EnergyMeasures

Tailored measures supporting energy vulnerable households

D2.2

Report on identification and recruitment of energy poor households

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Table of Contents

About EnergyMeasures

EnergyMEASURES is working to address energy poverty in seven European countries, namely: Belgium, Bulgaria, Ireland, Netherlands, North Macedonia, Poland and the United Kingdom. The project comprises two complementary and synergistic strands of work.

The first strand involves working with energy poor households to improve their energy efficiency through a combination of low-cost measures, and changes in energy-related behaviours and practices. Recruited householders will be provided with low-cost energy measures and empowered to change their energy-related behaviours and practices through an approach that takes account of existing housing conditions and is reflective of their lived experience.

The second strand comprises working with municipalities, energy authorities, housing associations and other relevant actors to assess how current multi-level institutional contexts affect efforts to alleviate energy vulnerability in the participating countries. This knowledge will be used to develop and support the implementation of policy and practice measures which will address structural issues that combine to trap households in energy poverty.

Through this work the project contributes to reducing participants' vulnerability to energy poverty, while at the same time cutting household energy consumption and associated GHG emissions.

For more information see **http://www.energymeasures.eu**

Description of the deliverable and its purpose

This deliverable presents an update on the identification and recruitment of energy poor households to participate in EnergyMeasures across the different countries.

1 Introduction

Work package 2 (WP2) is concerned with engaging and supporting households who are energy poor – it involves recruiting and engaging target households selected socio-demographic groups in seven countries to participate in a programme focussed on low-cost and no-cost energy conservation and energy efficiency measures. This entails the provision of small-scale measures in addition to advice and support in changing energy-related practices and behaviour, and thereby reduce energy use.

Task 2.2 involves identifying and recruiting households belonging to the specific targeted socio-demographic groups. Each partner involved in the delivery of the task has experience of working in some way with households vulnerable to energy poverty, and so bring a great deal of expertise in reaching the energy vulnerable. This deliverable is intended to describe how the engagement of energy poor households, planned within the of context of this task project is being implemented in the seven participating countries (Belgium, Bulgaria, Ireland, Netherlands, North Macedonia, Poland and the United Kingdom).

The partners have developed and updated (especially in the context of the Covid-19 pandemic) implementation plans for the recruitment and engagement of energy poor households in each country. The different specificities associated with the focal communities in each country coupled with varying manifestations of the pandemic, and difference in approaches to re-opening of society has meant these plans are country specific. These country-level engagement plans draw upon two preparatory reports previously prepared, which outline the project's approach to: identifying energy poor households[1] and to integrating behaviour change approaches in household engagement[2].

The plans were typically divided into four sections, the first section presents a brief overview of the country-specific context of energy poverty, short profiles of the organisations involved, and an overview of the target socio-demographic groups. The second section describes how the energy poor household will be recruited from the target groups leveraging the work outlined in the '*Review of methods of identifying energy poor households*' (D1.1), and informed by the knowledge, contacts and existing practices of the participating organisations. Section three present the process to be undertaken, and procedures to be adopted in the actual household visitations or contacts both at the start of the process (assessment stage) and in subsequent visitations or contacts (support stage). The section of appropriate low-cost measures, and the devising of behaviour change plans suitable for different households is also included in this section. Finally, section four is a concluding piece which draws the document to a close, provide a revised timeline (with targets) for recruitment and engagement of energy poor households, summarising and contextualising the revised implementation plans, and noting the regular monitoring planned for their implementation. The plans' appendices comprise assessment forms, registration forms, *etc*. for use in engagement.

[1] D1.1 Review of methods of identifying energy poor households
[2] D1.2 Guidelines for integrating behaviour change approaches while engaging energy poor

2 Identifying energy poor households

Deliverable 1.1[3], explored various approaches to identifying energy poor households. An important component of which is the definition of energy poverty. It identified a gap between the macro- and meso-level analysis of energy poverty and the identification of specific energy poor households.

Observing that '*Energy poverty is a culturally sensitive, multi-dimensional concept that varies over time and by place and is thus not easily captured by a single indicator',* Bouzarovski *et al.* (2020, p. 41) advise using a suite of consensual and expenditure-based indicators, which they consider should be used in combination. The two consensual indicators they suggest are easy to translate to the individual household level. However, the two expenditure-based measures[4] forwarded, while usable are perhaps less suited for identifying individual households both in terms of data availability, and householder comprehension. Accordingly, in assessing eligibility for participation in the project, three primary indictors have been used: (1) Energy expenditure in excess of 10% of disposal income; (2) Inability to keep home adequately warm; (3) Arrears on utility bills.

Meeting two of these criteria is interpreted as indicating an energy poor household and mean eligibility for participation. Meeting one criterion will be interpreted as energy vulnerable; the local project team decide on energy poverty status considering secondary indicators including *e.g.,* age of occupants, health conditions[5], single occupancy, reliance on social transfers, *etc*.

In considering approaches to identifying and reaching out to individual households in energy poverty, deliverable D1.1 considered practices reported in literature, methods used by cognate projects, and the experiences of some practitioners active 'in-the-field'. The review observed that there are a number of potential approaches that could prove beneficial in finding individual households, depending on local context, these are discussed below.

