



## EFCTC position

Brussels, 31 January 2012

### Response to:

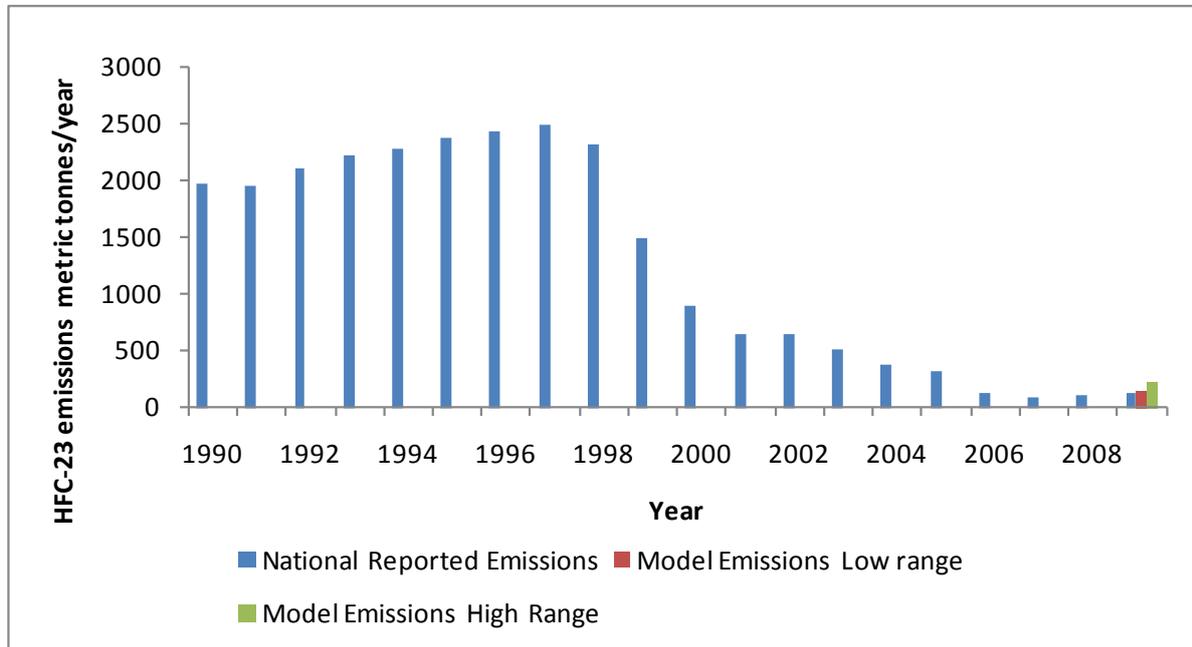
***Evidence for under-reported western European emissions of the potent greenhouse gas HFC-23, Keller et al., GRL (38), L15808, doi:10.1029/2011GL047976***

In this paper, the authors assert that some EU member states under-report their emissions of HFC-23 (fluoroform,  $\text{CHF}_3$ ), which is a byproduct of HCFC-22 production. To do this they attempted to replicate observations of the change in HFC-23 atmospheric concentrations with time by mathematically modelling the behaviour of assumed emissions into the atmosphere. **Strangely, the contention of under-reporting is not justified by the work described in the paper.** Indeed for Northern Europe, the actual text of the paper shows that there is no material difference between the declared emissions (from national data) and the model calculations. Using the observations reported at Mace Head (Ireland) the nationally reported emissions are statistically indistinguishable from those calculated by modelling assumed emissions. At best, this indicates that the modelling technique is not capable of supporting the authors' assertions.

The authors make matters worse by going on to assert that the same degree of assumed under-reporting will happen throughout the rest of the "Annex 1 countries" (the developed countries that have ratified the Kyoto Protocol, and also the U.S.A.). This has no factual basis; it is simply the authors' opinion.

Furthermore, the study was performed in recent years (2004 to 2009) when considerable reductions in HFC-23 emissions had already been achieved throughout Europe.

## CEFIC



This figure shows (in blue) the nationally reported emissions for the countries covered by the paper (that is Europe excluding Greece and Spain). The emissions calculated by modelling are shown for 2009 in red and green. It is clear that there has been a dramatic reduction in European emissions of HFC-23 and that the models reflect the recent low amounts.

Campbell Nick J  
Chairman EFCTC  
[nick.campbell@arkema.com](mailto:nick.campbell@arkema.com)

Dr. Marleen Pauwels  
Cefic Manager  
Fluorinated chemicals  
phone: + 32-2-676 7247  
e-mail: [mpa@cefic.be](mailto:mpa@cefic.be)  
<http://www.cefic.org>  
<http://www.fluorocarbons.org/>