



Actions to Mitigate Energy Poverty
in the Private Rented Sector

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1.**INTRODUCTION AND OVERALL METHODOLOGY**

This document analyses and assesses existing policies in the Private Rented Sector (PRS) across the EU and beyond. We review successful – and unsuccessful – intervention strategies aimed at advancing measures to address energy poverty among vulnerable households from the PRS. Our overarching objective is to investigate the aims, content and structure of policies in this domain, while highlighting any key patterns in the coverage and distribution of such initiatives. As a result, the review identifies some of the wider structural challenges in the type of support currently available to energy poor households.

The analysis does not aim to be comprehensive or exhaustive; rather its objective is to provide indicative insights into the overall typology of support measures and interventions. Given that a global review with a similar conceptual remit has not been undertaken to date, this document proposes a framing to help develop methodological tools and analytical approaches for future investigations in the domain. Policies have been identified based on publicly available, non-confidential and non-personal information. Data was collected by experts from the ENPOR consortium. Given the rarity of PRS-targeted initiatives, we did not use any special criteria in the selection of measures, other than containing some form of specialized support aimed at PRS tenants and/or landlords. This resulted in the collection of a diverse set of measures operating at different governance scales, and with highly variegated programmatic objectives.

The report consists of three sections. First, we review and discuss the measures that we have collected, based on several criteria, including who is implementing the policy, who the policy is targeted at, geographical and temporal scopes, whether vulnerable tenants are included, and whether some forms of public participation are involved in the decision-making process. We then provide an analytical summary of the policies based on well-established energy justice principles, followed by a conclusion with recommendations identifying gaps in present knowledge and practice, and suggestions for areas of further work.

2.

OVERVIEW OF POLICIES SURVEYED

2.1 General description of the policies

We present this overview using a structure of ‘*what, who and how*’ to highlight key themes from the collected policies and measures. In total, 35 policies from across the world were collected for analysis. The policies and measures collected by experts from the ENPOR consortium are listed in Table 1, with a short descriptive summary of the policy, together with an embedded source hyperlink for further information, active years of the policy and the operative country or region. Each policy is also given an acronym by which it is further referred to in this analysis for brevity.

Table 1 List of Policies Surveyed, Summary and Reference Acronyms

Policy Acronym	Policy Full Name	Operating Country	Years Active	Policy Summary
VSC	1. Verbund-Stromhilfefonds der Caritas	Austria	2009-present	Energy home visits to low-income and vulnerable households to provide energy advice, identify support needed and provide financial relief to help pay energy bills or to replace old or broken appliances.
G-EN	2. Gratis Energiescan Extra Info	Belgium	2007-present	Provision of free domestic energy scans (home screening during a visit) to identify where vulnerable households can use energy more efficiently, provide advice on affordability and incentivise implementation of efficiency measures. Small improvements such as draught excluders are provided free of charge.
STEP	3. Energy Performance Incentive Scheme for the Rental Sector (STEP)	Netherlands	2014	Subsidies provided to support landlords to implement energy efficiency measures in rental properties including heating system upgrade, renewable energy production and building insulation.
SI-Rental	4. Grants for Social Insulation Projects in Rental Buildings	Belgium	2016-present	The Flemish government provides grants for social insulation projects for rental apartments, where the tenant is considered low-income or vulnerable, covering roof, wall

				and window insulation. The grants are facilitated by a project promoter that manages discussions between tenants and the landlord, and submits the application to the regional utility. The landlord cannot raise the rent as a result of the insulation improvements.
WU-NZ	5. Warm Up New Zealand: Healthy Homes (extension targeting rental properties)	New Zealand	2016-2018	In 2016 the Government allocated NZ\$18 million over two years for an extension of the 'Warm Up New Zealand (WUNZ): Healthy Homes' programme, specifically focusing on rental properties. The extension provided new funding to deliver insulation to at least 20,000 low-income rental households with high health needs (particularly households occupied by children and/or the elderly).
NEST	6. Nyth Nest Scheme (Making Wales Cosy) Extra Info	United Kingdom	2011-present	Free, impartial energy advice service provided by the Welsh Government, and if eligible (low income and energy inefficient home), a package of free home energy efficiency improvements. Landlords must provide consent for the energy improvements and meet eligibility criteria (such as registration with Rent Smart Wales, having a valid tenancy agreement, gas safety record etc). Landlords must sign an agreement stating that they cannot raise the rent for 12 months following the improvements.
ELoan-BE	7. Energy Loan Belgium	Belgium	2006-present	The Flanders region provides zero-interest loans up to EUR 15,000, to be repaid over a period of 10 years, to certain vulnerable households to fund energy efficiency improvements, such as insulation, ventilation, heating etc.
EBox-NL	8. Energy Box	Netherlands	2014-present	The 'Energy Box' project aims to assist households by providing energy advice through a house visit from a voluntary advisor, who