Traditional marketing and advertising including *e.g.,* Press releases, articles, articles in local newspapers, radio interviews, community bulletin boards*,* church newsletters, *etc.* are used to raise (and maintain) awareness of the project and its offerings. These traditional approaches are particularly important for reaching older people. These conventional media approaches are and complemented by a social media presence (of both the project itself, but also importantly local partners), which aim to reach younger people that traditional media may not.

to communities is often an effective and efficient means of spreading a message about a project like EnergyMeasures. Publicity material has been disseminated by 'piggybacking' on existing activities of partners and other local organisations. This includes through drop-in centres (*e.g.,* social and health organisations[6]), by means of targeted door-to-door drops using local knowledge and contacts, or through holding events such as energy cafés. This work is complemented by an *ad hoc* word-of-mouth campaign where team members and 'friends of the project' inform their networks of the project and its activities.

[3] D1.1 Review of Methods of Identifying Energy Poor Households.
[4] (1) High share of energy expenditure in income (2M) – those households with share of energy expenditure in income >2x the national median; and (2) Low share of energy expenditure in income (M/2) – those households whose absolute energy expenditure is <1/2 the national median.
[5] Including but not limited to cardiovascular, pulmonary, and respiratory illnesses.
[6] Focusing of course on organisations whose services are more likely to be used by those at risk of energy poverty.

Collaborations with NGOs, public bodies, *etc*. can be effective in reaching out to communities, in that it leverages the resources of multiple organisations involved in complementary work. Where appropriate and where possible partnerships have been developed (and existing relationships utilised) to work with local government and social organisations to provide information about project to prospective participants. Additionally, EnergyMeasures have liaised with social bodies encouraging them to make referrals to the project. Such referrals enable organisation to assist their service used with a problem, which would ordinarily be outside of their remit. The specific recruitment process used by the organisations involved are described over the following pages.

3 Recruitment – Belgium

3.1 Background to recruitment

3.1.1 Summary of country-level implementation plan

In Belgium, more than one household in five is affected by energy poverty. In Flanders, 15% of households are affected, in Wallonia almost 30%. This is because the houses in Wallonia are often larger and of poorer quality, incomes are lower and natural gas costs are higher.

The vast majority of energy-poor households are single people or single-parent families (almost 70%). Single elderly women (+65) and single-parent families headed by a woman are particularly vulnerable. There are also twice as many renters as owners who are affected by energy poverty. The main causes of energy poverty in Belgium are insufficient income, poor housing quality, and rising energy prices. Additional reinforcing factors are a low level of education, a small social network, low technical skills and a lack of access to the necessary information and services. In recent years, there has been an increase in electricity prices, as well as in the number of instalments plans with energy suppliers. Moreover, more and more instalment plans are not followed (Koning Boudewijnstichting 2020)

There are several social housing companies active in Belgium, but the share of social housing is still far too small to cope with the social housing shortage. The waiting time for a social house is 4 years on average and is still rising. As a result, a large proportion of families with the lowest incomes are forced to rent on the private rental market. Demand far exceeds supply, forcing many poorer tenants to live in substandard housing. The quality of the homes in which the lowest income households live is below average in several respects: less or no insulation, more frequent moisture problems, less space, less comfort, and hardly any renewable energy sources. (Heylen & Vanderstraeten 2019).

SAAMO and Kamp C, work jointly to implement the EnergyMeasures project in the region of Flanders in northern Belgium originally focussed on Turnhout, a medium-sized city in the province of Antwerp. The selection of Turnhout was due to its rising immigrant population, the rate of families on the waiting list for social housing (11.1% as of 2019), and the low quality of the housing market. The project's target group will be tenants (especially on the private rental market), newcomers, young people, and families with children (often households belong to several of these groups).

3.1.2 Adjustments to implementation plan

After a long wait due to Covid 19 related challenges, in December 2021, the organisations signed a contract with the city/region of Turnhout and the OCMW (the public centre for social welfare in Turnhout) to gain access to the groups targeted for the purpose of the project. However, given the volatility of the circumstances with Covid-19 pandemic, there has been a little uncertainty as regards the level of city municipality activities and thus their engagement with the project. Accordingly, the Belgium partners have in recent months expanded their scope outside of Turnhout and liaised with other organisations to reach more households.

3.2 Household recruitment

3.2.1 Activities

Household recruiting activities follow six main routes. Goed Plan, which guides owners of rented homes through renovation processes will aim to engage 20 households per year. 50 households every year will also be engaged through the SAAMO helpdesk and home visits. The third route includes working with Turnhout city council housing inspectors who will refer between 70 to 90 energy poor households to the EnergyMeasures project every year. The fourth recruitment channel will involve providing information through the education programme for foreign-language newcomers. Finally, Kamp C has a project in which they train volunteers to become 'energy masters' who provide information on energy-saving measures and have initiated a partnership with Energy Cutters, who will refer householders to the project.

