall apply to the Parties operating under this paragraph after the review provided for in paragraph 8 of this Article has taken place and shall be based on the conclusions of that review.
- 1 bis. The Parties shall, taking into account the review referred to in paragraph 8 of this Article, the assessments made pursuant to Article 6 and any other relevant information, decide by 1 January 1996, through the procedure set forth in paragraph 9 of Article 2:
 - (a) With respect to paragraphs 1 to 6 of Article 2F, what base year, initial levels, control schedules and phase-out date for consumption of the controlled substances in Group I of Annex C will apply to Parties operating under paragraph 1 of this Article;
 - (b) With respect to Article 2G, what phase-out date for production and consumption of the controlled substances in Group II of Annex C will apply to Parties operating under paragraph 1 of this Article; and
 - (c) With respect to Article 2H, what base year, initial levels and control schedules for consumption and production of the controlled substance in Annex E will apply to Parties operating under paragraph 1 of this Article.

2. However, any Party operating under paragraph 1 of this Article shall exceed neither an annual calculated level of consumption of the controlled substances in Annex A of 0.3 kilograms per capita nor an annual calculated level of consumption of controlled substances of Annex B of 0.2 kilograms per capita.
3. When implementing the control measures set out in Articles 2A to 2E, any Party operating under paragraph 1 of this Article shall be entitled to use:
 - (a) For controlled substances under Annex A, either the average of its annual calculated level of consumption for the period 1995 to 1997 inclusive or a calculated level of consumption of 0.3 kilograms per capita, whichever is the lower, as the basis for determining its compliance with the control measures relating to consumption.
 - (b) For controlled substances under Annex B, the average of its annual calculated level of consumption for the period 1998 to 2000 inclusive or a calculated level of consumption of 0.2 kilograms per capita, whichever is the lower, as the basis for determining its compliance with the control measures relating to consumption.
 - (c) For controlled substances under Annex A, either the average of its annual calculated level of production for the period 1995 to 1997 inclusive or a calculated level of production of 0.3 kilograms per capita, whichever is the lower, as the basis for determining its compliance with the control measures relating to production.
 - (d) For controlled substances under Annex B, either the average of its annual calculated level of production for the period 1998 to 2000 inclusive or a calculated level of production of 0.2 kilograms per capita, whichever is the lower, as the basis for determining its compliance with the control measures relating to production.
4. If a Party operating under paragraph 1 of this Article, at any time before the control measures obligations in Articles 2A to 2I ~~[J (NA)(EU)(IS)] [K (IN)]~~ become applicable to it, finds itself unable to obtain an adequate supply of controlled substances ~~[in Annex A to E or of substances listed in Annex F (EU)]~~, it may notify this to the Secretariat. The Secretariat shall forthwith transmit a copy of such notification to the Parties, which shall consider the matter at their next Meeting, and decide upon appropriate action to be taken.
5. Developing the capacity to fulfil the obligations of the Parties operating under paragraph 1 of this Article to comply with the control measures set out in Articles 2A to 2E and Article[s (NA)(IN)(IS)] 2I ~~[and 2J (NA)(IS)]~~ ~~[, 2J and 2K (IN)]~~, and ~~[with (EU)]~~ any control measures in Articles 2F to 2H that are decided pursuant to paragraph 1 *bis* of this Article ~~[or with obligations set out in paragraph 8 qua (EU)]~~, and their implementation by those same Parties will depend upon the effective implementation of the financial co-operation as provided by Article 10 and the transfer of technology as provided by Article 10A.
6. Any Party operating under paragraph 1 of this Article may, at any time, notify the Secretariat in writing that, having taken all practicable steps it is unable to implement any or all of the obligations laid down in Articles 2A to 2E and Article[s (NA)(IN)(IS)] 2I ~~[and 2J (NA)(IS)]~~ ~~[, 2J and 2K (IN)]~~ ~~[and Article 2J (EU)]~~, or any or all obligations in Articles 2F to 2H that are decided pursuant to paragraph 1 *bis* of this Article ~~[or with obligations set out in paragraph 8 qua (EU)]~~, due to the inadequate implementation of Articles 10 and 10A. The Secretariat shall forthwith transmit a copy of the notification to the Parties, which shall consider the matter at their next Meeting, giving due recognition to paragraph 5 of this Article and shall decide upon appropriate action to be taken.
7. During the period between notification and the Meeting of the Parties at which the appropriate action referred to in paragraph 6 above is to be decided, or for a further period if the Meeting of the Parties so decides, the non-compliance procedures referred to in Article 8 shall not be invoked against the notifying Party.
8. A Meeting of the Parties shall review, not later than 1995, the situation of the Parties operating under paragraph 1 of this Article, including the effective implementation of financial co-operation and transfer of technology to them, and adopt such revisions that may be deemed necessary regarding the schedule of control measures applicable to those Parties.

8 *bis*. Based on the conclusions of the review referred to in paragraph 8 above:

- (a) With respect to the controlled substances in Annex A, a Party operating under paragraph 1 of this Article shall, in order to meet its basic domestic needs, be entitled to delay for ten years its compliance with the control measures adopted by the Second Meeting of the Parties in London, 29 June 1990, and reference by the Protocol to Articles 2A and 2B shall be read accordingly;
- (b) With respect to the controlled substances in Annex B, a Party operating under paragraph 1 of this Article shall, in order to meet its basic domestic needs, be entitled to delay for ten years its compliance with the control measures adopted by the Second Meeting of the Parties in London, 29 June 1990, and reference by the Protocol to Articles 2C to 2E shall be read accordingly.

