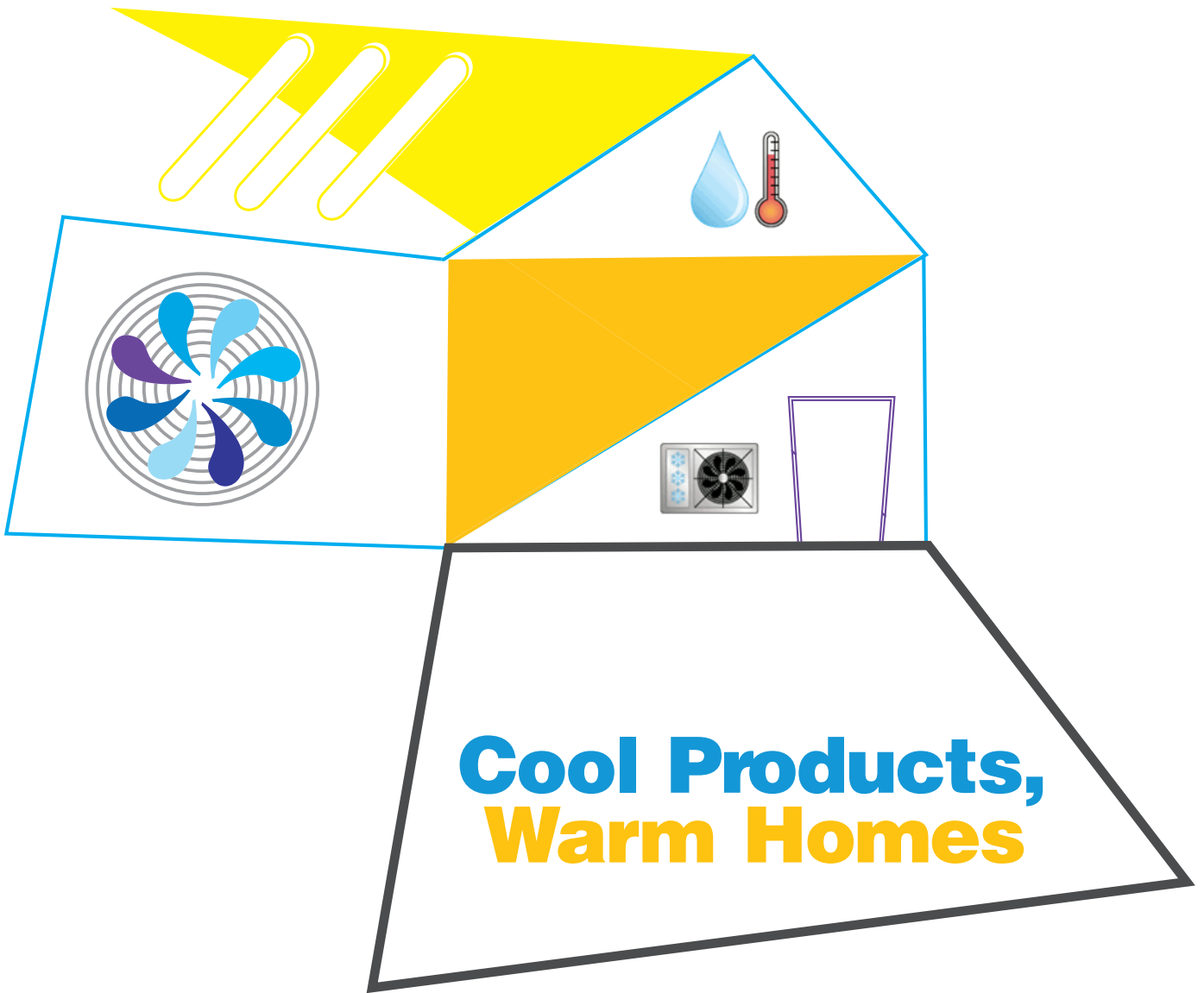




coolproducts  
for a cool planet



A European manifesto for sustainable heating and cooling of buildings



# Background

***The coolproducts for a cool planet campaign is the work of a number of organisations actively involved in EU legislation to improve the environmental performance of energy using products. Through our activities, we aim to increase political awareness and ambition so that producers are encouraged to design products for a climate-friendly and less environmentally damaging future.***