Table 1: Belgian Recruitment and engagement activities

Recruitment activity	Activity description	Target group
Collective outreach actions	Collective actions | Energy lectures & Education for newcomers. SAAMO has already given some lectures, which led to some referrals. This avenue seems to be most promising.	Newcomers Seniors Ethnic groups
Referrals from SAAMO desk	'Goed Plan' dossiers and the permanent advisory desk at SAAMO. The advisory desk has so far provided very few referrals. Target value from this avenue needs to be re-evaluated.	Owners and tenants, as well as households in energy poverty
Outreach actions in collaboration with students	The first action day, held in March 2022 in collaboration with Thomas More College.	Energy vulnerable residents
Referrals from social organisations	OCMW| Public centre for social welfare: Households with budget meters and/or energy bills in arrears. Due to covid-19 and bureaucratic delays concerning the signing of a contract for information exchange between OCMW, Kamp C and SAAMO, no referrals have taken place so far. The contract is now signed.	Householders assisted by social organisations
Referrals from public bodies	City/Region of Turnhout Conformity Assessment of homes (mandatory not until 2024) → Identifying homes that are under par in the private rental market Energy cutters → Referring energy poor households Due to covid-19 and bureaucratic delays concerning the signing of a contract for information exchange between OCMW, Kamp C and SAAMO, no referrals have taken place so far. The contract is now signed. Target value from this avenue needs to be re-evaluated.	Owners and tenants, as well as households in energy poverty
Engage gatekeeper organisations to facilitate referrals	Energy cutters | Referrals from this organisation that offers energy scans and advice (similar to EM) but limited in scope as a family is only allowed 1 scan regardless of change of home or circumstances (possibly via OCMW)	Households not eligible for 2nd scan (if they have had one in the past)

3.2.2 Recruitment to date

Current recruitment in Belgium stands at 203 households out of a target of 500. Table 2, 3 and 4 describe the number of households recruited, engaged and provided with low-cost measures and behaviour change plans for each quarter of 2021 and 2022.

Table 2. Households recruited, Belgium to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			8	4	12
2022	0	44	91	56	191
					203

Table 3. Households engaged, Belgium to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			8	4	12
2022	0	44	32	86	162
					174

Table 4. Households supplied with low-cost measures and behaviour plans, Belgium to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-	-	-
2022	-	-	88	86	174
					174

4 Recruitment – Bulgaria

4.1 Background to recruitment

4.1.1 Summary of country-level implementation plan

Bulgaria has been topping the chart on energy poverty on most of the indicators monitored by the EU Energy Poverty Observatory (2020). A large proportion of Bulgarian citizens cannot afford the costs of heating their homes to comfortable temperatures. 33.7% of the population are unable to keep their homes sufficiently warm (with all the adverse health effects this causes) – the highest rate in the EU. The same applies to the share of households that cannot afford cooling in the summer – 49.5%. Greece has the highest share of the population with overdue energy bills, but Bulgaria firmly holds second place at 31.7%. All factors that determine the level of energy poverty - low incomes, high energy prices (compared to the purchasing power of the population), and poor energy performance of buildings (over 90% being in energy classes D, E, F and lower) – are at play. Although progress has been made in recent years, especially through the National Program for Energy Efficiency in Multifamily Residential Buildings, the energy poverty in Bulgaria remains the most severe and the Bulgarian residential buildings – the most inefficient in Europe. Recent analyses of local NGO EnEffect based official data of the National Statistical Institute for the population's incomes and consumption figures for 2018, shows that more than 50% of the Bulgarian population are at risk of energy poverty.

The Municipal Energy Efficiency Network EcoEnergy is a non-profit association of Bulgarian municipalities, providing technical support and assistance for the successful design and implementation of local energy and

climate policies, to increase energy security and promote sustainable development at a local and regional level. EcoEnergy is focusing on lower-income householders in multi-family apartment buildings in Gabrovo and Burgas (c. 28.5k and 119k households respectively). Working through its energy projects and with linked third parties is identifying and recruiting energy poor households, having the target of 600 households.

4.2 Household recruitment

4.2.1 Activities

EcoEnergy, Burgas and Gabrovo municipalities are leveraging their existing networks to engage with householders in multifamily apartment buildings in the two cities. The EnergyMeasures project has been promoted to the target groups through liaising with local authorities and homeowner's organisations through emails, phone calls and meetings. Municipal communications offices have been contacted to publicise the project on local radio and newspapers, through its substantial web and social media presence, and NGOs and civil society groups have been attracted to publicise and otherwise support the project offers.

Table 5: Bulgarian recruitment activities

Recruitment activity	Activity description	Target group
Engage the local authorities and relevant experts to promote the project among HOAs	The communication has taken place through direct emailing, phone calls to chairs of homeowners' associations, and direct meetings, during which the project team members, supported by local experts from the municipalities, have explained the project's goals and answered questions.	Energy vulnerable householders in multifamily apartment buildings
Engage HOAs and commence the household visitations	Homeowners' associations in Gabrovo and Burgas were invited to register with the project, setting up the initial household visits and data gathering arrangements. At the onset of the direct on-site meetings, project experts have surveyed the householders, followed by data analysis and evaluation, leading to specific recommendations. In addition, there have been training courses on the benefits of deep energy building retrofitting and the impact energy saving measures available for energy managers, HOAs, and householders.	Energy vulnerable householders in multifamily apartment buildings
Communication and dissemination efforts	Project activities have been actively promoted via local radio, online TV channels, websites and newspapers, participation at various public events, and disseminated via social media accounts (Gabrovo, Burgas, EcoEnergy and EnEffect's Facebook pages) and via EcoEnergy monthly newsletter (9 publications).	Energy vulnerable householders in multifamily apartment buildings
Referrals from social organizations	Liaison with NGOs and public providers of social services	Energy vulnerable householders in multifamily apartment buildings
Direct engagement	Organise training courses both online and in person for municipal energy managers, public officials, HOAs, householders, social service providers.	Energy vulnerable householders in multifamily apartment buildings

4.2.2 Recruitment to date

Current recruitment in Bulgaria stands at 723 households out of a target of 500. Table 6, 7 and 8 describe the number of households recruited, engaged and provided with low-cost measures and behaviour change plans for each quarter of 2021 and 2022.