8 *ter*. Pursuant to paragraph 1 *bis* above:

- (a) Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2013, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, the average of its calculated levels of consumption in 2009 and 2010. Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2013 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex C does not exceed, annually, the average of its calculated levels of production in 2009 and 2010;
- (b) Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2015, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, ninety per cent of the average of its calculated levels of consumption in 2009 and 2010. Each such Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the controlled substances in Group I of Annex C does not exceed, annually, ninety per cent of the average of its calculated levels of production in 2009 and 2010;
- (c) Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2020, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, sixty-five per cent of the average of its calculated levels of consumption in 2009 and 2010. Each such Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the controlled substances in Group I of Annex C does not exceed, annually, sixty-five per cent of the average of its calculated levels of production in 2009 and 2010;
- (d) Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2025, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, thirty-two point five per cent of the average of its calculated levels of consumption in 2009 and 2010. Each such Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the controlled substances in Group I of Annex C does not exceed, annually, thirty-two point five per cent of the average of its calculated levels of production in 2009 and 2010;
- (e) Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2030, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed zero. Each such Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the controlled substances in Group I of Annex C does not exceed zero. However:
 - (i) Each such Party may exceed that limit on consumption in any such twelve-month period so long as the sum of its calculated levels of consumption over the ten-year period from 1 January 2030 to 1 January 2040, divided by ten, does not exceed two point five per cent of the average of its calculated levels of consumption in 2009 and 2010, and provided that such consumption shall be restricted to the servicing of refrigeration and air-conditioning equipment existing on 1 January 2030;

- (ii) Each such Party may exceed that limit on production in any such twelve-month period so long as the sum of its calculated levels of production over the ten-year period from 1 January 2030 to 1 January 2040, divided by ten, does not exceed two point five per cent of the average of its calculated levels of production in 2009 and 2010, and provided that such production shall be restricted to the servicing of refrigeration and air-conditioning equipment existing on 1 January 2030.
- (f) Each Party operating under paragraph 1 of this Article shall comply with Article 2G;
- (g) With regard to the controlled substance contained in Annex E:
 - (i) As of 1 January 2002 each Party operating under paragraph 1 of this Article shall comply with the control measures set out in paragraph 1 of Article 2H and, as the basis for its compliance with these control measures, it shall use the average of its annual calculated level of consumption and production, respectively, for the period of 1995 to 1998 inclusive;
 - (ii) Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2005, and in each twelve-month period thereafter, its calculated levels of consumption and production of the controlled substance in Annex E do not exceed, annually, eighty per cent of the average of its annual calculated levels of consumption and production, respectively, for the period of 1995 to 1998 inclusive;
 - (iii) Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2015 and in each twelve-month period thereafter, its calculated levels of consumption and production of the controlled substance in Annex E do not exceed zero. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be critical uses;
 - (iv) The calculated levels of consumption and production under this subparagraph shall not include the amounts used by the Party for quarantine and pre-shipment applications.

[(NA and IN only - Common proposed text indicated in green)]

8 qua. Each Party operating under paragraph 1 of this Article shall:

- (a) **in order to meet its basic domestic needs, be entitled to delay its compliance with the control measures set out in each of paragraphs 1, 2, and 3 of Article 2J for [two (NA)] [fifteen (IN)] years, [and in paragraph 4 of Article 2J for ten years (NA)], subject to any adjustments made to the control measures in Article 2J in accordance with Article 2(9);**
- (b) **for purposes of calculating its consumption baseline under Article 2J, use the average of its calculated levels of consumption of Annex F controlled substances**

[plus fifty percent of Annex C, Group I substances in the years 2011, 2012, and 2013, instead of the average of its calculated levels of consumption of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012, and 2013 (NA)];

[in the years 2028, 2029 and 2030 plus thirty two and half percent of the baseline of Annex C, Group I substances, instead of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C, Group I controlled substances (IN)];

- (c) **for purposes of calculating its production baseline under Article 2J, use the average of its calculated levels of production of Annex F controlled substances**

[plus fifty percent of Annex C, Group I substances in the years 2011, 2012, and 2013, instead of the average of its calculated levels of production of Annex F controlled substances plus seventy-five per cent of Annex C, Group I controlled substances for the years 2011, 2012, and 2013 (NA)];

[in the years 2028, 2029 and 2030 plus thirty two and half percent of the baseline of Annex C, Group I substances, instead of the average of its calculated levels of consumption of Annex F controlled substances for the years 2013, 2014 and 2015 plus twenty five per cent of the baseline of Annex C, Group I controlled substances (IN)];

(d) ensure that its calculated level of consumption and production:

(i) for purposes of paragraph 1 of Article 2J does not exceed, annually, [one hundred] per cent,

[rather than [ninety] per cent, of the average of its calculated levels of consumption and production, respectively, of Annex F controlled substances plus fifty percent of Annex C, Group I substances for the years 2011, 2012, and 2013 (NA)];

[, of the average of its calculated levels of consumption and production, respectively, of Annex F controlled substances for the years 2028, 2029 and 2030 plus thirty two and half percent of the baseline of Annex C, Group I controlled substances (IN)];

(ii) for purposes of paragraph

[2 of Article 2J does not exceed, annually, [eighty] per cent, rather than [sixty five] per cent, of the average of its calculated levels of consumption and production, respectively, of Annex F controlled substances plus fifty per cent of Annex C, Group I substances for the years 2011, 2012, and 2013 (NA)];

[5 of Article 2J, each party shall ensure that for the twelve months period commencing on 1 January [2050] and in each twelve months period thereafter its calculated levels of consumption and production, respectively, of the controlled substances in Annex F, does not exceed, annually, [fifteen] per cent, of the baseline (IN)];

(iii) for purposes of paragraph

[3 of Article 2J does not exceed, annually, [forty] per cent, rather than [thirty] per cent, of the average of its calculated levels of consumption and production, respectively, of Annex F controlled substances plus fifty percent of Annex C, Group I substances for the years 2011, 2012, and 2013 (NA)].

[2, 3 and 4 of Article 2J, phase-down steps for production and consumption respectively, from freeze on 1 January, [2031] to plateau of [fifteen] percent on 1 January, [2050] shall be decided 5 years in advance for the next 5 years period (IN)].

]

[(EU only)

~~8 qua. By way of derogation from Article 2J and without prejudice to the obligations under paragraph 8 ter or Article 2F, each Party operating under paragraph 1 of this Article shall, subject to any adjustment in accordance with Article 2(9), ensure that:~~

~~(a) for the twelve-month period commencing on 1 January 2019, and in each 12-month period thereafter, its combined calculated levels of consumption of the substances in Annex F and of the controlled substances in Annex C, expressed in CO₂ equivalents, does not exceed, annually, the annual average of its calculated levels of consumption of these substances during the period 2015 to 2016. Further reduction steps and their timing shall be agreed by the Parties by 2020;~~

~~(b) for the twelve-month period commencing on 1 January 2019, and in each 12-month period thereafter, its calculated level of production of the substances in Annex F, expressed in CO₂ equivalents, does not exceed, annually, the annual average of its calculated level of production of substances listed in Annex F during the period 2009 to 2012 plus seventy per cent of the annual average of its calculated levels of production of controlled substances in Annex C, Group I during this reference period. Further reduction steps and their timing shall be agreed by the Parties by 2020;~~

