

Health and energy poverty in an EU context



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What is energy poverty?

When a household is unable to secure materially- and socially-necessitated levels of domestic energy services

(Bouzarovski and Petrova, 2015)

Core drivers include:

- Energy needs and practices
- Affordability and ability to access cheaper fuels
- Efficiency of built fabric and equipment
- Household income
- Policy marginalisation

Potted history

- 1979 - British civil servants identified the issue
- 1991 - Brenda Boardman published her seminal book
- 2001 - Concerns first raised at EU-level in an opinion document
- 2003 - Explicit recognition given to household customers in revised gas/electricity market directives
- 2009 - Energy poverty given legal recognition in 3rd package
- 2015+ Shift change in European Commission policy, €1m+ invested in two studies and an Observatory
- 2017 - Clean Energy package negotiations, includes new energy poverty requirements

UK (2001-2013):

“A household is said to be in fuel poverty if it needs to spend more than 10% of its income on fuel to maintain an adequate level of warmth”

England (new LIHC 2013-):

A household is said to be in fuel poverty if it

1. has required fuel costs that are above average (the national median level)
2. were they to spend that amount, they would be left with a residual income below the official poverty line (60% median income)

Ireland (2016-):

“...a household that spends more than 10% of their income on energy is considered to be in energy poverty”

France (2009-):

A person is considered fuel poor "if he/she encounters particular difficulties in his/her accommodation in terms of energy supply related to the satisfaction of elementary needs, this being due to the inadequacy of financial resources or housing conditions”

Slovakia (2015-):

“Energy poverty under the law No. 250/2012 Coll. Of Laws is a status when average monthly expenditures of household on consumption of electricity, gas, heating and hot water production represent a substantial share of average monthly income of the household”
(Strakova, 2014: 3).

Research on energy poverty trends

Research context

- No common definition or understanding
- No dedicated survey of energy poverty

Data

- Household Budget Survey (HBS)
- EU Survey on Income and Living Conditions (SILC)
- European Quality of Life Survey (EQLS)
- Eurobarometer (72.1, 74.1, 73.2+73.3)

Core EU-SILC Index of Fuel Poverty (CIFP)

PhD research used SILC micro data 2007-2011

Three key proxy indicators were used:

1. Ability to afford to keep the home warm
2. Leaking roof, damp, and/or rot in the home
3. Arrears on utility bills within the last 12 months

Key:

a = % of households reporting 1 indicator

b = % of households reporting 2 indicators

c = % of households reporting 3 indicators

Scenario 1 - Equal weighting:

$0.3333 a + 0.3333 b + 0.3333 c$

Scenario 2 - Severity weighting:

$0.1667 a + 0.3333 b + 0.5000 c$

- The CIFP has been compared with official UK measures, and shows good face validity, particularly with the 10% definition

	2010 Equal	2010 Severity
Finland	1	1
Denmark	2	2
Sweden	3	3
Luxembourg	4	4
Slovakia	5	6
Netherlands	6	5
Czechia	7	7
Austria	8	8
Germany	9	9
France	10	10
UK	11	11
Belgium	12	12
Ireland	13	13
Estonia	14	14
Malta	15	15
Spain	16	16
Italy	17	17
Poland	18	18
Hungary	19	20
Greece	20	19
Lithuania	21	22
Slovenia	22	21
Portugal	23	23
Romania	24	24
Latvia	25	25
Cyprus	26	26
Bulgaria	27	27

Regions at risk

- 52 million + households in EU27 (Thomson, 2015)
- Reflects existing regional structural inequalities (Bouzarovski and Tirado Herrero, 2015)
- Southern, Central and Eastern Europe most at risk of fuel poverty

	2010 Equal	2010 Severity
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Regions at risk

Southern Europe:

- Whilst more temperate, indoor heating is required at various points throughout the year
- Poor energy efficiency standards
- Challenging macroeconomic circumstances and prolonged fiscal austerity = real loss of household income & cuts in financing for energy-related infrastructure
- High levels of dependence on imported energy in island states of Cyprus and Malta
- Growing electrification for indoor cooling and appliances

