Energy vulnerability in Europe

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EVALUATE

Book of abstracts

Energy poverty in Belgium: context and associated vulnerabilities (first results)

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Energy poverty is a real concern in current Belgian society, as economic inequalities and energy prices are on the rise and price increases in housing and energy differentially affect the poorest sectors of society. Access to energy and the services it provides can become insecure, with very negative effects on wellbeing, threatening the dignity and decent existence that are named as fundamental entitlements in the 2010 charter of fundamental rights of the European Union. Belgium has named energy poverty as an area for action in its federal plan to tackle poverty, but there is much work to be done to realise this aspiration. The 2Genders (Generation and Gender ENergy DEprivation: Realities and Social policies) research project (2014-2017) will describe the phenomenon and the populations affected, ascertain the wider impacts of energy poverty on social relations, mobility and self-reported health, and design and deliberate possible interventions with a range of important stakeholders including the energy poor. Particular attention will be paid to gender and generational aspects because there is good reason to believe that energy poverty is not manifest equally between genders and generations.

Health and equity consequences of energy vulnerability in Europe

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In recent years, much research has shown that energy vulnerability – reflecting an increasing social fragmentation of societies, caused by increasing energy prices and further aggravated by the economic crisis - is a rising challenge in many European countries. At the same time, many governments implement actions targeted at energy saving and efficiency in an attempt to meet

political commitments in relation to climate change and greenhouse gas emissions, making energy a highly political and sensitive subject.

Energy vulnerability is a fact in most European countries, yet expressed at different magnitudes. Data shows that in many countries (and especially in Eastern Europe), large population parts can be affected. However, less information is available on the effects of energy vulnerability on the population in terms of

- environmental risks and health effects of energy vulnerability;
- the most vulnerable and affected groups suffering from energy precariousness; and
- distributional and social inequity effects associated with national policies on energy saving.

This presentation will compile the available data on the health impacts of energy vulnerability and discuss the mechanisms linking energy poverty and health. It will look into the energy vulnerability situation in some selected European countries, and highlight potential undesired side effects of current policies and interventions as a contribution for discussion.

Approaches for assessing energy precariousness in France: From poverty to vulnerability?

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France has adopted an official definition of “energy precariousness” in 2010 which is a vague definition, without precise criteria for the assessment of the phenomenon. As a consequence, different approaches are currently tested for its assessment, ranging from methods that are expense-based (actually spending at least 10 percent of one’s income for energy) to methods combining different criteria like income situation and characteristics of homes. The current diversity of approaches reflects not only differences in objectives but also attempts to take into account the complexity and the dynamics of energy poverty. One argument is that energy poverty assessments have different objectives: to characterise households in energy precariousness on the one hand, in order to have a better knowledge of the phenomenon, or to characterise territories on the other hand, in order to identify those areas that should be targeted in priority. Another argument relates to the variety of difficulties faced by households in relation with energy. This has for example led to the inclusion of a transport component in some energy precariousness assessments. Finally, energy precariousness assessments are increasingly dynamic, trying to account for the vulnerability of households to the evolution of energy costs.

Energy vulnerability of households and socio-spatial inequalities in German cities

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With the debate on social consequences of the German energy transition after Fukushima, attention has risen to energy cost burdens of low income households in Germany. Despite an on average high quality and well maintained housing stock, it has become clear that with rising fuel and electricity prizes, a growing number of households struggles with the burden of rising energy costs.

The talk will provide insight into how energy deprivation in Germany is nested in the socio-spatial segregation of cities. First, it addresses the question how energy vulnerability is related to socio-spatial structures, tenure structures, and types of housing structures. Second, it addresses the impact of residential mobility in household's adaptation to energy cost burdens. Given that the German housing market in cities is predominantly rental, the talk discusses what secondary effects might occur. Finally, the talk discusses how energy policies are part of this picture and what crucial points need more attention.