Our buildings – where we live, work and spend our leisure time – are the fabric of our society. The way they are financed, designed and built determines whether they are an asset to our well-being, our planet and our economy or whether they contribute to fuel poverty, urban sprawl, the wasting of resources and an unsustainable financial system.

The energy we use for heating and cooling buildings accounts for about one quarter of all energy consumed in Europe<sup>1</sup> - as much as all EU transport. Many buildings are poorly insulated and use inefficient heating and cooling products and systems, unnecessarily wasting energy, contributing to climate change and air pollution, and costing households billions of euros in high energy bills.

If Europe is serious about meeting its climate and energy targets we have to end this energy wastage. The advantages are clear: lower energy bills for consumers and businesses, an innovative European market for future-proof technologies and thousands of new, quality jobs.

But saving energy is not yet a priority for the EU. Legislation to tackle the energy efficiency of buildings and products is not sufficiently ambitious and lacks coordination and coherence. The result is weak and underfinanced implementation at both EU and national level.

This Manifesto makes five recommendations to end the energy wasted for heating and cooling our buildings.

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<sup>1</sup> Own calculations based on European Commission preparatory studies Lot 1 (boilers and combiboilers), Lot 2 (water heaters) and Lot 10 (room air conditioning appliances) – see <http://env-ngo.eup-network.de/product-groups/preparatory-studies/> and EU statistics

# Five actions for the EU to end energy wasted in heating and cooling buildings

1

## **Get serious about energy saving as a core strategic goal for the EU**

The heart of the EU Energy Efficiency Action Plan must be an overarching energy saving policy driven by a mandatory primary energy use reduction target of at least 20% in the next decade, as advocated by environmental and consumer organisations and trade unions<sup>2</sup>.

2

## **Establish more coherent legislation to close gaps and set clear responsibilities**

Current legislation aimed at improving the efficiency of buildings and products lacks coherence and a clear division of responsibility for energy saving. A legal framework is needed which ensures that all relevant legislation contributes fully to reaching the 20% energy saving target. This framework should draw on the relative strengths of the EU and its Member States and pay particular attention to the treatment of heating and cooling systems across all legislation.

3

## **Boost the energy performance of the EU building stock**

The revised Energy Performance of Buildings Directive (EPBD) must ensure that all new buildings are net zero energy by 2015<sup>3</sup>. Renovation targets should be set in order to achieve at least a doubling of current renovation rates of buildings to a high energy performance standard.

4

## **Rid the market of wasteful products and promote best systems**

The huge potential of the Ecodesign of Energy-Using Products (Ecodesign) Directive for heating and cooling equipment must be achieved well before 2020, by using the world's best performing condensing boiler and air conditioner technologies as a benchmark. The EU energy label for heating and cooling systems must be clear and facilitate the rapid national uptake of the best performing and renewable heating and cooling systems.

5

## **Redirect finance where it matters**

Strengthened legislation must be backed up with sufficient financing from Member States' economic recovery packages and the EU's structural and cohesion funds, to speed up high quality renovation, product replacement and training for designers, builders and installers. Subsidies should target low-income households in particular.

