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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-eighth Meeting
Montreal, 22–26 June 2026
Item 8(c) of the provisional agenda¹

PROJECT PROPOSAL: ARGENTINA

This document consists of the comments and recommendation of the Secretariat on the following project proposal:

Phase-out

- | | | |
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| <ul style="list-style-type: none">• Control of emissions of HFC-23 generated in the production of HCFC-22 at Frio Industrias Argentinas (fourth tranche) | UNIDO | Blanket approval |
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¹ UNEP/OzL.Pro/ExCom/98/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Argentina

PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
Control of emissions of HFC-23 generated in the production of HCFC-22 at Frío Industrias Argentinas	UNIDO (lead)	87 th	0.1 kg of HFC-23 per 100 kg of HCFC-22 produced by 2022*

* The project was approved on the understanding that the Government of Argentina would inter alia ensure that, by 1 January 2022 and thereafter, emissions of HFC-23 by-product from the HCFC-22 production line were destroyed in compliance with the Montreal Protocol and that emissions from the line were at or below 0.1 kg of HFC-23 emissions per 100 kg of HCFC-22 produced.

LATEST ARTICLE 7 DATA (Annex C, Group I)	Year: 2024	158.45 ODP tonnes
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VERIFIED PRODUCTION DATA (mt)	Year: 2025
HCFC-22 production	541.81
HFC-23 generation	17.36
HFC-23 emissions	0.00

ENDORSED BUSINESS PLAN	2026	2027	2028	Total
UNIDO Funding (US \$)	108,983	108,983	108,983	326,949

PROJECT DATA			2021	2022-2023	2024	2025	2026	2027	2028	2029	2030	Total
Maximum allowable emissions of Annex F, Group II substances per 100 kg of Annex C, Group I substances produced (kg)			n/a	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	n/a
Amounts approved in principle (US \$)	UNIDO	Project costs	1,527,851	-	112,757	112,757	101,853	101,853	101,853	101,853	101,853	2,262,630
		Support costs	106,950	-	7,893	7,893	7,130	7,130	7,130	7,129	7,129	158,384
Funds approved by ExCom (US \$)		Project costs	1,527,851	-	0	96,775						1,624,626
		Support costs	106,950	-	0	6,774						113,724
Total funds recommended for approval at this meeting (US \$)		Project costs				81,477						81,477
		Support costs				5,703						5,703

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Argentina, UNIDO as the designated implementing agency has submitted a request for funding for the fourth tranche of the project for the control of emissions of HFC-23 generated in the production of HCFC-22 at Frio Industrias Argentinas (FIASA) in the amount of US \$106,035, plus agency support costs of US \$7,422.² The submission includes a progress report on the implementation of the fourth tranche, the verification report on HCFC-22 production and HFC-23 by-product emissions for 2025, and the tranche implementation plan for 2026 to 2027.

Report on HCFC-22 production and HFC-23 by-product generated and emitted

2. As confirmed by the verification report, the Government of Argentina reported a total of 541.81 metric tonnes (mt) of HCFC-22 produced in 2025, with 17.36 mt of HFC-23 by-product generated and 0.00 mt of HFC-23 by-product emitted, as shown in table 1.

Table 1. HCFC-22 production and HFC-23 generated, destroyed, and emitted at FIASA (mt)*

Component	2022	2023	2024	2025
HCFC-22 produced	1,311.09	1,699.81	1,818.76	541.81
HFC-23 generated	42.05	54.44	58.55	17.36
By-product generation rate w^{**} (%)	3.21	3.20	3.22	3.20
HFC-23 destroyed	0.00	58.27	69.45	27.37
HFC-23 emitted	17.31	0.00	0.00	0.00

* Data sources: Article 7 (2022) and verification reports (2023, 2024, and 2025).

** By-product generation rate w = HFC-23 generated/HCFC-22 produced.

3. Gas chromatography (GC) analyses of the vented gases showed concentrations consistently below the detection limit of the GC (1.14 parts per million (ppm)), indicating negligible emissions. The average annual HFC-23 to HCFC-22 ratio for 2022 to 2025 is 3.21 per cent, which is below the historic average HFC-23 by-product generation rate of 3.24 per cent.

