

Double standards on offsets in EU legislation: the case of HFC-23

Natasha Hurley

Environmental Investigation Agency

European Parliament

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Outline

- About EIA
- Background to the HFC-23 scandal
- HFC-23 in the EU
- The solution
- Conclusion



About EIA

www.eia-international.org

- Established in 1984 to investigate, expose and campaign against the illegal trade in wildlife and the destruction of our natural environment.
- Offices in London and Washington DC
- Campaigns: Endangered Species, Forests, Global Environment (ozone and climate)
- Investigating illegal trade in ozone depleting substances (ODS) since 1997
- Closely involved in international ozone and climate negotiations for well over a decade

HFC-23: the facts



Global warming potential = **14,800**

Atmospheric lifetime = **270 years**

A **waste product** in the manufacture of a common refrigerant (HCFC-22)

Annual emissions = **127 million tonnes CO₂e** and rising (*Miller et al.*)

Can be destroyed for just **€0.17 /CO₂e tonne**



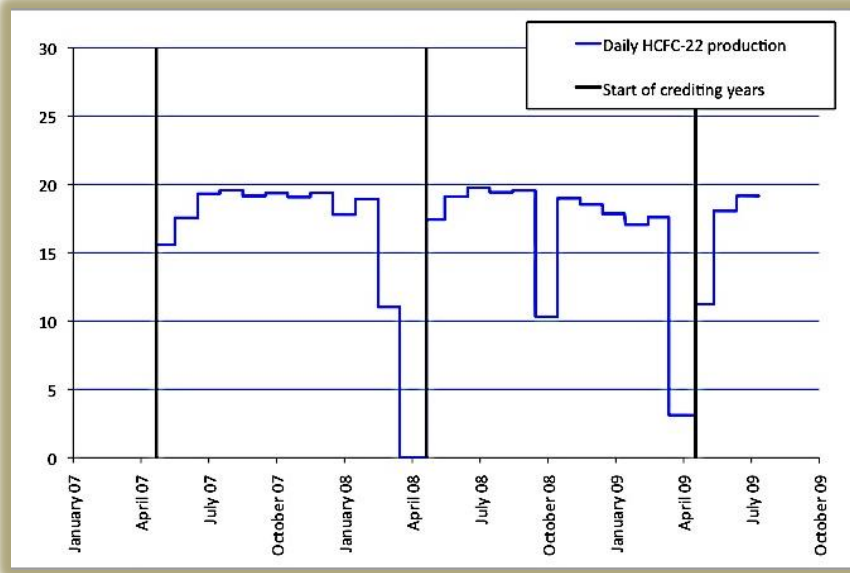
HFC-23 projects in the CDM

- First project types to be registered in the CDM
- 19 registered projects – China (11), India (5), Mexico (1), Argentina (1) and S. Korea (1)
- On average, 1 tonne of HFC-23 produced from 34 tonnes of HCFC-22 (2.9% waste ratio) = 11,700 credits
- HFC-23 credits represent >39% of CDM credits to date

The problems

- Subject to manipulation (“**perverse incentives**”)
- Flood carbon markets
- Divert finance away from domestic action (problem with all offsetting)and sustainable projects
- CDM HFC-23 projects working in opposition to goals of both the UNFCCC and Montreal Protocol phase-out of ozone depleting substances (HCFCs)

Perverse incentives



DAILY HCFC-22 PRODUCTION DURING THE CREDITING PERIOD FOR ZHONGHAO CHENGUANG RESEARCH INSTITUTE OF CHEMICAL INDUSTRY IN CHINA (TONNES PER DAY). THE GRAPH REVEALS THAT A RELATIVELY STABLE PRODUCTION WAS MAINTAINED UNTIL THE HCFC-22 AMOUNT ELIGIBLE WAS REACHED, AT WHICH POINT PRODUCTION CEASED. PRODUCTION IMMEDIATELY BEGAN AT THE START OF THE NEW CREDITING PERIOD ON 1ST MAY.

