

# ENVIRONMENTAL INITIATIVES THROUGHOUT THE PRODUCT LIFE CYCLE

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## MANUFACTURING



## SALES & SUPPLY



Daikin's efforts to reduce its environmental impact start as early as the manufacturing stage, comprising of:

RESEARCH & DEVELOPMENT

PROCUREMENT

ASSEMBLY

While expanding its sales and supply activities, Daikin is working hard to raise awareness among its affiliates and their customers to help protect and conserve the environment:

SALES ACTIVITIES

LOGISTICS



## USE



## END OF LIFE

Environmental efforts don't stop once Daikin Europe N.V. has sold its products. Throughout its entire product range, Daikin Europe N.V. shows the same pioneering concern for reducing the global warming impact caused by energy use and potential refrigerant emissions:

RESIDENTIAL

COMMERCIAL

INDUSTRIAL

Proving its concern for the environment, Daikin Europe N.V. is among the first manufacturers in the HVAC-R industry to set up voluntary take-back schemes across Europe:

RECYCLING SCHEMES

# SALES & SUPPLY

WHILE EXPANDING ITS SALES & SUPPLY ACTIVITIES, DAIKIN CONTINUES TO RAISE AWARENESS AMONG ITS AFFILIATES AND THEIR CUSTOMERS TO HELP PROTECT AND CONSERVE THE ENVIRONMENT. THE FOLLOWING AREAS ARE COVERED IN THE SALES & SUPPLY PHASE:

→ SALES ACTIVITIES

→ SUPPLY

## → SALES ACTIVITIES

### ONGOING EFFORTS

Daikin Europe N.V.'s affiliated companies have or are in the process of obtaining ISO 14001 certification (see page 9). This requires continuous efforts to improve their environmental performance.

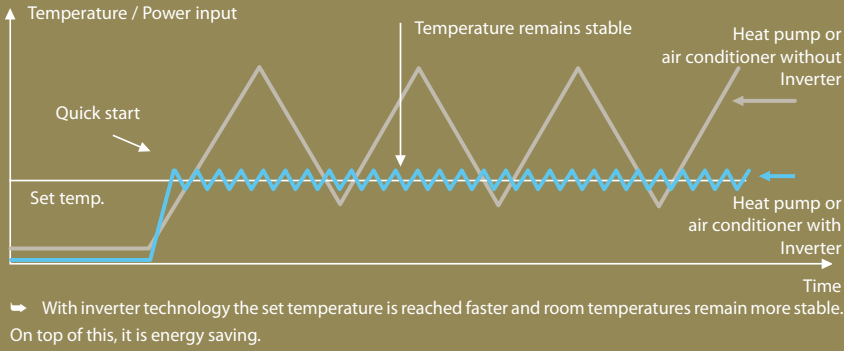
Daikin's affiliates also continue to progress in ensuring that the most efficient systems are marketed and sold by focussing on Daikin's efficient inverter technology, which varies compressor speed to use only the minimum amount of energy needed. Affiliates also continue their efforts teaching installers to meet stricter standards regarding the use and disposal of the refrigerants used at the heart of cooling, heating and refrigeration equipment.



### REDUCING CO<sub>2</sub> EMISSIONS, INCLUDING FOR CUSTOMERS

"Impatto Zero" is Daikin Italy's plan to compensate for its CO<sub>2</sub> emissions. The programme was started in 2006, and originally involved the planting of trees in Costa Rica and Italy. Over the years, the programme has been expanded to include not only Daikin Italy's carbon footprint, but – with respect to products such as Ururu Sarara – also the footprint of consumers. In addition, contracts with renewable energy providers are now also a part of the programme. With respect to the latter, while costs to Daikin Italy may be higher, it is committed to continuing to set an example in reducing environmental impact.

