



3 February 2003

Dear Mr. Minh Pham,

Subject: Project approved at the 38th Executive Committee Meeting - Montreal Protocol.

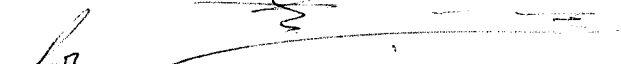
We are pleased to inform you that the following project was approved for Maldives at the 38<sup>th</sup> ExCom Meeting held in Rome in November 2002.

	Project Number	Short Title	ODP t.	US\$
1	MDV/03/G61	End-User Awareness/Incentive Programme	3.5	115,000

The project will be executed by UNOPS in view of their extensive experience in these specific kinds of investment projects related to the Montreal Protocol. The project summary and budget are attached together with the text of the project document.

As the Representative of UNDP in Maldives, you are hereby authorized to sign the above document on behalf of the Administrator. We would appreciate receiving a duly signed copy of the document in due course. By copy of this letter, we would also request UNOPS to send a fax to UNDP Maldives to authorize the Resident Representative to sign the document on behalf of UNOPS.

Your sincerely,

*for*   
Suely Carvalho, Chief  
Montreal Protocol Unit  
ESDG-BDP

Mr. Minh Pham  
Resident Representative  
UNDP Male, Maldives



**UNITED NATIONS DEVELOPMENT PROGRAMME  
GOVERNMENT OF MALDIVES  
Project Budget**

**Project Number:** MDV/03/G61

**Project Title:** End User Awareness/Incentive Programme

**Start Year:** 2003  
**End Year:** 2006  
**Executing Agent:** UNOPS - UN Office for Project Services

Budget Financing (in US\$)	
INPUTS	REV "A"
UNDP	
2G-Implementation of the Montreal Protocol	125,350
<b>TOTAL</b>	<b>125,350</b>

**Implementing Agent:** UNOPS - UN Office for Project Services

**Revision Type:** - Implementation of the Montreal Protocol

**Brief Description:**

It has been established that due to the large number of end-users using CFCs and the limited MLF funds potentially available to Maldives for projects to eliminate ODS consumption in the end-user refrigeration sector, individual enterprise projects involving equipment replacement, retrofit, or "drop-in" refrigerant solutions are neither feasible nor cost-effective. Instead, an incentive programme is being proposed. Its objective is to encourage refrigeration end-users to replace, or permanently retrofit their existing ODS based equipment to use zero-ODP, or low-ODP refrigerants. Applications for the incentive payments will be sent to the ERP in Maldives, who will oversee this programme together with UNDP/UNOPS. Incentive payments will be based on ODP consumption when equipment is replaced, or the cost of permanent retrofit & ODP consumption and will range from US \$500 - US \$5,000

**Legal Context**

This project document shall be the instrument referred to in Article 1 of the Standard Basic Agreement between the Government of Maldives and UNDP, signed by the parties on 25 January 1978 and shall be governed by normal UNDP practices regarding project revisions/monitoring/evaluation and by special procurement arrangements applicable to the Montreal Protocol Programme. The project will be implemented in accordance with the Agreement between the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol and UNDP signed on 21 August 1991 and the project proposal approved by the Executive Committee at its 38th Meeting in November 2002. The project will be formally closed with a Hand-Over Protocol to be signed by the Government and UNDP/UNOPS. This protocol will then be the final legal binding document.

Approved by:	Signature:	Date:	Name/Title:
UNDP:	_____	_____	_____
Executing Agent:	_____	_____	_____
Government:	_____	_____	_____



Main Source of Funds: 2G - Implementation of the Montreal Pr  
 Executing Agency: UNOPS - UN Office for Project Services

United Nations Development Programme  
 MDV/03/G61 - End-User Awareness/Incentive Programme  
 Budget " A "