4. As of May 2022, all HFC-23 generated has been stored in the cryogenic tank or destroyed, and no HFC-23 by-product has been emitted to the atmosphere beyond those in line with the destruction and removal efficiency (DRE) of the incinerator (99.99 per cent), which results in concentrations below the GC detection limit. Data is not collected on possible fugitive emissions. From 2022 to 2025, FIASA did not sell any HFC-23, either pure or in a blend.

Verification report

5. The Government of Argentina reported HCFC production data under the 2025 country programme (CP) implementation report that is consistent with the data in the verification report. The Article 7 data for 2025 has not been reported yet. The verification report confirmed that the reported figures for 2025, shown in table 1 above, are a reliable and accurate representation of the total HCFC-22 production and HFC-23 by-product generation and destruction that occurred at FIASA in 2025.

6. The verification report included detailed weekly information on HCFC-22 production and HFC-23 by-product generated, destroyed, and stored. In 2025, the by-product generation rate ranged from 2.85 to 3.35 per cent. The verification concluded that the enterprise was in compliance with the commitments established under Argentina's obligations and the Executive Committee guidelines for the Montreal Protocol regarding HCFC-22 production monitoring for 2025.

² As per the letter of 20 April 2026 from the Ministry of Foreign Affairs, International Trade and Worship of Argentina to UNIDO.

Progress report on the implementation of the second and third tranches

7. At the 97th meeting, FIASA reported that the incinerator, which did not operate continuously, resumed operation in December 2023 and continued to destroy HFC-23 by-product through 2024; all HFC-23 by-product emissions were being stored or destroyed, and none were vented to the atmosphere. As of 31 December 2024, a total of 10.01 mt (10,011 kg) of HFC-23 by-product had been stored in the cryogenic storage tank.

8. In 2025, as confirmed by the verification report, 541.81 mt of HCFC-22 were produced, 17.36 mt of HFC-23 generated, and 27.37 mt of HFC-23 destroyed, which includes the 10.01 mt of HFC-23 by-product generated in 2024 that had been stored in the cryogenic storage tank. From 14 July 2025 to 31 December 2025, FIASA did not produce HCFC-22 nor generate or destroy HFC-23.

9. FIASA maintained emissions control in accordance with required standards, with HFC-23 concentrations in the waste gas stream remaining below the GC detection limit of 1.14 ppm.

Level of fund disbursement

10. As of April 2026, of the US \$1,624,626 approved so far, US \$1,528,698 (94 per cent) had been disbursed, as shown in table 2. The balance of US \$95,928 is expected to be disbursed in 2026 and 2027 to support monitoring and training activities.

Table 2. Financial report of the project to control HFC-23 emissions at FIASA (US \$)

Funding tranche	Funds approved	Funds disbursed	Disb. rate (%)	Fund balance
First	1,527,851	1,455,058	95	72,793
Second and third	96,775	73,640	76	23,135
Total	1,624,626	1,528,698	94	95,928

Implementation plan for the fourth tranche

11. The following activities will be implemented between July 2026 and December 2027:

- (a) Destruction of HFC-23 by-product from the production of HCFC-22 at FIASA in 2025 (incremental operating costs (IOCs)); 541.81 mt of HCFC-22 were produced in 2025, with 17.36 mt of HFC-23 by-product generated and 27.37 mt destroyed (including the 10.01 mt stored in the cryogenic tank at the start of 2025) (US \$63,535);
- (b) Monitoring, assessment, and training (US \$22,500); and
- (c) Verification of destruction, including an independent verification report (US \$20,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Report on HCFC-22 production and HFC-23 by-product generated and emitted

Verification report

12. The verification report did not compare the verified data with that reported in the country's CP data report for 2025. As indicated in the review of the request for the second and third tranches, the Secretariat reminded UNIDO to include the comparison of verified data with that reported under Article 7 and CP data reports, in the terms of reference for future verification reports.

