


**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/96/22/Add.1
8 May 2025

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-sixth Meeting
Montreal, 26-30 May 2025
Item 9(d) of the provisional agenda¹

Addendum
UNIDO's WORK PROGRAMME FOR 2025

This document is issued to add one request for the preparation of a project to enhance energy efficiency in the air-conditioning manufacturing sector in the context of HFC phase-down for Argentina, received after the issuance of document UNEP/OzL.Pro/ExCom/96/22. The relevant paragraphs and table are revised as follows:

- **Replace** paragraph 1 and table 1 as follows:

1. UNIDO is requesting approval from the Executive Committee of US \$946,451, plus agency support costs of US \$67,452 for its 2025 work programme listed in table 1. The submission is attached to the present document.

Table 1: UNIDO's work programme for 2025

Country	Activity/Project	Amount requested (US \$)	Amount recommended (US \$)
SECTION A: ACTIVITIES RECOMMENDED FOR BLANKET APPROVAL			
A1: Renewal of institutional strengthening projects			
Mexico	Renewal of institutional strengthening project (phase XVII)	654,451	654,451
	Subtotal for A1	654,451	654,451
	Agency support costs	45,812	45,812
	Total for A1	700,263	700,263
A2: Project preparation for HCFC phase-out management plan (HPMP)			
Turkmenistan	Preparation of an HPMP (stage III)	30,000	30,000
	Subtotal for A2	30,000	30,000
	Agency support costs	2,100	2,100
	Total for A2	32,100	32,100

¹ UNEP/OzL.Pro/ExCom/96/1

Country	Activity/Project	Amount requested (US \$)	Amount recommended (US \$)
A3: Preparation of a national inventory of banks of used or unwanted controlled substances and a plan for the collection, transport, and disposal of such substances²			
South Africa	Preparation of a national inventory of banks of used or unwanted controlled substances and a plan	100,000	100,000
Subtotal for A3		100,000	100,000
Agency support costs		7,000	7,000
Total for A3		107,000	107,000
A4: Preparation of energy efficiency pilot projects under decision 91/65			
Egypt	Preparation of a project to enhance energy efficiency in data centres in the context of HFC phase-down	30,000	30,000
North Macedonia	Preparation of a project to enhance energy efficiency in data centres in the context of HFC phase-down	30,000	30,000
Subtotal for A4		60,000	60,000
Agency support costs		4,200	4,200
Total for A4		64,200	64,200
A5: Technical assistance to prepare a verification report on HCFC consumption			
Albania	Verification report for stage II of the HPMP	30,000	30,000
Armenia	Verification report for stage III of the HPMP	30,000	30,000
Subtotal for A5		60,000	60,000
Agency support costs		5,400	5,400
Total for A5		65,400	65,400
SECTION B: ACTIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERATION			
B1: Project preparation for enhancing energy efficiency in the context of HFC phase-down in the air-conditioning (AC) manufacturing sector (decision 94/60)			
Argentina	Preparation of a project for enhancing energy efficiency in the AC manufacturing sector in the context of HFC phase-down	42,000	*
Subtotal for B1		42,000	*
Agency support costs		2,940	*
Total for B1		44,940	*
Total for A1, A2, A3, A4, A5, B1		946,451	904,451
Agency support costs for A1, A2, A3, A4, A5, B1		67,452	64,512
Grand total		1,013,903	968,963

* Recommended for individual consideration

- Add Section B as follows:

SECTION B: ACTIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERATION

B1: Project preparation for enhancing energy efficiency in the context of HFC phase-down in the refrigeration manufacturing sector (decision 94/60)

Project description

28. UNIDO submitted a preparatory funding request for a project to enhance energy efficiency in the manufacturing of residential AC equipment in the context of HFC phase-down in Argentina, as shown in

² Herein referred to as preparation of a national inventory of banks of used or unwanted controlled substances and plan

section B1 of table 1. The submission was made in line with decisions 94/60³ and 95/87(j).

29. The project preparation request would focus on energy efficiency improvements in residential AC manufacturing enterprises, to be implemented in conjunction with a conversion project approved at the 95th meeting for conversion of six residential air-conditioning manufacturing lines from R-410A to HFC-32 (decision 95/58). The project preparation activities include data collection and analysis, stakeholder consultations, and the design and development of a project proposal.

