



● Refrigerants in Ecodesign

Directorate-General
for Energy



Matthew Kestner
DG Energy Unit C3
Energy efficiency & Intelligent Energy - Europe
ATMOsphere Europe 2011, 12 October 2011

● Ecodesign Products using refrigerants

● ENERGY (lot)

- 1 Boilers (heat pumps)
- 2 Water heaters
- 10 Room air conditioners
- 12 Commercial refrigeration (display cabinets, cold vending machines)
- 13 Domestic refrigeration
- 17 Laundry dryers (heat pump dryers)
- 20 Local room heaters
- 21 Hot air central heating systems



- Ecodesign Products using refrigerants

- **ENTERPRISE (lot)**

- 1 Commercial refrigerating equipment

- 6 Air conditioning and ventilation systems

- Ecodesign Products using refrigerants
 - **Existing Ecodesign product categories represent the majority of F-Gas Global Warming emission sources**

- Ecodesign Products using refrigerants
 - **Global Warming from F-Gas emissions typically 10-25% of that from energy consumption.**



- Ecodesign Products using refrigerants

Possible Ecodesign measures:

- **Bonus for low GWP gases**
- **Gas tight products ‘essential requirement’**

- 
- Ecodesign Products using refrigerants

Possible Other Measures

(not primarily Ecodesign responsibility):

- **Review of safety standards on natural refrigerants**
- **Deposit schemes (or taxes) on high GWP gases**

- Ecodesign Products using refrigerants

Concerns about bans/quotas

Low GWP gases may not:

- **Reach highest possible SCOP/SEER (e.g. 8.5 benchmark for room aircos)**
- **Meet all market niches**



- Ecodesign Products using refrigerants

Bans/quotas might:

- **Restrict rapid growth of for example domestic heat pumps.**



- Ecodesign Products using refrigerants

- **Existing Ecodesign product categories represent the majority of F-Gas Global Warming emission sources**
- **Global Warming from F-Gas emissions typically 10-25% of that from energy consumption.**