13. The Secretariat noted a discrepancy between verified HCFC-22 production (541.81 mt) and verified sales (786.43 mt) relative to the change in stocks reported during the year, which resulted in an HCFC-22 inventory adjustment of 83.78 mt. Such inventory adjustments are frequently due to differences in weighing between the scales installed at the process tanks and those used in the finished product warehouse. Although the weighing cells installed in the daily tanks are calibrated and certified annually, discrepancies can still occur during the transfer of product to the warehouses, particularly due to the high weights handled during pumping operations. However, in this case, UNIDO clarified that the adjustment was primarily attributable to the contamination of one HCFC-22 tank with R-404A as a result of an operational error during a recompression task; the affected product was decommissioned and transferred to storage pending destruction using FIASA's incinerator. As production is defined as 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 Government of Argentina could report that destruction once undertaken to the Ozone Secretariat so that the destroyed amount is deducted from the country's calculated production and consumption.

14. The annual point source monitoring to measure the concentration of total particulate matter, carbon monoxide, hydrogen chloride, hydrogen fluoride, hydrogen bromide and bromine, and dioxins and furans to verify the compliance with the minimum standards suggested for the operation of destruction facilities, as described in the 2018 TEAP Report, Volume 2: Decision XXIX/4 TEAP Task Force Report on Destruction Technologies for Controlled Substances, planned for the second half of 2025, could not be performed in 2025 due to the plant's technical and market shutdown from July to December. As this test requires the incinerator to be in an active steady-state operation, FIASA committed to performing the sampling as soon as HCFC-22 production resumes. The results will be submitted to and incorporated into the verification records to ensure continuous oversight of the DRE.

15. At the 97th meeting, the Secretariat noted that for 2023, Argentina reported producing 1,669.81 mt of HCFC-22 under both its CP and Article 7 reports, while the verified production for that year was 1,699.80 mt (i.e., a difference of 29.99 mt). At the time of finalization of the present document the country had corrected the CP data report for that year but had not yet done so for its Article 7 report.

Progress report on the implementation of the second and third tranches

16. The Secretariat noted with appreciation that FIASA's annual HFC-23 by-product generation rate in 2025 was 3.20 per cent, below the historic average of 3.24 per cent; that all HFC-23 by-product generated in 2025, as well as the 10.01 mt stored in the cryogenic tank, were destroyed in 2025, leaving the cryogenic tank empty as of December 2025; and that FIASA has continued to store HFC-23 by-product in its cryogenic tank and to destroy it, thereby ensuring that the Government meets its commitments reflected in decision 87/52 and reflecting that the Government had taken action in line with decision 90/24(b) to prevent the venting of HFC-23 by-product. No HFC-23 by-product was sold, either in pure form or in a blend, during the 2022 to 2025 period.

17. UNIDO confirmed that, in line with decision 87/52(b)(vi), no additional funding from other sources, including HFC-23 credits or offsets, for the control of HFC-23 by-product emissions from FIASA had been either requested or received.

Implementation plan for the fourth tranche

18. In line with paragraph 6 of the Agreement between the Government of Argentina and the Executive Committee, and noting that the country was also eligible to request funding for the destruction of the 10.01 mt of HFC-23 that had been generated in 2024 but then destroyed in 2025, as discussed at the 97th meeting,³ funding for the fourth tranche was adjusted to US \$81,477, plus agency support costs of

³ Paragraph 191 of document UNEP/OzL.Pro/ExCom/97/91.

US \$5,703, for UNIDO. A detailed calculation of eligible costs is presented in annex I to the present document.

19. Accordingly, funding for IOCs was reduced to US \$38,977, and the full breakdown of activities and funding to be implemented under the fourth tranche were agreed as follows:

- (a) IOCs for the destruction of HFC-23 by-product from the production of HCFC-22 at FIASA in 2025 (US \$38,977);
- (b) Monitoring, assessment, and training (US \$22,500); and
- (c) Verification of destruction, including an independent verification report (US \$20,000).

20. After accounting for the 17.31 mt of HFC-23 by-product vented to the atmosphere in 2022, and the 155.09 mt of HFC-23 by-product destroyed in the 2022-2025 period, in line with paragraph 8(c) of the Agreement between the country and the Executive Committee, the remaining HFC-23 by-product for which funding can be requested at future meetings for destruction through the completion of the Agreement is 187,980 kg.

