

To : UNFCCC Cooperative Mechanisms Programme
From : UPC Corporation Ltd.

Date : 30th Sep., 2004

Subject : Comments on Potential Leakage Concern of HCFC 22 for AM0001

Dear Sirs,

UPC Corporation Ltd. is a Participant in the project using AM0001 submitted for the Registration Process. In order for public to recognize the situations of HCFC-22 market properly, we are submitting comments in this letter.

We concluded that there should be no substantial change in the demand for HCFC 22 driven by CERs, and therefore there will be no leakage of HCFC 22 emissions.

Background

Under the Montreal Protocol, HCFCs have been regulated globally. On the other hand, they also have the on-going role as transitional substances in the replacement of CFCs in some functions like refrigeration. Focusing on HCFC 22, this chemical substance is used in air conditioning and refrigeration products and also as feedstock for fluoropolymers. HCFC 22 as feedstock is globally increasing at about several percentage per annum without control on production. On the other hand, HCFC 22 for another purpose such as air conditioning and refrigeration has two different features. In the non-Article 5(1) countries, HCFC 22 has already been regulated and therefore both of demand and supply is declining. In the Article 5(1) countries, on the contrary we can see growth of its demand and supply keeping the on-going role mainly due to sustainable development. The following table is explaining the global market trend between 2002 and 2015. (from page 6 of "Report of The Technical And Economic Assessment Panel of UNEP May 2003)

HCFC-22	Demand and Production (ktonnes) (year)			
	2002	2005	2010	2015
Market Demand non-A5(1)	189	180	99	37
Market Demand A5(1)	104	132	212	305
Market Demand, total	293	312	311	342
Prod. Capacity: non-A5(1)	440	410	353	335
Prod.Capacity:A5(1)	166	181	205	230
Prod. Capacity: total	606	591	558	565
Feedstock Requirement	212	239	290	337
Available Market Capacity	394	352	268	228
Unused Capacity/Insufficient production capacity (negative)	101	40	-43	-114
Capacity Utilization	83%	93%	100%	100%

The above forecast was made by TEAP irrespective of CDM projects . It is based on assumptions, but we can easily recognize general trend of HCFC 22 demand/supply.

In the circumstances, we need to decompose HFC 23 of GHG as by-product of HCFC 22 production effectively as soon as possible to contribute to a reduction in emissions of greenhouse gases.

Inference on the Potential Leakage

It is a question whether CERs increase HCFC 22 production more than a case without CDM like the above table or not. What CERs could do is subsidise lower HCFC 22 prices. But HCFC 22 prices are already very low. Next question is whether even lower prices of HCFC 22 influence demand of final products of air conditioning and refrigeration or not. It is typical that filling volume of HCFC 22 into an air conditioner is around 700-800g equivalent to about \$2. The price of air conditioner is the order of \$500 – 1000 or higher. So it is unlikely from the said cost structure that the lower prices create additional demand of the final products . HCFC 22 production depends on demand of the final products rather than its competitive production cost .

Looking at conversion of HCFC 22 to new blends, that do not deplete Ozone layer, in non-Article 5(1) countries, we can see positive behaviors irrespective of refrigerant prices. Under spirit of UNFCCC, many countries like Japan and in EU have already converted into the new blends which is several times higher in price than HCFC 22. It is highly likely that the conversion is accelerated more irrespective of the price in the Article 5(1) countries.

As conclusion, there is no evidence to suggest that HCFC 22 demand will be increased due to CDM projects.

Yours sincerely

DK SEO

President of UPC Corporation Ltd.
#1108, Samsung Cheil Bldg., 702-2, Kangnam-Ku,
Yoeksam-Dong, Seoul, Korea
Tel) 822-527-3009(direct), 3005, 3006
Fax) 822-527-3007
Mobile Phone) 82-11-9777-6824