



Directorate-General  
for Energy

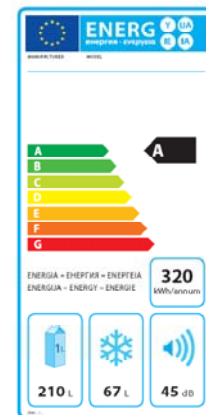


# The role of natural refrigerants in the ecodesign of commercial refrigerating display appliances

Tonje Haabeth, 27/09/10  
C3 – Energy efficiency of products and Intelligent Energy -Europe

# ● Key policy tools for Energy Efficient Products in the EU

- **Ecodesign Directive:** push the market by taking out the least-performing products
- **Energy Labelling Directive:** pull the market by promoting the best-performing products



# ● The Ecodesign Directive 2009/125/EC

- The EU's main legal instrument to improve the environmental performance of **energy-related products**
  - » Extension of the scope of past Ecodesign Directive 2005/32/EC (energy-using products)
- **Framework Directive** → requirements are introduced on a product-by-product basis via:
  - » **Implementing measures (IM)** to be adopted by the Commission, or
  - » **Voluntary agreements**
- Implementing measures only for products with:
  - » Significant environmental aspects
  - » Significant potential for improvement
  - » Significant trade and sales volume  
(indicative threshold: 200 000 units per year)

## ● Procedure on the adoption of ecodesign implementing measures

- Preparatory studies identify the significant environmental aspects of the products during their entire life-cycle
- Draft measures are discussed with all stakeholders in a Consultation Forum
- A regulatory committee of Member States representatives gives its opinion on the draft (need for a qualified majority)
- The European Parliament and the Council exercise their right of scrutiny on the draft (3 months to oppose)
- The measure is adopted by the Commission

# ● Ecodesign: current status

- **Recently adopted measures (Regulations):**
  - » **Circulators, OJ L 191, 23.7.2009, p. 35–41**
  - » **Electric motors, OJ L 191, 23.7.2009, p. 26–34**
  - » **Household refrigerating appliances, OJ L 191, 23.7.2009, p. 53–68**
  - » **Televisions, OJ L 191, 23.7.2009, p. 42–52**
- **Measures under scrutiny:** domestic washing machines, dish washers and fans
- **Other measures under preparation:** Boilers, Commercial refrigerating display appliances, Computers, Imaging equipment, Pumps, Room air-conditioners, Domestic fans, Complex set-top boxes, Laundry driers, Vacuum cleaners, Domestic lighting products II (reflector lamps and luminaires), Solid-fuel boilers, Transformers, Sound and Imaging Equipment.
- **Other measures planned:** listed in Ecodesign Work Plan 2009-2011
- **Adoption of new Working plan in 2011**



# ● Energy Labelling: Current status

## Adoption expected by end 2010

- Domestic refrigerators & freezers
- Televisions
- Dishwashers
- Washing machines



- **Implementation and strengthening of the existing framework**

- Adoption of requirements for more product groups
- Upgrading of existing requirements



## ● Ecodesign contribution to 20% - 2020

Ecodesign measures adopted or to be adopted in 2010 = **170 Mtoe**

*annual savings by 2020, compared to business as usual scenario*

This corresponds to approx. **40%** of the envisaged savings in **2020**

*Envisaged savings of 380 Mtoe, corresponding to 20% of the predicted energy consumption of about 1900 Mtoe in 2020*



- **Principal options to reduce GHG emissions from refrigerants**

- Reduced leakage rate
- Lower refrigerant charge
- Increased recycling rate of remaining refrigerants at end of life
- **Switching to refrigerants with low global warming potential (GWP)**

## ● How to switch to refrigerants with low GWP under ecodesign and/or the energy labelling directive?

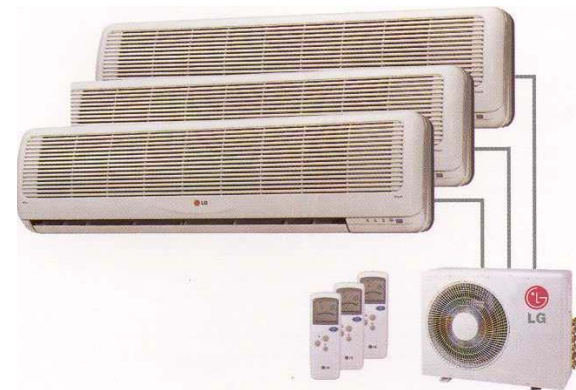
- Obligation to use specific, low GWP refrigerants or to exclude use of high GWP refrigerants
- Malus/bonus within specific energy performance requirement to set disincentive/incentive for using high /low GWP refrigerants
- Different requirements within product group

# ● Refrigerants – relevant appliances studied under the Ecodesign Directive

- Residential room air conditioning appliances and residential ventilation (Lot 10)
- Commercial refrigerating display appliances (Lot 12)
- Refrigerating and Freezing Equipment (ENTR Lot 1)
- Air-conditioning and ventilation systems (ENTR Lot 6)
- ...

## ● Treatment of refrigerants – Residential room air conditioning appliances and residential ventilation (Lot 10)

- Refrigerants leakages at about 10-20% of GHG total emissions during product life
- Refrigerants addressed under the ecodesign implementing measure
- Status: Adoption expected January 2011



## ● Treatment of refrigerants – Commercial refrigerating display appliances (Lot 12)

- Refrigerants leakages at around 3% of total GHG emissions during product life
- Refrigerants addressed
- Status: Adoption expected 2nd half 2011



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Thank you for your attention!

