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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-second Meeting
Ouagadougou, 6-8 December 2000

PROJECT PROPOSAL: ALGERIA

This document consist of the comments and recommendations of the Fund Secretariat on the following project proposal:

Refrigeration:

- Conversion from CFC-11 to HCFC-141b and CFC-12 to HFC-134a technology in the manufacture of commercial refrigeration at the RCA (Societe de Refrigeration et de Conditionnement de l'air)

UNIDO

PROJECT EVALUATION SHEET ALGERIA

SECTOR: Refrigeration ODS use in sector (1999): 863 ODP tonnes

Sub-sector cost-effectiveness thresholds: Commercial US \$15.21/kg

Project Titles:

- (a) Conversion from CFC-11 to HCFC-141b and CFC-12 to HFC-134a technology in the manufacture of commercial refrigeration at the RCA (Societe de Refrigeration et de Conditionnement de l'air)

Project Data	Commercial
	RCA
Enterprise consumption (ODP tonnes)	28.59
Project impact (ODP tonnes)	27.30
Project duration (months)	28
Initial amount requested (US \$)	366,383
Final project cost (US \$):	
Incremental capital cost (a)	258800
Contingency cost (b)	23,800
Incremental operating cost (c)	69,168
Total project cost (a+b+c)	351,768
Local ownership (%)	100%
Export component (%)	0%
Amount requested (US \$)	351,768
Cost effectiveness (US \$/kg.)	12
Counterpart funding confirmed?	
National coordinating agency	Ministere de l'Interieur, des collectivites locale
Implementing agency	UNIDO

Secretariat's Recommendations	
Amount recommended (US \$)	351,768
Project impact (ODP tonnes)	27.30
Cost effectiveness (US \$/kg)	12
Implementing agency support cost (US \$)	45,730
Total cost to Multilateral Fund (US \$)	397,498

PROJECT DESCRIPTION

Sector Background

- Latest available total ODS consumption (1999)	1,737.50 ODP tonnes
- Baseline consumption of Annex A Group I substances (CFCs)	2,119.50 ODP tonnes
- Consumption of Annex A Group I substances for the year 1999	1,502.20 ODP tonnes
- Baseline consumption of CFCs in refrigeration sector	Not available ODP tonnes
- Consumption of CFCs in refrigeration sector in 1999	863.00 ODP tonnes
- Funds approved for investment projects in refrigeration sector as of July 2000 (31st Meeting)	US\$6,956,814.00
- Quantity of CFC to be phased out in investment projects in refrigeration sector as of end of 1999	447.00 ODP tonnes

1. The total consumption of CFCs in the refrigeration sector in 1999, according to information from the government of Algeria, was 863 ODP tonnes.

2. The Executive Committee has approved about US \$6.9 million for 3 projects to phase out 447 ODP tonnes of CFC for enterprises manufacturing refrigeration equipment in the refrigeration sector in Algeria. There are two large manufacturers of commercial refrigeration equipment (ENAPAT and RCA). The project for ENAPAT was approved by the Executive Committee. The remaining commercial refrigeration sub-sector consists of about 40 small-and – medium scale companies.

RCA

3. RCA is one of two major producers of commercial refrigeration equipment in Algeria. The enterprise manufactures commercial refrigeration equipment (display cabinets, commercial freezers, water coolers and chest freezers). The enterprise operates two low-pressure foam dispensers in the baseline.

4. The current project will phase-out 27.77 ODP tonnes of CFC-11 and 5.39 ODP tonnes of CFC-12 in the production of commercial refrigeration equipment at RCA in Algeria. This will be achieved by converting from CFC-11 to HCFC-141b as the foam blowing agent and from CFC-12 to HFC-134a as the refrigerant. Under the current project, the existing low-pressure machines will be replaced by two high-pressure foam dispensers (US \$170,000). The enterprise will require production and portable refrigerant charging units (US \$46,000), vacuum pumps (US \$14,000) and leak detectors (US \$2,000). Other costs include re-design, testing, trials (US \$9,000), installation, commissioning, and transportation (US \$10,000), and training (US \$10,000). Incremental operating costs are requested by the enterprise for a period of one year (US \$70,283) reflecting the higher cost of chemicals and an increase in foam density.

5. The proposed duration of the project is 28 months.

Justification for the use of HCFC-141b

6. RCA has selected HCFC-141b technology to replace CFC-11 in foam blowing operations. It is an interim solution until HFC systems are commercially available. A letter advising the Government decision to use HCFC technology has been received by the Secretariat in accordance with the Executive Committee Decision 27/13 and is attached to this evaluation together with a justification from the implementing agency.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS**COMMENTS**

1. The Secretariat has raised the issue of accurate presentation of ODS consumption data on unit by unit basis. UNIDO has provided explanations of using averaged values of CFC consumption for several groups of products.
2. The Secretariat has discussed with UNIDO the issue of equivalent replacement of refrigerant charging boards and the eligible cost of replacement of vacuum pumps. All the issues have been resolved and the budget has been adjusted accordingly.

RECOMMENDATIONS

1. The Fund Secretariat recommends blanket approval of the commercial refrigeration project from UNIDO with the level of funding and associated support costs as indicated below.

	Project Title	Project Funding (US\$)	Support Cost (US\$)	Implementing Agency
(a)	Conversion from CFC-11 to HCFC-141b and CFC-12 to HFC-134a technology in the manufacture of commercial refrigeration at the RCA (Societe de Refrigeration et de Conditionnement de l'air)	351,768	45,730	UNIDO

UNIDO
Vienna

Attention: Dr. A. Malayeri

Subject: Commitment letters of projects involving HCFCs

In line with the decision 27/13 of the Executive Committee and in recognition of Article 2F of the Montreal Protocol, the Government of Algeria

- a) Verifies that it had reviewed the specific situation at the enterprises (name(s) of company(ies))
Société de Réfrigération et de Conditionnement de l'Air (RCA)

as well as its HCFC commitments under the article 2F;

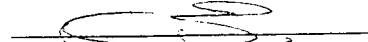
- b) States that based on the prevailing circumstances at (name(s) of company(ies)) Société de Réfrigération de Conditionnement de l'Air (RCA)

At the present time the conversion of the(se) enterprise(s) requires the use of HCFC-141b for the interim period as stipulated in the Montreal Protocol;

- c) Confirms that the Government and the recipient enterprise(s) understands that no funding would be available from the Fund for future conversion from HCFCs for the said company(ies) whenever such a conversion to other alternatives will be required

Ozone Office Manager

Name: M^{ed} EL HADI Benna

Signature: 

Date: 27.9.2000