[www.coolproducts.eu](http://www.coolproducts.eu)

<sup>2</sup> See the Spring Alliance Manifesto [www.springalliance.eu/images/manfinal.pdf](http://www.springalliance.eu/images/manfinal.pdf)

<sup>3</sup> A highly efficient building in which the remaining energy needs are covered through renewable energy (onsite, locally produced)

# Get serious about energy saving as a core strategic goal for the EU

The EU's climate and energy objectives are based on the assumption that Europe will meet its commitment to reduce energy use by 20% by 2020 – the target, which the Council endorsed on 23 November 2006 in its conclusions on the Action Plan for Energy Efficiency. Saving energy is the cheapest and most effective way of rapidly reducing greenhouse gas emissions and increasing the share of renewables in the energy mix. Saving energy also increases energy security and alleviates the pressure on low-income households by cutting energy bills.

However, very little has been done to guarantee meeting this commitment, which has proven too weak to drive sufficient ambition in the EPBD and Ecodesign Directive. This failure puts the EU's entire climate and energy objectives in jeopardy.

A legally binding EU energy saving target is urgently required to honour the EU's political commitment to reduce energy consumption by 20% by 2020.

## how?

- Set binding EU targets in 2010 for reducing overall primary energy consumption by at least 20% in the coming decade and commit to further reductions to support achieving greenhouse gas emission targets to help prevent dangerous climate change.

# Establish more coherent legislation to close gaps and set clear responsibilities

2

Energy for heating and cooling in buildings accounts for one quarter of primary energy use in Europe. Using best performing technologies already on the market could reduce this energy use by 80%.<sup>4</sup>

The EU has three relevant laws in place to address energy use for heating and cooling: the EPBD requires Member States to put in place processes to improve the overall energy performance of buildings; the Ecodesign Directive establishes minimum energy efficiency requirements for products; and the Energy Labelling Directive helps purchasers choose the best performing products.

However, these Directives do not sufficiently use EU strengths such as setting targets and deadlines and monitoring their achievement. Furthermore, the three Directives do not add up to a clear and consistent division of responsibility for achieving energy savings across the range of relevant actors (designers and architects, product manufacturers, builders, retailers, installers, owners and tenants).

Firstly, there is no measurable objective to guide the implementation of the three Directives in a way that directly allocates responsibility for achieving energy saving and emissions reductions. Secondly, there is not yet a coordinated approach for dealing with systems: a well performing product in a badly designed and controlled system or low performing building, and vice versa, will not achieve optimal savings. Thirdly, national building codes might have to set higher building component standards to achieve optimal results at national level, but these could conflict with EU minimum requirements for those products.

Such gaps and inconsistencies are undermining the potential energy savings. Ongoing legislative reviews are proving insufficient to solve the problem. Only a well-coordinated and coherent combination of measures in all relevant legislation will ensure that the saving potentials are optimised and rapidly delivered.

## how?

- By 2011, adopt a legal framework which ensures that the relevant EU product and building Directives contribute fully to the 20% energy saving target. The framework should pay particular attention to the definition and treatment of heating and cooling systems across all legislation. The framework should be based on the particular strengths of the EU and its Member States:
  - i. The EU should set and monitor national energy saving targets;
  - ii. Member States should put in place, execute and report to the EU on building renovation programs;
  - iii. The EU should support national actions by banning the worst performing products and building components, and establishing common calculation methodologies and clear labelling of the most efficient heating and cooling products and systems; and
  - iv. National building codes should be able to go beyond EU product requirements to achieve national saving targets.

<sup>4</sup> Fraunhofer-Institute for Systems and Innovation Research et al. Study on the Energy Savings Potentials in EU Member States, Candidate Countries and EEA Countries Final Report for the European Commission. 2009

# Boost the energy performance of the EU building stock

3

The existing EPBD has not driven sufficient improvements in the energy efficiency of the EU's building stock, due to the Directive's weaknesses and Member States' sluggish implementation efforts. The current revision is a welcome opportunity to raise ambition

and widen the scope of the Directive to fully transform the building sector. In addition, national implementation efforts must be stepped up in the context of our proposed 20% energy saving target.

how?