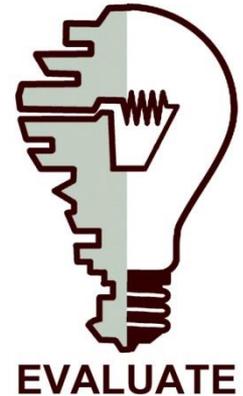
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Regions at risk

Central and Eastern Europe:

- Demise of communism brought about rapid and substantial restructuring to move towards a market-based economy
- Measures included fiscal austerity, widespread privatisation, and deregulation of the economy
- Income inequalities and decreased purchasing power
- Very poor housing stock quality
- Liberalisation of energy markets resulted in removal of subsidies, but no safety nets

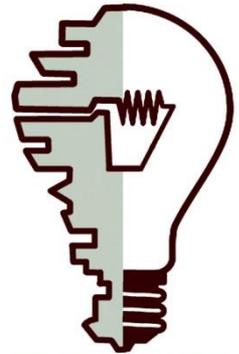
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The EVALUATE project

Energy Vulnerability and Urban Transitions in Europe
(EVALUATE) www.urban-energy.org

- Five-year European Research Council funded project
- Aims to establish the driving forces of urban energy poverty in the post-socialist states of Eastern and Central Europe
- Multi-scalar: institutions, households, and buildings
- Multi-methods: interviews, energy diaries, local surveys, statistical modelling of national datasets, and more



EVALUATE

Early findings

- Energy poverty is complex, varying spatially and temporally
- Summertime cooling is a significant issue
- Some households are switching to traditional fuels, such as firewood, as a coping mechanism
- Typologies that challenge notions of vulnerability:
 - Short-term residents - often renters and in early adulthood
 - Working age families - often in full employment and with school-aged children
 - Highly educated households in poor quality and/or expensive housing

Social and cultural dimensions

- Many participants did not know what ‘energy poverty’ was, and did not talk about it with friends
- ‘Struggling’ considered a private, and perhaps shameful, issue
- Links to wider discourses around individual responsibility and the ‘undeserving poor’



During an interview in Prague, 2016

EVALUATE outputs

A range of policy briefs, blog posts, books, and journal articles

Selected journal articles:

- Bouzarovski S, Simock N (2017) Spatializing energy justice. *Energy Policy*.
- Thomson H, Bouzarovski S, Snell C (2017) Rethinking the measurement of energy poverty in Europe: a critical analysis of indicators and data. *Indoor and Built Environment*, *in press*.
- Bouzarovski S, Tirado Herrero S (2017) The energy divide: Connecting energy transitions, regional inequalities and poverty trends in the European Union. *European Urban and Regional Studies*, 24: 69-86.
- Bouzarovski S, Petrova S (2015). A global perspective on domestic energy deprivation: Overcoming the energy poverty–fuel poverty binary. *Energy Research & Social Science*, 10: 31-40.