~~(e) for the twelve-month period commencing on 1 January 2040, and in each twelve-month period thereafter, its calculated level of production of the substances in Annex F, expressed in CO₂ equivalents, does not exceed fifteen per cent of the annual average of its calculated level of production of substances listed in Annex F during the period 2009 to 2012 plus seventy per cent of the annual average of its calculated levels of production of controlled substances in Annex C, Group I during this reference period.~~

]

[(IS only)

8 qua. Each Party operating under paragraph 1 of this Article shall:

- (a) in order to meet its basic domestic needs, be entitled to delay its compliance:
 - (i) with the control measures set out in paragraph 1 of Article 2J for three years;
 - (ii) with the control measures set out in paragraph 2 of Article 2J for four years;
 - (iii) with the control measures set out in paragraph 3 of Article 2J for five years;
 - (iv) with the control measures set out in paragraph 4 of Article 2J for six years, and;
 - (v) with the control measures set out in paragraph 5 of Article 2J for seven years, subject to any adjustments made to the control measures in Article 2J in accordance with Article 2(9);
- (b) for purposes of calculating its consumption baseline under Article 2J, use the average of its calculated levels of consumption of Annex F, Group I controlled substances in [2015, 2016 and 2017] plus sixty-five percent of the baseline of Annex C, Group I controlled substances;
- (c) for purposes of calculating its production baseline under Article 2J, use the average of its calculated levels of production of Annex F, Group I controlled substances in [2015, 2016 and 2017] plus sixty-five percent of the baseline of Annex C, Group I controlled substances.

]

[(Baselines and freeze dates proposed at the Third Extraordinary Meeting of the Parties by the following parties or groups of parties: GCC⁷; China and Pakistan; India; African Group, Pacific Island Countries, Latin America like-minded⁸, EU and JUSSCANNZ; Malaysia, Indonesia, Brazil, Argentina, English-speaking Caribbean and Cuba; Iran; they are shown in the table in Annex II of the present note)]

9. Decisions of the Parties referred to in paragraph 4, 6 and 7 of this Article shall be taken according to the same procedure applied to decision-making under Article 10.

Article 6: Assessment and review of control measures

Beginning in 1990, and at least every four years thereafter, the Parties shall assess the control⁹ measures provided for in Article 2 and Articles 2A to 2~~[I J (NA)(EU)(IS)] [I K (IN)]~~ on the basis of available scientific, environmental, technical and economic information. At least one year before each assessment, the Parties shall convene appropriate panels of experts qualified in the fields mentioned and determine the composition and terms of reference of any such panels. Within one year of being convened, the panels will report their conclusions, through the Secretariat, to the Parties.

⁷ GCC: Gulf Cooperation Council member states

⁸ Nicaragua, El Salvador, Guatemala, Venezuela, Chile, Colombia, Honduras, Costa Rica, Mexico, Dominican Republic, Haiti, Panama, Peru, Paraguay (as a basis)

⁹ The word “control”, which had been inadvertently omitted, was added on 27 September 2016.

Article 7: Reporting of data

1. Each Party shall provide to the Secretariat, within three months of becoming a Party, statistical data on its production, imports and exports of each of the controlled substances in Annex A for the year 1986, or the best possible estimates of such data where actual data are not available.
2. Each Party shall provide to the Secretariat statistical data on its production, imports and exports of each of the controlled substances
 - in Annex B and Groups I and II of Annex C for the year 1989;
 - in Annex E, for the year 1991[; (IS)]
 - [– in Annex F, for the years 2011, 2012, and 2013, (NA)]
 - [– in Annex F, for the years 2011, 2012 and 2013, except that Parties operating under paragraph 1 of Article 5 shall provide such data for the year 2015. (IS)]
 - [– in Annex F for the years 2009 to 2012, and for the years 2015 and 2016 in the case of Parties operating under paragraph 1 of Article 5 (EU)]
 - [– in Annex F, for the years 2013, 2014 and 2015
 - in Annex G, for the years 2013, 2014, and 2015 (IN)]or the best possible estimates of such data where actual data are not available, not later than three months after the date when the provisions set out in the Protocol with regard to the substances in Annexes B, C [, and (NA)(IS)(IN)] [E and F (NA)(IS)] [E, F and G (IN)] respectively enter into force for that Party.

[(EU only)

- ~~2. Each Party shall provide to the Secretariat statistical data on its production, imports and exports of each of the
 - controlled substances in Annex B and Groups I and II of Annex C for the year 1989;
 - controlled substances in Annex E, for the year 1991,
 - substances listed in Annex F for the years 2009 to 2012, and for the years 2015 and 2016 in the case of Parties operating under paragraph 1 of Article 5,or the best possible estimates of such data where actual data are not available, not later than three months after the date when the provisions set out in the Protocol with regard to the substances in Annexes B, C, E and F respectively enter into force for that Party.~~
-]

3. Each Party shall provide to the Secretariat statistical data on its annual production (as defined in paragraph 5 of Article 1) of each of the controlled substances listed in Annexes A, B, C [, and (NA)(IN)(IS)] E [and F (NA)(IS)] [, F and G (IN)] ~~[, and of the substances listed in Annex F, (EU)]~~ and, separately, for each substance,
 - Amounts used for feedstocks,
 - Amounts destroyed by technologies approved by the Parties, and
 - Imports from and exports to Parties and non-Parties respectively,

for the year during which provisions concerning the substances in Annexes A, B, C [, and (NA)(EU)(IS)(IN)] [E and F (NA)(IS)(EU)] [E, F and G (IN)] respectively entered into force for that Party and for each year thereafter. Each Party shall provide to the Secretariat statistical data on the annual amount of the controlled substance listed in Annex E used for quarantine and pre-shipment applications. Data shall be forwarded not later than nine months after the end of the year to which the data relate.

3 bis. Each Party shall provide to the Secretariat separate statistical data of its annual imports and exports of each of the controlled substances listed in Group II of Annex A and Group I of Annex C [~~and the substances listed in Annex F (EU)~~] that have been recycled [~~or reclaimed (EU)~~].

