



**ASSIST**  
2GETHER

# ASSIST Action Plan



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## Table of contents

<b>1. Presentation of ASSIST Project .....</b>	<b>6</b>
1.1 ASSIST overview and introduction.....	6
1.2 “WP5 – ASSIST 2gether Action” .....	6
1.3 Document overview and structure.....	7
<b>2. Introduction – Energy poverty and energy vulnerability definition.....</b>	<b>9</b>
2.1 Belgium .....	9
2.1.1 Official definitions of energy poverty.....	9
2.1.2 Energy poverty statistics.....	10
2.1.3 Indicators of vulnerability derived from policy measures .....	11
2.1.4 Indicators of vulnerability derived from consumer statistics.....	11
2.2 Finland .....	12
2.2.1 Official definitions of energy poverty.....	12
2.2.2 Energy poverty statistics.....	12
2.3 Italy .....	15
2.4 Poland.....	17
2.5 Spain.....	18
2.6 United Kingdom.....	20
2.7 Action boundaries definition at EU level.....	21
2.7.1 Belgium.....	21
2.7.2 Finland.....	22
2.7.3 Italy.....	22
2.7.4 Poland .....	23
2.7.5 Spain .....	25
2.7.6 UK .....	26
2.7.7 Boundaries definition workshop results .....	26
<b>3. Country reports .....</b>	<b>28</b>
<b>4. General Conclusions.....</b>	<b>29</b>
4.1 Belgium .....	29
4.2 Finland .....	29
4.3 Italy .....	30
4.4 Poland.....	31
4.5 Spain.....	31
4.6 UK.....	33
4.7 Summary of the proposed actions.....	34
4.7.1 Belgium.....	35
4.7.2 Finland.....	37
4.7.3 Italy.....	39
4.7.4 Poland .....	43
4.7.5 Spain .....	46
4.7.6 United Kingdom .....	47

4.8 Proposed monitoring systems .....48

**5. References .....49**

# 1. Presentation of ASSIST Project

## 1.1 ASSIST overview and introduction

ASSIST is a 36-months European ‘market activation and policy orientation’ project to tackle fuel poverty and support vulnerable consumers. It intends to actively engage consumers in the energy market and positively change behaviour in relation to energy consumption and to influence design of policy at all levels to tackle fuel poverty issues.

Based on the conclusion of the Energy Citizens’ Forum and of the European Vulnerable Consumers Working Group, the project intends to combine activities addressing both energy and social dimensions as fuel poverty is not only an energy issue nor can it be tackled in isolation of the bigger issue of poverty. More specifically, ASSIST strategic objectives are to contribute to:

- tackle energy poverty;
- reduce the main barriers of the energy market faced by vulnerable consumers;
- support vulnerable consumers to be more efficient with their domestic energy consumption (electricity and gas).

To fulfil its goals, the project foresees diversified and correlated research, networking and in-field actions, consistent with the relevant national and European scenarios. Among them, ASSIST intends to create a network of innovative professional figures supporting vulnerable consumers in their domestic energy consumption: “**Home Energy Advisor (HEA)**”.

## 1.2 “WP5 – ASSIST 2gether Action”

The fifth work package aims to design, implement and evaluate innovative support services for vulnerable consumers / energy poor on a country based level with a market-oriented and flexible approach (as recommended “projects based on behaviour change and efficiency should align with existing local initiatives”), through the implementation of pilot actions. The actions will be defined at National level with the support of the National Steering Committee and on the basis of the results of the national context analysis carried out in WP2 and of the market segmentation carried out at the beginning of the work package. The ASSIST actions will address 4.500 vulnerable consumers (750 per country). The tasks foreseen in the work package include:

- Market segmentation, that aims at assigning vulnerable consumers in market groups with common characteristics. It will act as a driver for the design of the actions.
- Designing, initiating and delivering the actions in each country.

- Evaluation of results: in order to assure reaching the set objective and performance indicators, the partners will closely monitor the development of and results achieved within the action.

### 1.3 Document overview and structure

This document is the final result of task 5.2. This task includes the design and development of the ASSIST 2Gether action in the various countries to 750 vulnerable consumers/ energy poor to reduce indicatively 7% of their energy consumption. The ASSIST 2Gether actions will be designed with the contribution of the National VCSC (WP7) and building on the results of:

- previous work packages, mainly on the evidence collected in the in-depth analysis (WP2), outcomes of the training (WP3) and managing of the VCEA network (WP4),
- market segmentation specifically carried out at the beginning of this work package
- literature (i.e. EAA Report “Achieving Energy Efficiency through Behaviour Change” )
- direct experiences of the partners in energy efficient pilot actions (such as SMART-UP by AISFOR and ECOSERVEIS, “Energia su Misura” by RSE).