				provides a tailored report for the household, as well as small items to improve energy efficiency.
WAP	9. Weatherisation Assistance Programme	USA	1976-present	The Weatherization Assistance Program (WAP) enables low-income families to permanently reduce their energy bills by making their homes more energy efficient. Funds are used to improve the energy performance of dwellings of needy families using the most advanced technologies and testing protocols available in the housing industry. The U.S. Department of Energy (DOE) provides funding to states, U.S. overseas territories, and Indian tribal governments, in the form of grants to provide technical and financial assistance.
AW-Brighton	10. Affordable Warmth: A Fuel Poverty Strategy for Residents of Brighton and Hove	United Kingdom	2002-2010	The affordable warmth strategy had the overarching aim of eradicating fuel poverty in Brighton and Hove by 2010. It adopted the widely accepted definition of fuel poverty as being a household spending in excess of 10% of its disposable income on heating, and also included an action programme of initiatives across numerous local stakeholders that incorporated specific objectives, actions and timescales.
MEBAR-II	11. MEBAR II Extra Info	Belgium	1999-present	The MEBAR II grant aims to help lower income households to make their house more energy efficient, up to a total of €1,365 per household every five years. The Walloon Region grants a subsidy to households for carrying out work which will enable them to use energy more rationally. This can be the replacement of frames or exterior doors, insulation work, the installation of a stove, boiler or water heater, or the sheathing of a chimney.
SFHP	12. Solidarity Funds for	France	1984-present	Provision of financial aid to

	Housing Programme			vulnerable households who are unable to pay for essential expenses including energy bills. This can either be a grant, or a loan which must be repaid. The aid must be used to outstanding bills or debt to energy companies.
WH-Scot	13. Warmer Homes Scotland Extra Info	Scotland (UK)	2015-present	The Scottish Government's 'Warmer Homes' scheme offers funding and support to households (homeowners and PRS tenants) struggling to pay energy bills and stay warm, to make homes warmer and cost less to heat. This includes insulation, new boilers/heating systems and renewables.
PSRS	14. Private Sector Renewal Strategy: Better Homes in the PRS	United Kingdom	2008-2013	The strategy works to align enabling and regulatory approaches. Its aim was to ensure that the segment of private sector housing that requires Council attention, provides affordable, sustainable, good quality, decent homes for people in Kensington and Chelsea. It addresses poor living conditions and, in doing so, improves the well-being of vulnerable households by having routine meetings to provide advice and resources, access to a tenant renovation grant etc.
En-Consult	15. Energy Consultations for Low Income Households Extra Info	Austria	2011-2014	The aim of the project was to enable socially disadvantaged families and those at risk of poverty to receive an explanation of their heating and electricity bills through free, competent and independent energy advice. Households also received tips and advice on how consumption can be reduced sustainably through simple measures and changes in behavior. Small 'energy saving aids' (e.g., kettle, switchable power strips, energy-saving or LED lamps, timers, etc.) were also given out during the consultation process.
MPE		France	2015-	

	16. Mediation Précarité Énergétique (Energy Poverty Mediation) Extra Info		2018	Pilot project under auspices of a SLIME project in Lille (Service Local d'Intervention pour la Maîtrise d'Énergie, or Local Service for the Intervention and Control of Energy) - a national programme to support local authorities to locate low-income households and give advice on energy via home visits.
EAPs	17. Punts d'Assessorament Energetic (Energy Advice Points)	Spain	2017-present	Energy Advice Points across the City of Barcelona, offering information and support to vulnerable consumers who are at risk of being disconnected from their energy supply. Support is three-pronged: 1. Advice for reducing energy costs and improving energy efficiency; 2. Understanding energy bills, finding appropriate tariffs and services; 3. Processing subsidy applications, social vouchers for energy support.
Solar Savers	18. Solar Savers Adelaide Programme	Australia	2016-2018	The Program provided upfront funding for the purchase and installation of solar photovoltaic (PV) energy systems on eligible low-income and rental residential properties. Participating properties had ~2kW solar PV energy system installed. The Council is recovering the costs from participating property owners through a separate rate charge paid back over a ten-year period.
HH-NZ	19. Healthy Homes Guarantee Act 2017 Extra Info	New Zealand	2017-present	The Healthy Homes Guarantee Act (HHGA) passed into law in December 2017, and enables the NZ government to create regulations that set minimum standards to create warmer, drier rental homes - the 'healthy homes standard'. This includes requirements for heating, insulation, ventilation, draught-stopping, drainage and the control of moisture in residential rental properties.