Gender policy implementation

21. In line with national policies, the implementation of the project promotes equal opportunities for all personnel, ensuring a safe and inclusive work environment. FIASA complies with national labour and non-discrimination legislation, which supports equal rights and treatment for all workers. At the institutional level, the Government of Argentina implements the activities under the Multilateral Fund, ensuring same opportunities for all groups to participate and contribute to project objectives.

Sustainability of the HCFC phase-out and assessment of risks

22. The sustainability of HFC-23 emission controls will be sustained, and the risk of HFC-23 emissions reduced, through the continued commitment of the Government and FIASA to regularly monitor production and destruction activities and maintain the performance of equipment, including the cryogenic storage tank and incinerator.

Conclusion

23. The Government and FIASA continue to comply with project and reporting commitments, and no emissions of HFC-23 by-product were emitted to the atmosphere in 2025 beyond those in line with the DRE of the incinerator, ensuring that emissions of HFC-23 by-product from the HCFC-22 production line were destroyed in compliance with the Montreal Protocol and that emissions from the line were at or below 0.1 kg of HFC-23 emissions per 100 kg of HCFC-22 produced.

24. FIASA has continued to manage its production and maintain its incinerator in such a manner as to ensure the annual by-product generation rate from 2022 to 2025 remained below the historic average HFC-23 by-product generation rate of 3.24 per cent. Monitoring of gases vented from the incinerator showed negligible HFC-23 by-product emissions (less than 1.14 ppm). Verification confirmed the amount of HCFC-22 produced and HFC-23 generated, destroyed, and emitted at FIASA for 2025, including the destruction of the 10.01 mt of by-product that had been stored in the cryogenic tank at the start of the year. Disbursements under the approved tranches are at 94 per cent.

RECOMMENDATION

25. The Secretariat recommends that the Executive Committee note the progress report on the implementation of the second and third tranches of the project for the control of emissions of HFC-23 generated in the production of HCFC-22 at Frío Industrias Argentinas (FIASA), and further recommends blanket approval of the fourth tranche of the project and the corresponding 2026-2027 tranche implementation plan for Argentina at the funding level shown in the table below, on the understanding that, in line with subparagraph 8(c) of the Agreement between the Government of Argentina and the Executive Committee, the remaining HFC-23 by-product for which funding could be requested at future meetings for destruction through the completion of the Agreement is 187,980 kg.

	Project title	Project funding (US \$)	Support costs (US \$)	Implementing agency
(a)	Control of emissions of HFC-23 generated in the production of HCFC-22 at Frío Industrias Argentinas (fourth tranche)	81,477	5,703	UNIDO

Annex I

CALCULATION OF ELIGIBLE COSTS

Overview

1. To calculate the total eligible funding for the fourth tranche, first the reduction attributable to HFC-23 generated and destroyed in 2025 (US \$24,576) and the reduction attributable to HFC-23 generated in 2024 and destroyed in 2025 (US \$14,016) are summed (US \$38,592); this total reduction is then subtracted from the agreed maximum IOCs for 2026 (US \$58,968) to give US \$20,376; and this amount is finally subtracted from the agreed maximum funding for 2026 (US \$101,853) to arrive at eligible funding of US \$81,477 (plus agency support costs of US \$5,703) for UNIDO, as further detailed below.

Summary of calculations

2. Paragraph 6 of the Agreement between the Government of Argentina and the Executive Committee, approved at the 88th meeting, states that the funding specified in row 2.1 of Appendix 1-A in any given year will be reduced according to the following table:

	$x_{w,i-1} \geq 3.24$	$x_{w,i-1} < 3.24$
$P_{HCFC-22,i-1} \leq 1,540$ and $i \leq 2025$	$IOC_{max,i} - \min(1000 \times P_{HCFC-22,i-1} \times 0.0324, D_{HFC-23,i-1}) \times 1.40$	$IOC_{max,i} - \max(1000 \times P_{HCFC-22,i-1} \times 0.0324, D_{HFC-23,i-1}) \times 1.40$
$P_{HCFC-22,i-1} \leq 1,300$ and $i > 2025$		
$P_{HCFC-22,i-1} > 1,540$ and $i \leq 2025$	$IOC_{max,i} - \min(1000 \times 1,540 \times 0.0324, D_{HFC-23,i-1}) \times 1.40$	0
$P_{HCFC-22,i-1} > 1,300$ and $i > 2025$	$IOC_{max,i} - \min(1000 \times 1,300 \times 0.0324, D_{HFC-23,i-1}) \times 1.40$	0

