

Determinants of Energy Poverty: Importance of Social and Behavioural Characteristics

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Extended Abstract

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Abstract Summary

This study examines the determinants of energy poverty with a particular focus on the role of social and behavioural characteristics, which remain underexplored in the existing literature. While income, energy prices, and energy efficiency are commonly identified as the primary drivers of energy poverty, growing evidence suggests that demographic, social, and behavioural factors also play a critical role in shaping household vulnerability. Using micro-level data for Slovenia, this paper contributes to the literature by integrating these characteristics into the empirical analysis and by assessing whether current policy instruments, particularly subsidies, effectively mitigate energy hardship among vulnerable groups.

The analysis is based on the Slovenian Household Energy and Fuel Consumption Survey combined with administrative data. Energy poverty is measured using three established indicators: the Two-Median (2M), Ten-Percent Rule (10%), and Low Income High Costs (LIHC). Logit models are employed to identify household, dwelling, and behavioural characteristics associated with a higher likelihood of energy poverty, allowing for a comparison between objective and subjective measures of deprivation.

The results reveal consistent patterns across indicators. Higher income significantly reduces the probability of energy poverty, while age and education of the household head matter selectively across measures. Larger households exhibit a lower risk, suggesting economies of scale in energy use, whereas households with young children face a higher likelihood of energy poverty. Housing characteristics are also crucial: larger and single-family dwellings are associated with increased vulnerability, while external climatic conditions, particularly lower outdoor temperatures, exacerbate energy poverty risks.

These findings highlight the multifaceted nature of energy poverty and underline the need for more targeted and socially sensitive policy interventions. Broad-based subsidies alone may be insufficient and risk misallocation unless aligned with the specific social and behavioural profiles of energy-vulnerable households.

Presenting Author Biography

Janez Dolšek is an Assistant Professor (PhD) at the School of Economics and Business, University of Ljubljana. His research focuses on energy economics, public sector regulation, and the economics of infrastructure, with a particular emphasis on energy poverty, household energy consumption, and the design and evaluation of public policies aimed at vulnerable groups. His work combines applied microeconomic methods with detailed policy analysis, using high-quality survey and administrative microdata. In recent years, his research has increasingly addressed the social and behavioural dimensions of energy use and deprivation, aiming to complement the traditionally income- and price-based approaches to energy poverty.