[3 ter. Each Party shall provide to the Secretariat statistical data of its annual emissions of Annex F, Group II controlled substances in accordance with Article 3(d) of the Protocol [as well as (NA)] [and (IS)] the amount of Annex F, Group II substances captured and destroyed by technologies to be approved by the Parties. (NA) (IS)]

[3 ter. Each Party shall provide to the Secretariat statistical data on the substances listed in Annex F, Group II resulting directly or indirectly, inadvertently or coincidentally from production lines that manufacture Annex C, Group I substances or substances listed in Annex F, in accordance with paragraph 3 of Article 3, making best use of any related data collected, as well as on the amount of substances listed in Annex F, Group II captured and destroyed by technologies approved by the Parties. (EU)]

4. For Parties operating under the provisions of paragraph 8 (a) of Article 2, the requirements in paragraphs [~~1, 2, 3 and 3 bis 1 to 3 ter (EU)~~] of this Article in respect of statistical data on [production, (EU)] imports and exports shall be satisfied if the regional economic integration organization concerned provides data on imports and exports between the organization and States that are not members of that organization.

Article 8: Non-compliance

The Parties, at their first meeting, shall consider and approve procedures and institutional mechanisms for determining non-compliance with the provisions of this Protocol and for treatment of Parties found to be in non-compliance.

Article 9: Research, development, public awareness and exchange of information

1. The Parties shall co-operate, consistent with their national laws, regulations and practices and taking into account in particular the needs of developing countries, in promoting, directly or through competent international bodies, research, development and exchange of information on:
 - (a) best technologies for improving the containment, recovery, recycling, or destruction of controlled substances [~~for substances listed in Annex F (EU)~~] or otherwise reducing their emissions;
 - (b) possible alternatives to controlled substances [~~for substances listed in Annex F (EU)~~], to products containing such substances, and to products manufactured with them; and
 - (c) costs and benefits of relevant control [~~and reduction (EU)~~] strategies.
2. The Parties, individually, jointly or through competent international bodies, shall co-operate in promoting public awareness of the environmental effects of the emissions of controlled substances [~~and, (EU)~~] other substances that deplete the ozone layer [~~and of substances that are used to replace those substances, in particular those substances listed in Annex F (EU)~~].
3. Within two years of the entry into force of this Protocol and every two years thereafter, each Party shall submit to the Secretariat a summary of the activities it has conducted pursuant to this Article.

Article 10: Financial mechanism

1. The Parties shall establish a mechanism for the purposes of providing financial and technical co-operation, including the transfer of technologies, to Parties operating under paragraph 1 of Article 5 of this Protocol to enable their compliance with the control measures set out in Articles 2A to 2E [, ~~and (NA)(IS)~~] Article 2I, [~~and Article 2J (NA)(IS)~~] [~~and, (EU)~~] any control measures in Articles 2F to 2H that are decided pursuant to paragraph 1 bis of Article 5 of the Protocol [~~or with the measures laid down in Article 2J and in paragraph 8 qua of Article 5 (EU)~~]. The mechanism, contributions to which shall be additional to other financial transfers to Parties operating under that paragraph, shall meet all agreed incremental costs of such Parties in order to

enable their compliance with the control measures of the Protocol ~~[and the obligations laid down in Article 2J and in paragraph 8 qua of Article 5 (EU)]~~. An indicative list of the categories of incremental costs shall be decided by the meeting of the Parties. ~~[Where a Party operating under paragraph 1 of Article 5 chooses to avail itself of funding from any other financial mechanism that could result in meeting any part of its agreed incremental costs, that part shall not be met by the Financial Mechanism under Article 10 of this Protocol. (NA)]~~

~~[Where a Party operating under paragraph 1 of Article 5 chooses to avail itself of funding from any other financial mechanism to meet any part of its agreed incremental costs, that part shall not be met by the financial mechanism under Article 10 of this Protocol. Where a Party operating under paragraph 1 of Article 5 chooses to comply with the provisions of Article 2J in advance of the schedule agreed by the Parties, that Party shall be able to avail itself of the funding described in Article 10 of the Protocol for such early compliance. (IS)]~~

- ~~[1 bis. The Parties shall strengthen the financial mechanism for providing financial and technical cooperation, including transfer of technologies to Parties operating under paragraph 1 of Article 5 of this Protocol to enable their compliance with control measures set out in Article 2J, Article 2K and paragraph 8 qua Article 5 of the Protocol for the Annex F and Annex G substances. The financial mechanism shall meet compensation for lost profit stream for gradual closure of production facilities of HFCs, “Full costs of conversion” to HFC production facilities, manufacturing unit of equipment (s)/product(s) from HFCs to low-GWP/zero-GWP alternative (s), operating costs for at least 5 years and adequate funding for servicing sector including training of technicians, awareness, equipment support to technicians, compensation for obsolescence/ immature retirement of equipment, etc. (IN)].~~
- ~~[1 bis. The Parties shall strengthen the financial mechanism for providing financial and technical cooperation to Parties operating under paragraph 1 of Article 5 of this Protocol in order to promote energy efficiency and to overcome barriers to the uptake of technologies with low global warming potentials in order to implement the provisions of Article 2J and Article 5, paragraph 8 qua. (IS)]~~
2. The mechanism established under paragraph 1 shall include a Multilateral Fund. It may also include other means of multilateral, regional and bilateral co-operation.
 3. The Multilateral Fund shall:
 - (a) Meet, on a grant or concessional basis as appropriate, and according to criteria to be decided upon by the Parties, the agreed incremental costs;
 - (b) Finance clearing-house functions to:
 - (i) Assist Parties operating under paragraph 1 of Article 5, through country specific studies and other technical co-operation, to identify their needs for co-operation;
 - (ii) Facilitate technical co-operation to meet these identified needs;
 - (iii) Distribute, as provided for in Article 9, information and relevant materials, and hold workshops, training sessions, and other related activities, for the benefit of Parties that are developing countries; and
 - (iv) Facilitate and monitor other multilateral, regional and bilateral co-operation available to Parties that are developing countries;
 - (c) Finance the secretarial services of the Multilateral Fund and related support costs.
 4. The Multilateral Fund shall operate under the authority of the Parties who shall decide on its overall policies.
 5. The Parties shall establish an Executive Committee to develop and monitor the implementation of specific operational policies, guidelines and administrative arrangements, including the disbursement of resources, for the purpose of achieving the objectives of the Multilateral Fund. The Executive Committee shall discharge its tasks and responsibilities, specified in its terms of reference as agreed by the Parties, with the co-operation and assistance of the International Bank for Reconstruction and Development (World Bank), the United Nations Environment Programme, the United Nations Development Programme or other appropriate agencies depending

on their respective areas of expertise. The members of the Executive Committee, which shall be selected on the basis of a balanced representation of the Parties operating under paragraph 1 of Article 5 and of the Parties not so operating, shall be endorsed by the Parties.

