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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Ninety-third Meeting  
Montreal, 15-19 December 2023  
Item 9(a) of the provisional agenda<sup>1</sup>

**OVERVIEW OF ISSUES IDENTIFIED DURING PROJECT REVIEW**

**Introduction**

1. This document consists of the following sections:
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  - II: An overview of projects and activities following the project review process:
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<sup>1</sup> UNEP/OzL.Pro/ExCom/93/1

## I. Overview of projects and activities submitted by bilateral and implementing agencies

2. Table 1 presents a summary of requests that were submitted by bilateral and implementing agencies to the 93<sup>rd</sup> meeting.

**Table 1: Requests submitted by bilateral and implementing agencies**

Projects and activities	No. of countries	No. of funding requests	Amount requested (US \$)	Amount in principle (US \$)
Stage II/III of HCFC phase-out management plans (HPMPs)	9	22	19,334,082	53,515,588
Tranches of approved HPMPs	20	38	39,374,064	
Preparation for stage II/III of HPMPs	3	5	258,000	
Stage I of Kigali HFC implementation plans (KIPs)	24	56	23,630,724	57,988,163
HFC-related investment projects	1	3	2,826,074	
Preparation for KIPs and/or investment projects	14	22	2,165,760	
Renewal of institutional strengthening (IS) projects	27	27	9,271,678	
Additional activities to maintain energy efficiency in the servicing sector (decision 89/6)	17*	21	1,902,590	1,991,400
Preparation for a pilot project on energy efficiency	5 and a global	6	249,700	
Pilot project on energy efficiency	14	16	16,442,297	16,945,283
Preparation of a national inventory of banks of waste-controlled substances and development of a plan	33	37	3,222,500	
Global technical assistance on gender equality in the refrigeration and air-conditioning	1	2	2,501,810	
Compliance Assistance Programme (2024 budget)		1	11,265,696	
Core unit costs (2024)		3	5,969,740	
<b>Total</b>		<b>259</b>	<b>138,414,715</b>	

\* Activities for seven of these countries have been submitted as part of a new stage (Mozambique) or part of a tranche (Plurinational State of Bolivia, Ecuador, Gambia Guatemala, Mongolia and Sierra Leone) of its HPMP to this meeting.

Note: Funding amounts include agency support costs.

## II. Overview of projects and activities following the project review process

3. Following the project review process, 20 funding requests for projects and activities totalling US \$24,570,865, including agency support costs, have been withdrawn, 141 requests totalling US \$25,238,684, including agency support costs, are recommended for blanket approval, and 98 requests totalling US \$75,328,695, including agency support costs, are being forwarded for individual consideration. Altogether, the funding requested for projects and activities recommended for both blanket approval and individual consideration amounts to US \$100,567,379, including agency support costs.

### II.1 Projects submitted and subsequently withdrawn

#### Projects submitted and subsequently withdrawn

4. Table 2 presents a summary of requests submitted by bilateral and implementing agencies to the 93<sup>rd</sup> meeting, and subsequently withdrawn.

**Table 2: Requests submitted and subsequently withdrawn**

Projects and activities	No. of countries	No. of funding requests	Amount requested (US \$)
Stage II of HPMPs (paragraphs 5 and 6)	3	8	11,718,385
Tranches of approved HPMPs (paragraphs 7 and 8)	2	5	8,601,730
Stage I of KIPs (paragraph 9)	1	2	126,820

Projects and activities	No. of countries	No. of funding requests	Amount requested (US \$)
Pilot project on energy efficiency	3	3	1,622,120
Global technical assistance on gender equality in the refrigeration and air-conditioning	1	2	2,501,810
<b>Total</b>		<b>20</b>	<b>24,570,865</b>

Note: Funding amounts include agency support costs.

*Stage II of the HCFC phase-out management plan (Algeria, Gabon, Saudi Arabia)*

5. UNIDO, on behalf of the Government of Algeria, submitted a request for stage II of the HPMP and subsequently withdrew it, as the submission had not included HCFC sector consumption data and an endorsement letter could not be provided by the Government on time. UNIDO confirmed that the Government wished to defer the submission of stage II of the HPMP to the 94<sup>th</sup> meeting.

6. UNEP, on behalf of the Government of Gabon, submitted a request for stage II of the HPMP. During the project review process, UNEP withdrew the submission upon request from the Government of Gabon until further notice because of the prevailing political situation in the country.