Table 6: Households recruited to date, Bulgaria to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			145	189	334
2022	50	166	50	123	389
					723

Table 7: Households engaged to date, Bulgaria to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			145	189	334
2022	50	166	50	123	389
					723

Table 8: Households supplied with low-cost measures and behaviour plans, Bulgaria to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-	-	-
2022	-	-	64	0	64
					64

5 Recruitment – Ireland

5.1 Background to recruitment

5.1.1 Summary of implementation plan

Ireland's Energy Poverty Strategy estimates that the rate of households experiencing energy poverty in the country falls between 8.8 – 28%, depending on whether this is based on self-reported inability to heat or derived from modelled expenditure and building energy rating data (DCENR, 2016). In 2016, this upper estimate would have been equivalent to 475,000 households. More recent research produced by the Economic and Social Research Institute (ESRI) in 2020 revises this figure, estimating 'core' energy poverty to be 17.5% of households throughout Ireland, approximately 297,000 in total (O'Malley *et al.,* 2020). Similarly, the Survey on Income and Living Conditions (SILC) indicates that the proportion of those who self-report being unable to afford to heat their homes has fallen from 9% in 2015 to 4.9% in 2019 (Lawlor & Visser, 2022). As can be deduced from these variable estimates, it is relatively difficult to discern a true picture of the levels of energy poverty throughout Ireland.

Energy Action CLG was founded in 1988 with the main aim of helping alleviate fuel poverty in Ireland by addressing the thermal needs of disadvantaged householders. Energy Action's primary target group for EnergyMeasures are elderly people living in single-family, owner-occupied houses in a large urban area, namely Dublin City and environs.

The Cleaner Production Promotion Unit, based in *University College Cork,* is an innovative multi-disciplinary research group operating at the intersection of the social sciences with science and engineering. The research group has a track record in developing novel transdisciplinary research approach and deploying them to realise large scale research projects relating to people's lived experience of energy, their relationship with the energy system, and their role in the energy transition.

From the launch of the project in September 2020 the implications of COVID-19 and its social impacts have been a constant background to the EnergyMeasures project. Due to the pandemic and the extensive 'lock-downs' and social restrictions imposed in Ireland to mitigate its impacts, it has not been possible to commence engagement from March 2021 as originally envisaged in the description of action. The engagement in Ireland was then rescheduled to fit in with the planned 'reopening' of society as the vaccination programme progresses and the pandemic threat lessens. As a result, the household recruitment and engagements that were originally scheduled to commence in March 2021, started in January 2022 (with some preliminary recruitment over November and December as circumstances allowed) and are ongoing.

5.2 Household recruitment

5.2.1 Activities (Dublin)

Household recruiting activities has included training city wardens and caretakers on the importance of energy efficiency measures so that they can identify and encourage energy-saving practices in their complexes, organising an energy efficiency competition between EnergyMeasures participating senior citizen complexes, and distributing leaflets with information about the project and energy advice at key locations such as Senior Citizen Complexes, MABS, SVDP, Senior Citizen Groups, Friends of the Elderly, Age Action, Third Age Ireland, ALONE, Irish Environmental Network, Environmental Protection Agency. The leaflets include the value proposition of the project, answers to potential questions and initial energy advice.

Also, Energy Action have followed up with energy poor households, where they have insulated their homes either through the Sustainable Energy Authority of Ireland (SEAI), also through other private contractors and national Housing Associations including Threshold, Clúid, ALONE, St. Vincent De Paul, Money Advice Budgeting Services (MABS) *etc*. Additionally, complementary to the project, Energy Action have liaised with Climote to fit (at no charge) remote access Remote Heating Controller controls to some of the participating households – providing them with even more support in their energy conservation. This work is scheduled to take place in Qtr1 2023. *Note*: Energy Action CLG went into voluntary liquidation during November 2022, UCC is working with other partners to devise a suitable approach to main the Dublin engagement actives.

Table 9: Recruitment and engagement activitiesin Dublin

Recruitment activity	Activity description	Target group
Dublin City Council Wardens and Caretakers recruitment activities	Training of city wardens (caretakers) on energy efficiency so that they support with the household recruitment within their complexes	Elderly residents living in housing complexes in disadvantaged areas
Distribution of leaflets in household complexes	Distribute leaflets in Senior Citizen Complexes, MABS, SVdP, Senior Citizen Groups, Friends of the Elderly, Age Action, Third Age Ireland, ALONE, Irish Environmental Network, Environmental Protection Agency	Elderly residents living in housing complexes in disadvantaged areas

Referrals from social organisations	Liaise with social organisations such as SVdP or MABS as well as household associations so that they can support in identifying and referring energy poor households	Householders assisted by social organisations
Referrals from public bodies	Liaise with local authorities and SEAI so that they can support in identifying and referring energy poor households	Tenants and service users of the public bodies

5.2.2 Activities (Cork)

Household recruiting activities have included the distribution of 2,800 leaflets with information about the project and energy advice at key locations in low-income neighbourhoods in Cork City, community libraries, community organisations, supermarkets and grocery shops, community centres and local government offices (Cork City Council and the Immigration Office).