6. The Multilateral Fund shall be financed by contributions from Parties not operating under paragraph 1 of Article 5 in convertible currency or, in certain circumstances, in kind and/or in national currency, on the basis of the United Nations scale of assessments. Contributions by other Parties shall be encouraged. Bilateral and, in particular cases agreed by a decision of the Parties, regional co-operation may, up to a percentage and consistent with any criteria to be specified by decision of the Parties, be considered as a contribution to the Multilateral Fund, provided that such co-operation, as a minimum:
 - (a) Strictly relates to compliance with the provisions of this Protocol;
 - (b) Provides additional resources; and
 - (c) Meets agreed incremental costs.
7. The Parties shall decide upon the programme budget of the Multilateral Fund for each fiscal period and upon the percentage of contributions of the individual Parties thereto.
8. Resources under the Multilateral Fund shall be disbursed with the concurrence of the beneficiary Party.
9. Decisions by the Parties under this Article shall be taken by consensus whenever possible. If all efforts at consensus have been exhausted and no agreement reached, decisions shall be adopted by a two-thirds majority vote of the Parties present and voting, representing a majority of the Parties operating under paragraph 1 of Article 5 present and voting and a majority of the Parties not so operating present and voting.
10. The financial mechanism set out in this Article is without prejudice to any future arrangements that may be developed with respect to other environmental issues.

Article 10A: Transfer of technology

Each Party shall take every practicable step, consistent with the programmes supported by the financial mechanism, to ensure:

- (a) that the best available, environmentally safe substitutes and related technologies are expeditiously transferred to Parties operating under paragraph 1 of Article 5; and
- (b) that the transfers referred to in subparagraph (a) occur under fair and most favourable conditions.

[(c) Protocol shall ensure that the transfer of technology including technologies with Intellectual Property Rights, process and application patents to Parties operating under paragraph 1 of Article 5 of the Protocol for phase down of Annex F and Annex G substances both for production and consumption. (IN)]

Article 11: Meetings of the parties

1. The Parties shall hold meetings at regular intervals. The Secretariat shall convene the first meeting of the Parties not later than one year after the date of the entry into force of this Protocol and in conjunction with a meeting of the Conference of the Parties to the Convention, if a meeting of the latter is scheduled within that period.
2. Subsequent ordinary meetings of the parties shall be held, unless the Parties otherwise decide, in conjunction with meetings of the Conference of the Parties to the Convention. Extraordinary meetings of the Parties shall be held at such other times as may be deemed necessary by a meeting of the Parties, or at the written request of any Party, provided that within six months of such a request being communicated to them by the Secretariat, it is supported by at least one third of the Parties.
3. The Parties, at their first meeting, shall:

- (a) adopt by consensus rules of procedure for their meetings;
- (b) adopt by consensus the financial rules referred to in paragraph 2 of Article 13;
- (c) establish the panels and determine the terms of reference referred to in Article 6;
- (d) consider and approve the procedures and institutional mechanisms specified in Article 8; and
- (e) begin preparation of workplans pursuant to paragraph 3 of Article 10.

[The Article 10 in question is that of the original Protocol adopted in 1987.]

4. The functions of the meetings of the Parties shall be to:
- (a) review the implementation of this Protocol;
 - (b) decide on any adjustments or reductions referred to in paragraph 9 of Article 2;
 - (c) decide on any addition to, insertion in or removal from any annex of substances and on related control measures in accordance with paragraph 10 of Article 2;
 - (d) establish, where necessary, guidelines or procedures for reporting of information as provided for in Article 7 and paragraph 3 of Article 9;
 - (e) review requests for technical assistance submitted pursuant to paragraph 2 of Article 10;
 - (f) review reports prepared by the secretariat pursuant to subparagraph (c) of Article 12;
 - (g) assess, in accordance with Article 6, the control measures;
 - (h) consider and adopt, as required, proposals for amendment of this Protocol or any annex and for any new annex;
 - (i) consider and adopt the budget for implementing this Protocol; and
 - (j) consider and undertake any additional action that may be required for the achievement of the purposes of this Protocol.
5. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State not party to this Protocol, may be represented at meetings of the Parties as observers. Any body or agency, whether national or international, governmental or non-governmental, qualified in fields relating to the protection of the ozone layer which has informed the secretariat of its wish to be represented at a meeting of the Parties as an observer may be admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Parties.

Article 12: Secretariat

For the purposes of this Protocol, the Secretariat shall:

- (a) arrange for and service meetings of the Parties as provided for in Article 11;
- (b) receive and make available, upon request by a Party, data provided pursuant to Article 7;
- (c) prepare and distribute regularly to the Parties reports based on information received pursuant to Articles 7 and 9;
- (d) notify the Parties of any request for technical assistance received pursuant to Article 10 so as to facilitate the provision of such assistance;

- (e) encourage non-Parties to attend the meetings of the Parties as observers and to act in accordance with the provisions of this Protocol;
- (f) provide, as appropriate, the information and requests referred to in subparagraphs (c) and (d) to such non-party observers; and
- (g) perform such other functions for the achievement of the purposes of this Protocol as may be assigned to it by the Parties.

Article 13: Financial provisions

1. The funds required for the operation of this Protocol, including those for the functioning of the Secretariat related to this Protocol, shall be charged exclusively against contributions from the Parties.
2. The Parties, at their first meeting, shall adopt by consensus financial rules for the operation of this Protocol.

Article 14: Relationship of this Protocol to the Convention

Except as otherwise provided in this Protocol, the provisions of the Convention relating to its protocols shall apply to this Protocol.

Article 15: Signature

This Protocol shall be open for signature by States and by regional economic integration organizations in Montreal on 16 September 1987, in Ottawa from 17 September 1987 to 16 January 1988, and at United Nations Headquarters in New York from 17 January 1988 to 15 September 1988.

Article 16: Entry into force

1. This Protocol shall enter into force on 1 January 1989, provided that at least eleven instruments of ratification, acceptance, approval of the Protocol or accession thereto have been deposited by States or regional economic integration organizations representing at least two-thirds of 1986 estimated global consumption of the controlled substances, and the provisions of paragraph 1 of Article 17 of the Convention have been fulfilled. In the event that these conditions have not been fulfilled by that date, the Protocol shall enter into force on the ninetieth day following the date on which the conditions have been fulfilled.
2. For the purposes of paragraph 1, any such instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.
3. After the entry into force of this Protocol, any State or regional economic integration organization shall become a Party to it on the ninetieth day following the date of deposit of its instrument of ratification, acceptance, approval or accession.