7. UNIDO, on behalf of the Government of Saudi Arabia, submitted a request for stage II of the HPMP and subsequently withdrew it, in line with decision 86/16(f)(iii), as the project completion report (PCR) and financial completion of stage I of the HPMP were pending. UNEP and UNIDO confirmed that stage I would be financially completed, the remaining balances would be returned to the 93<sup>rd</sup> meeting, and the PCR for stage I would be finalized so that stage II of the HPMP could be submitted to the 94<sup>th</sup> meeting.

*Tranches of approved HCFC phase-out management plans (China, Islamic Republic of Iran)*

8. UNIDO, on behalf of the Government of China, submitted a request for the fourth tranche of stage II of the HPMP for the room air-conditioning and heat pump water heater manufacturing sector plan and subsequently withdrew it because the overall disbursement rate of the third tranche of stage II was below the 20 per cent threshold.

9. UNDP, on behalf of the Government of the Islamic Republic of Iran, submitted a request for the fifth tranche of stage II of the HPMP. During the project review process, the low implementation rate of activities approved under the previous tranches and the associated low level of disbursement were noted. In addition, as additional time was required by UNIDO to develop a revised proposal to assist the remaining polyurethane (PU) foam enterprises based on their eligibility and consumption and to provide a detailed report in line with decision 84/74(c)(i),<sup>2</sup> UNDP agreed to withdraw the request and resubmit it to a future meeting once all conditions for the consideration of the project had been met.

*Stage I of the Kigali HFC implementation plan (Armenia)*

10. UNIDO, on behalf of the Government of Armenia, submitted a proposal for the KIP, including a pilot project on energy efficiency in line with decision 91/65. During the project review process, UNIDO informed the Secretariat that upon consultation with the national ozone unit (NOU), this project was withdrawn to be resubmitted to the 94<sup>th</sup> meeting.

<sup>2</sup> To submit, with each funding tranche request, a detailed report on the status of the conversion of each of the foam projects covered under stage II, including the financial viability, the current level of HCFC-141b consumption, the alternative technology selected, the total cost to the Multilateral Fund and the level of co-financing, as applicable.

## II.2 Projects recommended for blanket approval

11. Table 3 presents a summary of requests that are recommended for blanket approval. The full list of projects recommended for blanket approval, additional details on these requests and the Secretariat's recommendation for the consideration of the Executive Committee are considered under agenda item 9(c), as contained in document UNEP/OzL.Pro/ExCom/93/33.

**Table 3: Requests recommended for blanket approval**

Projects and activities	No. of countries	No. of funding requests	Amount recommended (US \$)
Tranches of approved HPMPs	18	28	8,607,425
Preparation for stage II/III of HPMPs	3	5	258,000
Preparation for KIPs and/or investment-related activities	12	20	1,898,260
Renewal of IS projects	27	27	9,271,678
Additional activities to maintain energy efficiency in the servicing sector (decision 89/6)	16*	20	1,848,821
Preparation for a pilot project on energy efficiency	4	4	132,000
Preparation of a national inventory of banks of waste-controlled substances and development of a plan	33	37	3,222,500
<b>Total</b>		<b>141</b>	<b>25,238,684</b>

\* Activities for six (Plurinational State of Bolivia, Ecuador, Gambia Guatemala, Mongolia and Sierra Leone) of these countries have been submitted as part of their tranches of their HPMPs to this meeting.

Note: Funding amounts include agency support costs.

## II.3 Projects recommended for individual consideration

12. Table 4 presents a summary of requests that were submitted for individual consideration. Document UNEP/OzL.Pro/ExCom/93/34, considered under agenda item 9(d), lists the projects and activities submitted for individual consideration at the 93<sup>rd</sup> meeting, except for the Compliance Assistance Programme budget for 2024, considered under agenda item 9(e), and 2024 core unit costs for UNDP, UNIDO, and the World Bank, considered under agenda item 9(f).

