



## BUILDING RENOVATION: FROM POLICY TO IMPLEMENTATION

*with Patty Fong, European  
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**The European Climate Foundation (ECF) supports multiple initiatives focused on decarbonisation. Specifically, can you tell me more about Net Zero 2050?**

The Paris Agreement states an objective of limiting global warming to “well below 2°C” above pre-industrial levels, but also of making all possible efforts to achieve the goal of 1.5°C climate stabilisation. Based on the scientific underpinning of these goals provided by the Intergovernmental Panel on Climate Change (IPCC), signatories to the Paris Agreement also committed to ensure that global GHG emissions fall to net zero as early as possible in the second half of this century, before going negative. This means developed economies such as the European Union’s (EU) will need to achieve net-zero emissions by 2050 at the latest.

To better understand the feasibility and the implications for the EU, the ECF commissioned modeling, which resulted in a [report](#) launched in September 2018. The model found that reaching net-zero GHG emissions by 2050 is feasible but requires strong action across all sectors.

**Given the urgency to reach climate and energy goals set by the Paris Agreement and given the current low rate of building renovation, how do we get there?**

For the buildings sector, the most ambitious scenario [in the model](#) assumes that we more than triple average annual renovation rates to 3.4% by 2030 and that 96% of buildings are renovated by 2050. This scenario requires strong government support in the form of binding targets for member states

and mandatory building codes for renovation.

There has been quite a lot of attention and support, especially at the EU level on the need for financing building renovation, including both public and private sector-driven innovative financing schemes. While financing is a critical piece in the overall renovation package, it cannot trigger the required volume of renovation by itself. The decision to renovate an existing building or home is often not based only on economic rationality (ie, payback from energy cost savings). Thus, we need to explore how to build public support and put monetary value on the benefits of better quality buildings such as health, productivity, comfort, appearance, etc.

ECF recently commissioned [a market survey](#) in 5 very different EU countries to better understand the public perceptions around home energy renovation. Through a series of focus groups and survey of 6,000 people representing a range of demographics, the study found that thermal comfort, monetary saving and a healthy indoor environment are the main motivations to carry out energy efficient renovations across all countries. Reportedly, financing is the key barrier to home and commercial building renovation, followed by hassle and lack of technical knowledge.

**Let’s talk about the mandatory renovation requirements. Can mandates help to jump start the market?**

Mandatory building codes are needed to accelerate the rate of renovation. They exist for new construction already—in less than two years, all new buildings in the EU must meet nearly zero en-



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ergy requirements. A similar requirement should be phased in over time for existing buildings and should be integrated with decent and affordable housing requirements. This is starting to happen, for example in countries such as in England and Wales, which won't allow renting a building with an energy performance certificate of F or lower, in Flanders (Belgium), which set a requirement for roof insulation for home rentals, or in the Netherlands, where social housing providers must meet an minimum average B-rating across their portfolio by 2020. It is also happening at city level, for example, the US city of Boulder, Colorado ties rental permitting to minimum energy efficiency requirements.

ECF is currently exploring the issue of mandatory building codes to ensure that such requirements do not exacerbate existing pressure on the availability of affordable housing, by integrating energy performance requirements into a wider housing quality strategy, which should include affordability, sustainability, and access for all sectors of society.

**How do we level the playing field to enable all European citizens to reap the benefits of home renovation? In other words, do we need**

### **to start talking about the right to renovate?**

We need to start talking about the right to energy and the right to decent quality housing. Energy poverty has never been higher on the EU political agenda, having been featured in most of the specific legislations in the EU's 2030 Clean Energy for Europeans Package. This is due in large part to advocacy by the [Right to Energy Coalition](#), a network uniting European trade unions and organisations representing anti-poverty, health and environmental initiatives, social housing providers, energy co-operatives and others engaged in the effort to end energy poverty. In addition to this Coalition, the ECF supported the development of an [European Energy Poverty Index](#). For the first time, this index redefines the concept of energy poverty to include not only those who suffer from winter energy poverty but also summer energy poverty and transport energy poverty.

The analysis found that energy poverty is especially prevalent in southern and eastern EU Member States, which face both winter and summer energy poverty, and that a majority of EU countries have significant levels of energy poverty. Countries with strong building regulations and higher GDP per

capita show lower levels of energy poverty.

In parallel, we need to build public awareness around the health and productivity benefits of better quality and more energy efficient buildings. According to the [\*Health and Environment Alliance\*](#), one in six Europeans live in homes that make them sick. In a separate study by [\*Buildings Performance Institute Europe\*](#), building energy renovation on health, well-being and productivity could improve the lives of more than 200 million Europeans.

### **What role can EuroPACE, as a financing tool, play in scaling home renovation in Europe?**

EuroPACE is a type of innovative financing mechanisms that need to be piloted and scaled. It has the potential to make home renovation easier, faster and more affordable by tying the financing to the home itself rather than the individual and providing people-centric technical assistance. By overcoming the number one barrier to home energy renovation—the perception that the investment is unaffordable for the everyday individual, this type of financing is potentially game-changing.