

Addressing and tracking policies and measures to tackle the energy poverty issue

Energy poverty, or fuel poverty, is often defined as a situation where low-income households are not able to adequately provide basic energy services in their homes and for their transport at affordable cost. A widely used criterion is to consider a household in fuel poverty when it spends more than 10% of its income on energy.

But there is no consensus on a unique and explicit definition of the phenomenon as it is complex and has different causes and effects (temperature feelings, restriction behaviour...).

Still, fuel poverty is a major issue in emerging as well as in developed countries. In Europe, around 20% of households (i.e. ~50 million) were considered affected by fuel poverty in 2018. Because of this situation, there is a growing concern on energy poverty which results in a multiplication of policy measures to address the issue.

This brief is prepared by Bruno Lapillonne, Alexandre Katsenis and Marie Rousselot and based on a presentation with Conuee, AFD and ADEME.

Existing policies and measures (P&Ms)

To address fuel poverty, the most common approach is to **reduce energy prices** for these types of households with social tariffs, subsidies, or the diffusion of prepaid meters.

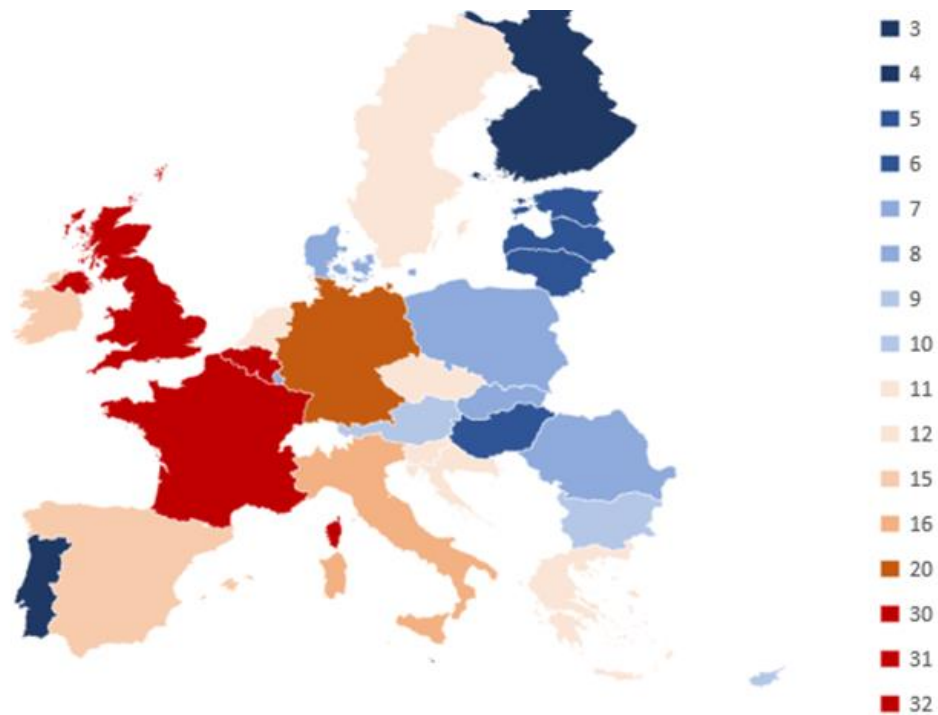
A more recent approach, especially in Europe, is to focus on measures aiming at **improving energy efficiency** for these households to reduce their energy expenditures, which is more sustainable on the long-term than the previous approach.

P&Ms in developed countries, the example of European countries.

In Europe, energy efficiency policies and measures on fuel poverty focus mainly on **space heating, the first energy use in buildings, and sometimes also on transport.**

There is a growing concern about energy poverty in EU countries, which results in a multiplication of policy measures addressing the issue: around 200 measures are currently being implemented (7 per country on average and above 30 in the United Kingdom, the front runner, France or Belgium).

