

Institution: The University of Manchester		
Unit of Assessment: 14 (Geography and Environmental Studies)		
Title of case study: Transforming European energy poverty policy		
Period when the underpinning research was undertaken: 2013 – 2017		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Stefan Bouzarovski	Professor of Human Geography	2013 – present
Saska Petrova	Senior Lecturer in Geography	2013 – present
Harriet Thomson	Research Associate; and Honorary Research Fellow	2015 – 2017; and 2017 – present
Neil Simcock	Lecturer in Human Geography	2015 – 2018
Sergio Tirado Herrero	Research Associate	2013 – 2015
Caitlin Robinson	Lecturer in GIS	2018 – 2019
Period when the claimed impact occurred: 2013 – 2020		
Is this case study continued from a case study submitted in 2014? No		
<p>1. Summary of the impact Energy poverty – also known as fuel poverty – occurs when a household is unable to meet its basic energy needs. It affects billions of households across the world. The European Union has recently adopted extensive energy poverty policies, aimed at identifying and addressing the condition. The extent of these legislative provisions is historically unprecedented. Their formulation and development are directly connected to research and public advocacy work performed by the University of Manchester, focusing on the definition, theorization and measurement of energy poverty. Manchester research has radically transformed EU decision makers' awareness, knowledge and engagement with energy poverty.</p>		
<p>2. Underpinning research Domestic energy services are essential for the conduct of everyday life, enabling space heating, light, space cooling, cooking, information technology and appliances. Energy poverty occurs when a household is unable to secure adequate levels of energy in the home. Those affected by the condition are unable to light, heat and cool their homes to a needed level, or access services that are dependent on energy such as electric appliances and water heating. In its various guises, energy poverty affects billions of households worldwide, particularly in less-developed countries where access to modern energy carriers such as electricity is often limited [1]. In more developed countries, a related set of circumstances – principally around energy efficiency, incomes and prices – has come to be termed fuel poverty: a predicament that is widely recognised as a source of wintertime hardship for millions of people, and a driver of multiple health and well-being problems in countries like the United Kingdom, Ireland and France [2].</p> <p>Research at the University of Manchester, led by Stefan Bouzarovski, has provided a blueprint for addressing energy & fuel poverty in European context. This is based on an array of research projects with a total value of over GBP6,000,000: principally the European Research Council-funded 'Energy Vulnerability and Urban Transitions in Europe' (EVALUATE), the European Commission-funded EU Energy Poverty Observatory (EPOV) and the European Co-operation in Science and Technology-funded 'European Energy Poverty: Agenda Co-Creation and Knowledge Innovation' (ENGAGER) Action. The</p>		

University of Manchester has developed novel framings to explain how domestic energy deprivation affects households and communities over prolonged periods of time, and in relation to existing structures of political and economic inequality. The principal contributions of this body of research are three-fold:

1. Developing a novel understanding of energy poverty. Manchester research has generated foundational knowledge about how vulnerabilities to energy poverty are conditioned, experienced and connected to wider systemic processes in the economy. Providing people with the energy services that they need, according to one of the key premises of this line of work, is more than just about energy incomes, prices and energy efficiency as was previously believed. Rather, wider residential and economic processes also matter: e.g. ensuring an adequate match between housing types, heating systems and household needs. The research has generated a conceptual shift in mainstream understandings of energy poverty, by bringing issues of household resilience, precariousness and political recognition to the fore [3].

2. Illuminating and detailing the socio-spatial extent and nature of energy poverty. The research has developed an explicit spatial theorization of energy inequality and justice, informed by geographic thinking pertaining to the drivers of infrastructural inequality as a specific form of misrecognition and maldistribution. The analysis and publication of deep and detailed empirical evidence amassed through this work has documented the extent of the problem across European countries and cities, and the types of places and populations that are vulnerable to energy poverty in this particular geopolitical context. Furthermore, the research has provided new insights into the housing stock conditions and socio-technical drivers of energy poverty, and its variation within and between contrasting urban neighbourhoods [4].

3. Identifying and characterizing an energy divide between European 'core' and 'periphery' countries, beyond differences within and among cities and neighbourhoods as described above. The research has positioned energy poverty and energy vulnerability as a distinct regional and urban phenomenon, capable of influencing the development trajectories and characteristics of entire territorial formations. Here, Bouzarovski has provided new indicator and measurement frameworks to capture the relationships between large-scale economic trends, energy sector changes, and income inequality trends [5].

