Energy-SHIFTS

Energy Social sciences & Humanities Innovation Forum Targeting the SET-Plan

Creating policy instruments for alleviating energy poverty in Germany and Romania

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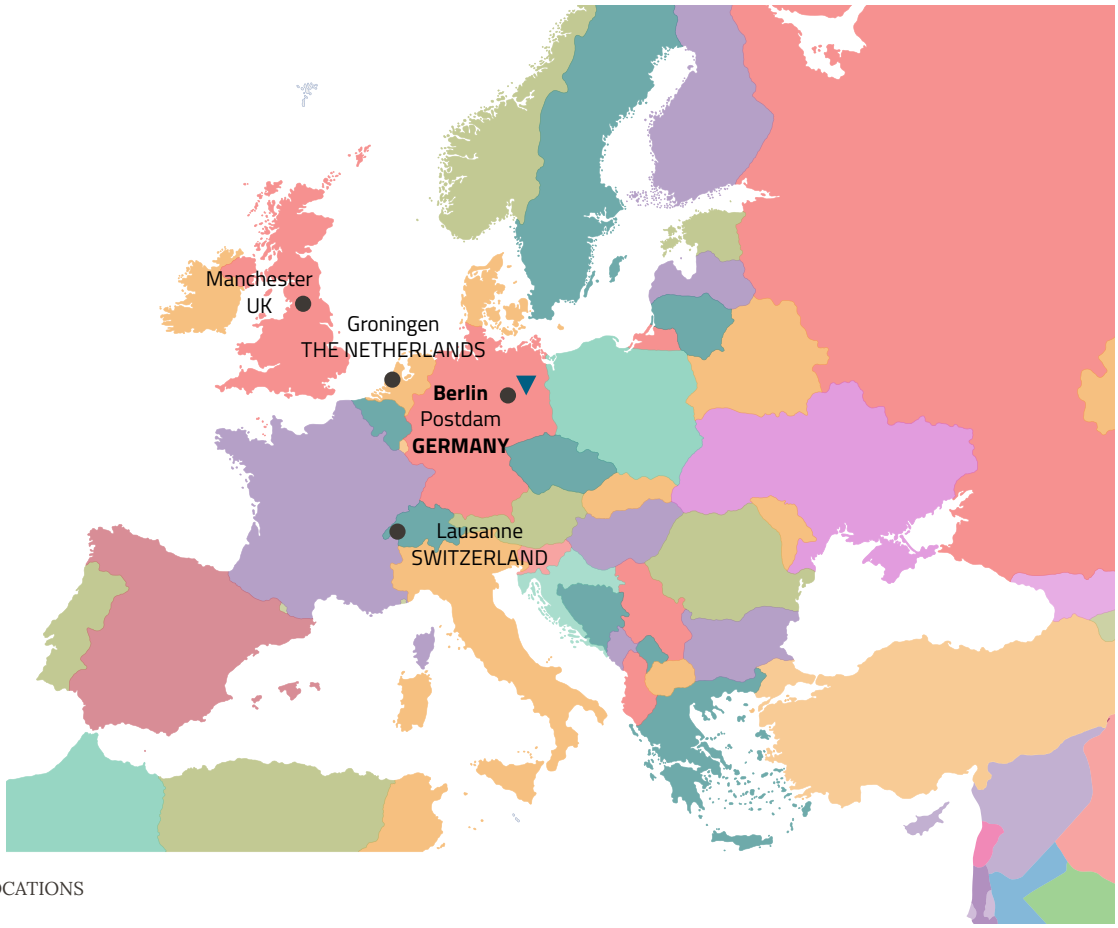

▼ FELLOW'S LOCATION

● ASSOCIATES' LOCATIONS

This Energy-SHIFTS Policy Fellowship report is part of a wider collection published in November 2020 describing dialogue between 21 energy policyworkers and [86] social scientists and humanities scholars, available via energy-shifts.eu.

Policy context

Adelphi is an independent think tank and public policy consultancy on climate, environment, and development based in Berlin. At Adelphi, Andreas manages projects on behalf of German federal ministries and the European Commission. His work is focused on the evaluation of policy measures and the development of new strategies for energy efficiency, the analysis of political and financial aspects of new heating supply technologies, as well as research on social science aspects of the energy transition. Andreas works on energy poverty alleviation in Germany as well as in Romania, where his work is financed through the European Climate Initiative (EUKI), which is a project funded by the German Federal Ministry for Environment, Nature Conservation and Nuclear Safety (BMU).