Source: Methodology 0001 Revision Request, F-CDM-Rev. ver.01, 8 March 2010

HFC-23 abatement projects were subject to manipulation:

- Many plants generated almost the exact amount of HCFC-22 and HFC-23 that could be credited, and no more/less despite having variable production pre-CDM.
- Some plants produced lower rates of HFC-23 (lower 'w') during periods where no credits could be obtained.
- One plant stopped HCFC-22 production when no credits could be generated, and started up again when eligible.

“Refrigerant manufacturers were transformed overnight by the CDM into ventures that generated large volumes of CERs, with a sideline in the manufacture of industrial gases.”

Wara & Victor, 2008

Indian plants: A billion dollars in CER revenues!

(INR Lacs)	Yr ending 31/3/2012	Yr ending 31/3/2011	Yr ending 31/3/2010	Yr ending 31/3/2009	Yr ending 31/3/2008	Yr ending 31/3/2007	Cumulative revenue from CERS (Lacs)	Cumulative revenue from CERS (US\$)
SRF	43,973	7,281	25,956	34,837	26,771	NA	138,818	277,636,380
GFL	87,614	20,243	47,296	62,931	45,394	39,006	302,484	604,968,280
NAVIN	25,190	No CER income booked due to study conducted by CDM board	Data unavailable	Installed this year	0	0	25,190	50,380,000
CHEMPLAST	NA	4,939	4,553	4,621	5,023	0	19,136	38,272,660
Total Revenue							485,629	971,257,320

EIA undercover investigations



- EIA undercover investigations in early 2013 found that non-CDM plants are venting HFC-23 & current CDM plants are very likely to
- **A 2 billion tonne climate bomb waiting to explode!!**

HFC-23 offsets in the EU

- EU ETS = world's largest carbon market
- Most HFC-23 credits ended up in the EU (60%)
- From 2008-10 Europe spent €1.8bn on HFC-23 credits for compliance in the EU ETS, for destruction costing €25.6 million.
- Sandbag (late 2012): **261m HFC-23 CERs have flowed into EU ETS** (does not take ES sectors into account)
- EU ETS ban on the use of HFC-23 and other industrial gas offsets as of 1 May 2013
- However, Member States remain free to use HFC-23 offsets towards national targets in the effort sharing sectors...

HFC-23 offsets in the EU

Member States still have discretion regarding use of HFC-23 offsets towards effort sharing targets

- **Danish proposal**



14 October Environment Council: 5 more Member States sign up to Danish initiative but 6 more keep doors open to HFC-23 credits

HFC-23 venting in the EU

- 2011 study by a Swiss research institute found that European chemical manufacturers were venting large quantities of HFC-23
- Plants involved: Solvay (Italy), DuPont (NL), Arkema (France), Ineos (UK)
- Showed that emissions were as much as 140% higher than reported figures
- Highlights need for legislation – voluntary commitment is not enough

The solution

Carbon markets are not the solution

All EU Member States must:

- Commit to **extending EU ETS ban** to their effort sharing sectors
- Approve requirement to destroy HFC-23 by-product starting in 2015 contained in the **revised F-gas Regulation**

Worldwide:

- Introduce **legislation** requiring that all HCFC-22 plants address HFC-23 emissions through incineration or other best-practice technology;
- Reject the use of HFC-23 carbon credits in mandatory or voluntary carbon markets.

Conclusion

- HFC-23 offsets:
 - Dominated EU carbon market
 - Directly undermined the objectives of a global environmental treaty to which the EU is a signatory
 - Created massive windfall profits for major chemical companies
 - Led to a rise in greenhouse gas emissions

Thank you



ENVIRONMENTAL INVESTIGATION AGENCY (EIA)

62/63 Upper Street, London N1 0NY, UK

Tel: +44 (0) 20 7354 7960

Fax: +44 (0) 20 7354 7961

natashahurley@eia-international.org

www.eia-international.org · www.eia-global.org