



**United Nations
Environment
Programme**

Distr.
LIMITED

UNEP/OzL.Pro/ExCom/38/53
26 October 2002

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-eighth Meeting
Rome, 20-22 November 2002

PROJECT PROPOSAL: YUGOSLAVIA

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

Refrigeration

- Conversion of CFC-12 to HFC-134a in the manufacture of open compressors at Prva Petoletka - Kocna Tehnika Co.

UNIDO

**PROJECT EVALUATION SHEET
YUGOSLAVIA**

SECTOR: Refrigeration ODS use in sector (2000): 260.0 ODP tonnes

Sub-sector cost-effectiveness thresholds: Commercial US \$15.21/kg
Domestic US \$13.76/kg

Project Titles:

- (a) Conversion of CFC-12 to HFC-134a in the manufacture of open compressors at Prva Petoletka - Kocna Tehnika Co.

Project Data	Compressor
	Prva Petoletka
Enterprise consumption (ODP tonnes)	2.00
Project impact (ODP tonnes)	2.00
Project duration (months)	30
Initial amount requested (US \$)	351,556
Final project cost (US \$):	
Incremental capital cost (a)	499,500
Contingency cost (b)	48,950
Incremental operating cost (c)	
Total project cost (a+b+c)	548,450
Local ownership (%)	100%
Export component (%)	0%
Amount requested (US \$)	351,556
Cost effectiveness (US \$/kg.)	
Counterpart funding confirmed?	Yes
National coordinating agency	Federal Ministry for Development, Science and Environment
Implementing agency	UNIDO

Secretariat's Recommendations	
Amount recommended (US \$)	
Project impact (ODP tonnes)	
Cost effectiveness (US \$/kg)	
Implementing agency support cost (US \$)	
Total cost to Multilateral Fund (US \$)	

PROJECT DESCRIPTION

Sector background

CFC (Annex A Group I) Consumption and Phase-out Profile

- | | |
|---|------------------|
| - Remaining consumption of CFCs eligible for funding as at 38 th Meeting (per Decision 35/57, proviso B, and Decision 37/66 Option 1)* | 519.8 ODP tonnes |
| - Impact of ALL CFC projects submitted for funding at the 38 th Meeting | 2.0 ODP tonnes |
| - Maximum remaining consumption of CFCs eligible for funding following approval of projects submitted to 38 th Meeting | 517.8 ODP tonnes |

Refrigeration Sector Profile

- | | |
|---|------------------|
| - Consumption of CFCs reported for the refrigeration sector in 2000** | 260.0 ODP tonnes |
| - Amount of CFCs to be phased out in on-going refrigeration projects | 165.4 ODP tonnes |

* Yugoslavia had not made their selection of an option to determine their remaining national aggregate consumption of CFCs. Decision 37/66 applied which provides that Option 1 is therefore applied automatically if a country submitted a project without making a selection

**Based on data provided by the Government of Yugoslavia in September 2002.

1. The Executive Committee has approved 3 investment projects to phase out 165.4 ODP tonnes of CFC used in the manufacture of domestic refrigerators and commercial refrigerators. About US \$2.6 million has been allocated for the implementation of these projects. 1999 ODS consumption in the foam and refrigeration sectors is 549 ODP tonnes based on the project cover sheet. ODS consumption in the approved but not implemented projects amounts to 165.4 ODP tonnes.

2. UNIDO is submitting one project for the conversion of compressor manufacturing at Prva Petoletka-Kocna Tehnika to the 38th Meeting of the Executive Committee. Since this project addresses the conversion of compressor manufacturing, no ODS phase-out is directly related to the project.

3. The enterprise consumes 2.0 ODP tonnes of CFC-12 per year used for testing in the process of manufacture of various open-type compressors designed mainly for bus air-conditioners. The indirect consumption associated with the installation of compressors in the air-conditioning systems is estimated at the level of about 9.0 ODP tonnes. The total production volume of the enterprise for the year 2001 was 565 units. One model of compressors was redesigned to use HCFC-22 refrigerant.

4. The enterprise will require replacement of charging units and leak detectors suitable for HFC-134a duty, ultrasonic degreasing equipment, lubricant purification equipment and fixtures for die casting. Other costs include re-design of compressors, testing and consultancy.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

5. The Secretariat has requested additional information regarding technical specifications of redesigned model to R22 refrigerant and in relation to baseline equipment. It was found that the company is using trichloroethylene as a cleaning agent, which is not an ODS. Therefore the cost of the requested new cleaning equipment is ineligible for funding. The cost of conversion from sand casting to dye casting in the manufacturing of compressor parts and the cost of new forging devices was also recognized ineligible since there are no requirements to use this equipment in the handling HFC-134a refrigerant. The Secretariat has recommended to UNIDO to adjust costs of lubricant purification and redesign costs to reflect the prevailing costs in other similar projects approved by the Executive Committee.

6. The Secretariat is still discussing the cost issue with UNIDO. The Sub-Committee on Project Review will be informed accordingly.

RECOMMENDATIONS

7. Pending.