Andreas joined the programme to discuss what and how policy instruments may effectively prevent and relieve energy poverty in Germany and Romania. Since he works on behalf of the federal ministry, he primarily focuses on policies that could be implemented at the federal level. Whereas he is already familiar with a variety of policy instruments, such as social tariffs, energy-efficient building renovation, energy consultations for households, and social benefit services, Andreas was keen to learn from international attempts at alleviating energy poverty.

Over the last couple of years, Andreas has been engaged with Social Sciences and Humanities (SSH) aspects of the energy transition, by carrying out SSH-related consulting and research projects. Through his Energy-SHIFTS Fellowship, Andreas wanted to obtain deeper insights from energy-related SSH, and learn which outcomes of SSH-research could be useful for alleviating energy poverty.

> *I am excited to join the fellowship scheme because it is vital for a successful energy transition to take societal needs adequately into account. The often underestimated social aspects of the energy transition, such as energy poverty alleviation, are important issues for researchers and policy makers alike*

Andreas Schneller

Policy challenges

Based on the policy context above, Andreas prepared the following SSH-related questions to stimulate discussion with his matched Policy Associates. These were sent to Associates prior to conversations.

Main question:

- Which policy instruments have been effective in alleviating energy poverty?

Sub-questions:

- Which policy measures have been taken by different EU member states to relieve energy poverty?
- What strategic implications for energy policy design can be taken from the insights in synergies and side-effects of renewable energy systems?

In addition, in relation to his work for the government of Romania, in particular the region of Cluj-Napoca region, he raised the following questions:

- How to alleviate energy poverty in a post-soviet EU-member state?
- How might the distributional burden of climate policy be mitigated?
- How can emissions be lowered and energy efficiency be increased in buildings, in a socially sustainable way?
- How can the split-incentive dilemma[1] be avoided?

1 The split-incentive dilemma concerns the situation where the party that pays for energy efficiency measures to be realised is not the one that directly benefits financially from these investments.

Matched Policy Associates

Given the policy challenges addressed by Andreas, the Energy-SHIFTS team sought academics with knowledge about policies and legal frameworks to alleviate poverty from a variety of geographical regions. His four matched Policy Associates were therefore:

Stefan Bourazovski - Professor of Geography, School of Environment, Education and Development, University of Manchester, UK. Due to his research interests in energy poverty, and urban development, Stefan was matched with Andreas.

Marlies Hesselman - PhD Researcher and Lecturer in International Law, Faculty of Law, Groningen University, the Netherlands. Marlies was matched with Andreas due to her research on international legal frameworks for access to affordable and reliable energy.

Johan Liliestam - Professor of Energy Policy, Energy Transition Dynamics group, Institute for Advanced Sustainability Studies, University of Potsdam, Germany. Johan was selected for his research focus on policies, strategies and instruments for a transition to a completely renewable energy system, including the effects of interactions between different energy policies.

Susan Mühlemeier - Head of Training Department, Department Suisse Romandie, Verband Schweizerischer Elektrizitätsunternehmen (VSE), Lausanne, Switzerland. Susan was selected as an associate for Andreas, due to her research of public corporate governance in energy systems, urban utility companies, and her background in transition studies.

Discussion points and SSH insights

Each Policy Associate wrote a brief response to Andreas' policy challenges, and one-to-one conversations followed between April 15th and April 29th 2020. On June 8th Andreas took part in an online workshop with other Fellows and Associates working on policy challenges under the thematic category of 'just transitions'. Several discussion points were raised over the course of the meetings. Notably, these included (conceptual) understandings of energy poverty and the right to energy, exploring policies and instruments in European energy contexts, future policy directions, energy efficiency in buildings, and the split-incentive dilemma. In this section we summarise the main discussion points and insights. Quotes from Associates are given in italics.

(Conceptual) understandings of energy poverty and the right to energy

Andreas and his Associates discussed whether energy poverty even exists, and how it is distinct from conventional understandings of poverty. One of the Associates pointed out that legal definitions for energy poverty often appear to be unclear or non-existent. A rights-perspective on legislation and enforcement was introduced, with regards to "*access to affordable, reliable and modern energy for all*". It was suggested that a rights-based perspective might help reframe Andreas' question, with regards to determining what assumptions and definitions (e.g. what is understood by energy poverty) are being operated under.