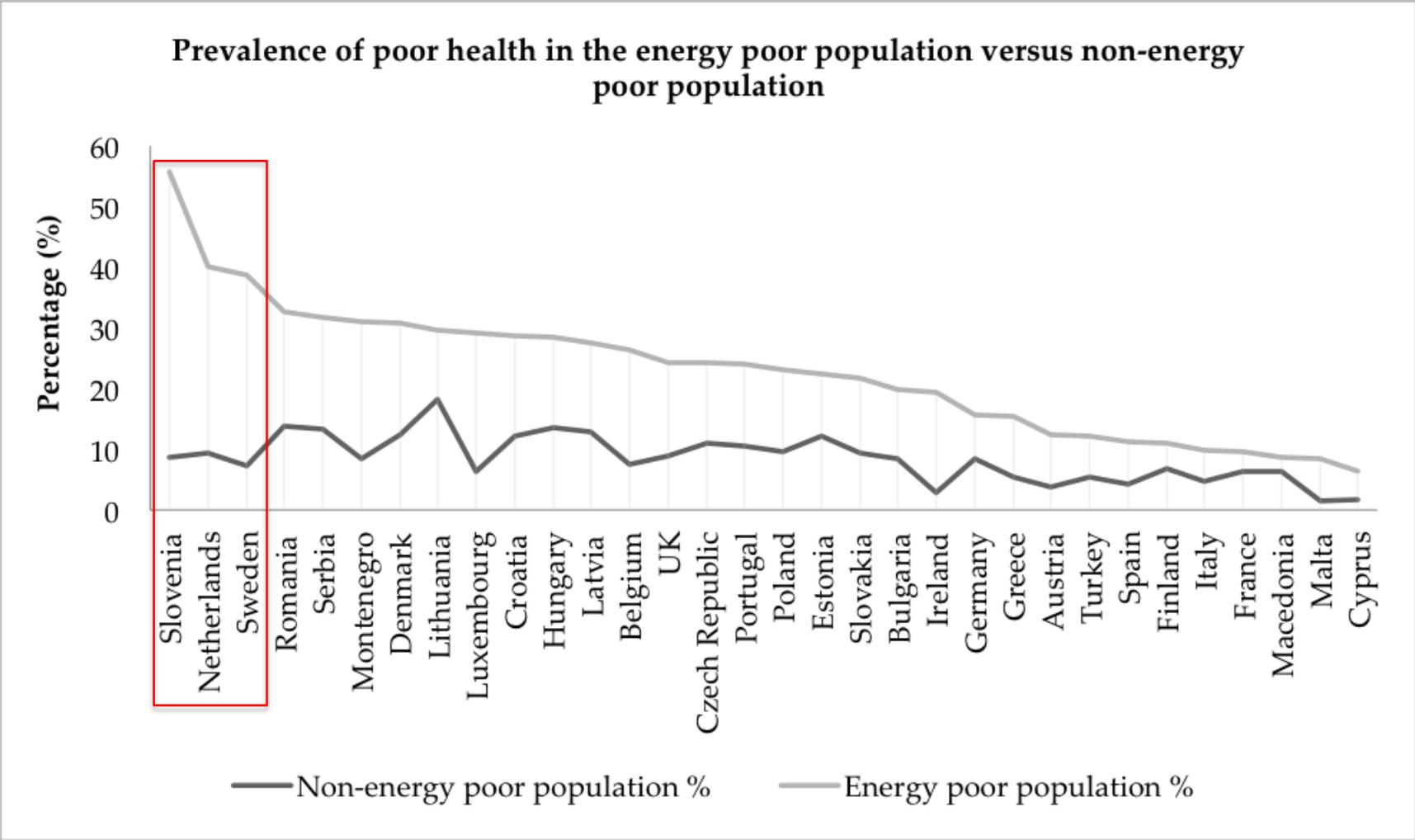
All free to access here: <https://urban-energy.org/outputs/>