ECO UK	20. Energy Company Obligation (Affordable Warmth Scheme) Extra Info	United Kingdom	2018-2022	Medium and large gas and electricity providers (with more than 150,000 customers) must provide eligible low-income households with energy efficiency measures, including insulation and boiler replacement. Private renters only qualify for the free insulation grants. Delivered by energy companies directly to beneficiaries.
GH Grant	21. Green Homes Grant	United Kingdom	2020-2022	Landlords can apply for a Green Homes Grant Voucher (2/3 of costs up to £5000) towards the cost of installing energy efficient improvements in their rented properties, including insulation or low carbon heating.
WH Discount	22. Warm Homes Discount Scheme	United Kingdom	2020-2021	£140 reduction on electricity bill for eligible British households over winter 2020-21 as a one-off payment.
WHHP	23. Warm Homes, Healthy People	United Kingdom	2012-present	Warm Homes Healthy People is a Suffolk wide, multi-agency partnership project, designed to help vulnerable people and families make their homes cheaper to heat. The project can provide help to access grants, independent energy surveyor visits, winter fuel payments and grants for eligible residents.
PRS LL	24. PRS Landlord Loan	United Kingdom	Ongoing	Interest free loan of up to £15,000 available to help Scottish landlords to improve energy efficiency of properties (including heating, wall insulation etc) and meet minimum standards set out by UK regulations.
STAWP	25. South Tees	United	2020-	

	Affordable Warmth Partnership	Kingdom	2022	The Partnership helps services and organisations to coordinate their work, develop relationships with other partners to identify and fill gaps in provision. The Partnership includes a wide range of local organisations, including Local Authorities, public sector partners, Housing Associations, voluntary groups, community organisations and private businesses. The Action Plan is divided into five themes, reflecting the main work areas needed to tackle fuel poverty: 1. High profile for Affordable Warmth; 2. Promote Energy Efficiency; 3. Improve warmth through income maximisation; 4. Improve health and wellbeing; 5. Community engagement.
AWS - NI	26. Affordable Warmth Scheme Northern Ireland	(Northern Ireland) - United Kingdom	2014-present	The Affordable Warmth Scheme tackles fuel poverty in the private sector by providing funding to improve energy efficiency in homes. The scheme provides help with installing insulation, central heating and new windows. It is available to home owners and those who privately rent their home. It is not available for tenants living in the social (Housing Executive or housing association) sector.
Stockton Switch	27. Stockton Big Community Switch	United Kingdom	Ongoing	Annual event - simple and safe (no risk) option for residents to save money on energy bills. Energy providers have an online auction where they compete to provide the best tariff to residents, creating an estimated saving of £119 (2019), £168 (2017) per year for residents taking part.
HEEG	28. Home Energy Efficiency Grants Ireland Extra Info	Ireland	Ongoing	A range of grants available to Irish landlords and homeowners to make energy efficiency improvements including insulation, heating controls and heat pump systems on their homes and rental

				properties providing these were built prior to 2006.
Sérénité	29. Habiter Mieux Sérénité (Live Better Serenity)	France	2017-present	Owners, housing associations and landlords with properties over 15yrs old and needing energy renovations can obtain 35-50% of the costs for renovation and the payment of a premium corresponding to 10% of the amount excl. VAT. The work must be a 'package' and not just a single project, and must generate energy savings of at least 25%.
MaPrime Renov	30. MaPrimeRenov Extra Info	France	2020-present	Financial assistance for insulation, ventilation, heating and energy audit work. The premium amount is fixed based on household income and ecological gain from the work, with priority for households in greatest needs and different categorisations of technical/financial assistance offered based on income.
Smart Heating	31. Smart Heating Controls and Behaviour Change in PRS	United Kingdom	2017	Small scale project involving the installation of 'evohome' intelligent heating controls and traditional thermostatic radiator valves in the PRS where residents had none, to increase control over indoor temperatures. Energy monitors were installed to help residents understand electricity use.
SCP	32. Strategy to Combat Energy Poverty	Ireland	2016-2019	This strategy builds on the progress and experience developed since the publication of the Irish Government's strategy on Affordable Energy. It expands the reach of existing energy efficiency schemes and commits the Government to developing and piloting new measures to find more effective ways to focus energy efficiency efforts on those most at risk of energy poverty.
LEAP	33. Cosy Devon	United	Ongoing	

	Energy Advice Partnership (LEAP) Extra Info	Kingdom		Local Energy Advice Partnerships; partnering with Devonshire local implementing partners to deliver energy advice to vulnerable households, including tariff checkers, financial guidance and free installation of measures including LEDs and draught excluders.
Smart Regs	34. Smart Regs	USA	2011-present	All new rental housing licenses in Boulder, Colorado, require proof of SmartRegs compliance. Units ineligible to rent if they don't comply with meeting a basic energy efficiency standard.
PRS EER	35. PRS Energy Efficiency Regulations Extra Info	United Kingdom	Ongoing	Designed to improve the energy efficiency of privately rented properties in England and Wales; since 2016, landlords are unable to unreasonably refuse consent to a request for energy efficiency improvements where subsidies are available, and since 2018, rental properties must have at least an E Energy Certificate rating before renewing a tenancy. Implemented as nearly 1 in 10 UK properties fell below an E rating in the sector in 2012.

2.2 Spatial and Temporal Extent of Policies

The policies and measures collected are dominated by policies and measures from Anglophone countries, with some French, Flemish and German language policies, and all are from Western European, North American and Australian contexts. The majority of the policies were implemented at a national scale, a quarter were locally targeted, and one third were regional. None of the policies analysed here had a supranational coverage (for example, at the EU level). Policies affecting only one of the countries within the UK (England, Scotland, Wales and Northern Ireland), were classed as regional for the purpose of this analysis.