30. Argentina has implemented minimum energy performance standards (MEPS) for residential air conditioners. The preparation request indicated that the project would also support developing roadmap for improving energy efficiency labelling schemes and raising the MEPS for residential air conditioners in Argentina.

Secretariat's comments

31. The Secretariat has reviewed the request for preparatory funding to enhance energy efficiency in context of HFC phase-down in the manufacturing of residential AC equipment and notes that the project is in line with the criteria set out in decisions 94/60 and 95/87(j).

32. It was noted that the residential AC industry in Argentina includes a total of seven manufacturers, and all were included in the proposed preparation project. Although the conversion project approved at the 95th meeting mentioned seven manufacturers, funding was provided for six manufacturers. This is because one of the enterprises (Carrier Fuegoína) had already started manufacturing with HFC-32 in one of its lines and will finalize the conversion of the entire plant without requesting funding from the Multilateral Fund.

33. The Secretariat noted that UNIDO had requested US \$42,000 for the project preparation for Argentina, which is in line with decision 95/87(j). The Secretariat also noted that the activities included in the preparatory funding request, as described above, are consistent with the activities required for formulating the energy efficiency component pursuant to decision 95/87.

Secretariat's recommendations

34. The Executive Committee may wish to consider approving the request for project preparation to enhance energy efficiency in the manufacture of air-conditioning equipment in Argentina at the amount of US \$42,000, plus agency support costs of US \$2,940, for UNIDO.

- **Add** the project preparation request below to the attachment of the UNIDO work programme submission.

³ The Executive Committee invited the Government of Argentina, if it so wished, to submit a project under decision 94/60 to enhance the energy efficiency of the HFC-32-based split air-conditioning units manufactured by the enterprises assisted by the project referred to in subparagraph (a) above, on the understanding that the project would be submitted no later than at the 97th meeting (decision 95/58(c)).

Annex I

**MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Energy Efficiency ExCom decision 94/60 (EE) project preparation (PRP)
KIP (INV - A/C)**

Part I: Project information

Project title:	Preparatory assistance for the Energy Efficiency Project in the Air-Conditioning Sector	
Country:	Argentina	
Lead implementing agency:	UNIDO	
Implementation period for stage RPR EE:	18 months	
Duration of PRP implementation (i.e., time (in months) from the approval of PRP to submission of the project proposal (please specify): 4 months		
Funding requested:		
Agency	Sector	Funding requested (US \$)*
UNIDO	INV-AC	42.000.00 USD

*Details should be consistent with information provided in the relevant sections below.

Part II: Prerequisites for submission

Item	Yes	No
Official endorsement letter from Government, indicating the specifying roles of respective agencies (where more than one IA is involved)	☒	☐

A. Information required for PRP funding request for investment projects/sector plans as part of Energy Efficiency Funding Window

Agency:	UNIDO
Sector:	Air-Conditioning
HFC consumption in item #2 reported under country programme data?	☒ Yes , please specify reported amount and year: 2023 ☐ No
Does the enterprise commit to phase out the HFC consumption associated with the proposed investment project, if approved by the Executive Committee?	☐ Yes , please provide support letter _____ ☐ No ☒ N/A
If the project preparation is requested in advance of the KIP, did the Government provide a written commitment that the consumption associated with these investment projects, once approved, will be deducted from the country's starting point, once established?	☐ Yes ☐ No ☒ N/A
Please explain briefly how the investment project would relate to the overarching strategy for the country, and when the final KIP will be submitted (decision 87/50(e))	The project will significantly contribute to the energy efficiency improvement in the air-conditioning manufacturing sector in Argentina while facing out HFCs.
Background information	
Argentina's Residential Air Conditioning (RAC) manufacturing sector plays a key role in the country's implementation of the Kigali Amendment. Under the recently approved HFC phase-down project, Argentina is transitioning from HFC-410A to lower global warming potential (GWP) refrigerants, with a focus on the adoption of HFC-32. As this technological conversion progresses, the government seeks to develop a complementary project focused on improving the energy performance of air conditioners manufactured in the	

country. This effort aligns with national and international commitments on climate mitigation and sustainable development.