The UCC team has also liaised with local organisations including, Carbery Housing Association and NCE Energy Hub, to engage them as gatekeepers for the project in their localities and shared information about the programme in relevant Facebook groups and online newsletters. Gatekeeper organisations have publicised the project and referred energy households to the project.

Another relevant engagement activity has been the organisation of seven Energy Clinics, particularly for active retirement associations in Cork County. During these energy clinics, senior citizens have learned about how the EnergyMeasures programme work, have been given bespoke behavioural change recommendations for their age and household context, and have had a chance to ask questions about the programme, as well as other energy-saving related queries.

Table 10: Recruitment and engagement activities in Cork

Recruitment activity	Activity description	Target group
Engage gatekeeper organisations to facilitate referrals	Contacted organisations such as Carbery Housing Association and NCE Energy Hub to publicise the offering of the project and refer energy poor households to the project team at UCC.	Tenants and clients of the gatekeeper organisations
Referrals from social organisations	Liaised with social organisations such as St Vincent de Paul, Cork City Partnership and Cork City Library so that they can support recruitment activities.	Householders assisted by social organisations
Contacts arising from publicity campaign	Distributed 2800 leaflets in target neighbourhoods, supermarkets, and libraries (Hollyhill, Fairhill, Parklands, Gurranabreher, Churchfield, Blackpool, St. Lukes and Mayfield) and shared information about the programme in relevant Facebook groups (Community Network, Cork Northside Community, Cork News and Events and Cork Freecycle). Published information about the programme in two online newsletters: Comharchumann Forbartha Mhúscraí PPN Cork County	Energy vulnerable residents in target areas
Direct engagement	Organise energy clinics at community centres, housing associations and retirement associations.	Energy vulnerable residents in target areas
Referrals from public bodies	Liaise with Cork City Council and Cork County Council (and other relevant public bodies) so that they can support in identifying and referring energy poor households.	Tenants and service users of the public bodies

5.2.3 Recruitment to date (Dublin)

Current recruitment in Dublin stands at 181 households out of a target of 500. Table 11, 12 and 13 describe the number of households recruited, engaged and provided with low-cost measures and behaviour change plans for each quarter of 2021 and 2022.

Table 11: Households recruited, Dublin to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-	7	7
2022	16	73	59	26	174
					181

Table 12: Households engaged, Dublin to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-	7	7
2022	16	73	6	43	115
					122

Table 13: Households supplied with low-cost measures and behaviour plans, Dublin to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-	-	-
2022	-	-	43	74	118
					118

5.2.4 Recruitment to date (Cork)

Current recruitment in Cork stands at 197 households. The rate of recruitment using current activities has surpassed the target of 150 households. Table 14, 15 and 16 describe the number of households recruited, engaged and provided with low-cost measures and behaviour change plans for each quarter of 2021 and 2022.

Table 14: Households recruited, Cork to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-	9	9
2022	22	52	32	82	188
					197

Table 15: Households engaged, Cork to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-	9	9
2022	22	34	17	78	151
					160

Table 16: Households supplied with low-cost measures and behaviour plans, Cork to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-	-	-
2022	-	-	76	78	154
					154

6 Recruitment – Netherlands

6.1 Background to recruitment

6.1.1 Summary of country-level implementation plan

Energy poverty is a relatively new term used in policy circles in the Netherlands even though it has been demonstrated that energy poverty occurs in the country (Breukers, Agterbosch and Mourik 2020; Straver et al 2021). Policy initiatives are emerging in various parts of the country, often initiated by municipalities. Housing corporations, energy cooperatives and other social organizations are also increasingly tackling energy poverty issues. There are no national programs or strategies aimed at reducing energy poverty in the Netherlands, although the pressure to do so is increasing (Straver et al 2021). Within Eindhoven, Energiebox is one initiative that has had a long trajectory providing households with energy-saving advice and aids.

The municipality of Eindhoven (Gemeente Eindhoven), PON & Telos and DuneWorks are working in the city of Eindhoven targeting households that are energy and income poor. The three organisations aim to recruit 400 households using conventional media, social media and direct personal contact with household and communities. Conventional media will include press releases, local newspapers (Eindhovens Dagblad or neighbourhood newspaper) and newsletters from (neighbourhood) partners. Social media will comprise information in a Facebook Group and WhatsApp groups. Direct contact with households is planned to be attained through targeted door-to-door contact and meetings. The municipality of Eindhoven will also collaborate with existing initiatives, networks, NGOs and other partners such as Foodbanks, church organisations, and initiatives providing social benefits and financial arrangements for the poor to identify and refer households.

