On the Links between Energy and Housing Vulnerability

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ABSTRACT

Tackling energy poverty and promoting affordable quality housing are two key policy priorities. While the links between energy poverty and housing quality have been largely identified, those with housing affordability are less so. This paper calls for further exploratory work and improved data and metrics to inform future renovation policies.

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1. ONGOING EFFORTS AND PROGRESS ON TACKLING ENERGY POVERTY

Addressing Energy Poverty, as the inability of households to access essential energy services (EC 2020), and fostering just energy transitions has been high on political agendas in the European Union (EU) and beyond. The Fit-for-55 package and the resulting recast of important EU directives is a remarkable example of how these have been integrated in current policies. For instance, the Energy Efficiency Directive recast shows increased ambition on the fair access to energy efficiency measures, with priority to vulnerable consumers; the Renewable Energy Directive acknowledges the role of collective solutions such as energy communities; the Energy Performance of Buildings Directive (EPBD) strives to decarbonize the building stock, notably through renovation and mandating the development of enhanced Building Renovation Plans, in line with national energy and climate plans (NECPs); and the ETS Directive with ETS2's revenues being used to support vulnerable households through the Social Climate Fund.

Nevertheless, in spite of current efforts energy poverty continues to increase at alarming rates, with the latest data pointing to a worsening of the situation in 2023 in relation to the past couple of years. In the EU27, it is estimated that 10.6% of the population was unable to keep their homes adequately warm (in relation to 9.3% in 2022 and 6.9% in 2021; Eurostat 2023); and 21.4% was living in a dwelling not comfortably cool during summer time (Eurostat, 2012). Energy Poverty is a multifaceted problem largely determined by the so-called triangle of drivers: low income, high energy prices, and low energy efficiency of the building stock (Boardman, 2010; Bouzarovski and Herrero, 2017). While significant attention has been given to low-cost, small-scale and punctual improvements (e.g. fuel subsidies), these have proven insufficient (Healy and Clinch, 2004) and fail at addressing the root causes of energy poverty. In this sense, improved building efficiency, through renovation, can somehow cushion the effects of economic drivers (after investment recovery), while ensuring access to adequate energy services.

2. HOUSING DEPRIVATION AND ENERGY POVERTY

In line with the above, affordable housing is also a key EU strategy, as part of its renovation wave. Housing affordability alongside quality are two important dimensions when analysing housing vulnerability. Still, the two are very distinct and should be dealt with as separate problems (The European Foundation for the Improvement of Living and Working Conditions, 2016). Housing quality, measured by the population exposed to leak, damp or rot in their dwelling, is considered an energy poverty indicator (EC, 2020a). Studies focused on housing quality have identified a strong association between energy poverty and indoor condensation, and an even stronger association with presence of damp (Healy and Clinch, 2004). However, while the links between energy poverty and housing quality have been well identified, those with affordability remain largely unexplored.

The EU's composite measure of severe housing deprivation considers both housing quality (leaking roof, no bath, shower and no indoor toilet or too dark dwelling) *and* limited space (overcrowding). Nevertheless, such composite measures may bring about important limitations due to bundling of different types of deprivation, potentially subject to different drivers. This may also have an important effect in somehow masking the linkages between energy and housing deprivation. Supporting this, it is found that these two key components of severe housing deprivation (quality and overcrowding) are weakly related and evidence different patterns across countries (Hick, Pomati, and Stephens 2022). These authors also found that housing deprivation may be underestimated based on these metrics. If any of the housing deprivation and overcrowding issues is considered, deprivation may exceed 50% in some countries.

3. BUILDING RENOVATION AS A COMMON SOLUTION AND AVENUES FOR FURTHER WORK

Buildings represent the largest energy consumer in the EU, accounting for 40% of energy consumption and 36% of GHG emissions (EC, 2020b). The continent is faced with an ageing stock, with 35% of buildings built over 50 years ago and 75% being considered inefficient. Despite a large-scale uptake and faster and deeper building upgrade and renovation can largely help meeting EU's targets, current renovation rates of 1% per year, and of 0.2% for deep-renovation still fall short of these (BPIE, 2021).

Nevertheless, building renovation can bring important benefits to both energy-poor and materially deprived populations. A better understanding of the links between energy and housing vulnerability is key to promote further renovation and ensure that those

that most in need can benefit from improved living standards and housing conditions. The recent appointment of the EU's first ever Commissioner-Designate for Energy and Housing marks an important milestone in acknowledging the links between these two key areas and that strategies to tackle both challenges should go hand-in-hand.

Further exploratory work is needed and so is up-to-date and reliable background data and metrics on both energy poverty and housing vulnerability to inform future strategies in the pursuit of joint pathways to ensuring clean, reliable and inclusive energy and housing access for all.

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