Table 2 Number of policies analysed per country and spatial coverage

Country	No. Policies	No. National	No. Regional	No. Local
Australia	1			1
Austria	2		1	1
Belgium	4		4	
France	4	3		1
Ireland	2			
Netherlands	2	2		
New Zealand	2	2		
Spain	1			1
UK	15	5	6	4
USA	2	1		1

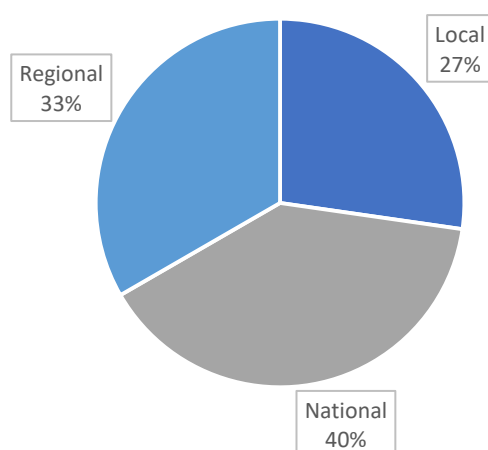


Figure 1 Spatial Coverage of the Policies

The temporal extent of the policies varied, with the earliest implemented policy recorded starting in 1976, and the newest in 2020. Though five measures were not dated – policies marked as ‘ongoing’ in Table 1 – there was a bias towards policies implemented since 2010 (22 out of 30 dated policies), likely due to information being more readily available online for more recent programmes. 22 were in progress, while the eight remaining projects all ended after 2010. Of the projects with a finite duration, the average implementation length was three years, and of the ongoing projects, the average time that the policy had been in place was 11 years. It is worth noting that some of these projects, for example Sérénité, are iterations and improvements upon earlier policies, and, thus, some of the policies have been in place for longer than the analysis accounts for.

2.3 Types of measures and interventions

The measures and policies assessed demonstrate a diverse range of technical and financial aspects designed to assist both tenants and landlords, and some level of innovation and originality in tackling energy poverty was seen. **63% of policies included both technical and financial measures, with policies only tackling either finance or technical representing 17% and 14% of the policies respectively.** Only two policies were not categorised as involving either measure, but instead classed as primarily educational.

Technical measures were often aimed at increasing the energy efficiency of a household. These most commonly were through the implementation of large-scale loft, underfloor, cavity wall insulation improvements, indoor ventilation, installation of windows and doors, and central heating improvements, and were often tied to the financial measures detailed below. Smaller technical measures included more energy efficient lighting, replacement of inefficient household appliances and draught excluders.

Financial measures ranged from one-off payments, to subsidies and long-term loans for the implementation of technical measures, as well as the provision of financial advice. Most financial measures, as stated above, were available for financing technical measures. For example, GH Grant UK offers landlords in the PRS a voucher to cover up to 2/3 of the costs of eligible improvements – in this case, a ‘primary measure’ of solid wall/cavity/loft insulation or low carbon heating systems, and, if there is money remaining, some ‘secondary measures’ for thermostats, draught-proofing etc. – to a maximum of £5,000.

WHDS in the UK offered a £140 reduction on electricity bills for the winter of 2020-21 as a one-off payment financial measure to alleviate low-income tenants’ inability to pay their bills. Although offering short term financial relief, this form of scheme does not offer vulnerable tenants any longer-term support for dealing with energy bills, or create any structural or regulatory changes to prevent the need for these types of one-off payments. On the other end of the spectrum, EL-BE, in Flanders, Belgium, is a key example of the long-term loan policy, whereby zero-interest loans of up to €15,000 are offered to vulnerable ‘priority’ households, both owner-occupied and private landlords, over a period of 10 years to fund large-scale energy efficiency improvements. Although free support is available for applicants to determine which works to carry out, choosing contractors, prices etc, this form of financial measure does place the household under a long-term and large financial repayment burden. It is also unclear whether this loan is available to those with poor credit scores.

Some of the financial policies were tied to the level of technical measures implemented and the energy efficiency improvements achieved, in the form of bonuses and extra subsidies. For example, the Sérénité programme allows for tax deductions on property income if energy improvements are greater than 35%, whilst the HEEG project increases grants by €300 if three upgrades are completed within one retrofit application, to incentivise more ambitious energy efficiency upgrades. Although this form of recompense does incentivise higher efficiency and a greater reduction in energy bills and carbon emissions, it does rely on the project owner (the landlord, homeowner or tenant) having a certain amount of capital to invest to start with, regardless of the generosity of the subsidy, and thus could exclude lower-income household from benefitting from this form of financial measure.

Financial advice, such as the EAPs in Barcelona, Spain, was offered to households, including support for reducing energy costs and increasing efficiency, understanding bills and finding appropriate tariffs, as well as processing subsidy or social support applications. Advice on rights is also given to those at risk of disconnection and thus offers a form of empowerment for the public against energy companies who may be acting illegally.