Sbln	Description	Implementing	Total	2003	2004	2005	2006
010	PERSONNEL						
011	International Consultants						
011.51	International Consultants	UNOPS	Net Amount	18,000	8,000	6,000	4,000
			Total	18,000	8,000	6,000	4,000
011.99	Line Total		Net Amount	18,000	8,000	6,000	4,000
			Total	18,000	8,000	6,000	4,000
016	Mission Costs						
016.01	Local Travel	UNOPS	Net Amount	3,000	1,200	1,000	800
			Total	3,000	1,200	1,000	800
016.99	Line Total		Net Amount	3,000	1,200	1,000	800
			Total	3,000	1,200	1,000	800
017	National Consultants						
017.01	National Consultants	UNOPS	Net Amount	15,000	7,000	5,000	3,000
			Total	15,000	7,000	5,000	3,000
017.99	Line Total		Net Amount	15,000	7,000	5,000	3,000
			Total	15,000	7,000	5,000	3,000
019	PROJECT PERSONNEL TOTAL		Net Amount	36,000	16,200	12,000	7,800
			Total	36,000	16,200	12,000	7,800
020	CONTRACTS						
021	Contract A						
021.01	Subcontracts - End Users	UNOPS	Net Amount	70,000	10,000	40,000	20,000
			Total	70,000	10,000	40,000	20,000
021.99	Line Total		Net Amount	70,000	10,000	40,000	20,000
			Total	70,000	10,000	40,000	20,000
029	SUBCONTRACTS TOTAL		Net Amount	70,000	10,000	40,000	20,000
			Total	70,000	10,000	40,000	20,000
030	TRAINING						
033	In-Service Training						
033.01	Local Workshops	UNOPS	Net Amount	6,000	6,000		
			Total	6,000	6,000		
033.99	Line Total		Net Amount	6,000	6,000		
			Total	6,000	6,000		
039	TRAINING TOTAL		Net Amount	6,000	6,000		
			Total	6,000	6,000		
050	MISCELLANEOUS						
053	Sundries						
053.01	Sundries	UNOPS	Net Amount	3,000	1,200	1,000	800
			Total	3,000	1,200	1,000	800
053.99	Line Total		Net Amount	3,000	1,200	1,000	800
			Total	3,000	1,200	1,000	800



Main Source of Funds: 2G - Implementation of the Montreal Pr  
 Executing Agency: UNOPS - UN Office for Project Services

United Nations Development Programme  
 MDV/03/G61 - End-User Awareness/Incentive Programme  
 Budget "A"

Sbln	Description	Implementing	Total	2003	2004	2005	2006
059	MISCELLANEOUS TOTAL	-----	Net Amount Total	3,000 3,000	1,200 1,200	1,000 1,000	800 800
090	EXECUTION FEE						
093	Agency support costs						
093.01	Support Cost (UNOPS 9%)	UNOPS	Net Amount Total	10,350 10,350	3,006 3,006	4,770 4,770	2,574 2,574
093.99	Line Total	-----	Net Amount Total	10,350 10,350	3,006 3,006	4,770 4,770	2,574 2,574
099	BUDGET TOTAL	-----	Net Amount Total	125,350 125,350	36,406 36,406	57,770 57,770	31,174 31,174
							0

Handwritten signature/initials: J. P. FIN.

## PROJECT PROPOSAL

<b>Country</b>	<b>:</b>	<b>Maldives</b>
<b>Project title</b>	<b>:</b>	<b>Awareness and Incentive Programme</b>
<b>Sector</b>	<b>:</b>	<b>Refrigeration sector</b>
<b>Project impact</b>	<b>:</b>	<b>3.5 ODP Tonnes</b>
<b>Project duration</b>	<b>:</b>	<b>30 months</b>
<b>Project Cost</b>	<b>:</b>	<b>USD 115,000</b>
<b>Implementing Agency</b>	<b>:</b>	<b>USD 14,950</b>
<b>Request for funding</b>	<b>:</b>	<b>USD 129,950</b>
<b>Implementing Agency</b>	<b>:</b>	<b>UNDP</b>

### Background

Maldives economy is significantly dependent on the tourism sector and agri-food trading. As most of the food items used in Maldives is imported, it is important to maintain the cold chain for storage and distribution of food items.

MACs are used for tourism and other industrial operations. While most of the MACs are found in cars, other vehicles and haulage equipment are also air conditioned. It is to be noted that most of these vehicles in the country are older than 5 years. To prevent entry of old vehicles, in the year 2001 the Government of Maldives imposed a restriction on imports of vehicles which are older than 5 years as these last for at least 10 years in the country. This has resulted in the import of new vehicles in the last two years.

