

## 22 Mtons of CO<sub>2</sub> reduction?



Johan Bygge: Replacing inefficient appliances could reduce carbon dioxide emissions in Europe by 22 million tonnes per year.

In his capacity as President of the European Committee of Domestic Equipment Manufacturers, CECED, Electrolux Major Appliances CEO **Johan Bygge**, delivered a speech to energy and environmental policy makers at the 2006 International Conference on Energy Efficient Domestic Appliances and Lighting (EEDAL). The conference brought together more than 290 experts from 38 countries, including the UK Minister of State and Climate Change and the Environment, Ian Pearson.

Bygge points out that there are some 200 million old, inefficient appliances in use in European homes that could be replaced by more energy efficient ones developed in recent years. "Our industry has

made huge efforts to develop state-of-the-art appliances during the past 10 years. These appliances are available to all, but changing appliances that still work does not come naturally to most consumers."

His speech is presented below:

### EEDAL, London, June 21<sup>st</sup> 2006

Ladies and Gentlemen, I am about to make a suggestion for reducing CO<sub>2</sub> (*Carbon Dioxide*) emissions of the EU with 22 Mtons with the help of household appliances.

Before I do this, let me say a few words about myself, Electrolux and our European organization CECED.

#### Introduction Electrolux

- Sales SEK 100.1 bn (approx € 11 bn)
- Sales in more than 150 countries
- World leader in appliances
- 56,800 employees in 60 countries, the majority in Europe
- Sales 40 million products per year
- Products improve the every day life of people
- Thoughtful design innovator (consumer needs, design, quality, environment, etc)

- Outstanding development of energy and water efficiency improvements.
- By offering and developing efficient appliances, and encouraging consumers to switch to these products, we play an important role to fight global warming.
- More than 80% of the environmental impact of our appliances, including energy, occurs during the use phase. For this reason we are continuously improving the energy efficiency of our appliances.
- Awarded several times the European Energy + (plus) program for refrigerators and freezers. In the last competition we won 4 out of 5 categories.
- Electrolux developed the first A class tumble dryer. It has half the energy consumption compared to a conventional dryer!
- And it makes business sense! Green Range, a tool used in our annual report, shows that the products with best environmental performance, accounted for 17% of total sold units and 23% of gross profit.

## Our industry, CECED:

- CECED represents the household appliance industry in Europe
- Founded 1958
- 15 producers are members, which represents 90% of the European market
- 24 national associations are members
- Company members directly employ >200.000, including upstream and downstream >500.000
- Turnover of EU industry 40 billion €
- Long history of voluntary agreements for reduced energy consumption. In fact CECED drafted some of the very first ones in the EU!
- I was elected CECED President 30 May

## Energy situation of our industry:

- Our industry sells 50 million large appliances (and 200 million small appliances per year). In total some 630 million household appliances are in use in Europe.
- 4% of the CO<sub>2</sub> emissions of the EU are related to the use of these appliances.
- Given this figure, our industry certainly has a responsibility and role to reduce the energy consumption
- Our industry can contribute by developing energy-efficient products.
- Keep in mind that these products use less resources compared to manual methods, e.g. hand dishwashing, or washing clothes by hand.

# Environmental and Sustainability Affairs



- For some appliances, refrigerators and freezers, a manual alternative does not exist. The appliances have become part of our everyday life and are taken for granted.

## What does the industry do to minimize the energy consumption from our products?

- We have dramatically improved the products over the last 10 years.
- One example, from Europe, is how we, within CECED, developed the Unilateral Commitments (*voluntary agreements*) cutting the energy used for washing machines, refrigerators & freezers and dishwashers
- Today's appliances consume on average 40% less energy or even better, compared to 10 year old products.
- In 1995 the total consumption of electrical energy of appliances in Europe was 264 TWh /year. The consumption decreased to 230 TWh/year in 2005, even if more appliances were used 2005 compared to 1995.
- This reduction of 12% equals 17 Mtons of CO<sub>2</sub> emissions
- I am sure that you, being experts in this field, realise what 17 Mtons CO<sub>2</sub> means, but just for reference, it compares to the use of 5 million cars during one year.
- This improvement was achieved through a **mix** of competition, energy labels, legislation (limits) and voluntary agreements of the industry



