

# Challenges and funding opportunities

for the Energy Efficient Renovation of Spain's Residential Building Stock



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## Executive Summary

In 2010, WWF published a study entitled *Potential energy savings and CO2 emissions reduction of Spain's housing stock by 2020*, analyzing the positive impact that the renovation of Spain's residential building stock would have in terms of reduced energy consumption, economic stimulus and reduced CO2 emissions. The report concluded that the Spanish residential buildings sector can **reduce its final energy consumption from existing residential buildings by over 30% by 2020 (vs 2008)** and has the technical and economic capacity to achieve this. **This decrease would produce a CO2 emissions reduction of 8.7 million tonnes per year, and average annual savings of 2,312 million Euros, with a much higher home renovation rate than the current one.**

To complement this study and review further the economic impact of its prior work, WWF worked with Climate Strategy & Partners in 2011 to produce this new report entitled *Challenges and Funding Opportunities for the Energy Efficient Renovation of Spain's Residential Building Stock*.

The increased energy efficiency of existing buildings and the delivery of energy savings through deep renovation are key objectives for the EU and Member States for four main reasons: Cost effective energy savings through reduced energy consumption, reduced CO2 emissions to fight climate change, greater energy independence and the creation of long-term and sustainable new jobs to contribute to our exit from the current financial crisis.

Unfortunately, and despite the best efforts and strong will from many Governments of the EU Member States the necessary decisions and national policy implementation which would lead to the optimal delivery of energy efficiency from the building sector have not yet been taken.

Some countries in the EU, such as Germany and the United Kingdom, have already developed policies and targeted funding mechanisms to stimulate the deep renovation of their housing stock and other buildings. **In Germany**, the state bank (KfW) has developed several funding programs for deep renovation projects which are delivered through an extensive network of private banks **which offer subsidized 2.75% or less interest rates over the long-term**. The UK has developed an innovative new legal framework – the **Green Deal** - which enables private companies to offer renovation services to home owners and small businesses at **no up-front cost** for the owner and which recover payments through an extra charge, in instalments, on the building's energy bill.

In addition to these European programmes, the **United States** has also developed a new programme –the **Property Assessed Clean Energy Program (PACE)**- where owners can receive an energy efficiency loan facilitated by their municipality to carry out renovation works and small renewable energy installations which they repay through an additional annual contribution added to their property tax bill. These PACE loans can be repaid over 15-20 years.

These tools that have been developed and implemented successfully in other countries should be considered by the institutions responsible for decision making **in Spain** as a way of complementing and strengthening Spain's existing policy framework. This new policy approach can inject the dynamism which the sector presently lacks to focus resources on achieving ambitious goals and deep renovation to reduce energy consumption, greenhouse gas emissions and create new jobs and improve the quality of life for Spanish citizens.

It is crucial for Spain to support an ambitious deep renovation programme for the residential buildings sector, given that this sector is responsible for 17% of final energy consumption and one third of national greenhouse gas emissions. We estimate that Spain could productively invest between 0.5 and 0.8% of its GDP in the deep renovation of its building stock per annum from now until 2020 and beyond.

Recent examples, such as the decision to take Spain to the European Court of Justice for failure to comply with Directive 2002/91/EC on the energy performance of buildings (5), and the relatively low ambition of the recent 2011-2020 Energy Efficiency Action Plan confirm a reality which in the opinion of WWF must change fast.

To comply with the targets for energy efficiency and CO2 emissions in the framework of the EU by 2050, WWF believes that Spain should establish an annual rate of deep renovation of 400,000 homes, which represents 1.5% of the existing housing stock each year.

This report *Challenges and Funding Opportunities for the Energy Efficient Renovation of Spain's Residential Building Stock* highlights the fact that it is also necessary **to remove regulatory barriers to greater energy efficiency**, such as the ones that hinder decision-making in multi-unit dwellings, and to clearly promote the benefits of deep renovation through information campaigns to Spanish citizens. In addition, it is also critical to align the economic interests of the different building sector stakeholders, concentrate investments in deep renovations, and deliver long-term and low-cost funding for retrofits.

Our report concludes that by 2020, Spain can deliver **the deep renovation of 3.3 million housing units, through the creation and maintenance of 150,000 jobs and with the reduction of 8 million tons of CO2 emissions per year. The total investment required is 46.7 billion Euros to achieve this goal. 77% of this amount can be repaid directly in a period of 20 years, through the energy savings, 8% through the reduction of CO2 emissions and the remaining 15% through subsidies (direct and/or incentives). In addition, beyond 2020 we project that there will be no further need for direct subsidies, as the market will then be consolidated and future economies of scale will make it more profitable to renovate.**

In the midst of one of the worst financial crisis since the 1930s, no country can ignore the opportunity to invest in energy efficiency. Both in Spain and in other countries, the energy efficiency of existing buildings has been substantially ignored by politicians and by markets since the oil crisis of the 1970s. This period has come to an end, and both Europe, with its proposed Directive and 2050 road map for a resource efficient and sustainable economy, and the Member States each with their own national energy efficiency roadmaps must set binding targets to ensure aggregate energy savings of at least 20 per cent for 2020.