Refrigeration and air conditioning equipment used in food cold chain also use ODSs. Of these, the equipment with a larger capacity use ODS and have a long life. While equipment with smaller capacity have a shorter life, larger equipment have a longer life, which at times exceeds 15 years.

Without any interventions, the estimated population of ODS based MACs and large commercial and industrial refrigeration equipment will be as given in the table below.

<b>Category</b>	<b>2001</b>	<b>2005</b>	<b>2007</b>	<b>2010</b>
Large commercial/ Industrial refrigeration	109	119	103	79
Mobile Air conditioning	3119	1912	1288	352

One can see that a substantial proportion of the population of 2001, will continue to exist by the year 2010. The servicing needs for these equipment both in the year 2005 and 2007, will lead to non compliance of Maldives with MP phaseout schedules.

### **Project objectives**

The project objectives are:

- To make a realistic assessment of the number of ODS based large refrigeration and air conditioning equipment, and
- Provide financial incentives and other support measures to facilitate the retrofit of the equipment using non-ODS technologies.

Though the above mentioned activities appear to be independent, they will need to be carried out in simultaneously.

### **General justification for a refrigeration end-user project**

A decision was taken at the 28<sup>th</sup> Meeting of the Executive Committee, providing guidance on this new sub sector (decision 28/44). The guidelines were approved for an initial period of 18 months (i.e. till the end of 2000). They require that certain conditions be met which are listed below:

- 1) that the country has import controls on CFCs and CFC-based equipment in place and effectively enforces, and restricts the deployment of CFC components.
- 2) that the time of seeking compensation in the form of grants for end-user conversions, the country can establish that its major remaining consumption is for the servicing of refrigeration and air-conditioning equipment.
- 3) to establish the above, that comprehensive data on the profile of all remaining consumption would have been determined and made available to the Executive Committee.
- 4) that either no other possible activities would allow the country to meet its CFC control obligations, or the comparative consumer price of CFCs, relative to substitute refrigerants, has been high for the last year and is predicted to continue to increase.

In addition, the Executive Committee approved additional guidelines pertaining to the RMP's that puts further restrictions on the development of end-user projects (decision 31/48). It stipulates that any further assistance in the refrigeration sector should be part of the strategy of the RMP, and that only 50% of additional funds above what would normally be approved under an RMP could be obtained until the year 2007. The Government fully understands the implications of this policy, and it is for this very reason that

- an incentive programme with limited funding is being proposed
- the duration of this programme is extended throughout 2006. Any enterprise that wishes to come forward with a request for an incentive, can do so whenever they decide to replace their refrigeration system anyway, and can do so between now and 2006. However, as the incentive programme will be operated on a first come, first served, basis it is expected that it will lead to early reductions in ODS consumption.

### **Technology overview and selection**

The following three options are potentially available to an end-user in the commercial and industrial refrigeration sector to eliminate CFC consumption:

1. Replacement of the existing CFC based refrigeration system with a system designed to use a zero-ODP, or low-ODP refrigerant. This option requires a major investment in new equipment. New equipment based on zero-ODP refrigerants such as HFC-134a, R-404A, R-507, hydrocarbons – R-290, R-600, R-600a, and mixtures thereof, or ammonia, is commercially available and all can be considered as “once off” permanent replacement with no further change in refrigerant necessary for the lifetime of the equipment. New equipment based on the use of a low-ODP HCFC refrigerant such as HCFC-22 is also commercially available. Whilst this may currently be an environmentally acceptable solution, it should be regarded as an interim solution that will require a further change to a zero-ODP refrigerant at some future date.
2. Retrofit of existing refrigeration equipment to use a zero-ODP refrigerant. This option, that will prolong the useful lifetime of the existing equipment, is technically feasible for some but not all existing equipment. The age of the equipment, and the economics of retrofit versus replacement must be considered. The retrofit option should only be selected if the evaluation of the initial cost and operational costs over the anticipated remaining lifetime of the equipment is substantially lower than the initial and operating costs of a new installation. For newer equipment (post 1995), the initial cost of the retrofit option should be quite low as such equipment is usually designed for use with either CFC or HFC refrigerants and the procedure is thus simplified. Retrofit from a CFC refrigerant to a zero-ODP refrigerant such as HFC-134a, R-404A, R-507, or a hydrocarbon, may be regarded as a “once off” permanent solution with no further conversion of refrigerant necessary during the lifetime of the equipment.
3. Drop-in Ternary Blend Replacement Refrigerants containing HCFCs. The objective of this option is also to prolong the useful lifetime of the existing equipment but at lower initial cost. This can be achieved in some equipment by the use of ternary refrigerant blends typically containing HCFCs and HFCs, and sometimes Hydrocarbons. Blends with