3. References to the research

1. **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. (451 citations, Google Scholar, February 2021)
2. **Bouzarovski S** (2014) Energy poverty in the European Union: landscapes of vulnerability. *Wiley Interdisciplinary Reviews: Energy and Environment* 3: 276-289. (214 citations, Google Scholar, February 2021)
3. **Bouzarovski S, Simcock N** (2017) Spatializing energy justice. *Energy Policy* 107: 640-648. (169 citations, Google Scholar, February 2021)
4. **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* 26: 879-901. (158 citations, Google Scholar, February 2021)
5. **Bouzarovski S, Tirado Herrero S** (2017) The energy divide: integrating energy transitions, regional inequalities and poverty trends in the European Union. *European Urban and Regional Studies* 24: 69–86. (173 citations, Google Scholar, February 2021)

Evidence of research quality

The above outputs were published in highly regarded, peer reviewed journals. Output 5 won the 2018 Jim Lewis Prize from the journal *European Urban and Regional Studies*, awarded to the most innovative paper published in the previous year in the journal.

4. Details of the impact

Manchester research has led to the integration of energy poverty-relevant provisions in new regulatory and legal frameworks at the EU, regional and local scales. More broadly, it has

supported the mainstreaming of energy poverty in public policy at different levels of governance. Prior to the EVALUATE, EPOV and ENGAGER projects, energy poverty received limited attention and recognition. Henceforth, it is a major component of EU, national and local action on the topic, with EPOV - and energy poverty more generally - being identified by the European Commission (EC) as one of the priorities of recently adopted EU legislation [A].

Public engagement, dissemination and decision-support activities were the main pathways to achieving these impacts. EVALUATE, EPOV and ENGAGER project findings were shared at more than 100 events – including high-profile conferences such as the EU Sustainable Energy Week (EUSEW) and the Citizens’ Energy Forum. There were over 200 high-level presentations and seminars delivered in European cities; these events were attended by over 3000 relevant stakeholders. Altogether, the three projects published 10 policy briefs, two sets of EU member state energy poverty reports, and three pan-EU energy poverty reports, two of which are featured on the EC’s website [A].

As pointed out by an EU policy officer, *“The EU Energy Poverty Observatory has exerted a ground-breaking impact on decision-making processes within multiple levels of governance within the EU. This is evidenced by the high number of attendees and the diverse range of stakeholders represented at Observatory conferences and events ... the Observatory’s closing event at EU Sustainable Energy Week attracted more than 120 online attendees, and the opening conference in Brussels had more than 300 participants”* [B].

As a result of these public engagement, dissemination and decision-support activities, Bouzarovski’s research on energy poverty conceptualizations, indicators and geographical differences was directly taken up by the EC Working Group on Vulnerable Consumers (ECWG, 2012-2016). The ECWG is responsible for the development of relevant EU policies in the energy domain. The head of the ECWG underlines that Bouzarovski’s input was *“instrumental in shaping the policy direction of our work”* [C]. Furthermore, Bouzarovski’s research outcomes were referenced in decisive and foundational EU policy documents for the development of a new European energy poverty policy [D].

EPOV is now an essential tool for building a fairer energy transition at the EU level. Upon her election in 2019, EC President Ursula von der Leyen requested that the Commissioner-Designate for Energy, Kadri Simson, *“make use of the Energy Poverty Observatory to help Member States identify areas needing the most support”* [E]. The EPOV platform and indicators subsequently featured in the Governance Regulation of the Energy Union and Climate Action 2018 (Article 24) [E], and the EU Commission guidance to EU Member States regarding the measurement and amelioration of energy poverty (2020) [E]. In addition, alignment with EPOV is cited as a funding requirement in the first dedicated European-level H2020 call on energy poverty [E]. Bouzarovski also contributed towards the development of the upcoming EU LIFE Work Programme (2021-2027) [F].