The policies classed as ‘educational’ focussed on informing tenants on energy and energy-saving techniques, rather than implementing a particular technical or financial measure.

For example, EBox-NL engaged households with a visit from an energy coach, who offers energy-saving tips, explanations on how to use low-energy devices and creates a report for the residents based on their discussions. Although EBox-NL does offer small energy-saving products such as draught excluders, this is primarily an advice service. The other policy, South Tees AWP, tackles energy poverty education in two parts. Firstly, it brings together partners from across the South Tees region, to ensure that tangible action is being taken on energy poverty and affordable warmth. This includes training courses and workshops to teach keyworkers and frontline staff about energy poverty and how to make onward referrals to schemes and support mechanisms. The other area of work is the organisation of community events, to raise awareness on efficiency, health impacts of cold homes and information sharing on resources and grants available, particularly targeted at Black, Asian and Minority Ethnic (BAME) groups and those with disabilities and dementia.

2.4 Implementing authorities

Implementing authorities were diverse and varied. For example, some policies and initiatives were delivered by NGOs or local community organisations, such as VSC, by Caritas, an international, non-profit NGO linked to the Catholic church, delivering social aid programmes. Other programmes were initiatives by private companies, such as the G-EN, whereby the energy scans were carried out at the expense of the grid network operator Fluvius. Some measures are imposed on private companies by national governments, for example, the UK government ECO programme, which mandates that large gas and electric providers with over 150,000 customers must deliver energy efficiency and cost-saving measures to eligible households (although PRS tenants can only benefit from certain measures).

Nevertheless, **the large majority of implementing authorities were government bodies, albeit across different jurisdictional scales.** Some were local borough or city councils, such as Barcelona City Council and Stockton Borough Councils, to regional authorities, including the Walloon and Flanders governments, while the largest were implemented by national

government departments, such as the French National Housing Agency (ANAH), and the Sustainable Energy Authority of Ireland (SEAI). Many of these authorities further partnered with NGOs and local organisations to deliver the policy, or subcontracted local suppliers and providers to implement the works in the case of retrofits and installations.

2.5 Types of tenants and landlords targeted

Perhaps unsurprisingly, as a result of a general lack of engagement with energy and fuel poverty in the private rented sector, **many of the collected policies were not directly targeted at the PRS**. Indeed, 66% of policies were general, inclusive of PRS tenants, homeowners, landlords and social renters alike. **Of the twelve policies that were specific to the PRS, ten were engaging only landlords or landlords and tenants, and only two were aimed only at tenants.**

Across all the policies, just under half (48%) were aimed at low-income groups, for example, household income being lower than a predefined amount, were conditional on being in receipt of certain government benefits, or falling within categories of vulnerability, such as disability, health issues, etc. For example, the G-EN is available to renters who pay under €521.69/month or are eligible for the social electricity and gas tariffs in Belgium, while the WH-Scot scheme offers support to those living in homes with an energy rating lower than 67, as well as meeting particular social criteria, such as receiving the Carers' allowance or being over 75 or pregnant and in receipt of benefits.

2.6 Forms of public participation

Across the board, 13 policies explicitly recorded some form of public participation. Public consultations in the policy design stages were the most common engagement strategy, with nine policies recording this form of participation, such as the SmartRegs programme in Boulder, Colorado, USA. This mandated that by 2019, all new rental housing required proof of compliance with a basic energy efficiency standard, and involved several stakeholder consultations and community-based working groups to co-develop the regulations. In the USA WAP, throughout the 40-year duration of the project, semi-regular public hearings have taken place from which comments were taken into account when creating and updating legislation. In the formulation of the AF-Brighton strategy, extensive consultations were undertaken with numerous local organisations involved in affordable warmth provision, including local MPs, tenant and landlord groups, utility providers, government bodies and NGOs such as Age Concern (now Age UK).

Many of the programmes were largely top-down policies and measures, with little stated public participation or involvement, particularly in the delivery stages of the projects. An example of this is the PRS EER in the UK. Although being beneficial to PRS tenants, by ensuring that all rental properties must have at least an E-rated energy certificate, and that by law, the landlord must provide an energy certificate if requested, there no requirement for landlords to explain what an E-rating is, or what this entails with regards to efficiency or financial consequences and so on. Another example is the aforementioned one-off WHDS, whereby an apparently arbitrary sum is simply removed from the household energy bill, without any discrimination for the size of the household or the home's energy efficiency rating. Thus, as these examples demonstrate, engagement with the public on the real-world outcomes and consequences is on the whole, limited and superficial.

On the other hand, however, some of the programmes did engage the public through education, mediation and information about energy poverty, tenant rights, empowerment and opportunities to improve the energy efficiency within homes and lower costs of household bills. As detailed above, the EAP Barcelona programme offers advice information about tenant rights with regards to disconnection, as well as engaging the public through citizen outreach workshops and activities on energy rights to ensure they are not illegally disconnected. Another innovative form of public participation emerged from the Mediation Prec. in Lille, France, whereby a trained technician carries out an energy diagnostic during home-visits to a rented property, followed by a mediated discussion between landlord and tenant. This ensures that each party can discuss their concerns and experiences, and allows both views to be listened to. This means that there is more likely to be informed and engaged discussion on energy use and poverty, and in turn, more likely positive outcomes from the project, with benefits for both tenant and landlord.