Article 17: Parties joining after entry into force

Subject to Article 5, any State or regional economic integration organization which becomes a Party to this Protocol after the date of its entry into force, shall fulfil forthwith the sum of the obligations under Article 2, as well as under Articles 2A to 2[F J (EU)(IS)] and Article 4, that apply at that date to the States and regional economic integration organizations that became Parties on the date the Protocol entered into force.

Article 18: Reservations

No reservations may be made to this Protocol.

Article 19: Withdrawal

Any Party may withdraw from this Protocol by giving written notification to the Depositary at any time after four years of assuming the obligations specified in paragraph 1 of Article 2A. Any such withdrawal shall take effect upon expiry of one year after the date of its receipt by the Depositary, or on such later date as may be specified in the notification of the withdrawal.

Article 20: Authentic texts

The original of this Protocol, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF THE UNDERSIGNED, BEING DULY AUTHORIZED TO THAT EFFECT, HAVE SIGNED THIS PROTOCOL.

DONE AT MONTREAL THIS SIXTEENTH DAY OF SEPTEMBER, ONE THOUSAND NINE HUNDRED AND EIGHTY SEVEN.

Annex A: Controlled substances

Group	Substance	Ozone-Depleting Potential*
<i>Group I</i>		
	CFCl ₃ (CFC-11)	1.0
	CF ₂ Cl ₂ (CFC-12)	1.0
	C ₂ F ₃ Cl ₃ (CFC-113)	0.8
	C ₂ F ₄ Cl ₂ (CFC-114)	1.0
	C ₂ F ₅ Cl (CFC-115)	0.6
<i>Group II</i>		
	CF ₂ BrCl (halon-1211)	3.0
	CF ₃ Br (halon-1301)	10.0
	C ₂ F ₄ Br ₂ (halon-2402)	6.0

* These ozone depleting potentials are estimates based on existing knowledge and will be reviewed and revised periodically.

Annex B: Controlled substances

Group	Substance	Ozone-Depleting Potential
<i>Group I</i>		
	CF ₃ Cl (CFC-13)	1.0
	C ₂ FCl ₅ (CFC-111)	1.0
	C ₂ F ₂ Cl ₄ (CFC-112)	1.0
	C ₃ FCl ₇ (CFC-211)	1.0
	C ₃ F ₂ Cl ₆ (CFC-212)	1.0
	C ₃ F ₃ Cl ₅ (CFC-213)	1.0
	C ₃ F ₄ Cl ₄ (CFC-214)	1.0
	C ₃ F ₅ Cl ₃ (CFC-215)	1.0
	C ₃ F ₆ Cl ₂ (CFC-216)	1.0
	C ₃ F ₇ Cl (CFC-217)	1.0
<i>Group II</i>		
	CCl ₄ carbon tetrachloride	1.1
<i>Group III</i>		
	C ₂ H ₃ Cl ₃ * 1,1,1-trichloroethane* (methyl chloroform)	0.1

* This formula does not refer to 1,1,2-trichloroethane.

Annex C: Controlled substances

Group	Substance	Number of isomers	Ozone-Depleting Potential*	[100-Year (NA)(IN)(IS)] Global Warming Potential ^[*]		
				[(100 years)*** (EU)] (NA)(EU)(IS)	(IN)	
<i>Group I</i>						
	CHFC1 ₂	(HCFC-21)**	1	0.04	151	148
	CHF ₂ Cl	(HCFC-22)**	1	0.055	1810	1,760
	CH ₂ FC1	(HCFC-31)	1	0.02		
	C ₂ HFCl ₄	(HCFC-121)	2	0.01–0.04		
	C ₂ HF ₂ Cl ₃	(HCFC-122)	3	0.02–0.08		
	C ₂ HF ₃ Cl ₂	(HCFC-123)	3	0.02–0.06	77	79
	CHCl ₂ CF ₃	(HCFC-123)**	–	0.02		
	C ₂ HF ₄ Cl	(HCFC-124)	2	0.02–0.04	609	527
	CHFClCF ₃	(HCFC-124)**	–	0.022		
	C ₂ H ₂ FCl ₃	(HCFC-131)	3	0.007–0.05		
	C ₂ H ₂ F ₂ Cl ₂	(HCFC-132)	4	0.008–0.05		
	C ₂ H ₂ F ₃ Cl	(HCFC-133)	3	0.02–0.06		
	C ₂ H ₃ FCl ₂	(HCFC-141)	3	0.005–0.07		
	CH ₃ CFCl ₂	(HCFC-141b)**	–	0.11	725	782
	C ₂ H ₃ F ₂ Cl	(HCFC-142)	3	0.008–0.07		
	CH ₃ CF ₂ Cl	(HCFC-142b)**	–	0.065	2310	1,980
	C ₂ H ₄ FCl	(HCFC-151)	2	0.003–0.005		
	C ₃ HFCl ₆	(HCFC-221)	5	0.015–0.07		
	C ₃ HF ₂ Cl ₅	(HCFC-222)	9	0.01–0.09		
	C ₃ HF ₃ Cl ₄	(HCFC-223)	12	0.01–0.08		
	C ₃ HF ₄ Cl ₃	(HCFC-224)	12	0.01–0.09		
	C ₃ HF ₅ Cl ₂	(HCFC-225)	9	0.02–0.07		
	CF ₃ CF ₂ CHCl ₂	(HCFC-225ca)**	–	0.025	122	127
	CF ₂ ClCF ₂ CHClF	(HCFC-225cb)**	–	0.033	595	525
	C ₃ HF ₆ Cl	(HCFC-226)	5	0.02–0.10		
	C ₃ H ₂ FCl ₅	(HCFC-231)	9	0.05–0.09		
	C ₃ H ₂ F ₂ Cl ₄	(HCFC-232)	16	0.008–0.10		
	C ₃ H ₂ F ₃ Cl ₃	(HCFC-233)	18	0.007–0.23		
	C ₃ H ₂ F ₄ Cl ₂	(HCFC-234)	16	0.01–0.28		
	C ₃ H ₂ F ₅ Cl	(HCFC-235)	9	0.03–0.52		
	C ₃ H ₃ FCl ₄	(HCFC-241)	12	0.004–0.09		
	C ₃ H ₃ F ₂ Cl ₃	(HCFC-242)	18	0.005–0.13		
	C ₃ H ₃ F ₃ Cl ₂	(HCFC-243)	18	0.007–0.12		
	C ₃ H ₃ F ₄ Cl	(HCFC-244)	12	0.009–0.14		
	C ₃ H ₄ FCl ₃	(HCFC-251)	12	0.001–0.01		
	C ₃ H ₄ F ₂ Cl ₂	(HCFC-252)	16	0.005–0.04		
	C ₃ H ₄ F ₃ Cl	(HCFC-253)	12	0.003–0.03		
	C ₃ H ₅ FCl ₂	(HCFC-261)	9	0.002–0.02		
	C ₃ H ₅ F ₂ Cl	(HCFC-262)	9	0.002–0.02		
	C ₃ H ₆ FCl	(HCFC-271)	5	0.001–0.03		