6.2 Household recruitment

6.2.1 Activities

Table 17 lists the three organisation's efforts to recruit households up to date. However, the implications of COVID-19 and its social impacts have had important implications for the Dutch context, reflected in lower recruitment levels than planned for Q4 of 2021 and Q1 of 2022.

Table 17. Dutch recruitment activities

Recruitment activity	Activity description	Target group
Give information on the project to intermediate organisations	We initiated a cooperation with Werkplaats Financien XL. This is an NGO that provides free guidance and financial advice to habitants of Eindhoven. They have five different offices, one in each part of the city. We have presented the project to the director, who shared the information with her staff. In the beginning of February 2022 one of our energy coaches met with Werkplaats Financien XL to explain more about the project. An alderman of the Municipality was also present and he was also informed by the energy coach.	Households assisted by social organisations
Give information on the project to intermediate organisations	We initiated a cooperation with WIJEindhoven. This is an NGO that provides social work to all habitants of Eindhoven and they work with around 100.000 clients each year. We have presented the project multiple times to the consultants working there and project materials have been shared regularly on their intranet.	Households assisted by social organisations
Give information on the project to intermediate organisations	The project is a regular agenda item on the meeting of the energy poverty workgroup between the municipality and the four housing corporations. The housing corporations have shared the project on social media and by flyer with their tenants (40.141 households in total).	Households that rent their house from the social housing agencies

Flyering within the intended group of households	We have recruited households in a targeted manner via flyer distribution at the food bank.	Households assisted by social organisations
Direct approach of the target group	We have recruited households in a targeted manner by adding the project to a letter sent out to 6500 households with a minimum income, in cooperation with the Social Domain of the municipality.	Households known by the municipality
Direct approach of the target group	We have recruited eligible households under 2731 applications (numbers are for the period May - December 2021) for the regular Energiebox.	Households known by the regular Energiebox
Give information on the project to intermediate organisations	We have contacted various religious organisations, 25 in total, in order to share the project with households they work with.	Households assisted by churches/mosques
Give information on the project to intermediate organisations	We have contacted several NGO's e.g., Ik Wil, Sociale Raadslieden, Vluchtelingenwerk, Jonge Moeders.	Households assisted by social organisations

6.2.2 Recruitment to date

Current recruitment in the Netherlands stands at 320 households out of a target of 400. Table 18, 19 and 20 describe the number of households recruited, engaged and provided with low-cost measures and behaviour change plans for each quarter of 2021 and 2022.

Table 18: Households recruited, Netherlands to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021				19	19
2022	0	184	64	53	301
					320

Table 19: Households engaged, Netherlands to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021				19	19
2022	0	184	64	53	301
					320

Table 20: Households supplied with low-cost measures and behaviour plans, Netherlands to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021				19	19
2022	0	184	64	53	301
					320

7 Recruitment – North Macedonia

7.1 Background to recruitment

7.1.1 Summary of country-level implementation plan

Energy is used inefficiently in Macedonia, with energy intensity significantly above the average for the European Union. The high energy intensity is a result of aged and often obsolete energy infrastructure and poorly maintained and/or outdated energy-using capital stock – especially in buildings. Residential multi-apartment buildings, estimated at 11,500 in Macedonia, account for a significant share of the total energy consumption in buildings and are at the same time highly energy inefficient. According to recent findings of the Western Balkans Residential Energy Efficiency Market Assessment, the penetration rates of energy-efficient materials, appliances and equipment is very low in Macedonia (on average not exceeding 10%), especially in households with lower incomes. Most of the buildings in Macedonia are 30 to 50 years old, lack thermal insulation and have poor energy performance. About 6% of all residential building stock in Macedonia is estimated to meet the national energy performance requirements and belong to energy class C or D, while all other residential buildings can be classified in lower energy classes thus need energy efficiency retrofitting. Technical opportunities for improving energy efficiency in existing buildings are thus significant with potential energy savings estimated between 30-70%. Furthermore, there is low experience with awareness of and knowledge of energy efficiency measures and financing among households.

Habidom is a residential building management company that aims to improve the living conditions in collective residential buildings. The organisation is targeting female-headed and elderly couples households living in multi-family apartment buildings and learning low incomes.

7.2 Household recruitment

7.2.1 Activities

Households are being recruited by distributing leaflets in residential buildings already managed by Habidom (146 residential apartment buildings which have a total of 3,602 households).

Table 21. Macedonian recruitment activities

Recruitment activity	Activity description	Target group
Engage homeowners	Contacted homeowners to explain the goal of the project and started the interview process.	Households managed by Habidom
Public campaign	Facebook campaign twice a week	Households
Direct engagement	Direct communication with households that fit within the criteria selection	Vulnerable households

7.2.2 Recruitment to date

Current recruitment in North Macedonia stands at 550 households out of a target of 600. Table 22, 23 and 24 describe the number of households recruited, engaged and provided with low-cost measures and behaviour change plans for each quarter of 2021 and 2022.