2.7 Recruitment mechanisms

A key recruitment mechanism mentioned by several policies was the **referral of vulnerable consumers via local councils, social welfare organisations, charities and citizens advice groups**. For example, in the AWS-NI project, council staff identified households likely to be affected by fuel poverty, and arranged home visits to encourage residents to take part in the scheme. Other councils, such as in the Stockton Switch, used local media, press releases and their websites in order to recruit participants to the scheme. In the NEST scheme, a broader range of stakeholders is used to ensure messaging reaches those who might benefit, working in partnership with health boards, charities and community organisations across Wales, specifically employing Partnership Development Managers and publicity activities in areas with high deprivation.

Another form of recruitment, for example, in WU-NZ, was through the 'lead generation' and self-promotion of local service providers who are registered to deliver the energy efficiency and insulation services. In many cases, such as the WAP in the USA, the obligation is placed on the household or resident to find out about and self-refer to the service or contact their local service provider. In the MEBAR project, among others, the recruitment process appears time- and energy-consuming for the applicants. They must obtain landlord permission, contact the municipality, who checks the application for legal conditions and eligibility, and receive a home visit from a consultant before the works can be approved. In addition, in the MEBAR case, landlords must waive any rent increases for 30 months following the works, which although is beneficial to the tenants, may cause conflict and disinterest in giving permission for the works to go ahead.

2.8 Delivery mechanisms

As previously mentioned, many of the **implementing authorities utilise registered local providers and contractors to carry out the works**, in the case of installations and retrofits, as is the case for Solar Savers, GH-Grant, MaPrimeRenov and others. For those policies which are blanket regulations for improving the energy efficiency of properties (such as HH-NZ, PRS-EE etc), **the responsibility often is on the landlord for finding the funds to renovate their property** to the required standard, although there are long compliance time-frames before the laws come into force. Other overarching national policies are delegated

to smaller local authorities or municipalities who deliver the programme, such as E-Box and E-Consult.

Other forms of delivery of the policies are through **networks and partnerships established by the projects**, such as in the South Tees AWP, which brings together a range of local organisations, including housing associations, community and voluntary groups, businesses, healthcare providers and so on to deliver various aspects of the policy. This community-based and cross-sectoral forms of delivery provides an opportunity for public and private engagement with issues of energy poverty, and can lead to increased project beneficiaries of the policy, as more networks can be mobilised to reach target groups.

2.9 Evaluation mechanisms

Many of the programmes did not stipulate an evaluation mechanism, which is in part a result of many of the measures being currently in the delivery stages. Others which did report a form of evaluation did not provide large amounts of data or information on this aspect of their programmes or policies, or the evaluation document was not provided in English.

One ended project with a **fully detailed evaluation** was En-Consult Austria, which provided energy advice and small energy-saving aids to vulnerable families. This project aimed to monitor all data collected during their consultation process, to find out to what extent energy consultations are useful for reducing energy poverty. In order to ensure uniform evaluation of data across the board, only one implementing agency analysed all the data. **One of the largest issues found was access to the target group** and thus the suggestion of 'placement agencies/communication nodes' was carried forwards. Another finding was that **much of the advice given by consultants was already known by the vulnerable households**, and that the package of energy-saving items was more useful for the recipient. Finally, it was found that **the cause of energy poverty is often not due to user behaviour**, but as a result of particular situations, including social problems, illness and unemployment. Thus, **the project evaluated that a single consultation is insufficient, and actions needed to improve energy poverty should be diversified.**

Annual reports are also utilised as evaluation mechanisms throughout the duration of projects. For example, NEST Wales also publishes annual reports on the progress of their programme. In 2019-20, 15,800 homes received advice (although only 22.2% of this number were PRS tenants), with 4,500 of these receiving a home energy improvement package, with a modelled average bill saving of £282/year. In 2020-21, the scheme will explore whether householders with specific mental health conditions would benefit from the NEST scheme, and also to further support the private rented sector.

3.

ANALYTICAL SUMMARY OF POLICIES

We now move to an overarching analysis of the policies identified above. The analysis is undertaken along four axes. These are based on the basic tenets of energy justice as it relates to energy poverty (Gillard *et al.* 2017; Walker and Day 2012). The first two dimensions include questions around the ‘provision of resources’ (Bouzarovski and Simcock 2017; Lacey-Barnacle 2020) in the distributional and spatial domain. Here, we assessed the presence of energy poverty measures through energy efficiency investment, new financing models or social assistance as well as wider spatial justice elements such as infrastructure development. The second two axes query the initiatives’ ability to provide ‘access to justice’ (Jeretina and Uzelac 2014), combining procedure and recognition justice dimensions such as the improved public or political acceptance and awareness of the energy poverty challenge in addition to the development of effective engagement mechanisms to address energy poverty.

