



✓ SUSTAINABLE LIVING

➤ REDUCING ENVIRONMENTAL IMPACT

➤ GREENHOUSE GASES

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➤ OUR GREENHOUSE GAS FOOTPRINT

➤ COMBATING DEFORESTATION

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➤ RENEWABLE ENERGY & BIOFUELS

➤ TRANSPORT & DISTRIBUTION

➤ CLIMATE-FRIENDLY REFRIGERATION

➤ REDUCING OFFICE IMPACTS

CLIMATE-FRIENDLY REFRIGERATION

We rely on well over two million point-of-sale freezer cabinets to reach consumers. We are accelerating our efforts to roll out cabinets that use energy-efficient, climate-friendly hydrocarbon refrigerants.

WHAT IS A CLIMATE-FRIENDLY REFRIGERANT?

Refrigerants traditionally used in cabinets and other storage facilities have a much higher global warming potential (GWP) than carbon dioxide. Hydrofluorocarbons (HFCs), hydrochlorofluorocarbons (HCFCs) and chlorofluorocarbons (CFCs) typically have GWP ranges from 1,200 to 8,500 whereas CO₂ has, by definition, a GWP of one.

Finding environmentally-friendly alternatives to refrigerants is important in reducing greenhouse gas emissions. We have committed to using refrigerants which have a GWP of less than three, such as hydrocarbons (HC), CO₂, ammonia, water and air, which can all be used as cooling agents in refrigerators and freezers. Almost all our production facilities and cold stores already use ammonia in their refrigeration systems. Ammonia has the added benefit of being very energy-efficient for large-scale use.

OUR APPROACH

Our primary focus is our point-of-sale ice cream freezer cabinets. Since 2004, we have been replacing these with climate-friendly alternatives, using an HC refrigerant which is also about 10% more energy-efficient.

For technical and legislative reasons, we cannot replace all our cabinets with HC technology. Advocacy is therefore important. We are working with stakeholders, such as governments and NGOs, to bring about regulatory change so that new, greener technologies can be introduced.

See Downloads for more information on the development of ice cream cabinets using HC refrigerants.

TARGETS & PERFORMANCE

REDUCE GREENHOUSE GAS EMISSIONS FROM REFRIGERATION

As the world's largest producer of ice cream, we will accelerate our roll-out of freezer cabinets that use climate-friendly (hydrocarbon) refrigerants. When we launched our Plan in November 2010 we had already purchased 450,000 units with the new refrigerant.

- We will purchase a further 850,000 units by 2015.

- ✓ Nearly 270,000 climate-friendly freezers purchased in 2013, taking us to approximately 1.5 million and exceeding our target of 850,000.

✓ achieved ● on-plan ● off-plan % of target achieved

OUR PERSPECTIVE

We achieved our target two years ahead of schedule. Our climate-friendly hydrocarbon (HC) freezers have a negligible global warming potential compared to those that contain hydrofluorocarbons (HFCs). They are also around 10% more energy efficient.

Our progress has been achieved by giving consistent, cross-functional priority to our natural refrigerants target. It was technically enabled by our supply chain and research and development. Our Partner to Win suppliers are instrumental to delivering our vision of doubling the size of our company whilst reducing our environmental footprint. Working closely with them enables us to have best-in-class capabilities, sustainable practices and innovation.

In addition to buying freezers with climate-friendly refrigerants, we have been pioneering new models using state-of-the-art components to increase their energy efficiency. Over 2010-13, we purchased around 520,000 of these more

DOWNLOADS

✓ Refrigeration and Unilever (2010) - PDF | 514KB

✓ Ice Cream Cabinets Using a Hydrocarbon Refrigerant - From Technology Concept to Global Rollout - PDF | 91KB

✓ Consumer Goods Industry Announces Initiatives on Climate Protection (November 2010) - PDF | 27KB

EXTERNAL LINKS

Ben & Jerry's

The Consumer Goods Forum

Greenpeace's 'HFCs: A growing threat to the climate' report (Updated Version, December 2009)

Refrigerants, Naturally!

The UN Climate Change Conference, Cancun 2010

energy-efficient freezers. We estimate that the energy efficiency of the freezers we bought in 2013 avoided around 40,000 tonnes of CO₂ emissions compared to 2008 models.

We are working with industry to promote the move to more environmentally-friendly freezers. We are driving an industry commitment to phase out HFCs by 2015 through our participation in the Consumer Goods Forum and Refrigerants, Naturally!, a multi-stakeholder group that aims to encourage the use of natural refrigerants.

We will continue our roll-out of climate friendly HC freezers and increasingly turn our attention to improving the energy efficiency of these cabinets.

CLIMATE-FRIENDLY FREEZERS GROW SALES AND CUT COSTS

Our greener freezers have helped us win new contracts with customers:

In Denmark, we agreed new partnerships with Fakta discount stores in 2009 and the OK Plus petrol chain in 2011, which are part of the retailer COOP. Prior to this, Unilever had very little business with either company. A key factor was our ability to demonstrate that our climate-friendly freezers generate lower CO₂ emissions and use less energy, delivering better energy efficiency for our customers. We have also achieved excellent growth with Fakta each year since then.

In 2013, we entered into a partnership with multinational catering and retail company, Autogrill, one of the major players in the European and global petrol station and convenience business.