The domestic RAC industry in Argentina includes a total of seven manufacturers. All of them are located in the special industrial area of Tierra del Fuego.

Aires de Sur S.A.: A medium-sized enterprise (SME) with an annual production capacity of approximately 300,000 units, though its operating permit limits output to 180,000 units. The company assembles domestic RAC units using kits sourced from China, primarily from TCL. As an independent producer, it does not undertake toll manufacturing for other Argentine companies. Aires de Sur produces both split and a small proportion of window-type air conditioners (4% of total production). Over the past three years, energy-efficient inverter-type split air conditioners averaged 43,134 units annually, representing 40% of the company's total production. The company is transitioning from HFC-410A to HFC-32 with equipment and technical support from the Multilateral Fund (MLF).

BGH group: With over 110 years of experience in innovation and technology, BGH Group has evolved from a family-owned hardware wholesaler founded in 1913 into a leader in developing, manufacturing, and marketing advanced home appliances. BGH Consumer, the division responsible for RAC production, assembles domestic RACs using kits from Chinese suppliers, including Midea, Hisense, and TCL. As an independent producer, BGH does not perform toll manufacturing. The company manufactures split air conditioners and a small, declining share of window-type units (5-6% of total production). Production of energy-efficient inverter-type air conditioners has grown significantly, reaching 130,000 units in 2023, with their share increasing from 10% in 2019 to 31% in 2023. BGH is converting to HFC-32 with MLF support.

Electrofueguina: This manufacturer produces and sells air conditioners in the Argentine retail market, assembling domestic RACs with kits from Chinese suppliers, primarily Midea. As an independent producer, it does not engage in toll manufacturing. Electrofueguina exclusively manufactures split air conditioners. Over the past six years, production of energy-efficient inverter-type split units has risen steadily, with their share of total production growing from 11% in 2018 to 71% in 2022 and 65% in 2023. The company is transitioning to HFC-32 with MLF support.

Carrier Fueguina S.A.: Specializing in manufacturing and marketing air conditioning units for residential, commercial, and non-industrial applications, Carrier Fueguina assembles domestic RACs using kits from Midea. As an independent producer, it does not perform toll manufacturing. With a production capacity of 100,000 units annually, the company manufactures split air conditioners and a small, declining share of window-type units (5-6% of total production). Production of portable air conditioners ceased in 2020. Energy-efficient inverter-type units reached 130,000 units in 2023, with their share growing from 10% in 2019 to 31% in 2023. Carrier Fueguina is independently transitioning to HFC-32 without MLF financial or technical assistance.

Newsan: It's the largest and well recognized domestic RAC manufacturer in Argentina. It sells its products on the Argentine air conditioners market exclusively. The production of domestic RACs is performed through assembly of kits purchased from China, currently from Hisense, Midea and/or other Chinese suppliers. It is an independent producer, and does not perform toll jobs for any other Argentine company. Newsan manufactures split window type, portable and big split DRAC. In the last six years, the production of the energy-efficient inverter-type split a/c-s increased steadily. Their share of the total production of the company grew from 2% in the year 2018 to 21% in 2023. In actual numbers the production of inverter a/c in 2018 was 11,000, whereas in 2023 it amounted to 113,000 units. The company is converting from HFC-410A to HFC-32 technology with equipment and technical support from the Multilateral Fund (MLF).

Radio Victoria: It's one of the oldest and renowned domestic RAC manufacturing plants in Argentina. The production of domestic RACs is performed through assembly of kits purchased from China, currently from Chinese suppliers: TCL and Hisense. It is an independent producer, and does not perform toll jobs for any

other Argentine company. The company produces only split DRAC appliances. The production of the energy-efficient inverter-type split a/c-s increased steadily. The share of the total production of the company grew from the year 2018 - 12% to 21% in 2022, and 29% in 2023. The company is converting from HFC-410A to HFC-32 technology with equipment and technical support from the Multilateral Fund (MLF).

Solnik S.A.: Established in 2012, Solnik is a relatively new player in Argentina's domestic RAC manufacturing sector and has not previously benefited from Montreal Protocol (MP) assistance. It serves the domestic market exclusively, assembling domestic RACs with kits from TCL. As an independent producer, it does not undertake toll manufacturing. Between 2018 and 2023, production of energy-efficient inverter-type split units grew significantly. In 2018, total production was 11,044 units, all inverter-type. By 2023, production reached 90,000–100,000 units annually, with inverter-type units comprising 60% of output. Solnik is transitioning to HFC-32 with MLF support.