Measuring fuel poverty: General considerations and application to German household data

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Fuel poverty measurement consists of two independent parts: firstly, the definition of an adequate fuel poverty line, and secondly, techniques to measure fuel poverty. This paper reviews options for the definition of fuel poverty lines and techniques for fuel poverty measurement. Based on household data from Germany, figures that would result from different fuel poverty lines are derived. Different fuel poverty lines yield highly different results with respect to which households are identified as fuel poor. Thus, the choice of the fuel poverty line matters decisively for the resulting assessment. Options for fuel poverty measurement and subgroup comparison are discussed.
You can find the discussion paper here: http://ideas.repec.org/p/zbw/zewdip/13046.html

The vulnerability and social injustice of coal energy policy in the Czech Republic

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The energy policy of the Czech Republic is still predominantly based on traditional resources, with more than fifty percent of electricity produced by thermal power plants combusting domestic coal. The Czech Republic has also been regularly among the biggest net exporters of electricity worldwide (in 2012, the net export exceeded 17 TWh which became the historical maximum). This annual export represents approximately 5 million tons of coal burnt in plants with low energy efficiency. It can be considered a form of landscape commodification and exportation which raise questions of sustainability and the uneven spatial and social distribution of benefits and costs of coal energy. The question of distributional injustice is closely related to the issue of possible breaking of the territorial ecological limits of brown-coal mining in the Northern Bohemian basin. These limits have been established by the first post-socialistic government twenty years ago and recently were challenged by mining companies and became an object of political disputes. While the coal energy lobby persuades the general public opinion by a threat of layoffs and increase of electricity and district heating prices, they ignore the long-term disruptive impacts on host regions (environmental, health, economic and social deprivation), unsustainability of national energy policy based on coal, and cumulative impacts on global climate.

‘How are we going to get warm?’ Experiences of energy vulnerability in Northern Greece

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Greece has the highest poverty risk rate in Europe, with approximately one quarter of the total population falling under this category (ELSTAT 2013). One of the lesser-publicised dimensions of the recent crisis in this country has been the rapid expansion of energy vulnerability, which is commonly seen as the propensity of a household to experience a lack of socially- and materially-necessitated level of energy services in the home. This paper explores the manner in which experiences of energy vulnerability in Greece are underpinned by the social and spatial infrastructures of everyday life. More specifically, it investigates the seasonal and diurnal features of energy vulnerability in urban and peri-urban areas. Empirical evidence was gathered with the aid of ethnographic research in the

Thessaloniki area, Northern Greece. In total 25 households were included in the study. Preliminary results from the 2013 summer cooling season and the 2014 winter heating season are presented.

The results of the study point to the varying experiences of energy vulnerability among households living in different parts of the city and its surroundings, despite the widespread presence of energy vulnerability. Patterns of domestic energy deprivation are more conspicuous in peri-urban areas, both socially – due to intense and close social ties – and infrastructurally: due to the physical visibility of newly-installed wood-burning chimneys and the storage of fuelwood outside people's homes. This often creates anxieties surrounding the possibility of stigmatization and exclusion. Members of urban households find themselves pushed into a lack of adequate domestic energy services due to the inclusion of various new taxes in the electricity bill, the inefficient built fabric, non-flexible heating systems and high petroleum prices.

Is energy poverty different? Evidence from Spain

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Using longitudinal information this paper examines the dynamics of energy poverty in Spain (2007-2010) and compares it to general poverty. A number of questions on energy poverty mobility are considered, including the extent of individual mobility into and out of energy poverty categories, the proportion of individuals who are persistently energy poor, and the extent to which the probability of leaving energy poverty changes as the length of time in energy poverty increases.

While the majority of the sample are not energy poor (using both quantitative and qualitative measures), the total proportion who have at least one period in energy poverty over the four year period is substantially greater than the average energy poverty statistic reported for any single year. However, the proportion which is persistently energy poor is substantially less than the proportion that is persistently income poor. There is also substantially greater movement out of the energy poverty categories relative to general poverty. For those individuals who have just started a spell in energy poverty, the results suggest duration dependence with the conditional probability of exit after two periods in energy poverty significantly smaller than the probability of exit after one period.