Autogrill was keen to use the most environmentally friendly technologies to help it achieve its sustainability targets, as well as reduce energy costs. We are upgrading a proportion of Autogrill's existing freezer cabinets each year in four European countries with our 'Lean and Green' cabinets. These communicate their green credentials to consumers via labels on the cabinet. With this we have also secured the best positioning of the cabinets to achieve optimum product visibility, making it easier for consumers to see and select our ice creams. A critical factor in agreeing this contract was our leadership in energy-efficient freezers.

ADVANCING THE CASE FOR CHANGE

In the United States, Environmental Protection Agency (EPA) regulations had prevented us from using climate-friendly hydrocarbon (HC) refrigerants in previous years. The introduction of new refrigerants is highly regulated, requiring formal application through the Environmental Protection Agency's Significant New Alternatives Policy (SNAP) programme. Working with Greenpeace, the United Nations Environment Programme (UNEP) and others, we lobbied the EPA to convince them that there are no safety issues.

Ben & Jerry's made a SNAP application for the use of the HC climate-friendly refrigerant in its ice cream cabinets in 2008. At the end of 2011, the EPA gave approval for the use of hydrocarbon gas as an alternative to current refrigerants. Not only has this ruling paved the way for the introduction of climate-friendly refrigeration for our own use, but it has also enabled companies to take advantage of the significant greenhouse gas savings such cabinets offer.

In 2012, we began purchasing HC freezers for the US market, and put the first 840 HC freezers into use. We continued our progress in 2013 with over 95% of the freezers purchased using hydrocarbon.

REFRIGERANTS, NATURALLY!

We are driving an industry commitment to phase out hydrofluorocarbons (HFCs) by 2015 through our participation in the Consumer Goods Forum and as a founder member of Refrigerants, Naturally!

Refrigerants, Naturally! is a multi-stakeholder group that was established in 2004, and is supported by Greenpeace and UNEP. It aims to promote a rapid shift away from the use of HFCs towards natural refrigerants (ammonia and carbon dioxide) and climate-friendly hydrocarbons for refrigerated point-of-sale equipment such as ice cream freezers and vending machines. Between 2010 and 2013, Unilever chaired Refrigerants, Naturally!

In March 2011, the John F. Kennedy School of Government at Harvard University announced Refrigerants, Naturally! as the recipient of the prestigious 2011 Roy Family Environmental Award for its work on persistent fluorinated gases. The Roy Family Award celebrates an outstanding public-private partnership project that enhances environmental quality through the use of novel and creative approaches.

In 2014, Refrigerants, Naturally! members lobbied the European Commission as part of the review of commercial refrigeration. We succeeded in having damaging HFCs banned from many commonly-used types of freezers with effect from 2022.

THE CONSUMER GOODS FORUM

The Consumer Goods Forum is a network of consumer goods manufacturers and retailers from around the globe. It comprises more than 400 retailers, manufacturers and service providers spanning 70 countries.

Unilever worked with the Coca-Cola Company and others to convene a refrigeration summit in Chicago in October 2010. Leading manufacturers and retailers gathered with suppliers, experts and NGOs to explore the issue of sustainable refrigeration. Participants shared knowledge about the barriers that are preventing the roll-out of natural refrigerants in some countries. The summit resulted in a broad consensus that natural refrigerants are essential for a sustainable future for refrigeration equipment.

At the UN Climate Change Conference in Cancun, Mexico in December 2010, Unilever worked with Tesco as co-chair of the team charged with delivering the deforestation and refrigeration pledges of the Consumer Goods Forum. Participating companies agreed to begin phasing out HFC refrigerants from 2015 and to replace them with non-HFC refrigerants. See the Consumer Goods Industry press release in Downloads for more.

The Forum is working to achieve both goals using a combination of individual company initiatives and working in partnership with NGOs. The Forum also pledged to work to overcome the barriers to the wide-scale adoption of more climate-friendly refrigerants. It will use its collective influence to encourage suppliers to develop natural refrigerant technologies that are able to meet the growing demand for refrigeration and air conditioning worldwide.

Both the refrigeration and deforestation initiatives focus on aspects of the consumer goods sector with the greatest impact and opportunity to drive effective climate solutions. These are both highly significant. The combined influence and reach of the organisations involved means that there is huge potential to change behaviour.

NEW TECHNOLOGIES

We have invested, and continue to investigate, develop and test potential new technical routes, in design, insulation and refrigeration (eg magneto-caloric refrigeration and solar-powered cabinets for selling ice cream).

These novel technologies are in development and still some way off mainstream use.

See Downloads for more details on these innovative technologies.

Unilever global company website
Sustainable Living
Reducing environmental impact
Greenhouse Gases
Climate-friendly Refrigeration

USEFUL LINKS

- > Contact us
- > AGM & Voting
- > Press releases
- > Share price
- > What's in our products?
- > How to invoice us
- > Annual Report & Accounts 2013

DOWNLOADS


- > Unilever Sustainable Living Plan 2013: Making Progress, Driving Change - PDF | 5.0MB EN
- > Annual Reports & Accounts 2013 - EN PDF | 5.9MB
- > Building Better Lives for a Sustainable Future. Unilever Foundation: 2013 Update Report - PDF | 34.0MB EN
- > Download Library

PROJECT SUNLIGHT

Unilever Project Sunlight is launching 'Sunlight Speeches', a programme to shine a light on young people who have new visions for a brighter future.

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