**Table 4: Requests recommended for individual consideration**

Projects and activities	No. of countries	No. of funding requests	Amount recommended (US \$)	Amount in principle (US \$)
Stage II/III of HPMPs	6	14	7,300,366	17,907,720
Tranches of approved HPMPs	1	5	21,479,467	
Stage I of KIPs	23	54	20,372,787	51,905,576
HFC-related investment projects	1	3	1,250,593	
Preparation for KIPs and/or investment-related activities	2	2	267,500	
Additional activities to maintain energy efficiency in the servicing sector (decision 89/6)	1*	1	135,265.00	
Preparation for a pilot project on energy efficiency	1 and a global	2	117,700	
Pilot project on energy efficiency	11	13	7,169,581	
Compliance Assistance Programme (2024 budget)		1	11,265,696	
Core unit costs (2024)		3	5,969,740	
<b>Total</b>		<b>98</b>	<b>75,328,695</b>	

\* Activities for the country (Mozambique) have been submitted as part of a new stage of its HPMP to this meeting.

Note: Funding amounts include agency support costs.

### III. Issues identified during the project review process

#### III.1 Considerations related to the review of projects submitted to the 93<sup>rd</sup> meeting

13. The Secretariat received a large number of proposals in preparation for the 93<sup>rd</sup> meeting, including the requests for tranches for 20 countries (two of which subsequently withdrawn) and new stages of HPMPs for nine countries (three of which subsequently withdrawn), new KIPs for 24 countries (one of which subsequently withdrawn), 13 pilot projects on energy efficiency submitted in line with decision 91/65 and 10 stand-alone proposals for additional activities to enhance energy efficiency in line with decision 89/6.

14. The Secretariat reviewed these projects following the decisions relevant to the specific project categories listed above. During the review of the projects, there were some common issues that were identified; these are presented below for the Committee's information.

##### *Adjustments to HFC consumption data*

15. During the review of the projects, it was observed that while all Article 5 countries that had submitted KIPs had officially submitted Article 7 and CP data for the HFC baseline years, some countries required adjustments to these data due to revisions in light of the detailed HFC consumption data collected during project preparation. This required reconciliation and resubmissions of both the CP data and Article 7 data reports, some of them at the late stage of project review, resulted in extended discussions between the Secretariat and the implementing agencies. The Secretariat will address this issue with bilateral and implementing agencies during the next inter-agency coordination meeting to find ways to ensure consistency in the data sets used for reporting HFC consumption before projects are submitted to the Secretariat for review.<sup>3</sup>

##### *Fluctuations in HFC consumption during baseline years*

16. The Secretariat also noted fluctuations in reported HFC consumption during the baseline years for some countries. Some countries reported consumption that decreased in 2020 and/or 2021 due to the COVID-19 pandemic, and then reported high to very high HFC consumption in 2022, while other countries did not present large variations in the consumption during those years. It was further noted that fluctuations in consumption also varied by substance. HFC consumption trends were fully discussed with bilateral and implementing agencies responsible for the KIP submissions, as shown in the project documents presented to the Executive Committee.

17. The Secretariat acknowledged that many countries are facing difficulties in characterizing their HFC consumption in the baseline years, especially for 2022 given the economic distortions caused by the COVID-19 pandemic and have taken these elements into account during the review of the KIPs. The Secretariat further noted that it is important to continue monitoring the consumption behaviour over the coming years to determine whether large fluctuations in imports reported in some cases are representative of the local market's regular consumption needs or were an isolated occurrence, expecting that by the time the next tranche request is submitted in 2025 or 2026, the availability of data on longer-term HFC consumption trends will provide more clarity on the issue.

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<sup>3</sup> Decision 34/18(a) requests the Secretariat and the implementing agencies not to submit project proposals which showed inconsistencies between project data and the latest reported sectoral consumption data; and decision 41/16 requests implementing agencies to ensure that they had verified with the National Ozone Unit the consistency of Article 7 data, the country programme implementation data and the project phase-out data, prior to transmitting projects to the Secretariat for review.

*Calculation of cost in the refrigeration servicing sector*

18. During the review of the KIPs, the level of funding for activities in the refrigeration servicing sector was calculated based on decision 92/37. For non-LVC countries, in order to ensure equity across countries for determining the cost for the servicing sector and the associated reduction of HFCs for stage I, the Secretariat used the methodology proposed for converting US \$/kg to US \$/CO<sub>2</sub>-eq tonne in the servicing sector described in annex I of document UNEP/OzL.Pro/ExCom/92/46, as explained in detail in the project documents submitted for the consideration of the Executive Committee.