The Manchester research outlined above has also led to the establishment of new energy poverty policy measures at the national level. The UK’s largest fuel poverty charity – National Energy Action – points out that EPOV has enabled knowledge transfer to combat energy poverty via *“new methods of identifying and classifying such initiatives... [it is] the largest single international database of such resources”* [G]. The Spanish National Poverty Strategy (April 2019) *“officially adopted EPOV’s four headline indicators”* [H]. The National Energy and Climate Plans of 9 EU countries – Germany, Italy, Spain, the Netherlands, Romania, the Czech Republic, Latvia, Estonia and Malta – used EPOV data and indicators to assess energy poverty levels at the national scale [I]. An EU policy officer emphasises *“the technical assistance the Observatory provided to Member State decision-makers, practitioners and advocates at the local and national level – organisations from more than 15 EU Member States and Associated Countries have been involved in this manner – as well as its involvement in the shaping of national energy poverty observatories in Greece, France and Italy”* [B].

At the urban and regional level, close cooperation between EPOV and the Covenant of Mayors supported capacity-building in several municipalities throughout Europe (such as

Arnhem, Netherlands) to set up tailor-made energy poverty mitigation strategies [J]. Ana Colovic, 2019 Goldman Prize winner and Executive Director of the Centre for Environmental Research and Education states that “*thanks to the EVALUATE project, energy poverty is now a mainstream policy component in North Macedonia. From being unknown to decision-makers even as recently as 5 years ago, it is now integrated in almost all relevant government policies*” [K].

The University of Manchester’s role in the mainstreaming of energy poverty in EU action is evidenced by Bouzarovski’s recognition as an ‘ordinary hero’ in the high-profile EU protects campaign [A]. In 2018, EVALUATE was selected by the EC as one of the top 20 EU-funded research projects (out of 230) with the greatest societal benefits for EU citizens. Harriet Thomson, an EVALUATE research associate and project manager for EPOV, was awarded the 2017 ESRC Celebrating Impact Prize in the Outstanding Early Career Impact category.

5. Sources to corroborate the impact

- A. The European Commission places emphasis on energy poverty: (a) EPOV features prominently on the EC’s website <https://bit.ly/3ceWfkT>; (b) two reports featured in the Documents section of the EC’s website <http://bit.ly/3q77sdu> (“Towards an inclusive energy transition in the European Union”, and “Study: Energy poverty and vulnerable consumers in the energy sector across the EU”); and (c) Bouzarovski recognised as an ‘ordinary hero’ in the EU Protects campaign <https://bit.ly/30UTFMa>
- B. Testimonial from Legal Officer, DG Energy, European Commission. Received 18th September 2020.
- C. Testimonial from the former Head of the Vulnerable Consumer Working Group, European Commission. Received 4th August 2020.
- D. Foundational EU policy documents for the development of a new European energy poverty policy: (a) European Commission-funded report: Selecting Indicators to Measure Energy Poverty (2016). <https://bit.ly/2Nbg9yi>; (b) European Commission-funded report: Energy poverty and vulnerable consumers in the energy sector across the EU: analysis of policies and measures (2015). <https://bit.ly/3p8zZOo>; (c) European Parliament report: Energy Poverty (2017). <https://bit.ly/2LG2LbK>
- E. Evidence confirming that EPOV is an essential tool for building a fairer energy transition at the EU level: (a) President-Elect Ursula von der Leyen’s mission letter to Commissioner-designate for Energy Kadri Simson (10th September 2019); (b) Governance Regulation of the Energy Union and Climate Action, 2018, Article 24 <https://bit.ly/3rZ6G2Y>; (c) EC guidance to EU member states regarding the measurement and amelioration of energy poverty, October 2020 <https://bit.ly/35DdBWO>; and (d) Alignment with EPOV is cited as a funding requirement in the first dedicated European-level H2020 call (2018-2020) on energy poverty: <https://bit.ly/35xGDro> - see Topic Description, footnote 2.
- F. Email correspondence with Policy Officer, EU’s Executive Agency for Small and Medium-sized Enterprises (EASME). 13th – 15th July 2020.
- G. Letter from Research Manager, National Energy Action. Received 24th May 2019.
- H. Letter from the President of the Spanish Environmental Science Association. Received 23rd June 2019.
- I. National Energy and Climate Plans (January 2019) <https://bit.ly/2XxvEcf>
- J. Cooperation between EPOV and the Covenant of Mayors <https://bit.ly/3mo7LiJ>
- K. Testimonial from the Executive Director of the Centre for Environmental Research and Information Eko Svest. Received 20th September 2020.