The four aspects were examined qualitatively and quantitatively. In order to analyse the policies/measures, a grading system was developed, with categories based on whether the policy addressed a particular dimension of social justice. Questions asked included:

- **Distributional justice dimensions:** did/does/can the policy/measure improve the energy efficiency of housing, and/or the financial situation of tenants/landlords?
- **Spatial justice dimensions:** did/does/can the policy/measure cumulatively reduce energy poverty in affected neighbourhoods, cities and countries?
- **Recognitional justice dimensions:** did/does/can the policy/measure improve the public or political recognition of vulnerable tenants/households in the private rented sector?
- **Procedural justice dimensions:** did/does/can the policy/measure improve the participation of tenants and landlords in the decision-making process, and/or help them gain access to relevant schemes, procedures etc. that can help reduce energy poverty?

Each policy was scored for each justice dimension, according to the following metric: **0**=not met; **1**=partly met; **2**=fully met. The authors acknowledge that scoring in this manner is highly subjective, however expanding the grading scale only furthers the complex and subjective distinctions between what constitutes meeting a particular number. If the policy answered the question with a definite ‘yes’, then 2 was scored, a firm ‘no’, then 0 was scored, and 1 encapsulates all possibilities in between.

In grading the policies, we also acknowledged that the power relationship between landlord and tenant is not equal, and thus the tenets of justice that are applied in this analysis do not necessarily have the same meaning or outcomes for the two different groups.

Results are presented in **Table 3**.

Table 3 Scoring result for each policy based on justice metrics

Policy Name	Distributional Justice	Spatial Justice	Recognitional Justice	Procedural Justice
VSC	1	0	0	1 (access)
G-EN	1	0	0	1 (access)
STEP	1	1	1	1 (access)
SI-Rental	1	1	0	0
WU-NZ	1	1	0	1 (access)
NEST	1	1	1	1 (access)
ELoan-BE	1	0	0	0
EBox-NL	1	0	0	0
WAP	1	1	1	1 (access and decision)
AW-Brighton	1	1	1	1 (decision and access)
MEBAR-II	1	1	0	0
SFHP	1	0	0	0
WH-Scot	2	1	1	0
PSRS	1	1	1	1 (access)
En-Consult	1	0	1	0
MPE	1	1	1	2 (decision and access for both landlord and tenant)
EAPs	1	0	0	1 (access)
Solar Savers	1	0	0	1 (decision)
HH-NZ	1	2	1	1 (decision - empowerment for tenants)
ECO UK	1	1	1	0
GH Grant	1	1	0	0
WH Discount	1	0	0	0
WHHP	1	0	1	0

PRS LL	1	1	0	1 (decision and access – landlords)
South Tees AWP	0	1	2	1 (decision and access)
AWS - NI	1	1	0	0
Stockton Switch	1	0	0	0
HEEG Ireland	1	1	0	0
Sérénité	1	0	0	0
MaPrimeRenov	2	1	0	0
Smart Heating	1	0	0	0
SCP	1	1	1	1 (decision)
LEAP	1	0	0	1 (access)
Smart Regs	1	1	1	1 (access and decision)
PRS EER	1	2	1	0

We subsequently analysed these categories in a summative way – along established principles of energy justice – by grouping the distributional and spatial criterion into a single category: ‘access to resources’ (Bouzarovski and Simcock 2017; Lacey-Barnacle 2020); and combining the procedural and recognition dimensions into a further category: ‘access to justice’ (Jeretina and Uzelac 2014). The results of the analysis (Figure 2) indicate the general absence of policies that meet both sets of criteria, and the relatively high proportion of measures that are primarily orientated towards the provision of resources. In Figure 2 the analysed measures are represented based on distributional and spatial ‘access to resources’ (x-axis), vs. procedural and recognitional ‘access to justice’ (y-axis)