different properties are available to replace CFC-12, R-500, and R-502 over a wide range of operating conditions. However, in some equipment the use of these blends will also require similar system changes as in retrofit, namely a change of compressor oil and the filter dryer, and adjustment or replacement of the expansion device. Whilst the lower initial cost than retrofit to a HFC refrigerant for some equipment may be attractive, both the operating cost and availability of the refrigerant blend must be considered. Conversion from a CFC refrigerant to a low-ODP refrigerant blend that contains HCFCs must also be considered as an "interim" conversion that will require a further change to a zero-ODP refrigerant at some future date. It should also be noted that:

- By definition, a "drop-in" refrigerant implies minimal system changes and little more than simple replacement of one refrigerant with another. In this case the conversion can easily be reversed and the elimination of CFC consumption may not be sustained.
- "Drop-in" conversions from CFCs to ternary refrigerant blends containing HCFCs have seen limited application in Article 5 countries due to the poor availability and relatively high cost of these refrigerants. Such considerations are important given the high refrigerant loss rates typically found in aging commercial and industrial refrigeration equipment.
- Extra care is also necessary in the handling and use, as well as the recovery and recycling of ternary refrigerant blends containing HCFCs. Appropriate steps must be taken to avoid possible contamination of CFC-12 refrigerant being recovered for recycling under the National Recovery and Recycling programme.

In conclusion, the equipment replacement option is expensive in many cases and the level of funding that could be obtained from the Multilateral Fund would only be sufficient to cover the costs of equipment replacement at a fraction of the estimated number of enterprises in the commercial and industrial refrigeration end-user sector. The permanent retrofit of a CFC based refrigeration system to use a zero-ODP refrigerant will be a technically, environmentally, and sound financial proposition for a number of end-user enterprises. The sustainability of CFC replacement by "drop-in" refrigerants based on ternary blends containing HCFCs is uncertain and highly dependent on refrigerant loss rates and the replacement refrigerant availability. Considering this, the potential for accidental contamination of CFC-12 during recovery and recycling activities, and the limited MLF resource that is available, the funding of "drop-in" conversions to eliminate CFC consumption is not considered the best use of available MLF funds.

Based on the foregoing technology review, rather than using all the potentially available MLF funding that a country could obtain till 2007 to eliminate CFC consumption at only a small number of the estimated end-users in the commercial and industrial refrigeration end-user sector, an incentive programme is being proposed instead. This programme is described in detail below.



## **End result**

This project will result in reduction of ODS based equipment population in Maldives, which will ultimately result in complete phaseout of ODS consumption.

This project will eliminate the use of 3.5 Tonnes of ODS.

## **Project Activity**

Under this project any MAC, commercial or industrial refrigeration end-user enterprise that decides to replace, or retrofit its existing CFC-12 or R-502 based refrigeration equipment can apply to receive an incentive payment towards the cost of the replacement equipment, or retrofit. Only enterprises that select replacement equipment, or retrofit based on non-CFC refrigerant technology would be eligible to receive an incentive payment.

The two components of the project are:

- Information dissemination and monitoring activities.
- Incentive programme.

The first component focuses on informing the end-users in Maldives about the existence of the incentive programme and follow up on applications for incentives received from them. Activities will include

- placement of advertisements in newspapers
- printing of info-leaflets about the programme to be mailed to end-users and/or distributed to the industry associations covering the refrigeration end-users
- holding of a National Workshop targeting the end-users
- review and evaluation of the applications received by end-users
- annual meetings to report on the progress of the programme

The second component consists of the grant incentives to be provided to end-users applying for an incentive payment. The conditions whereby end-users may receive an incentive payment and the calculation of the grant amount are given in the Annex of the document.