These companies have demonstrated the technical and institutional capacity to implement refrigerant conversions and are well-positioned to pursue energy efficiency upgrades. Past experience with ozone-depleting substance (ODS) phase-out projects and ongoing collaboration with national authorities underscore their readiness for this next step.

Capacity building is critical to the success of this project. Technicians, engineers, and product development teams will require targeted training to design, test, and validate high-efficiency units. Coordination with national institutions, such as the Secretary of Energy and standardization bodies, will be essential to harmonize energy efficiency standards and labeling policies.

Through this preparatory funding request, Argentina aims to identify cost-effective pathways for improving energy efficiency alongside refrigerant transitions. The initiative will analyze opportunities to introduce advanced components, such as high-performance compressors, heat exchangers, and controls. Preparatory activities will assess technical feasibility, economic impacts, and policy alignment to support a comprehensive project proposal under the Multilateral Fund.

Project Objectives

This preparatory project aims to lay the groundwork for improving energy efficiency while phasing down HFCs in the RAC sector by:

Data Collection and Verification: Gather and validate data on the current market, enterprise landscape, and technical opportunities for improving equipment energy efficiency. Calculate additional component costs, considering commercial factors and the characteristics of domestic companies.

Selection of Opportunities: Identify and prioritize the most cost-effective options for component upgrades in each company based on the identified opportunities.

Project Document Development: Prepare a comprehensive project document to enhance energy efficiency in the RAC sector while phasing down HFCs.

Roadmap for raising the existing MEPS: Establish a roadmap for improving energy efficiency labeling schemes and raising the minimum energy performance standards (MEPS) for domestic air conditioners in Argentina

Expected Outcome

The primary outcome of this preparatory project is to deliver a comprehensive, evidence-based project document to improve energy efficiency levels while phasing down HFCs in Argentina's RAC and domestic manufacturing sector. The document will detail specific opportunities for enhancing energy performance for each of the seven manufacturers (Aires de Sur S.A., BGH Group, Electrofrueguina, Carrier Frueguina S.A., Newsan, Radio Victoria, and Solnik S.A.), including baseline data on current energy efficiency levels and a proposal with costs for cost-effective technological upgrades.

Key Deliverables

In addition to the project document, the following deliverables will support the achievement of the project's objectives:

- **Comprehensive Survey Data:** Detailed data on the energy efficiency performance of RAC units produced by each manufacturer, establishing a baseline for future improvements and estimating required investments for component upgrades.
- **Technical Analysis and Gap Assessment:** Expert evaluation of survey data to identify gaps in technology and financing, guiding the development of targeted interventions for each manufacturer.
- **Technical Assistance to improve existing MEPS:** Develop a comprehensive understanding of Energy Efficiency Labeling improvement and for raising MEPS.

Project Activities

- **Data Collection and Analysis:** Collection and analysis of data on the current RAC market, manufacturer profiles, energy consumption patterns, and appliance stock to identify challenges and opportunities for energy efficiency improvements.
- **Stakeholder Consultations:** Engage with industry representatives from the seven manufacturers and government officials to gather input, align objectives, and ensure broad support for the project document.
- **Project Document Development:** Prepare the project document.

Budget and Timeline

A detailed budget is outlined in the table below. The project duration is estimated to be 18 months.

Conclusion

This preparatory project is a critical step towards achieving energy efficiency improvements while phasing down HFC in Argentina's RAC manufacturing sector.

Activities to be undertaken for preparation of the investment project and funding requested

Activity	Indicative funding (US \$)	Bilateral/ implementing agency
Survey, Data Collection: Collect data on production capacities, production lines, energy efficiency levels for participating companies to lay the foundation for opportunities identification.	\$12,000	UNIDO
Technical Feasibility Study: Assess current systems and evaluate potential for integrating energy-efficient technologies for participating companies.	\$14,000	UNIDO
Drafting of Energy Efficiency Project Document: Prepare a comprehensive investment project document for energy efficiency improvements.	\$16,000	UNIDO
TOTAL	\$42,000	