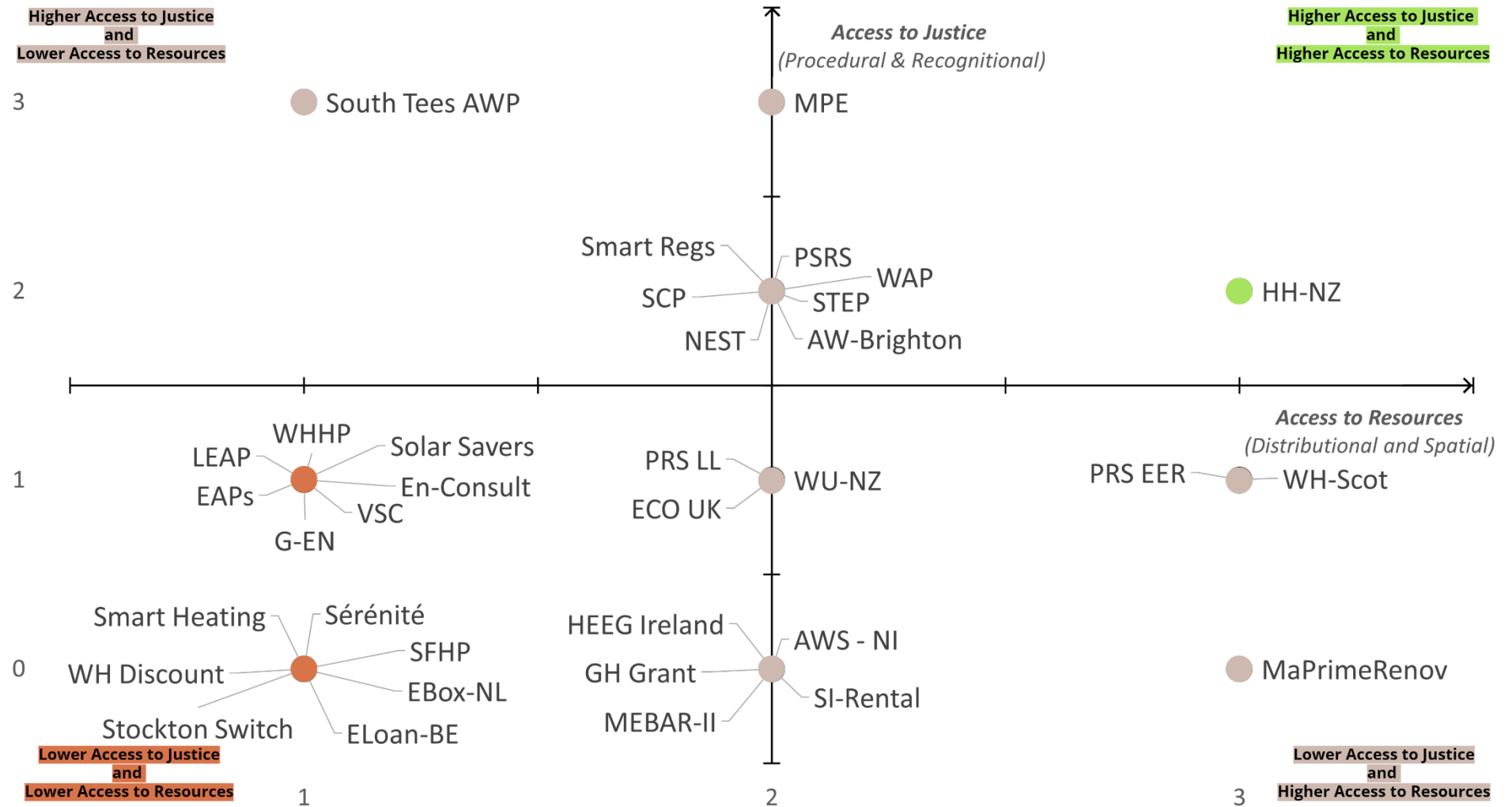


Figure 2 A summative appraisal of the analysed measures based on distributional and spatial 'access to resources'

5. DISCUSSION & CONCLUSIONS

In this document, we have outlined the results of a detailed analysis of 35 policies and measures aimed at addressing the energy-related challenges faced by PRS tenants and landlords across the EU and beyond. Our review is the first of its kind, reflecting the dearth of specialized PRS energy support measures, despite the widespread recognition that energy poverty is most pronounced in homes concentrated in privately rented housing (Bouzarovski 2018).

We note that our analysis is constrained to publicly available information and the knowledge of experts within the ENPOR project consortium, and operating under time and resource limits. Future comprehensive efforts aimed at identifying any PRS-directed elements within relevant policy interventions and programmes will need to be based on a wide range of stakeholders, involving extensive and comprehensive data collection, and including countries with a less established tradition of assisting private sector tenants and landlords.

Overall, we find that the surveyed initiatives are principally implemented by the state, and insufficiently directed at low-income tenants. Most of the policies involve technical and financial measures, with a more limited number involving behaviour change and energy conservation measures. An even more limited number of measures address the regulatory and political context of energy poverty in this housing stock, and, as a whole, the public participation and policy engagement dimension is inadequately represented. Involving tenants and landlords in the formulation, design and implementation of future initiatives and interventions is, therefore, paramount.

It was also found that very few policies addressed or considered the tenant-landlord dilemma, or even brought together tenants and landlords to discuss and address both of these groups' needs. By allowing space within policies for greater communication and mediation between stakeholders, it is considered that the likelihood of success in energy poverty alleviation measures would be greater. Difficulties with access to funding and information remains an issue for both tenants and landlords, and considerations of what prevents landlords and tenants from participating in renovation and efficiency measures should also be more fully addressed.

In the report, we have also developed a framing that provides for an explicit consideration of the different energy justice dimensions as they relate to energy poverty policy in the PRS. Having established the existence of overlapping strands of evidence demonstrating that efforts to address the condition are uneven across countries, regions and initiatives, it can be surmised that this unevenness creates additional spatial inequalities on top of existing ones. Different forms of inequality are woven together into historically- and spatially-contingent assemblages (Buzar 2007; Harrison and Popke 2011), through which certain places, and the people who live in them, are at a greater risk of energy poverty.

6. REFERENCES

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