This project will be carried out as follows:

**Awareness generation through open discussions with the equipment users.** To begin with, ERC will undertake awareness activities on the project proposed to be conducted to help equipment users understand the impact of ODS phaseout and how this project will benefit them. In parallel, meetings should be held with MAC owning taxi companies, super market and food distribution companies and resort owners on the project objectives and proposed implementation plan.

**Development of database of eligible equipment users:** This should be followed by preparation of a database of eligible equipment users. These eligibility criteria should include, amongst others, category of equipment (equipment using more than 1 kg of gas) and life of equipment (less than 10 years). This will ensure cost effective ODS phaseout in equipment, where there is no other economic incentive to phaseout ODS.

**Preparation of funding support mechanism:** The funding support mechanism should then be prepared. This should include a technical committee consisting of members from FET, ERC, Tourism Ministry and Ministry of Transport. This committee will evaluate the individual categories of users, who propose to avail the benefits under retrofit project for eligibility. Based on the outcome of the evaluation, funding support shall be given to the different applicants.

For the purpose of this project, a partial funding support should be adopted. This will ensure interest and commitment on the part of the recipients. Such projects have also been approved in the past for other island countries such as Bahamas, Jamaica etc.

The Government should also implement a ban on servicing ODS based equipment by the end of the year 2007. This will result in higher participation under the retrofit project.

## Monitoring mechanism

The service units / agencies undertaking retrofit of equipment should provide a detailed statement of equipment retrofitted by them on a quarterly basis to ERC. The garages servicing the mobile air conditioning equipment should be informed about the MACs, which have been retrofitted along with the registration numbers of the vehicles. The possibility of including checks on refrigerant gas used in MACs with the pollution certification checks that the Government is proposing to implement may also be examined.

Surprise checks may also be conducted by FET and ERC personnel on the equipment to verify whether the equipment retrofitted are using ODSs.

## Milestones for project monitoring

<i>Task</i>	<i>Month*</i>
(a) Project document submitted to beneficiary	3
(b) Project document signature	3
(c) Contracts awarded	6
(d) National Workshop Held	9
(e) Incentive Programme Running	10-36
(h) Submission of project completion report	36

\* as measured from project approval

## Time frame

For a small country like Maldives, time frame for implementation of this activity is given in the table below.

<b>Activities</b>	<b>Year1</b>	<b>Year 2</b>	<b>Year 3</b>
Discussions with stakeholders			
Implementation of retrofit programme			
Monitoring and reporting			

## PROJECT COSTS

The Project Budget is as follows:

Budget Line Description	US\$
International Expert to provide overall guidance, evaluate incoming applications for incentive payments, follow up on these requests with the National Consultant or Subcontractor, and final review and recommendations relating to the level of incentive payment (home base with one visit to the country for workshop)	18,000
National Consultant or Subcontractor for information, monitoring activities, certification of destruction of replaced baseline equipment, and preliminary review of cost data for the conversion process.	15,000
National Workshop for informing End-Users	6,000
Local Travel within the country	3,000
Sundries (local telephone, fax, advertisements in papers, reporting)	3,000
Incentives to the End-Users	70,000
Contingencies	-
<b>TOTAL</b>	<b>115,000</b>

### Notes.

- The services of the consultants will be on a part time basis throughout the duration of the project
- No contingencies are being requested for this project

### COST EFFECTIVENESS (CE)

The cost effectiveness for this projects is calculated for information only as Maldives a LVCC.

Cost effectiveness for the project =  $US\$ 115,00 / 3,5 \text{ kg} = 32.9 \text{ US\$ / kg}$

## Annex -1

### CONDITIONS TO BE MET TO RECEIVE AN INCENTIVE PAYMENT

**Objective & Eligibility** - The objective of the Incentive Programme Project is to eliminate as much as possible of the consumption of CFCs (R12 and R502) in the commercial and industrial refrigeration end-user sectors through the payment of a financial incentive to enterprises in these sectors that have existing refrigeration equipment that uses R12 or R502 refrigerants. Such enterprises will be eligible to apply for an Incentive Payment if:

- They replace the existing refrigeration equipment with new equipment that uses a refrigerant that is not an Ozone Depleting Substance (e.g. R134a or R404A, R507, R290, R600, R600a, Ammonia, etc.), or that uses a refrigerant that has only a small potential to deplete the Ozone Layer (e.g. R22).
- or
- They permanently retrofit the existing refrigeration equipment to use a refrigerant that is not an Ozone Depleting Substance (e.g. R134a or R404A, R507, R290, R600, R600a, Ammonia, etc.), or that uses a refrigerant that has only a small potential to deplete the Ozone Layer (e.g. R22).