To start with, discussion included how energy poverty policies and action ought to consider the human right to essential energy services as their starting point. For this purpose, societal benchmarks need to be developed, which outline the "*specific, social objectives of* [access to] *energy services*", i.e. what the ultimate outcomes of any energy system, regulation or policy design, ought to be, and according to which it may be evaluated. To develop such a backbone, human rights law was discussed as a possible orientation, drawing attention to how the state has rights and responsibilities to "*regulate and leverage and (re)allocate public and private resources towards specific essential, universal, social objectives.*"

In a similar vein, the new EU Governance Regulation on Energy and Climate and in the EU Electricity Directive was referred to, which on the one hand describes a "*minimum core of (subsistence) service levels at all times and with priority for everyone*", which addresses "*purposes of health, well-being, social inclusion, personal development and participation*". On the other hand, it puts forward "*a set of more progressive services levels commensurate with full human rights*". This provides EU Member States a legal mandate and urgency to address energy poverty, and to mobilise the necessary resources. What providing energy services means exactly in the face of guaranteeing 'basic standards of living' will have to be established for each individual country through democratic processes, and in acknowledgement of specific and 'intersectional needs'[2]. Understanding energy poverty from a rights-based perspective then uncovers interdependencies with other rights, such as to education and health, and how these may be affected simultaneously, as well as embeddedness in other moral and ethical societal issues such as the occurrence of poverty and inequality.

In another discussion, the responsibility of designating a public entity with explicit political responsibility for safeguarding and monitoring such social justice issues in the energy transition was highlighted. One of the Associates mentioned the example of possible side-effects such as energy refurbishment leading to gentrification processes, ought to be held in check through social policies and institutions. Another example of such an unexpected side-effect might include how energy poverty can be manifested in terms of mobility; through gentrification, people might be pushed out of their neighbourhoods, which could result in longer commuters and in higher transport costs. These examples demonstrate the need for an interdependent understanding of the workings of energy poverty.

Exploring policies and instruments in European energy contexts

Academic insights on the drivers and consequences of energy poverty in Eastern Europe, and particularly Romania, were discussed. Experiences from across Europe were explored, in particular drawing on the EU Energy Poverty Observatory (EPOV) project[3], where an extensive repository of measures and instruments can be found. In one of the Associate's experience the most effective policy instruments address the improvement of energy efficiency of housing infrastructures.

Andreas and his Associates discussed experiences in Switzerland, Austria and France. Taking the case of Switzerland here, no specific measures to alleviate energy poverty seem to exist, but preventative measures do occur. Certain practical examples were shared like projects in Geneva (éco21) and Lausanne (Equiwatt), where measures included advice on energy savings by local energy efficiency advisors, refurbishment of social housing, and financial support for energy efficient appliances. In Switzerland, electricity is defined as a public service concept, which means that there is an obligatory grid connection. Energy costs (electricity, gas and heating) take up an average of 1.3% of households' income. Swiss regulations determine high energy standards for new buildings, as demonstrated in the model of Swiss cantonal energy regulations (MuKEn)[4], and energy consumers pay a tax for renewables and energy efficiency (0.023 CHF per kWh), which directly feeds into local projects by municipalities and energy companies that address energy justice issues.

Energy efficiency policies to tackle social injustices

One of the insights generated from the meetings was that most energy transition policy instruments do not in fact address issues of social justice. This emphasised the need to better link energy efficiency and energy justice in order to make progress on sustainability. Despite this, successful cases have demonstrated the benefits of including low-income households and non-house owners in schemes for installing renewable energy systems, as opposed to only homeowners and middle- and high-income groups. Discussion centred on how policy can be better designed to support the diffusion of renewable energy systems and technologies under low-income or marginalized households, as explored by projects such as Interreg POWERTY[5].

More policy instruments and broader range of collaborative models that focus on issues of social injustice are yet to be developed. These could be models that transgress working solely with individual house owners, such as

2 One Associate explained intersectionality as: "*the fact that some persons may face double challenges not recognized when viewed just through one category, e.g. children with a disability, elderly with disability, pensioners in social housing, women in migrant communities, Roma in informal settlements.*"

3 See: https://www.energypoverty.eu/

4 *Energiedirektoren Mustervorschriften der Kantone im Energiebereich*. See: https://www.endk.ch/de/ablage/grundhaltung-der-endk/MuKEn2014_d-2018-04-20.pdf

5 See: https://www.interregeurope.eu/powerty/

involving those with real estate agencies, as well as municipal energy utilities and other public actors. This means that countries with strong public service systems and municipal ownership in energy systems may have more direct access to affecting such levers for change. In addition, it is important to develop a narrative on how society is transitioning from e.g. gas and coal to lower-carbon energy sources to get local public and private actors on board, rather than solely focussing on financial reasoning.

Understanding 'affordability' and regional disparities

One interesting discussion led to unpacking the meaning of 'affordability' of energy services from a human rights perspective, on three distinct levels: 1) affordability of energy supplies (e.g. electricity, heat, etc.); 2) affordability of appliances and technologies for the "*useful and efficient consumption of energy services (e.g. heating systems, insulation, etc.)*"; and 3) affordability of the repair and maintenance of both energy supplies and appliances. There are certain key principles that Member States should to take into account when developing future policy measures to address these different types of affordability. Importantly, this includes how the right to energy services access should not infringe on the ability to fulfil other essential basic needs. Moreover, poorer households should not be disproportionately burdened financially in comparison to richer households.

