

SEAI National Energy Research, Development & Demonstration Funding Programme

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ALIGN - Aligning Energy Policy with Lived Experience to Deliver Interdisciplinary Solutions to Alleviate Energy Poverty

Abstract

Ireland's Climate Action Plan 2023, and National Retrofit Plan all commit to reducing carbon emissions and just transition goals. Since 2022, rising energy costs have intensified Energy Poverty (EP) and related health risks, particularly from cold homes and inadequate indoor environmental quality.

Yet, current approaches face critical challenges:

- Fragmented assessment, with energy, health, and behaviour considered in isolation.
- Inadequate and inconsistent EP indicators, leaving uncertainty over which are best suited to Irish policy.
- Gaps in behavioural and psychological data, meaning policymakers cannot see how households actually manage heating, ventilation, and comfort.
- Absence of a decision-support knowledge base linking energy, health, and equity outcomes.

Research Outcomes

- Produced a national behavioural dataset on household energy use, ventilation practices, and attitudes.
- Generated insights showing how tailored interventions can deliver triple benefits: improved efficiency, reduced health risks, and enhanced comfort.
- Provided actionable outputs for SEAI, Department of the Environment, and local authorities to design precise, equitable supports.
- Development and evaluation of EP indicators: Created multi-source Irish-specific data libraries and a calculation tool to diagnose EP using a range of indicators. This enables comparison of expenditure-based, consensual, and secondary indicators, leading towards an Irish-specific EP indicator methodology.

- Effect on current landscape: These outcomes move the Irish EP landscape away from narrow income-based definitions towards a multi-dimensional, data-driven framework. Policymakers will gain tools to target supports effectively, allocate resources efficiently, and measure outcomes across energy, health, and equity.

Recommendations

1. Target interventions by cause, not just condition: Identify *why* households fall into EP (e.g., ventilation habits, building type, income), and design interventions accordingly.
2. Align EP and health policy: Recognise and quantify the health benefits of retrofit and energy efficiency programmes, building a stronger investment case.
3. Embed equity in retrofit delivery: Use segmentation evidence to ensure vulnerable groups (renters, elderly, low-income households) receive tailored supports aligned with just transition goals.
4. Develop decision-support tools to translate evidence into policy guidance, enabling local and national authorities to plan, simulate, and evaluate interventions more effectively.

Value and relevance: By revealing not only *who* is in EP but *why*, this research provides Ireland with the means to design smarter, fairer, and healthier policies. It ensures that EP alleviation is not just a social policy, but a climate, health, and equity strategy combined—delivering co-benefits across multiple national priorities.