Enterprises can select their preferred replacement or retrofit refrigeration technology but only replacement equipment, or equipment retrofits, based on refrigerants that are not Ozone Depleting Substances such as R134a, R404A, R507, R290, R600, R600a, Ammonia, etc., or a simple HCFC that has only a small potential to deplete the Ozone Layer such as R22, will be considered eligible for consideration for an incentive payment. Such refrigerants are proven and a range of equipment based on many of them is commercially available.

The retrofit of existing R12 and R502 refrigeration systems to use a commercial “drop-in” refrigerant blend containing HCFCs (e.g. R401A, R409A, R402A, R403B, R408A, R416, etc.) is not eligible for an Incentive Payment as the sustainability of the replacement cannot be guaranteed, and the introduction of such blends could have a negative impact on existing R12 refrigerant recovery and recycling activities.

Enterprises will only be eligible for an incentive payment if they were in existence before 25 July 1995 and the existing equipment that will be replaced, or permanently retrofitted, must also have been installed before 25 July 1995. Proof of this must be attached to the application.

In the Incentive Payment Project, the commercial and industrial refrigeration end-user sectors are considered as including refrigeration systems used in food-storage (cold stores and silos), fisheries, meat-processing plants, breweries, hospitals, hotels, restaurants, supermarkets, refrigerated transport (trucks, rail, boats) etc. Enterprises with chillers, air-conditioning, MAC are not considered as included in the project.

The United Nations Development Programme (UNDP) and the Maldives Ozone Office will implement the Incentive Payment Project. UNDP International and National Consultants will oversee the project

and will evaluate the applications for incentive payments and make final recommendations on eligibility and the scale of the incentive payment.

**Application for an Incentive Payment** – Applications must be made using the official Commercial and Industrial Refrigeration End-User Sector Incentive Programme Project Application Form that can be obtained from the Ozone Office in Maldives.

Completed applications for an incentive payment, together with all the necessary supporting documentation, must be submitted to the Ozone Office in Maldives and the local United Nations Development Programme (UNDP) office.

An end-user enterprise wishing to apply for an incentive payment must include the following information in its application for an incentive payment:

- Details of R12 and R502 purchases during the three calendar years preceding the year of application used for the service and repair of the existing equipment that is to be replaced, or permanently retrofitted, (including copies of suppliers invoices).
- Details of the existing equipment that is to be replaced, or permanently retrofitted. These should include the function of the existing equipment, make, model, serial number, year of manufacture, capacity, R12/R502 charge, the year that the existing equipment was installed, as well as the price at purchase, etc. Copies of the purchase order and invoice for the existing equipment should be attached to the application (if available).
- Technical details of the proposed replacement equipment, or permanent retrofit technology, which must be based on proven and mature technology.
- Details of the costs of the proposed equipment replacement, or permanent retrofit.
- Information on the current cost of the R12 and/or R502 refrigerant, and the current cost of the proposed replacement refrigerant, both supported by supplier's quotations.
- Information on any changes in refrigerating capacity that will occur as a result of the existing equipment replacement, or permanent retrofit.
- Confirmation that the enterprise can meet established local or international safety, health, and environmental standards related to the new refrigerant.
- Confirmation that the new equipment is hermetic, i.e. that it is leak-free.
- Details of the ownership of the enterprise, including the Nationality of shareholders.

The Incentive Programme Project for the Commercial and Industrial Refrigeration End-User Sector will operate from 2001 to 2006, or until the approved funds have been exhausted. Applications will be evaluated on a first-come first-served basis and an enterprise can only apply once during the six-year period, even if it has several refrigeration systems. However, an enterprise can include the replacement, or retrofit, of more than one of its refrigeration systems in its request for an incentive payment.