Where:

$P_{HCFC-22,i}$ = production of HCFC-22 in year i (mt)

$Q_{HFC-23,i}$ = quantity of HFC-23 by-product generated in year i (kg)

$D_{HFC-23,i}$ = quantity of HFC-23 by-product destroyed in year i (kg)

$x_{w,i} = \frac{Q_{HFC-23,i}}{P_{HCFC-22,i}}$ (%)

$IOC_{max,i}$ = the agreed maximum IOCs in year $i = \begin{cases} 1,540 \times 0.0324 \times 1.40 \times 1,000 = \text{US } \$69,854 & \text{when } i \leq 2025 \\ 1,300 \times 0.0324 \times 1.40 \times 1,000 = \text{US } \$58,968 & \text{when } i > 2025 \end{cases}$

3. The requested funding year i is 2026 ($i > 2025$) to be calculated using production and destruction data from the previous year, 2025.

4. As the 2025 by-product generation rate is 3.20 per cent ($x_{w,i-1} < 3.24$), and the 2025 production of HCFC-22 is 541.81 mt ($P_{HCFC-22,i} \leq 1,300$), the following overall calculation is used:

$$IOC_{max,i} - \max(1000 \times P_{HCFC-22,i-1} \times 0.0324, D_{HFC-23,i-1}) \times 1.40$$

where $IOC_{max,i} = \text{US } \$58,968$

Step 1: Destruction of HFC-23 produced in 2025

5. We first calculate the IOC reduction from the agreed maximum IOCs in year i ($IOC_{max,i}$) for the quantity of HFC-23 by-product generated in 2025 and destroyed in the same year. The quantity of HFC-23 by-product generated in 2025 and destroyed in 2025 is 17.357 mt.

6. The reduction from the agreed maximum IOCs in year i is calculated as follows:

$$\begin{aligned} & [\max (1,000 \times 541.81 \times 0.0324) \text{ or } (27,368 - 10,011)] \times 1.40 \\ & = [\max (17,554.64) \text{ or } (17,356.88)] \times 1.40 \\ & = \text{US } \$24,576 \end{aligned}$$

7. Paragraph 7 of the Agreement does not apply to the requested funding for 2026, as there was no increase in the $x_{w,i}$ that was due to circumstances beyond the control of FIASA in 2025.

Step 2: Destruction of HFC-23 produced in 2024

8. At the 97th meeting, it was noted that the level of eligible funding for the requested second and third tranches did not include the destruction of HFC-23 that had been generated in 2024 but then destroyed in 2025. In line with paragraph 8 of the Agreement, the country would be eligible to request funding for that destruction when it submitted its request for its next tranche in 2026, which would include verification of that and other destruction undertaken in 2025. The quantity of HFC-23 by-product generated in 2024 and destroyed in 2025 is 10.011 mt.

9. Decision 87/52(b)(iii) states that the IOCs in each annual tranche would be calculated by multiplying the quantity of HFC-23 destroyed by US \$1.40/kg. As 10.011 mt from 2024 was destroyed, this would be calculated as 10,011 kg x US \$1.40/kg = **US \$14,016**.

Step 3: Calculating the full reduction in funding and total eligible

10. Row 2.1 of Appendix 1-A specifies a maximum level of funding of US \$101,853 for the year 2026.

11. Using the applicable equation from paragraph 6 of the Agreement shown above, the reduction in funding from this maximum funding level would be US \$20,376, calculated as follows:

$$58,968 - (24,576 + 14,016) = 58,968 - 38,592 = \text{US } \$20,376$$

12. Removing the total reduction amount (US \$20,376) from the maximum funding level (US \$101,853) results in the country being eligible for US \$81,477, plus agency support costs:

$$101,853 - 20,376 = \text{US } \$81,477$$