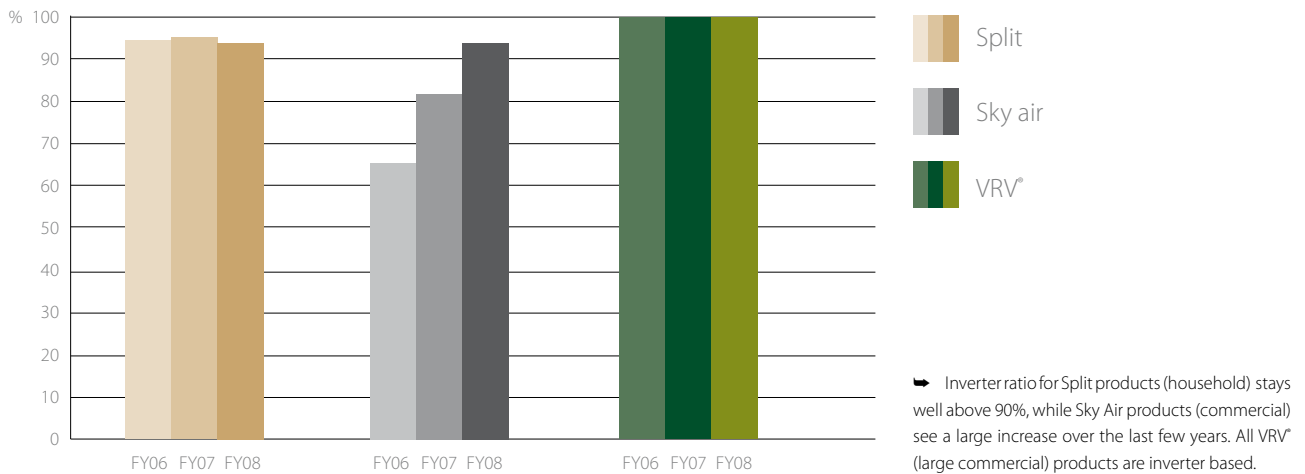
## BENEFITS OF INVERTER TECHNOLOGY:



## FOCUS ON ENERGY-EFFICIENT INVERTER TECHNOLOGY

A key element in reducing environmental burden is consuming less energy. Daikin's inverter control is a proven technology that can result in energy savings up to 30% over non-inverter systems (based on seasonal efficiency ratios), while increasing comfort at the same time. Hence, the sales activities of Daikin Europe N.V.'s affiliates focus on increasing the percentage of our units sold that include this energy-friendly technology. For residential applications, the positive trend of the past years remained, with Daikin Europe N.V. again having a share of inverter units above 90%. Commercial applications (Sky Air) indicate a significant increase over past years, as shown in the graph below.

## INVERTER RATIO FOR DAIKIN EUROPE N.V. – AFFILIATED SALES (MAINLY EU AREA)







➤ Daikin Belgium and Luxembourg technician inspects refrigerant charge during maintenance.

### DAIKIN BELGIUM AND LUXEMBOURG (DAB) COMMITTED TO MAKING IT HAPPEN

To assist its installers in meeting their responsibilities, DAB has drawn up instructions with respect to limiting F-gas emissions. These include examples and a clear explanation of the obligations placed on heat pump, air conditioning and refrigeration companies and their personnel. Information sessions were also provided by DAB to help installers comply. Through April 2009, DAB provided information sessions to 224 installation companies.

### EFFORTS TO IMPROVE ENERGY PERFORMANCE OF BUILDINGS

Buildings use enormous amounts of energy and account for more than 40% of EU energy consumption. Daikin is firmly committed to helping reduce this energy consumption, as illustrated in the project below.



#### MORE WITH LESS: DAIKIN NETHERLANDS

Daikin Netherlands is part of an energy-saving covenant going by the name "More with Less". This is a joint initiative of the Dutch government, housing corporations, and energy, construction and installation companies. Its primary goal is to make at least 500,000 existing residences 30% more energy efficient during the period 2008-2011. The complete programme extends through 2020 and the goals for the rest of the programme will be set based on experience gained through 2010. In the context of the scheme, subsidies are being made available for energy-efficient technologies including heat pumps.

➤ For more information on Energy Performance of Buildings Directive, see page 38

# SALES & SUPPLY

## → SUPPLY

Logistics are an important link in a company's supply chain. That is no different at Daikin Europe N.V., where specialists are constantly looking for ways to decrease Daikin's environmental impact at the logistics stage. Because transportation accounts for the bulk of logistics' impact on our environment – with CO<sub>2</sub> emissions as a direct consequence – one of Daikin Europe N.V.'s main challenges is to reduce its transport-related emissions, and thus achieve considerable CO<sub>2</sub> savings.