19. The use of this methodology resulted in a higher level of funding than that initially proposed in stage I of the KIPs for four countries. In other cases, the level of funds requested would represent a larger reduction of HFCs in CO<sub>2</sub>-eq tonnes than originally submitted. In cases where countries were recommended for higher levels of funding, the Secretariat reviewed the additional activities proposed to ensure that these were required to meet compliance in the servicing sector. The Secretariat considers that this methodology ensures that each country will receive the necessary funding required to address 10 per cent (or the percentage the country decides) of its baseline in CO<sub>2</sub>-eq tonnes based on US \$5.10/kg. This approach gives countries the flexibility to decide on actions based on national circumstances to meet compliance with the target reduction in stage I of 10 per cent below the baseline by 2029.

*Stand-alone investment projects approved before the KIP*

20. The Dominican Republic, Ecuador, Jordan and Mexico received funds for HFC stand-alone investment projects before the KIPs. In line with the Executive Committee decisions approving those projects, the HFC reductions associated with these will be deducted from the starting point for sustained reductions in HFC consumption established for these countries along with the reductions to be achieved in stage I of the KIPs once the methodology for a starting point is agreed by the Executive Committee, the template for KIP Agreements is agreed, and the resulting Agreements for these countries are finalized. These projects are also considered to be part of stage I of the KIP for these countries and will be reflected in the approvals of their KIPs.

*Energy efficiency pilot projects*

21. The projects submitted under decision 91/65 for pilot activities to maintain and/or enhance energy efficiency of replacement technologies and equipment in the context of HFC phase-down varied in terms of activities and funding requested and can be categorized mainly as investment and non-investment projects. The Secretariat reviewed all the proposals on a case-by-case basis in the absence of guidelines, taking into account experience from previous projects of similar nature approved by the Executive Committee (i.e., HPMPs and stand-alone projects) and for investment projects with inputs from technical experts. This ensured that cost recommendations were based on past practice and expert advice. Based on this analysis, the Secretariat made recommendations for these projects.

22. The Secretariat acknowledges that while there is a degree of uncertainty regarding the costs of some of the activities proposed, the agreed costs are the best available estimates for the activities identified in those projects. The Secretariat further noted that when approved by the Executive Committee, at the levels proposed in the project documents, these would not constitute a precedent, noting that policy issues related to energy efficiency, including costs, are still under discussion under agenda item 10(b).

23. Based on the level of funds recommended by the Secretariat of US \$7,419,281, if these projects are approved by the Executive Committee, 37 per cent of the funding window under decision 91/65 would have been used.

### **III.2 Funding the phase-out of HFCs contained in imported pre-blended polyols used in the polyurethane foam sector**

24. Several Article 5 countries that have submitted stage I requests of their KIPs to the 93<sup>rd</sup> meeting have reported under their country programme (CP) implementation reports the use of HFCs contained in imported pre-blended polyols in the PU foam sector. Some of these countries, including Cuba, Ecuador, Kyrgyzstan, and Peru, have included this consumption in their overarching strategy for stage I of the KIP, intending to address it at a later date, whether as part of stage I or in future stages of their KIPs. Other countries, such as Chile, plan to eliminate it through regulations. One country (Panama) identified in its KIP imports of HFCs for the manufacturing of pre-blended polyols intended for export; however, such exports are not reflected in the country's CP data reports and the use of HFC for pre-blended polyol will be addressed in a later stage of the KIP.

25. At its 61<sup>st</sup> meeting, the Executive Committee had agreed to fund the phase-out of HCFC-141b contained in imported pre-blended polyols which had not been counted as consumption under Article 7 in the context of the HPMPs.<sup>4</sup> The Executive Committee has not yet decided whether in the context of the KIPs funding will be provided to phase out HFCs contained in imported pre-blended polyols not reported under Article 7.

26. A preliminary analysis of the CP reports for the years 2020-2022 has shown that 16 group 1 countries have reported the use of HFCs contained in imported pre-blended polyols in the PU foam sector at a total of 173 mt in 2020, 236 mt in 2021, and 1,077 mt in 2022; and three group 1 countries have reported exports of HFCs contained in pre-blended polyols, at a total of 0.2 mt in 2021 and 54 mt in 2022. This data is preliminary, as not all Article 5 countries have reported their HFC consumption; several countries have revised or are expected to revise their reports once the HFC consumption surveys carried out in preparation for stage I of their KIPs have been completed; and a few countries are yet to ratify the Kigali Amendment and have not submitted their CP data.