Table 12: Households recruited, **North Macedonia** to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021				30	30
2022	0	319	201	0	520
					550

Table 22: Households engaged, **North Macedonia** to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-		
2022			175	183	358
					358

Table 23: Households supplied with low-cost measures and behaviour plans, **North Macedonia** to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-	-	-
2022	-	-	10	0	10
					10

8 Recruitment – Poland

8.1 Background to recruitment

8.1.1 Summary of country-level implementation plan

4.6 million people in Poland live in energy poverty, accounting for 12% of the population. Particularly vulnerable groups include: (1) the people living in the countryside, (2) young families on their first job (or without), (3) residents of high-poverty urban areas and (4) elderly and disabled people. The first group represents two-thirds of all energy poor, while the last one-quarter of all. The risk of falling into energy poverty is considerably higher for households living on social benefits than for other socio-economic groups.

The Association of Municipalities Polish Network „Energie Cités" (PNEC) is a non-governmental organisation which, since 1994, supports sustainable energy planning and implementation on the local level. PNEC will implement the EnergyMeasures project in the city of Bielsko-Biała, in cooperation with city authorities.

PNEC is targeting two main groups: private owners occupying single-family buildings and private owners of flats in multi-family buildings (both with the focus on the elderly and the families leaving on social benefits). Due to the lack of data to identify energy poor households, the selection/recruitment of households will be mostly made on the basis of (1) income per person, (2) technical condition of the building.

8.2 Household recruitment

8.2.1 Activities

PNEC's household recruiting activities include a multi-channel campaign to inform the general public about the project using traditional and social media, and a strategy for involving stakeholders. Traditional media comprise project information on the city website, city newsletter, local free bulletins, housing association bulletins and community, housing association and church boards. Also contact with local independent media (like "Kronika Beskidzka", "Dziennik Zachodni", Radio Bielsko) was established for advertising EnergyMeasures.

The text and the graphics of the advertisement has been designed jointly by PNEC and the city of Bielsko-Biała. The social media campaign complements traditional media by reaching young people through Facebook pages and groups. The stakeholder involvement strategy aimed to reach households through institutions such as the Municipal Social Services Office, local schools, housing associations, churches, seniors clubs, relevant NGOs (e.g., focusing on social issues or energy issues). Most of households registered to date have been recruited through municipal channels by filling application form offline.

Table 25: Polish recruitment activities

Recruitment activity	Activity description	Target group
Engagement of organizations	Contact with local NGOs (a.o.Caritas, local activization centre) to propose cooperation and set up the conditions of their support	householders associated by local organizations
Preparation of dedicated promotion content	Close cooperation with the City Hall to adjust content to city website, local newspapers and radio. Preparation of leaflets, social media campaign and content of letters distributed to target groups.	energy vulnerable residents in target areas
Recruitment details	Preparation of second recruitment path to include digitally excluded residents	digitally excluded residents
Promotion	Distribution of 1000 of leaflets and 20 posters in target neighbourhoods and housing estates.	householders living in cooperative housing
Referral of President	Direct encouragement for housing estate councils from city council by sending letters and promotion plan for estates	Vulnerable residents of old city's housing estates

8.2.2 Recruitment to date

Current recruitment in Poland stands at 450 households. The rate of recruitment using current activities has surpassed the target of 400 households. Table 26, 27 and 28 describe the number of households recruited, engaged and provided with low-cost measures and behaviour change plans for each quarter of 2021 and 2022.

Table 46: Households recruited to date, Poland to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021					-
2022	18	286	146	0	450
					450

Table 27: Households engaged to date, Poland to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021					-
2022	18	286	146	0	450
					450

Table 28: Households supplied with low-cost measures and behaviour plans to date, Poland to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021					-
2022	18	286	146	0	450
					450

9 Recruitment – United Kingdom

9.1 Background to recruitment

9.1.1 Summary of country-level implementation plan

In 2019 an estimated 24.6% (around 613,000 households) of all households in Scotland were in fuel poverty. Between 2018 and 2019, rates of fuel poverty increased in remote rural areas (from 33% to 43%), widening the gap between urban (24%) and rural areas (29%). Similarly, levels of extreme fuel poverty increased in remote rural areas (from 23% to 33%), so extreme fuel poverty rates in rural areas (19%) were higher than in urban areas (11%). Overall rates of fuel poverty differed between the social (37%) and private sector (20%) although rates of extreme fuel poverty were similar (14% and 12%, respectively) in 2019. Levels of fuel poverty among households using electricity as their primary heating fuel have remained the highest, at 43%, compared to households using gas (22%), oil (28%) and other fuel types (31%) as their primary heating fuel in 2019.

Tighean Innse Gall (TIG) was founded in 1991 to help make homes affordably warm, safe to live in and adapted for those with disabilities or who are frail. The primary focus of engagement of TIG will be the Outer Hebrides of Scotland, targeting mainly private owner-occupiers suffering from energy poverty, living in remote communities on the islands, with a focus on the elderly (65+).

9.2 Household recruitment

9.2.1 Activities

TIG's household recruitment strategy has focused on creating public awareness and involving service agencies. Raising public awareness about the project has been done through placing adverts in local newspapers, social media, local radio stations (one in Gaelic) and word of mouth. TIG has also involved agencies that provide services for people throughout the islands so that they can promote EnergyMeasures and refer households. These agencies include Western Isles National Health Service (WINHS), Western Isles Association for Mental Health (WIAMH), Western Isles Citizens Advice Service (WICAS), The Shed (works with people with drug and alcohol addiction issues) and The Foyer which works with vulnerable young people. In addition to these, the Financial Inclusion Team of Comhairle nan Eilean Siar and other local community-based organisations have also been contacted to reach target households.