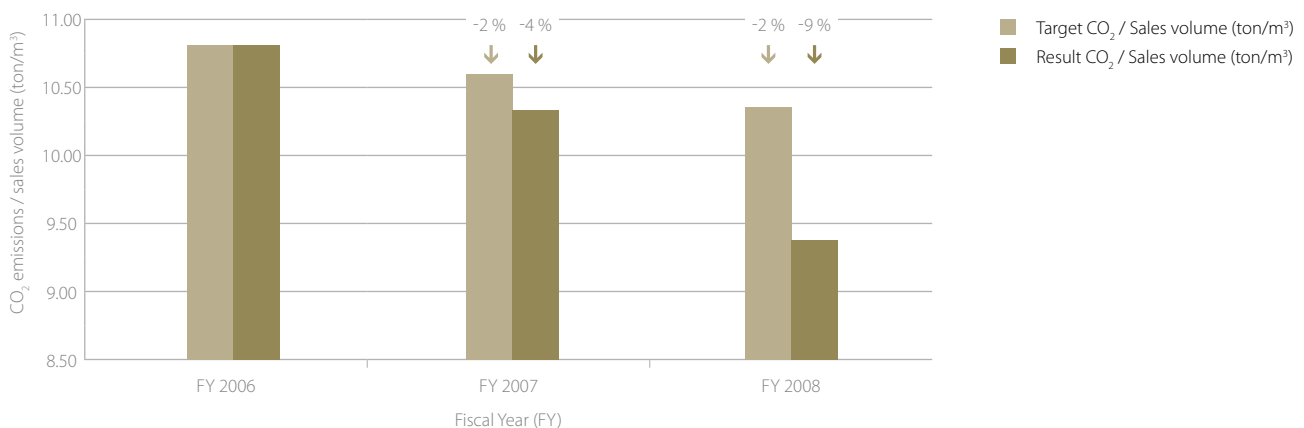
### REDUCING TRANSPORT-RELATED EMISSIONS CRUCIAL

In fact, Daikin Europe N.V.'s concern to reduce its transport-related emissions is due to the fact that more than 20% of overall CO<sub>2</sub> emissions in Europe originate from transport. Hence reducing transport-related CO<sub>2</sub> emissions means a lot to a company such as Daikin, which has made environment its top priority.

### TARGET: REDUCE TRANSPORT-RELATED CO<sub>2</sub> EMISSIONS BY 2% YEARLY

Daikin Europe N.V. set a voluntary target of reducing its CO<sub>2</sub> emissions by 2% yearly (volume-based relative comparison).

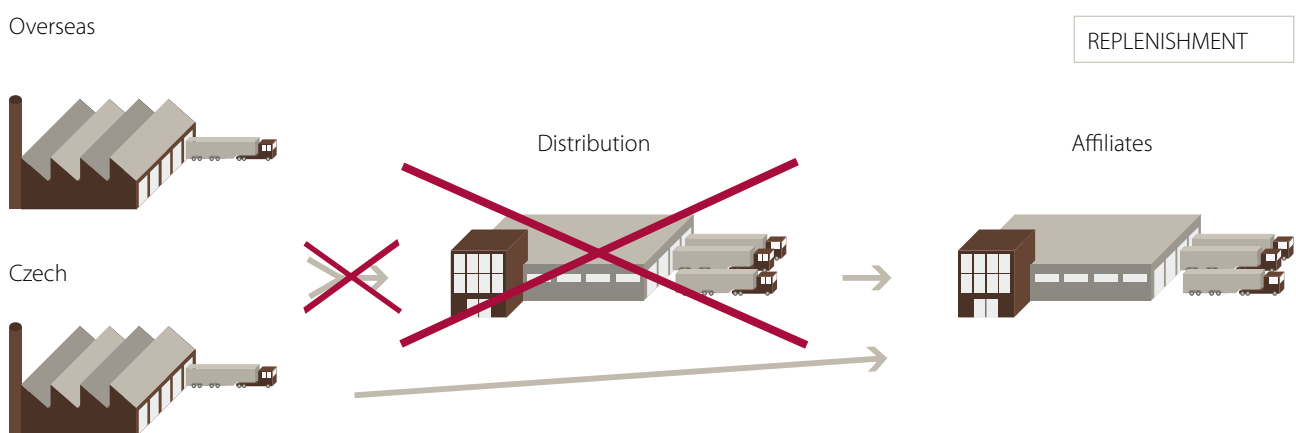
### CO<sub>2</sub> EMISSIONS PER SALES VOLUME



➡ The original reduction of CO<sub>2</sub> / sales volume (ton/m<sup>3</sup>) was targetted at 2% per fiscal year (compared to the previous FY). Result proves to be far better, especially in 2008.

#### MEASURES TO ACHIEVE ANNUAL TARGETS:

- > Increasing direct logistics flows  
Increasing the proportion of direct shipments will achieve considerable savings.
- > Choosing logistics providers with a good environmental record  
When choosing suppliers, logistics providers are requested to fill out a questionnaire, including proof of environmental actions.
- > Searching for ways to shift to less carbon-rich transportation  
This measure looks at alternative transportation such as trains or ships. Both transport modes emit less CO<sub>2</sub> than trucks.



➔ Daikin Europe N.V. examined alternative logistics flows during FY2008, on the road to achieving 10% transport-related CO<sub>2</sub> savings by FY2010.