27. The Executive Committee may wish to request the Secretariat to prepare a brief note on the issue based on past practice on the matter of HFCs contained in imported pre-blended polyols in the PU foam sector in Article 5 countries.

### **III.3 Calculation of the climate impact of activities in Kigali HFC implementation plans**

28. At the 73<sup>rd</sup> meeting, the Executive Committee decided to note that the Secretariat would calculate the impact on the climate of investment projects in the refrigeration and air-conditioning (RAC) manufacturing sectors in the context of the HPMPs by applying the Multilateral Fund Climate Impact Indicator (MCII) model (decision 73/65(c)). As the Secretariat has not yet completed the process of updating the MCII model to enable the calculation of climate impact from the HFC phase-down, the climate impact associated with conversion projects in the RAC manufacturing sector submitted to the present meeting has been estimated as annual reductions in CO<sub>2</sub>-equivalent tonnes, based on the difference in the GWP of HFCs phased out and the alternative refrigerants being phased in. The Secretariat would like to inform the Committee that it is in the process of revising the MCII model to be adjusted to the HFCs that are phased out.

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<sup>4</sup> While the use of HCFC-141b contained in imported pre-blended polyols was reported in the CP data, countries generally did not report it as consumption under Article 7; for those countries, the use of imported pre-blended polyols was not included in their HCFC consumption baseline and had no impact on compliance.

#### **IV. Reports on the implementation of decisions and follow-up on previous discussions related to project review**

##### **IV.1 Institutional strengthening renewal requests**

29. The Secretariat has reviewed the terminal reports and requests for the extension of IS funding for 27 countries against relevant decisions, including decision 91/63(d) on the funding level for IS projects, and decision 91/63(c) on the requirement to use the revised format for terminal reports and requests for the extension of IS funding and the corresponding performance indicators. All requests were crosschecked against previous IS reports; progress reports on the implementation of CPs; data reported under Article 7 of the Montreal Protocol; the latest reports on the implementation of HPMPs; implementing agencies' progress reports submitted to the 92<sup>nd</sup> meeting; and relevant decisions on compliance adopted by the parties to the Montreal Protocol. All countries submitted their 2022 CP implementation data as at the date of issuance of the relevant work programme documents, and all countries reported that they had achieved or partially achieved all applicable IS objectives. The Secretariat observed that there was a good level of consistency in the application of the performance indicators between the countries requesting IS funding. The Secretariat recommends all IS projects submitted to the 93<sup>rd</sup> meeting for blanket approval.

##### **IV.2 Funding withheld pending submission of verification reports or meeting specific conditions**

30. At the 92<sup>nd</sup> meeting, nine countries received funding for tranches of their HPMPs despite having pending submissions of verification reports. By decision 92/24(a), the Executive Committee accepted that funding be released for projects in Cuba, the Dominican Republic, Guyana, Indonesia, Lebanon, Malawi, Panama, Thailand, and Uruguay, as follows:

- (a) For Cuba, the Dominican Republic, Guyana, Malawi, Panama, and Uruguay, HPMP tranche requests were approved on the understanding that the Treasurer would transfer the approved funds to the implementing agencies only after receipt by the Secretariat of the verification reports confirming that the countries were in compliance; and that the implementing agencies would submit the verification reports no later than 12 weeks prior to the 93<sup>rd</sup> meeting, address the verification report recommendations in the implementation of tranches, and include the actions taken towards that end in the progress reports to be submitted with the countries' next tranche requests;
- (b) For Indonesia, the final tranche of stage II of the HPMP was approved on the understanding that the country's pending verification report would be submitted no later than 12 weeks prior to the 93<sup>rd</sup> meeting;
- (c) For Lebanon, the final tranche of stage II of the HPMP was approved on the understanding that an updated verification report including the 2022 consumption data would be submitted by the end of June 2023, that the recommendations in the verification report would be addressed in the implementation of the tranche, and that the actions implemented towards that end would be included in the progress report for stage II, to be submitted with the request for stage III of the HPMP for Lebanon. Executive Committee has further requested the submission, on a yearly basis, of progress reports on the implementation of the work programme associated with the final tranche through to completion of the project, verification reports until approval of stage III, and the project completion report to the first meeting of the Executive Committee in 2026; and
- (d) For Thailand, the HPMP tranche request was approved on the understanding that an updated verification report including the country's 2022 consumption data would be submitted by September 2023.