* Where a range of ODPs is indicated, the highest value in that range shall be used for the purposes of the Protocol. The ODPs listed as a single value have been determined from calculations based on laboratory measurements. Those listed as a range are based on estimates and are less certain. The range pertains to an isomeric group. The upper value is the estimate of the ODP of the isomer with the highest ODP, and the lower value is the estimate of the ODP of the isomer with the lowest ODP.

** Identifies the most commercially viable substances with ODP values listed against them to be used for the purposes of the Protocol.

*** For substances for which no GWP is indicated, the default value 0 applies. (EU)

* Source: Scientific Assessment of Ozone Depletion: 2014 (IN)

Group	Substance	Number of isomers	Ozone-Depleting Potential*	
<i>Group II</i>				
	CHBr ₂	1	1.00	
	CHF ₂ Br	(HBFC-22B1)	0.74	
	CH ₂ FBr	1	0.73	
	C ₂ H ₂ FBr ₄	2	0.3–0.8	
	C ₂ H ₂ F ₂ Br ₃	3	0.5–1.8	
	C ₂ H ₂ F ₃ Br ₂	3	0.4–1.6	
	C ₂ H ₂ F ₄ Br	2	0.7–1.2	
	C ₂ H ₂ FBr ₃	3	0.1–1.1	
	C ₂ H ₂ F ₂ Br ₂	4	0.2–1.5	
	C ₂ H ₂ F ₃ Br	3	0.7–1.6	
	C ₂ H ₃ FBr ₂	3	0.1–1.7	
	C ₂ H ₃ F ₂ Br	3	0.2–1.1	
	C ₂ H ₄ FBr	2	0.07–0.1	
	C ₃ H ₂ FBr ₆	5	0.3–1.5	
	C ₃ H ₂ F ₂ Br ₅	9	0.2–1.9	
	C ₃ H ₂ F ₃ Br ₄	12	0.3–1.8	
	C ₃ H ₂ F ₄ Br ₃	12	0.5–2.2	
	C ₃ H ₂ F ₅ Br ₂	9	0.9–2.0	
	C ₃ H ₂ F ₆ Br	5	0.7–3.3	
	C ₃ H ₃ FBr ₅	9	0.1–1.9	
	C ₃ H ₃ F ₂ Br ₄	16	0.2–2.1	
	C ₃ H ₃ F ₃ Br ₃	18	0.2–5.6	
	C ₃ H ₃ F ₄ Br ₂	16	0.3–7.5	
	C ₃ H ₃ F ₅ Br	8	0.9–1.4	
	C ₃ H ₃ FBr ₄	12	0.08–1.9	
	C ₃ H ₃ F ₂ Br ₃	18	0.1–3.1	
	C ₃ H ₃ F ₃ Br ₂	18	0.1–2.5	
	C ₃ H ₃ F ₄ Br	12	0.3–4.4	
	C ₃ H ₄ FBr ₃	12	0.03–0.3	
	C ₃ H ₄ F ₂ Br ₂	16	0.1–1.0	
	C ₃ H ₄ F ₃ Br	12	0.07–0.8	
	C ₃ H ₅ FBr ₂	9	0.04–0.4	
	C ₃ H ₅ F ₂ Br	9	0.07–0.8	
	C ₃ H ₆ FBr	5	0.02–0.7	
<i>Group III</i>				
	CH ₂ BrCl	bromochloromethane	1	0.12

* Where a range of ODPs is indicated, the highest value in that range shall be used for the purposes of the Protocol. The ODPs listed as a single value have been determined from calculations based on laboratory measurements. Those listed as a range are based on estimates and are less certain. The range pertains to an isomeric group. The upper value is the estimate of the ODP of the isomer with the highest ODP, and the lower value is the estimate of the ODP of the isomer with the lowest ODP.

** Identifies the most commercially viable substances with ODP values listed against them to be used for the purposes of the Protocol.

Annex D:* A list of products containing controlled substances specified in Annex A**

Products	Customs code number
1. Automobile and truck air conditioning units (whether incorporated in vehicles or not)
2. Domestic and commercial refrigeration and air conditioning/heat pump equipment*** e.g. Refrigerators
Freezers
Dehumidifiers
Water coolers
Ice machines
Air conditioning and heat pump units
3. Aerosol products, except medical aerosols
4. Portable fire extinguisher
5. Insulation boards, panels and pipe covers
6. Pre-polymers

* This Annex was adopted by the Third Meeting of the Parties in Nairobi, 21 June 1991 as required by paragraph 3 of Article 4 of the Protocol.

** Though not when transported in consignments of personal or household effects or in similar non-commercial situations normally exempted from customs attention.

*** When containing controlled substances in Annex A as a refrigerant and/or in insulating material of the product.

Annex E: Controlled substance

Group	Substance	Ozone-Depleting Potential
<i>Group I</i>		
CH ₃ Br	methyl bromide	0.6

