

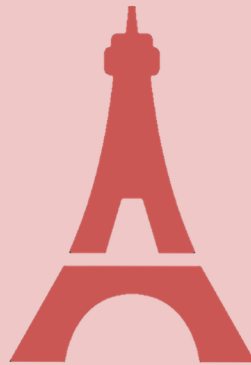
The challenge - Meeting our Paris commitments



Homes and other buildings account for **36%** of European emissions



Increasing need to ensure **equity** in the clean energy transition and alleviate energy poverty



We cannot meet our **Paris commitments** without renovating buildings

1% Current building renovation rate in Europe



3% Rate needed to meet Paris commitments



The opportunity - Revenues from EU ETS allowances



EU ETS carbon price is rising and stabilising

€165bn

Projected total ETS revenue 2021-2030
Source: Ecologic Institute and WWF, 2016

€130-200bn annual household sector investment gap to reach 2030 energy savings target

€165bn



Opportunity to leverage



80% of investment need is in the demand side
71% of demand-side investment need is in household sector

Source: European Commission, EED Impact Assessment

The key - Carbon efficiency

Carbon pricing alone is an **expensive** way to save carbon. At a carbon price of €20, each power sector tonne costs consumers up to

€248

Source: RAP, 2015, based on modelling by ECN, 2008



7-9 times

more carbon is saved when the revenues are invested in energy efficiency

Source: RAP, 2015

Carbon **pricing** alone cannot overcome the barriers to renovation but...



carbon **revenues** can fund efficiency programmes that deliver multiple benefits to consumers and the economy

The solution - carbon revenue recycling

Climate debates often seem to be about painful choices. But not always. We have in Europe today a huge new opportunity to address catastrophic climate change, clean up our energy system and advance social justice. The path to achieve these goals is "carbon revenue recycling." In other words, investing Europe's EU Emissions Trading System (ETS) auction revenues into strategic programmes for energy efficiency, especially in housing.

What are carbon revenues? Carbon revenues are generated when a price is put on carbon. The main system for pricing carbon in Europe is the ETS. The ETS sets a cap for the amount of carbon that may be emitted from electricity generation, heavy industry and aviation over time. Carbon emitting businesses must purchase allowances to emit carbon, which creates revenue for each national government. Some European countries have a further tax on carbon, usually covering sectors outside of the EU ETS like road transport fuel or natural gas for heating. These carbon taxes are collected by governments in the same way as other taxes and form another carbon revenue stream. Importantly, the cost of carbon in the EU ETS or under a carbon tax is paid by consumers. The cost of the carbon is passed on to consumers in the price they pay for goods and services. Due to the way that today's power markets work, carbon pricing for fossil-fuelled electricity under the ETS drives up the total cost of electricity a lot faster than it reduces emissions. Thus, the actual cost to consumers per tonne avoided can be much higher than people think.

Now is the time to act. The EU ETS has recently been reformed, increasing the price for carbon allowances fourfold compared to 2017. As a result, the revenue received by European Member States is also rising rapidly and is projected to total 165 billion euros over the next 10 years. Member States now have the opportunity **to direct as much as 10 billion euros more towards climate solutions per year** and a big fraction of this should be spent on energy efficiency.

More carbon saved, more quickly. The purpose of putting a price on carbon is to save carbon. Carbon pricing is important; it gives a clear message that carbon pollution is socially and environmentally damaging. But the **carbon price** is only half of the picture. To make rapid progress in the short time available to act, we must also mobilise the power of **carbon revenues** to drive more carbon saving, more cost-effectively. Not only will we achieve more and achieve it faster, we will improve the odds that solutions will be politically sustainable if we invest carbon revenues in programs that further lower emissions at low cost — especially end-use energy efficiency.

Energy efficiency – the First Fuel. According to the International Energy Agency, improving efficiency could provide over a third of the needed low-emission "energy supply" to meet global Paris targets – hence energy efficiency has been named the "First Fuel." Energy efficiency should be considered first in meeting the energy needs of households, schools, businesses and the European economy as a whole. Since buildings contribute 36% of total carbon emissions in Europe, we need clean and smart buildings to have any chance of meeting our Paris commitments. We have real-world evidence that recycling carbon revenues through strong efficiency programs can deliver **seven to nine times more carbon savings** than raising prices alone - at the same or even lower cost to the consumer.

Fairness in the clean energy transition. Consumers pay when we put a price on carbon. And this cost is more burdensome for low-income households who might already be suffering from energy poverty. When carbon revenues are recycled to support household efficiency, families will see long-lasting benefits: warmer and healthier homes and lower energy bills. Targeting carbon revenues to refurbish Europe's huge building stock, and especially to renovate and improve housing for lower-income households, is a powerful tool to deliver a cleaner, faster and more just energy transition.

More information: Louise Sunderland, lsunderland@raponline.org or Richard Cowart, rcowart@raponline.org

- Blog: [A perfect match: Using carbon revenues to finance energy efficiency](#)
- Blog: [Paying our way out of purgatory](#)
- Blog: [The carbon floor price - A hammer without a toolbox](#)
- Report: [Carbon leverage: Investing Europe's carbon revenues in energy efficiency](#)
- Report: [Carbon caps and efficiency resources: Launching a "virtuous circle" for Europe](#)