These ranging outreach activities have resulted in successful recruitment of households. However, this has meant some households recruited who are not eligible for support from the project. Nonetheless those not eligible have been given advice, as well as signposted to other agencies such as Home Energy Scotland who deliver interest free loans for efficiency measures

Table 29. Scottish recruitment activities

Recruitment activity	Activity description	Target group
Outreach work with community groups	We have made contact with a wide range of community groups to extend the profile of the project. These have resulted in talks to citizens via groups; which have included Western Isles Library Service, community groups and events such as Carloway Community Association, Breasclete Community 'Shout Out' and West Harris Trust coffee morning.	Users of community group services from which we can identify fuel poor households.
Referrals from trained social organisations	We have trained social groups to understand about EnergyMeasures and our work and these have included the financial inclusion team at the local	Households who receive one service

	authority, Western Isles Citizens Advice Bureau and Macmillan cancer relief.	will need others help.
Contacts from publicity campaign	We have placed numerous social media recruitment posts; adverts in all local newspapers and newsletters (Guth, Am Paipear, Dè tha dol?, Spotlight); and online news welovestornoway.com; Hebrides-news.com Each advert or news item has a bespoke code which where possible is quoted when responding.	Energy vulnerable households and those in remote areas.

9.2.2 Recruitment to date

Current recruitment in United Kingdom stands at 357 households out of a target of 500. We note a further *c.* 200 households were also engaged but deemed ineligible at that time[7], the changed economic context and the substantial rises in energy costs mean that many (if not most) of this cohort are likely now to have fallen into energy poverty – so their eligibility is now being reassessed. Table 30, 31 and 32 describe the number of households recruited, engaged and provided with low-cost measures and behaviour change plans for each quarter of 2021 and 2022.

Table 30: Households recruited, **United Kingdom** to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021	**148**	**49**	**64**	**120**	**383**
2022	**45**	273	318	39	318
					357

Table 51: Households engaged, **United Kingdom** to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-		
2022			180	54	234
					234

Table 32: Households supplied with low-cost measures and behaviour plans, **United Kingdom** to December 2022

Total of households	Q1	Q2	Q3	Q4	Total
2021			-	-	-
2022	-	-	166	42	208
					208

[7] Those initially deemed ineligible were given energy advice, and referred to other support agencies such as Home Energy Scotland who deliver interest free loans for energy efficiency measures.

10 Conclusions

This report has provided an update on the identification and recruitment of energy poor households within the EnergyMeasures project up to December 2022. The partners involved in this task have developed country-specific implementation plans which detail (i) how energy poor householders will be identified and recruited, and (ii) the step-by-step approach that will be taken in engaging householders. The Covid-19 pandemic has however impacted on the partners' ability to recruit and engage householders as programmed. Engagement of households was due to start in March 2021, however, this was not possible in most countries due to the pandemic. Nonetheless, the improving situation with respect to Covid-19 allowed recruitment and engagement to be ramped up during 2022.

In contrast with the difficulties experienced in recruiting household particularly in the first half of the project, it is apparent the recruitment (and subsequent engagement and follow up) is now occurring at a far more acceptable rate albeit there is more still to do. There are of course variations arising from the specificities of the participating countries *e.g.,* Recruiting (and engaging) households in mass housing developing within a city context is a very different challenge from that involved in identifying and recruiting energy poor households in rural isolated areas. It is also fair to say that differences in the response to, and implications arising from the pandemic have had an impact, for instance in some countries public programmes which were intended to be utilised and leveraged to reach energy poor households have been put on hiatus significantly impacting on recruitment. Similarly, redeployment of key personnel to other duties has a detrimental effect.

As communicated in previous reports, to remedy the impacts of the pandemic on the project, household engagement activities will proceed right up until the end of the project. This change was coupled with a rescheduling of tasks, modification of recruitment strategies and associated deadlines in a grant amendment. It is envisaged that this will enable the partners to make up for the recruitment and engagement which they have been unable to do in earlier stages of the project.

Some countries have already reached or surpassed their recruitment target – while others are still working towards theirs. Recruitment is monitored on a weekly basis and the country level implementation plans are reviewed monthly at a dedicated meeting. Moreover, a specific workshop will be held at the next General Assembly in early February to review recruitment over the 2022-23 winter period to date and as required remedial measures put in place where necessary to ensure household participation targets are met. This will potentially include transfer of resources and targets as foreseen in the mitigation actions detailed in the DoA[8].

In summary, the identification and recruitment of energy poor households as progressed significantly within the project particularly over the past six months. Many countries have reached their targets, the progress of others is being monitored carefully but so far appear to be progressing well. In needed mitigation measures will be put in place.

[8] The voluntary liquidation of 2/ Energy Action also poses a challenge to the project and specifically to recruitment and engagement in the Dublin area. However, there has been great foundational work undertaken in Dublin and it is envisaged that this work will be realised with the continued involvement of local key staff. UCC as coordinators are working with other partners to agree an approach to realise this and will be liaising with the project officer on a grant amendment reflecting the termination and the mitigation to be taken to minimise its impact on the project.

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