31. All countries listed above have submitted the required verification reports in due time, remaining in compliance with their respective commitments.

### IV.3 Summary of prices of the controlled substances and alternatives

32. In line with decision 79/4(c), the Secretariat is presenting for information purposes a summary of the prices of controlled substances and the alternatives to be phased in for three stand-alone HFC investment projects in India, and 13 investment projects included as part of the KIPs for Jordan, Malaysia, Mexico, and Viet Nam, as submitted to the 93<sup>rd</sup> meeting.

**A. India: Conversion from R-407C and R-410A to HFC-32 in the manufacturing of light commercial packaged and ducted air-conditioning units at Voltas Limited; Demonstration/conversion from R-404A and R-407C to carbon dioxide trans-critical heat pump technology in the food processing and cold storage refrigeration equipment manufacturing at Mech Air Industries; and Conversion of the manufacturing of commercial refrigeration appliances at Rockwell Industries Limited from HFC-134a to propane**

33. The requests for three investment projects in the commercial air-conditioning (AC) and commercial refrigeration sectors in India included the following price calculations for the incremental operating costs (IOCs): for Voltas Ltd., the prices of R-407C and R-410A were US \$6.50/kg and US \$9.00/kg, respectively, while the price of the alternative, HFC-32, was US \$6.50/kg; for Rockwell Industries Ltd., the price of HFC-134a was US \$5.50/kg and the price of the alternative, R-290, was US \$8.00/kg; and for Mech Air Industries, the price of R-404A was US \$7.50/kg and the price of the alternative, carbon dioxide (CO<sub>2</sub>), was US \$0.18/kg. The price of HFC-134a in the CP report was US \$5.50/kg, consistent with the price used to calculate IOCs in the proposal. Prices of the remaining substances were not included in the CP report.

**B. Jordan: Stage I of the Kigali HFC implementation plan – domestic refrigeration, commercial refrigeration, and residential air-conditioning sectors**

34. The requests for investment projects in the domestic refrigeration sector, two projects in the commercial refrigeration sector and four in the residential AC sector in Jordan included the following price calculations for the IOCs: the price for HFC-134a, R-404A and R-410A was US \$9.00/kg, the price of the alternative, HFC-32, was US \$6.00/kg; and the prices of R-600a and R-290 were not included in the CP data report. The data used for HFC-134a, R-404A and R-410A were consistent with those in the CP data report, the prices of the remaining substances were not included in the CP data report.

**C. Malaysia: Stage I of the Kigali HFC implementation plan – mobile air-conditioning, and commercial refrigeration sectors**

35. The project for the mobile air-conditioning (MAC) sector included in stage I of the KIP for Malaysia consisted of the partial conversion of one enterprise from HFC-134a to HFO-1234yf. The project listed a price of US \$6.00/kg for HFC-134a and US \$80.00/kg for HFCO-1234yf. The price reported for HFC-134a under the CP report was US \$5.50/kg, which is lower than the price used for the calculation of IOCs and would have represented a higher level of IOCs than those estimated for the project. The price of HFO-1234yf was not included in the CP report. Stage I also included conversion from R-404A and HFC-134a to R-290 and R-600a at two commercial refrigeration manufacturing enterprises. IOCs were not requested for those projects.

**D. Mexico: Stage I of the Kigali HFC implementation plan – polyurethane foam sector**

36. The PU foam sector plan for Mexico, submitted as a part of stage I of the KIP, includes the conversion of more than 150 enterprises to HFOs. The project proposal has listed the prices of HFC-365mfc

and HFC-245fa at US \$12.00-13.00/kg, and the price of the proposed alternative, HFO-1233zd(E), at US \$19.50/kg. The prices of these substances were not included in the CP report.

**E. Viet Nam: Stage I of the Kigali HFC implementation plan – industrial refrigeration and mobile air-conditioning sectors**

37. Stage I of the KIP for Viet Nam includes one project in the industrial refrigeration sector to enable the manufacturing of heat exchangers using stainless steel pipes and aluminum fins for installation in ammonia-based refrigeration systems, and one project to convert train MAC manufacturing from R-407C to R-454C. Neither of these projects requested IOCs.

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