



Energy Vulnerability Trends and Patterns in Europe

EVALUATE project policy brief no. 4

Energy Vulnerability and Urban Transitions in Europe (EVALUATE) is a five-year European Research Council funded project, underway since March 2013. It aims to investigate the character, prevalence and evolution of energy poverty in European cities. ***Energy poverty is defined as the inability to secure a socially- and materially-necessitated level of domestic energy services*** (heating, lighting, cooling etc.).

EVALUATE uses a vulnerability framework to study energy poverty, meaning that the ***project's emphasis is on the risk factors that may make a given household, community, city or country susceptible to energy poverty***. As a result, EVALUATE focuses on the manner in which urban policies and institutions, the built fabric and everyday practices shape energy use. Using a wide range of data gathering methods – statistical data analyses, household surveys and interviews with key informants – the project interrogates these issues in the context of several Central and Eastern European (CEE) cities and countries.

In-depth qualitative research

This policy brief outlines some of EVALUATE's initial findings on the causes and consequences of energy poverty based on the lived experiences of households. The results are drawn from in-depth and longitudinal qualitative research with 111 households from Gdańsk (Poland), Prague (Czechia), Budapest (Hungary) and Skopje (Macedonia).

The data collection comprised a series of semi-structured interviews in the winter/early spring and summer of 2016. Participants also completed a diary of their energy-related activities, and an energy efficiency audit was conducted of each home. The sample of households captured a diverse range of housing, demographic and locational circumstances. Data were subsequently analysed during 2017.

Qualitative work of this scale and depth, across such a range of geographic contexts, has not previously been conducted. It has enabled new, fine-gained insights into the lived experience of energy vulnerability.

Stigma and shame

The severity of energy poverty in CEE was made abundantly clear during the qualitative research, with many interviewees forced to ration their energy and other household consumption due to unaffordable energy costs. The homes visited were frequently in a very poor condition and lacked thermal insulation.

For many households, such a situation was experienced as stigmatising, shameful and even humiliating. This was conveyed especially strongly in Gdansk. Here, struggles with energy costs or inadequate energy services were often considered the result of individual household wastefulness and irresponsibility, even by those who were themselves experiencing such circumstances. In other localities, there was a greater degree of sympathy toward those struggling with energy bills. Nonetheless, many interviewees expressed shame about the inadequate energy services in their home, or the rationing behaviours they undertook to limit their energy consumption, believing that this indicated they were 'failing'. While being extremely detrimental for emotional and mental health, the stigma and shame of energy poverty also contributed to the reproduction of the condition.

Many interviewees preferred to keep their struggles 'private', and so were reluctant to seek advice or support from friends or family outside their immediate household. In Gdansk especially, there was an aversion to engaging with available welfare assistance. A further consequence was social isolation, with several interviewees avoiding having friends in their home for fear it would reveal their deprived circumstances.

To reduce the stigmatisation of energy poverty, policy-makers should avoid a hostile or individualising rhetoric toward those living in material deprivation, as this fuels the false belief that poverty is the result of individual failures. Social welfare and energy poverty alleviation policies should be carefully framed to avoid stigmatising connotations – for example, by making clear that these are fundamental *rights*.

New publications

A number of new publications are now available as a result of the EVALUATE project team. This includes:

- A book titled *Energy Poverty and Vulnerability: A Global Perspective*, published by Routledge (<http://goo.gl/fvgVab>)
- A paper on theorizing energy vulnerability as a socio-spatial phenomenon (<http://goo.gl/w2kB3A>)
- A paper on the consideration of energy inequalities via a spatial justice framework (<http://goo.gl/RoqEKb>)
- A paper on the measurement of energy poverty in Europe: (<http://goo.gl/RoqEKb>)
- A paper on health, well-being and energy poverty in Europe (<http://goo.gl/EZtGj9>)

Multiple and new vulnerabilities in CEE

EVALUATE findings unpack 'the household' as a space of both support and potential conflict in the experience of energy poverty. Social ties within households can act as an important source of emotional and practical support when navigating energy deprivation. However, we also found examples of household relations being strained due to stress or disagreements caused by inadequate energy services or the need to ration energy consumption.

Energy poverty can also be differentially and unequally experienced between household members, with some experiencing the harmful consequences more severely or frequently than others. EVALUATE's evidence indicates that gender may be a particularly important axis in this regard. The fact that energy poverty can create new spaces and relations of inequality adds a further political incentive for its amelioration. When delivering policies to reduce energy poverty, the issue's entanglement with gender-related norms and behaviours requires explicit attention; energy poverty policies should not lead to the reproduction and strengthening of gender inequalities.

Inadequate indoor cooling: causes and consequences

The household interviews support findings from EVALUATE's earlier quantitative surveys (Policy Brief no. 3) that an inability to keep cool in summer is an issue of energy poverty in CEE countries, and provide new insights on the complex causes of this phenomenon.

Multiple infrastructural and design features of homes combined to create conditions of extremely warm indoor temperatures. In particular, excessive exposure of windows to the midday or afternoon sun could cause problems. Households with large, south-facing windows without shading devices such

as external blinds, shutters or awnings were particularly vulnerable, whilst those who had such devices were able to protect themselves from the sunlight (Figure 1). Insufficient ventilation, due to the number and placement of windows, was also a significant driver of excessive heat. Finally, the walls and roofs of some homes were made of material that absorbed heat and released this into the house, a particular problem for homes that lacked any thermal insulation.

New homes should be designed and built with these issues in mind to avoid issues of summer overheating. For existing homes, policy support for the retrofitting of shading devices could be an effective and low-cost measure. The findings also emphasise the multiple benefits of thermal insulation, which not only help ensure warmth in the winter but also adequate cooling in the summer by 'keeping out' the heat. Ensuring that all communities have adequate access to parks or green space that can provide shading on hot days, is also important.



Figure 1. Some households in this block suffered from overheating, while others did not – it depended on whether they had external blinds and/or were shaded by the trees. The top floor had problems, but the middle floor pictured here had external blinds so did not face the same issues. (Photo by Neil Simcock)