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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-fourth Meeting
Montreal, 27-31 May 2024
Item 12(b) of the provisional agenda¹

Addendum

**FURTHER ELABORATION ON THE OPERATIONAL FRAMEWORK
TO SUPPORT MAINTAINING AND/OR ENHANCING ENERGY EFFICIENCY
DESCRIBED IN DOCUMENT UNEP/OzL.Pro/ExCom/93/98
(DECISION 93/93(d))**

This document is issued to **add** appendix II, an explanatory note to annex II, as attached.

¹ UNEP/OzL.Pro/ExCom/94/1

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

Appendix II

EXPLANATORY NOTE TO ANNEX II

**CASE EXAMPLE OF COSTS FOR AIR-CONDITIONER MANUFACTURER
BASED ON THE INCENTIVE CALCULATION METHODOLOGY**

In the paragraphs below, an illustration of how the incentive would be calculated for an air-conditioner manufacturer manufacturing 100,000 units per annum is given. This example shows the steps that would be followed for estimating the incentive level applicable for a particular beneficiary. **The example does not prejudice any decision that the Executive Committee in using the incentive calculation methodology described in document UNEP/OzL.Pro/ExCom/94/61 or in agreeing to the specific incentive level which is used in the current example for illustrative purposes.**

1. A company ABC manufacturing residential air-conditioner with a manufacturing volume of 100,000 units per annum is currently having an average baseline performance level of 3.5 SEER; the MEPS as per the national regulation in the country is 3.5 SEER. The enterprise requests support for achieving energy efficiency target level of 5.7 SEER. For this, the additional capital cost of US \$190,000 and additional costs of components in the amount of US \$40/unit are submitted in the project request for project review.

2. The additional capital cost that would be provided equals the minimum of US \$250,000 as given in table 3 of the document UNEP/OzL.Pro/ExCom/94/61 and the actual cost requested US \$190,000. Therefore, the agreed value after the project review for the additional capital cost for the project is estimated at **US \$190,000**.

3. The additional component costs that would be considered would be estimated as given in table 1 below. The ratio of baseline SEER to MEPS and target SEER to MEPS is 1 (calculated as 3.5/3.5) and 1.63 (5.7/3.5), respectively (paragraph 1 for the specific example). The estimate of the additional capital costs is calculated based on the values shown in table 4 of document UNEP/OzL.Pro/ExCom/94/61 on the target energy performance levels for different equipment and additional component costs. The estimate takes into account that the target proposed to be achieved by the enterprise is higher than RE-medium and lower than RE-high where RE is the energy efficiency performance ratio. The cost after proportioning for performance is calculated as a proportion of additional cost over and above E-medium based on the target levels of performance (i.e., 5.7 SEER that is equal to 1.63 times the MEPS value) proposed by this enterprise. The table below shows the total cost incurred by the enterprise to achieve 5.7 SEER (i.e., 1.63 times the MEPS value) and the incentive level assuming that this is 1/3 of the additional component costs.

Table 1. Methodology for calculation of additional component cost

Particulars	Calculation methodology		Value (US \$/unit)
Cost after proportionating for performance	$34 + (11 * (1.63 - 1.5)/(2 - 1.5))$	A (US \$/unit)	36.86
R_{cost}	(40/45)	B	0.89
Unit cost		C=AxB (US \$/unit)	32.80
Incentive for the additional costs		C/3²	10.93

Note: (1) As shown in table 4, RE-low is equal to MEPS, RE-medium is 1.5 x MEPS and RE-high is 2 x MEPS; these are energy efficiency performance ratios that would result in the additional costs shown in that table.

(2) In the above-mentioned case example, to reach the target RE level of 1.63 (i.e., SEER of 5.7), the additional component cost would include cost incurred to reach RE-medium (i.e., SEER of 5.25) and incremental costs to reach RE value of 1.63 from RE-medium (i.e., US \$45-US \$34=US \$11 per unit).

² These component incentive levels are at 1/3 of the additional component costs.

4. The total funding required to manufacture 100,000 units with an SEER of 5.7 (i.e., RE of 1.63) is calculated in table 2.

Table 2. Summary of total funding for achieving target performance

Particulars	US \$	US \$/unit
Agreed additional capital costs	190,000	1.90
Agreed additional component cost	3,280,000	32.80
Total	3,470,000	34.70
Total incentive given to the enterprise if 1/3 is applied as an incentive	1,283,000	12.83³

5. Assuming a unit charge of 0.9 kg per unit, the total consumption of HFCs in company is $0.9 \times 100,000 = 90,000$ kgs of HFCs. Based on this quantity, US \$/kg of HFCs for this project is US \$38.55/kg of which, US \$2.11/kg relates to additional capital cost and US \$36.44/kg relates to additional component cost. Depending upon the levels of incentive agreed for the additional component costs, the total cost for this project would decrease.

³ Total incentive given to the enterprise if 1/3 is applied as an incentive on the component cost is US \$1.90 + US \$10.93 = US \$12.83.