Annex F: [Controlled substances (NA)(IN)(EU)(IS) [Other (EU)] ¹⁰

[(EU only for this column) Group]	Substance	[100-Year (NA)(IN)(IS)] Global Warming Potential ^[*] [(100 years) (EU)]	
		(NA)(IS)(EU) only for this column)	(IN only for this column)
	[Group I (NA)(EU)(IS)]		
	[Group I (HFC-134, HFC-134a, HFC-143, HFC-245fa, HFC-365mfc) (IN)]		
CHF ₂ CHF ₂	HFC-134	1,100	1,120
CH ₂ FCF ₃	HFC-134a	1,430	1,300
CH ₂ FCHF ₂	HFC-143	353	328
CHF ₂ CH ₂ CF ₃	HFC-245fa	1,030	858
CF ₃ CH ₂ CF ₂ CH ₃	HFC-365mfc	794	804
	[Group II: (HFC-227ea, HFC-236cb, HFC-236ea, HFC-236fa, HFC-245ca, HFC-43-10mee) (IN)]		
CF ₃ CHF ₂ CF ₃	HFC-227ea	3,220	3,350
CH ₂ FCF ₂ CF ₃	HFC-236cb	1,340	1,210
CHF ₂ CHF ₂ CF ₃	HFC-236ea	1,370	1,330
CF ₃ CH ₂ CF ₃	HFC-236fa	9,810	8,060
CH ₂ FCF ₂ CHF ₂	HFC-245ca	693	716
CF ₃ CHF ₂ CHF ₂ CF ₃	HFC-43-10mee	1,640	1,650
	[Group III: (HFC-32, HFC-125, HFC-143a) (IN)]		
CH ₂ F ₂	HFC-32	675	677
CHF ₂ CF ₃	HFC-125	3,500	3,170
CH ₃ CF ₃	HFC-143a	4,470	4,800
	[Group IV : (HFC-41, HFC-152, HFC-152a, HFC-161) (IN)]		
CH ₃ F	HFC-41	92	116
CH ₂ FCH ₂ F	HFC-152	53	16
CH ₃ CHF ₂	HFC-152a	124	138
CH ₃ CH ₂ F	HFC-161	12	4
]	[HFC-1234yf (HFO-1234yf) (IS)]	4 (IS)	
	[HFC-1234ze (HFO-1234ze) (IS)]	6 (IS)	
	[HFC-1336mzz (HFO-1336mzz) (IS)]	9 (IS)	
	[Group II (NA/EU/IS)]		

[Annex G: Controlled substances (IN)]

[(EU only for this column)	[Substance (IN)]	[100-Year Global Warming Potential* (IN)]	
CHF ₃]	HFC-23	14,800	12,400

[* Source: Scientific Assessment of Ozone Depletion: 2014 (IN)]

¹⁰ The ordering of substances has been changed to allow the grouping proposed by India.

Section B: Articles II to V of the Amendment proposals ¹¹

Article II: Relationship to the 1999 Amendment

No State or regional economic integration organization may deposit an instrument of ratification, acceptance or approval of or accession to this Amendment unless it has previously, or simultaneously, deposited such an instrument to the Amendment adopted at the Eleventh Meeting of the Parties in Beijing, 3 December 1999.

Article III: Relationship to the United Nations Framework Convention on Climate Change and Its Kyoto Protocol

This Amendment **[is not intended to have the effect of excepting (NA)(IN)(EU)]****[shall have no effect on the status of hydrofluorocarbons under the Kyoto Protocol, and will not except (IS)]** hydrofluorocarbons from the scope of the commitments contained in Articles 4 and 12 of the United Nations Framework Convention on Climate Change and in Articles 2, 5, 7 and 10 of its Kyoto Protocol that apply to “greenhouse gases not controlled by the Montreal Protocol.” **[Since this amendment does not foresee a complete phase-out of emissive uses of hydrofluorocarbons, as the Montreal Protocol does for controlled substances, each (EU)]****[Each (NA)(IN)(IS)]** party to this Amendment shall continue to apply the **[principles and (IN)]** provisions of the United Nations Framework Convention on Climate Change and its Kyoto Protocol identified above to HFCs as long as those **[principles and (IN)]** provisions, respectively, remain in force with respect to such party.

[Accordingly, United Nations Framework Convention on Climate Change and Kyoto Protocol need to be amended (IN)].

Article IV: Entry into force

1. Except as noted in paragraph 2, below, this Amendment shall enter into force on 1 January **[2018 (NA)]** **[20xx (IN)]** **[2017 (EU)]**, provided that at least twenty instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.

2. The changes **[in Sections H and I of Article I (NA)(IN)]** **[to Article 4 set out in Article I (EU)]** **[to Article 4 of the Protocol in Section I (IS)]** of this Amendment shall enter into force on 1 January **[2020(NA)]****[20xx(IN)]****[2019(EU)]****[2017(IS)]**, provided that at least **[eighty (NA)]****[seventy (IN)(EU)(IS)]** instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.

3. For purposes of paragraphs 1 and 2, any such instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

4. After the entry into force of this Amendment, as provided under paragraphs 1 and 2, it shall enter into force for any other Party to the Protocol on the ninetieth day following the date of deposit of its instrument of ratification, acceptance or approval.

[Article V: Provisional application

Any Party may, at any time before this Amendment enters into force, declare that it will apply provisionally any of the control measures set out in Article 2J, and the corresponding reporting obligations in Article 7, pending such entry into force. (NA)]

¹¹ Only substantive differences among the amendment proposals are highlighted.

Party proposals regarding baselines, freeze dates and first reduction steps

A5 baselines and freeze dates		
Proponents	Proposed range (HFC component of baseline)	Freeze date
GCC	2024–2026	2028
China, Pakistan	2019–2025	2025–2026
India	2028–2030	2031
African Group, Pacific Island Countries, Latin America like-minded*, EU and JUSSCANNZ	2017–2019	2021
Malaysia, Indonesia, Brazil, Argentina, ¹ English-speaking Caribbean, Cuba	2021–2023	2025
Iran	2024–2027	2029
Non-A5 baseline, freeze date/first reduction step		
EU and JUSSCANNZ	2011–2013	90% of baseline in 2019
Belarus and Russian Federation	2009–2013 ¹	100% of baseline in 2020

* Nicaragua, El Salvador, Guatemala, Venezuela, Chile, Colombia, Honduras, Costa Rica, Mexico, Dominican Republic, Haiti, Panama, Peru, Paraguay (as a basis)

¹ Subject to confirmation by Government

- The HFC component of the baseline should be the average of consumption/production over three consecutive years expressed in CO₂ equivalent
- The baseline should include a percentage of HCFC consumption/production baseline or actual consumption/production, added to the HFC component

¹² The Annex reproduces the document on baselines, freeze dates and first reduction steps proposed by parties or groups of parties at the Third Extraordinary Meeting of the Parties. The table and the associated text can be found in Annex VI to the report of that meeting (UNEP/OzL.Pro.ExMOP.3/7), as well as in Annex VI to the note by the Secretariat for the resumed thirty-eighth meeting of the Open-ended Working Group of the Parties to the Montreal Protocol (UNEP/OzL.Pro.WG.1/resumed.38/2).