Fuel and poverty – Beyond the theory

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Joseph Rowntree Foundation funded CSE to perform a Rapid Evidence Assessment to determine the impact of fuel costs on poverty. This evidence review is heavily focused on understanding factors

associated with energy needs, fuel costs and poverty in the context of policy and practice. The first phase of this work seeks to determine the impact that fuel costs have on the fuel poor in the UK. For example, what tradeoffs they make in terms of other household goods and services and the extent to which they ration energy use. The second phase examines the key drivers for increasing fuel costs and seeks to understand how these can be influenced by policy and practice.

The report and presentation to this conference will focus on; people's real experience of fuel poverty; those strategies adopted by other countries to manage fuel costs and demand; explore how approaches differ across the UK devolved administrations and assess evidence of their success; and examine how environmental and social obligations placed on private companies by Government impact on prices for those on low incomes. The evidence assessment uses CSE' policy assessment matrix to review the evidence and focus on the key aspects of successful policy making.

The perception and incidence of fuel poverty across the European Union

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Using standardised micro data from a selection of pan-European datasets, including Eurobarometer and the EU Statistics on Income and Living Conditions, this paper will discuss consumer attitudes to energy market reforms, the necessity of being able to afford to keep the home adequately warm and the necessity of access to gas, electricity and tap water.

This paper will also explore a number of key consensual indicators that have previously been used to measure the incidence of fuel poverty across Europe, including whether households can afford to pay to keep their homes adequately warm, if households have incurred arrears on utility bills over the preceding twelve months, and if they live in damp or rotten housing. Additionally, this paper will explore the issue of summertime fuel poverty using data on air conditioning and inability to keep the home adequately cool. The paper ends with a critique of the presently available European indicators and data.

Energy vulnerability in Europe: New perspectives on the relationship between household expenditure, living conditions and deprivation

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Energy vulnerability frameworks provide a novel way of understanding the broader societal 'risks' that lead to the emergence of energy poverty - understood as the inability to access a socially- and materially-necessitated level of energy services in the home (Bouzarovski 2013). However, the operationalization of energy vulnerability via a set of practical indicators remains complex and

challenging, not the least due to the numerous ways in which energy poor households have been defined for statistical purposes since the 1980s. Thinking in terms of energy vulnerability has implications in terms of the policy making of Member States, which require quantitative information for estimating and comprehending the extent, nature, and evolution of the domestic energy deprivation challenge, as well as for devising strategies and justifying policy action.

In order to move towards a dynamic approach towards the investigation of energy poverty, we identify two analytical approaches: i) one that relies on the direct measurement of the effects of energy vulnerability through household self-reported indicators of the EU Survey Income and Living Conditions (EU SILC); ii) an indirect method that assesses the burden that actual or required domestic energy expenditures place on household's income, through the analysis of national Household Budget Surveys (HBS) or fuel poverty–specific data sources like the UK's House Conditions Surveys. Using these two methodologies as a point of departure, the paper first explores, via EU SILC indicators, the temporal and geographical distribution of energy vulnerability at the EU level. It then proceeds to analyse changes in household energy burdens (i.e., share of a household's income spent on domestic energy services) in the four EVALUATE project countries (Czech Republic, Hungary, Macedonia and Poland) – subject to availability of HBS microdata. Finally, the paper presents the preliminary results of a comparison between both measurement approaches that takes advantage of a unique, previously unavailable data source containing both expenditure (HBS) and living conditions (EU SILC) microdata collected for a common sample – the 2012 Hungarian Household Budget and Living Conditions Survey. The conclusion of the paper summarises the main theoretical and methodological challenges identified in the measurement of energy vulnerability through indicators.