Raising awareness of regional disparities was also put forward as a key issue. The work by French geographer Angélique Pall on the yellow vest movement was mentioned in this regard[6]. One of the Associates drew from personal experience in the city of Leipzig, to argue how it is important to leverage local cultural tradition, narratives, values and histories to translate new realities. In this sense, cultural proximity might help, which would mean developing measures at the level of each neighbourhood, or even apartment block, by working with local agents. This could also enable being sensitive to the needs of different target groups, such as the elderly. Local approaches ranging from energy efficiency to installing PV and solar thermal installations, for which the European just transition fund could perhaps support in providing funding.

In reflection on these discussions, Andreas remarked how he learnt to further consult expert-opinions regarding different country specific local contexts in order to develop a suitable strategy.

Future policy directions: affordability and funding

In accordance with human rights treaties EU Member States are required to "*mobilize at all times maximum available resources to guarantee the full set of human rights for everyone*", meaning in terms of financial instruments (e.g. taxation), regulation (e.g. of private entities to curb maximum revenues for service provision or quality of services requirements) or otherwise.

In terms of funding future policy and instruments, the European Just Energy Fund was mentioned as a potential source for funding to mitigate distributional burdens of climate policy. Tax reform was also discussed as a solution, highlighting the importance of involving people from vulnerable socio-economic groups in such processes. In a similar vein, it was stressed that CO_2 taxation requires critical evaluation with regards to redistributive issues, for example referring to the work of Jeroen Van den Bergh, and a study by Thomas Douenne on the effects of CO_2 taxation on low-income households in France[7].

Energy efficiency in buildings and the split-incentive dilemma

Policies to mitigate energy poverty and to promote energy efficiency should go hand in hand, an observation which was supported by several Associates. In order to increase energy efficiency, ensuring the opportunity for participation and contestation, particularly from local governments and civil society was argued as vital in fostering a democratic and accountable process. To overcome the split-incentive dilemma[1], the éco21 programme in Geneva was offered as an example, where energy utilities, supported by the local government, rented out renewable installations to apartment blocks. This model provides low risk to the apartment owners, and simultaneously enables funding for implementing energy efficiency measures. In this way, long-term, low-financial risk models between public and private entities were highlighted as useful instrumental in addressing split-incentive issues.

6 See: https://www.irsem.fr/equipe/palle.html

7 Thomas Douenne. Les effets redistributifs de la fiscalité carbone en France. 2018.

Translation to policy impacts

Based on his conversations, Andreas aims to translate the insights from his Fellowship to the following two policy processes:

1. **Developing policy recommendations to alleviate energy poverty in the Romanian context,** as part of the project *Mitigating GHG Emissions through energy poverty alleviation in Romania* (EnPoweR)[8]. EnPoweR is funded by the European Climate Initiative (EUKI), and is conducted by a consortium of Babes-Bolyai University, the city of Cluj-Napoca and adelphi. Conversations and resources from the Fellowship will directly feed into Andreas' work on this project.
2. **Consulting the German Government** on setting up energy poverty indicators.

Reflections from Associates

Associates were asked what they learnt about on-the-ground energy policy challenges from their virtual meeting with Andreas. Here we share some of their reflections which demonstrate many direct learnings from the encounters:

"I thought politics are way more aware of the topic of energy poverty and ***I was surprised*** *of the figures in Austria for example,* ***how many people have to deal with energy poverty****. I thought it was mainly a problem of countries with poor public service offers (e.g. UK) but* ***I learned that even in countries with strong public service offers (such as Austria) the problem is real****."*

"Amongst policy makers there is often an interest in a list of best practice laws and policy examples that can be used in different countries to tackle a certain problem, but the challenge is sometimes ***that it is easier to say what did not work****, or what they tried to do so somewhere else but did not fully work,* ***or what created new problems****. It still strikes me that energy poverty policy in Europe in particular is an area like this. There is now much knowledge about what the problem is, and there are some ideas on how it might be tackled, but* ***very limited actual best practice exists, certainly in a way that is also transferable easily to different contexts****."*

"For me, ***it certainly challenged my view that energy poverty is not a thing, or not distinct from poverty****. I still believe that they are linked (no energy poverty without poverty), but I learned about some deeper facets of the energy poverty issue, which was very interesting."*

8 See: https://www.energy-poverty.eu/en