## New legislation:

- It is currently considered by the policy makers, as it has been for the past 10+ years, to set more stringent limits to reduce the energy consumption of new appliances. The objective is of course the Kyoto commitment of the EU.
- I have to say I am skeptical to this focus on limits in isolation. Not because product improvements can not be made, but because:
  - 1 / The significant product improvements were achieved in the past. Further product improvements will be more demanding and in some cases unlikely to accomplish. Improving today's appliances with 10% is a much bigger technical and financial challenge compared to achieving a 10% improvement 10 years ago. We are approaching the asymptote of technical possibility.
  - 2 / Product improvements done today will give much less absolute reductions in CO<sub>2</sub> emissions. A 10% product improvement today saves much less tons of CO<sub>2</sub> compared to a 10% improvement 10 years ago.
  - 3 / The lead time between the introduction of the new limits and the real CO<sub>2</sub> emission reduction will be some 10-20 years, or even more, due to the replacement rate of the appliances.
  - 4 / How much CO<sub>2</sub> emission reduction can we expect from the introduction of more stringent limits now? Well, 17 Mton CO<sub>2</sub> was saved during the last 10 years through a mix of 4 instruments (competition, energy labels, limits, voluntary agreements). For the reasons explained earlier, this result should not be expected again, and especially not as an effect of only one of these instruments (limits).

## Conclusion:

- The CO<sub>2</sub> savings from introducing more stringent limits in isolation would be rather limited and slow.
- Therefore we have to use additional creative mechanisms to reach the Kyoto target.

I propose we look closer at product replacement.

## Product replacement:

- Today appliances are much more appealing and with design fitting into our lifestyle, for example increased interest in cooking
- Nevertheless, most consumers still hold on to and use their appliances until they break down completely. It does not come natural to most consumers to replace an appliance that still works. We experience the psychology of the consumer when we are asked, and this happens quite often, to repair more than 15 year old appliances, which in most cases makes no sense at all.

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- This behaviour has resulted in a huge fleet stock of old appliances being used with really outdated consumption values.
- Energy efficient appliances are available today, but they move too slowly into the households.
- The current replacement rate means it will take many years until the new efficient technology gives a real CO<sub>2</sub> emission reduction.
- We estimate that some 200 million appliances that are 10 years or older and very inefficient, are today used in European households.

Our evaluation shows a huge potential for CO<sub>2</sub> emission reduction: ~22 Mton CO<sub>2</sub>.

This corresponds to 6% of the EU's Kyoto target.

The slide features a dark background with a blue circular graphic on the left and the Electrolux logo on the right. The main text is centered in a white box with a thin border. The text is as follows:

**Almost 200 million old inefficient appliances  
are used by households**

**Replacing them could save 22 Mtons CO<sub>2</sub>**

**This is 6% of EU's Kyoto reduction target**

3

## What to do with the old appliances?

It is convenient that the EU recently legislated on producer responsibility for the recycling of old appliances with the WEEE Directive. The industry is running or preparing recycling systems for old appliances in all EU countries.

## Conclusion:

Ladies and Gentlemen, it may have appeared as if I am against introducing more stringent limits. I take no position against limits, but I want to underline that more stringent limits will not take us very far towards reaching the EU's Kyoto commitment and in addition there is a significant time delay between the introduction of new limits and the resulting CO<sub>2</sub> emission reduction.

- We have to look at all possibilities to reduce CO<sub>2</sub> emission reductions.
- I see a golden opportunity to improve and speed up CO<sub>2</sub> emission reductions by **product replacement**
- We should utilize the product improvements that are already available and get the most efficient appliances into the households to replace old inefficient appliances as soon as possible
- We ask for market transformation.
- We ask for policies stimulating:
  - Accelerated replacement of 200 million energy-thirsty and outdated appliances by new cutting-edge energy efficient models
  - Better replacement: make sure that consumers always buy the most energy efficient appliance available.
- The introduction of tax credits (the US is currently giving tax reduction to those that introduce efficient appliances), tradable white certificates, rebates, for example, could be good tools in that respect.
- We want to create a **“win-win-win” scenario**:
  - Environment: CO<sub>2</sub> emissions will be reduced.
  - Consumers: cut their domestic energy and water bills and get better performing machines
  - Politicians: and through them the European Countries can achieve part of their environmental objectives more rapidly, e.g. the Kyoto protocol commitments.
- Obviously a 22 Mton CO<sub>2</sub> reduction will not be enough to reach the Kyoto target (it is only 6% of the EU's Kyoto target), but I think it is still a very impressive number knowing that, as I said earlier, household appliances stand for some 4% of the CO<sub>2</sub> emissions of the EU.

**It's time to tap into the vast potential!**

For more information on CECED: [www.cecled.be](http://www.cecled.be)