- Make the most of the ongoing revision of the Energy Performance of Buildings Directive
  - i. All new buildings should be net zero energy<sup>5</sup> by 2015;
  - ii. Installation requirements should be introduced to ensure that heating and cooling systems are correctly sized for the type of building and are based on renewable energy sources where appropriate; and
  - iii. The Energy Performance Certificate should provide the right information on all the heating and cooling system components to help designers, installers and consumers choose the most appropriate option for the building.
- Ensure ambitious national implementation
  - i. Renovation targets should be set in order to achieve at least a doubling of current renovation rates of buildings to a high energy performance standard; and
  - ii. Professional training of designers, builders, and installers should be increased significantly and sufficient quality controls put in place. Incentives to move towards delivering environmental and cost-effective energy services must be provided.

<sup>5</sup> A highly efficient building in which the remaining energy needs are covered through renewable energy (onsite, locally produced).

# Rid the market of wasteful heating and cooling products

4

Setting minimum energy efficiency performance requirements of heating and cooling products and systems at EU level is a cost effective and simple way to save energy and reduce greenhouse gas emissions, while requiring little behavioural change from consumers.

Ambitious requirements could reduce energy consumption by one third by 2020, according to the Commission's preparatory studies, but recent regulatory proposals would set requirements significantly below those levels.<sup>6</sup>

## how?

- Set EU minimum requirements at or above the least life cycle cost (LLCC) option to the consumer, and move towards the level of world's best performing renewable energy based, condensing boiler and air conditioner technologies;
- Review EU minimum requirements every 3-5 years to progressively remove the worst products;
- Establish a clear EU energy label for heating and cooling systems independent of their fuels<sup>7</sup> to facilitate the rapid national uptake of the best performing and renewable energy based heating and cooling systems; and
- Increase the transparency of decision-making. In particular, Impact Assessments must be publicly available before decisions are taken and should better address environmental impacts. Analysis must take into account international studies on the most advanced technologies available, to avoid overestimating costs and to guarantee the availability of the best products to European consumers.

<sup>6</sup> European Commission working document on possible ecodesign requirements for boilers from June 2009.

<sup>7</sup> A fuel independent label allows the direct comparison of the energy performance of different systems, independent of the type of fuel they use (i.e. gaz, electricity, oil) to generate heating or cooling.

Saving energy is good for society, but it will not happen by itself. Despite the many advantages of energy efficiency investments, market forces have not been able to overcome barriers such as high initial investment costs (particularly for old buildings with poor chimneys, and apartment blocks), the split incentives between owners and tenants, and workforce training and retraining needs. Removing these barriers is essential.

EU funds are a key funding source, and are particularly important for energy efficiency and renewables in Member States where these markets have yet to be developed. Using EU funds for energy efficiency and renewables in housing can boost emission reduction initiatives, alleviate fuel poverty and create job opportunities in sectors such as construction which have been hard-hit by the economic crisis.

## how?

- Commit significantly more money from economic recovery packages and EU structural funds to finance a comprehensive programme of retrofitting for existing buildings. In particular, tailored programmes targeting the installation of heating and cooling systems should be introduced in all Member States by 2012;
  - i. Review the Operational Programmes to ensure that full use is made of the revised EU funds regulations which allow the allocation of up to 4% of the European Regional Development Fund (ERDF) (7.8 billion Euros) for energy efficiency and renewable energy measures in social housing in all Member States; and
  - ii. Use part of the remaining money to finance renovation of non-housing buildings, like schools or public buildings.
- After 2013, substantially increase the allocation of the ERDF to energy saving projects, including renovation of buildings to high energy performance standards, quality district heating and cooling, and renewable energy investments in housing, particularly social housing. Renovations which do not significantly improve the energy performance or increase the use of renewable energy should not receive funding. Member States should be able to access technical assistance through the Fund to better use available money for energy saving and renewable energy projects. Funds must be targeted towards low-income households and social housing, as well as supporting training needs to help establish and retrain a new workforce. This money should also be used to mobilise private sector financing.