Figure 1 : Number of P&Ms addressing energy poverty in EU countries



Source: Enerdata (based on EPOV, the EU Energy Poverty Observatory)

There are different kinds of implemented policies and measures to answer the whole causality spectrum. In Europe the most widespread are:

- **Informative measures** to educate on energy uses through energy information platforms or through energy saving coaching.
- **Financial incentives** to improve energy efficiency like energy checks or subsidies to replace old vehicles (implemented for instance in France).
- **Regulatory measures** like imposing a minimum **energy standard** for properties or appliances or measures like the Carbon Saving Obligation, an **energy efficiency scheme** implemented Great Britain in order to reduce carbon emissions and tackle fuel poverty through renovations of properties, including roof and wall insulation and connections to district heating systems.

P&Ms in developing and emerging countries

In developing and emerging countries, with generally warmer climatic conditions, energy efficiency P&Ms **focus more on basic energy services**, i.e. cooking, lighting and possibly home comfort (cooler homes).

Apart from regulatory measures that are less widespread than in Europe, **the same types of measures are implemented but are adapted to the different local economic, behaviour and climatic context**. For instance, financial incentives like consumer subsidies or micro-credits to switch from biomass to modern fuels (LPG, natural gas or even electricity) for cooking or to purchase efficient biomass cookstoves or lamps, are already implemented in numerous emerging countries like Kenya, Cambodia, Ecuador or India.

Monitoring energy poverty P&Ms

Observatories

The multiplicity of P&Ms reveals that even if they are widespread, they are still in a trial phase. There is a need to improve their assessment and to better understand their interactions.

Indeed, **P&Ms on fuel poverty need to be evaluated but face the lack of good-quality data**. Robust statistics are important to get a detailed understanding of energy poverty. Proof that tackling fuel poverty is an increasing concern of public authorities in Europe, the **EU Energy Poverty Observatory (EPOV¹) has been launched in 2018** by the European Commission to address energy poverty across EU countries. In addition, "Energy Poverty Observatories" have been created or **under development in seven EU countries**.

Existing indicators

To track the evolution of fuel poverty and assess the efficiency of P&Ms, several typical indicators are used by European observatories:

- Share of households with a **high share of energy expenditures** in their income ("high" defined as twice the national median).
- % of households with arrears on utility bills.
- **Hidden energy poverty**: share of population whose absolute energy expenditures are abnormally low.
- **Heating/cooling comfort**: share of population feeling uncomfortably warm or cold in summer and winter.
- **Presence of leak, damp, rot**: share of population with leak, damp or rot in their dwelling.
- **Restriction behaviour**: difference between real and theoretical expenses.
- **Fuel poverty gap**: additional fuel costs faced by fuel poor households to meet the non-fuel poor household threshold, as a measure of the depth of fuel poverty.

The benefits of detailed energy databases to analyse the interactions between energy efficiency and energy poverty: work in progress in the Odyssee-Mure project

As mentioned before, improving energy efficiency is a durable lever to reduce fuel poverty, and robust statistics are needed for monitoring purposes. To that respect, several developments are planned or considered in the Odyssee-Mure project² to **improve the monitoring of fuel poverty**:

- Odyssee database will soon include new data allowing to **build indicators to track the evolution of energy poverty** such as the energy consumption of households

¹ <https://www.energypoverty.eu>

² <https://www.odyssee-mure.eu/>

touched by fuel poverty and its weight into the national consumption of every European country.

- **Additional analysis on the impact of fuel poverty on low-income households** could be led.
- Statistics and **comparisons on the link between income distribution and fuel poverty** by country could be added to the database.

Conclusion

- **Many countries are now implementing P&Ms** to improve energy efficiency for energy poor households, that need to be adapted to the countries' characteristics.
- **Observatories of Energy Poverty aim at gathering information on these measures** and their impacts, as well as to monitor their effect on low income households. The Odyssee-Mure project will now give a greater focus on the evaluation of the specific benefits of energy efficiency measures on low-income households.
- A **new challenge** is now appearing: most countries embark on **energy transition strategies** to a low carbon economy that **may harm households in situation of energy poverty** (especially in the case of a CO2 tax): this means that, before implementing any new measure, their impact on energy poor households should be taken into account and accompanying measure should be considered.