**Scale of Incentive Payments** - The scale of the incentive payments will be based on the lower of the following two calculations:

- The installed capacity of the equipment that needs to be replaced/retrofitted
- The average annual consumption of R12/R502 during the three years preceding the year of application calculated in Ozone Depletion Potential (ODP) Kilograms used for servicing and repair of the existing equipment that is to be replaced, or permanently retrofitted.

The ODP value for R12 is 1.0, and for R502 it is 0.34. The average annual consumption “C” for the purposes of this project will be calculated as follows:

$$“C” = \frac{\text{Kg R12 Purchased in 3 Preceding Years}}{3} + \frac{\text{Kg R502 Purchased in 3 Preceding Years}}{3} \times 0.34$$

The eligible scale of the incentive payment is determined as calculated above, and the following table:

Average of “installed capacity” and “consumption”	Scale of Eligible Incentive Payment In US\$
3 – 10	> 500
10 – 20	> 1,000
20 – 50	> 2,000
50 – 100	> 3,000
100 – 200	> 4,000
>200	> 5,000

Following completion of the existing equipment replacement, or permanent retrofit, the end-user enterprise must submit invoices to the Ozone Office, Environment Protection Agency (EPA) and the local United Nations Development Programme (UNDP) office to confirm the total costs incurred by the enterprise in existing equipment replacement, or retrofit. These invoices will relate to the purchase of capital cost items, to local works carried out by the enterprise, the cost of the initial charge of the replacement compressor lube oil, and to the cost of the initial new charge of the replacement refrigerant plus R134a used for leak testing.

It should be noted that the scale of eligible incentive payments in the table above is based on 100 % National Maldives (or other Article-5 Country) ownership of the enterprise. Eligible incentive payments for enterprises with part National or Article-5 Country ownership will be adjusted to reflect the percentage of National or Article-5 Country ownership of the enterprise.

To receive the eligible incentive payment in full, an end-user enterprise must be able to demonstrate that the total actual costs for the existing equipment replacement, or retrofit, are double the calculated eligible incentive payment based on the R12/R502 consumption as described above, or higher. In the case that the total costs for the conversion are less than the calculated maximum eligible incentive

payment, then the incentive payment to the enterprise will be limited to the verified eligible costs incurred in the existing equipment replacement, or retrofit divided by two.

**Existing R12 and R502 Refrigerant Charges** - The existing R12 or R502 refrigerant charges in existing equipment that is replaced, or retrofitted, under the Incentive Payment Project must be recovered under the Maldives National Refrigerant Recovery & Recycling Programme Project being implemented under the auspices of the National Ozone Office. To the extent possible, the refrigerant will be recycled.

**Destruction of Replaced Equipment** - The replaced equipment must be destroyed/dismantled/rendered unusable with CFCs according to MLF policy decisions and guidelines. This must be certified in a Certificate signed by the Ozone Office in Maldives, the National Consultant, and the enterprise together with appropriate photographic evidence. The replaced equipment cannot be sold to another enterprise within Maldives, or abroad. However, the enterprise is permitted to retain any scrap value of the destroyed equipment.

#### **Payment of the Eligible Incentive Payment**

The submitted invoices will initially be reviewed by the National Consultant to ensure that all of the required information has been provided. The cost data, together with any comments from the National Consultant, will be sent to the International Consultant for review and to make a formal recommendation on the eligible level of the incentive payment to the Ozone Office in Maldives and the local UNDP-office in Maldives. The recommendation may also be reviewed by a local financial committee.

Up to 40% of the eligible incentive payment can be paid up front to the enterprise if the application and supporting documentation is found to be satisfactory and if the application itself is found to be acceptable.

The eligible balance will only be paid after the existing R12/R502 equipment has been replaced, or permanently retrofitted, the total cost data has been reviewed and the International Consultant has made a formal recommendation on the actual level of the incentive payment, and formal certification that the existing R12/R502 equipment that was replaced has been destroyed/dismantled/rendered unusable with CFCs according to MLF policy decisions and guidelines.

Upon payment of the incentive, the enterprise will sign a statement confirming that it will no longer be using R12 or R502, in the equipment covered by the project.

**Post-project monitoring** Ozone Office may sporadically conduct post-monitoring visits to enterprises that have received an incentive payment, to ensure that the enterprise does not return to the use of CFC's or R502.