Health and well-being impacts

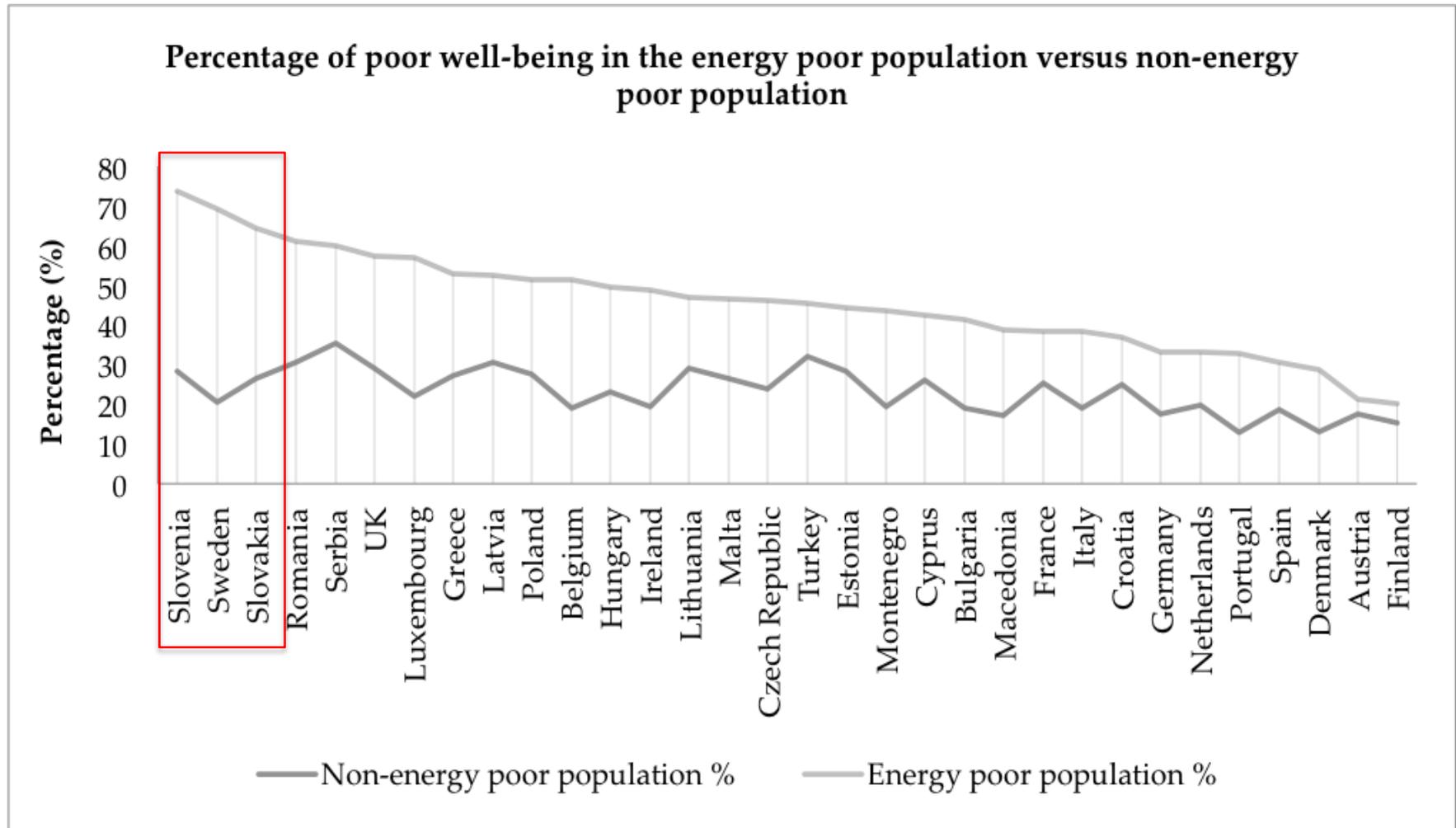
Known outcomes of energy poverty

- Increased likelihood of heart disease and strokes
- Growth of fungi and dust mites worsens asthma
- Poorer well-being due to stress and social isolation
- Increased use of health services
- Excess winter mortality

Self-reported health and energy poverty



Poor well-being and energy poverty



It is not only about income poverty...



Photos by Simon Eliasson

Introducing the new European Energy Poverty Observatory

European Energy Poverty Observatory (EPOV)

- New 40 month project, started December 2016
- Funded by the European Commission, ca. €813,000
- Led by the University of Manchester, in partnership with five partners from across Europe
 - Ecofys
 - European Policy Centre
 - Intrasoft International
 - National Energy Action
 - Wuppertal Institute

Key objectives for EPOV

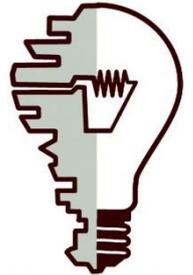
- **Improve transparency** by bringing together the disparate sources of data and knowledge that exist across the EU
- Provide a **user-friendly and open-access resource**
- Enable networking and **facilitate knowledge sharing and co-production** among Member States and relevant stakeholders
- **Disseminate information and organise outreach work**
- **Provide technical assistance** to the widest possible range of interested parties, based on a holistic approach.

Ways to get involved with EPOV

- Join the mailing list: <https://goo.gl/SLFuVe>
- Twitter: #EPOV @EPOV_EU
- New interactive web portal launching late 2017
 - Contribute documents to the evidence repository
 - Submit energy poverty schemes to our catalogue of measures
 - Become a member, write blog articles, visit discussion forums
- Attend our events
 - Launch conference in early 2018 in Brussels
 - Specialist workshops, on topics such as energy efficiency financing



The University of Manchester



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Thank you

www.fuelpoverty.eu

www.urban-energy.org

@harrimus

@EPOV_EU