The design of the ASSIST 2Gether actions has the scope to define objectives, success criteria and foreseen activities (tasks scheduling, monitoring processes, foreseen objectives and outputs, etc.). The task includes also the organisation of two workshops (think tank events) with national social and energy key market players and stakeholders to discuss the pilots / actions / initiatives carried out / to be carried out to support vulnerable consumers or tackle fuel poverty in order to decide how to proceed in the definition of the ASSIST 2Gether action. The first of these two workshops for the ASSIST 2Gether Action Plan definition has been organised by month 8, together with the first VCSC roundtable and national stakeholders workshop (see task 7.2).

More data about the think tank events organized in each country are available in the different sections of the document.

In some countries, the 1st action definition workshop and the 1st VCSC roundtable were held together. The second ASSIST 2Gether action definition workshop has taken place indicatively around month 10. The aim of the workshop was to disseminate the objectives of the action, engage VCSC members and national stakeholders, analyse the results of past pilots, illustrate the results of the in depth analysis and discuss possible initiatives for the ASSIST 2Gether action. The second workshop (specific of task 5.2) intends to define the details of the action plan with the key actors, including the action monitoring process (which indicators need to be measured and verification means).

## ASSIST Action Plan\_

This document is constituted by a general part in English (introduction and conclusions summing-up the plan of each country) and then by 6 separate reports, each containing an introduction in English and the specific action planning in the local language.

References, reported at the end of the document, include all the used sources for both the general part and the specific country plans.

## 2. Introduction – Energy poverty and energy vulnerability definition

This chapter collects the main findings of the clusterization presented in document D5.1. In particular, a short summary of each country's results is reported and then a trial to define the boundaries of the action at EU level is presented.

### 2.1 Belgium

#### 2.1.1 Official definitions of energy poverty

The official definition of energy poverty in Belgium is to be found in the annual energy poverty barometer published by the King Baudouin Foundation ([18]). In this annual barometer, the width and depth of the energy poverty problem in Belgium is measured using three different definitions:

- **The ‘measured energy poverty’:** is based on the Boardman approach (used in the UK to define fuel poverty). Each year, the median value of the ratio between energy expenditures and equivalent household income (corrected for the household size)<sup>1</sup> is calculated. A ‘boundary value’ is defined as twice the value of the median value. If a household spends more on energy than indicated by the boundary value (in %), this household is considered as an ‘energy poor’ household in an objective sense.
- **The ‘hidden energy poverty’:** concerns the fraction of the Belgian households that is reducing their energy use to the extent that it might have a negative impact on living conditions and quality of life in general. The hidden energy poverty indicator is calculated based on the comparison of a household's energy expenditures with the average energy expenditure of a comparable household (with the same number of inhabitants) living in a comparable dwelling (with the same number of rooms). If a household spends less than half of the average of a comparable household living in a comparable dwelling, and if this household belongs to the 50% of households with the lowest equivalent incomes in Belgium, this household is considered to be in a situation of hidden energy poverty.
- **The ‘subjective energy poverty’:** is based on the percentage of households that report having difficulties to adequately heat their dwelling.

Data on energy expenditures are derived from the EU-SILC inquiry on living conditions in the EU. This inquiry is performed on a yearly basis and includes a statistically representative sample of about 6.000 Belgian households.

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<sup>1</sup> The highest equivalent incomes are excluded from the calculation of the median, and housing expenditures are subtracted from the household income.

### 2.1.2 Energy poverty statistics

For the year 2015 (latest results available), the following percentages are reported for the different indicators:

Measured energy poverty (14,5% on average in Belgium):

- Flanders region: 10,8%
- Brussels region: 12,8%
- Walloon region: 22%

Hidden energy poverty (3,9% on average in Belgium):

- Flanders region: 3%
- Brussels region: 9,8%
- Walloon region: 2,2%

Subjective energy poverty (5,1% on average in Belgium):

- Flanders region: 2,4%
- Brussels region: 8,1%
- Walloon region: 7,9%

The higher measured energy statistics for Wallonia (compared to Flanders) can be explained by an on average lower disposable income, the size (larger) and quality (lower) of the dwellings, and a lower average temperature. The average income in the Brussels region is even lower than in Wallonia, but the share of flats is very high in this region so that heating expenditures are generally lower.

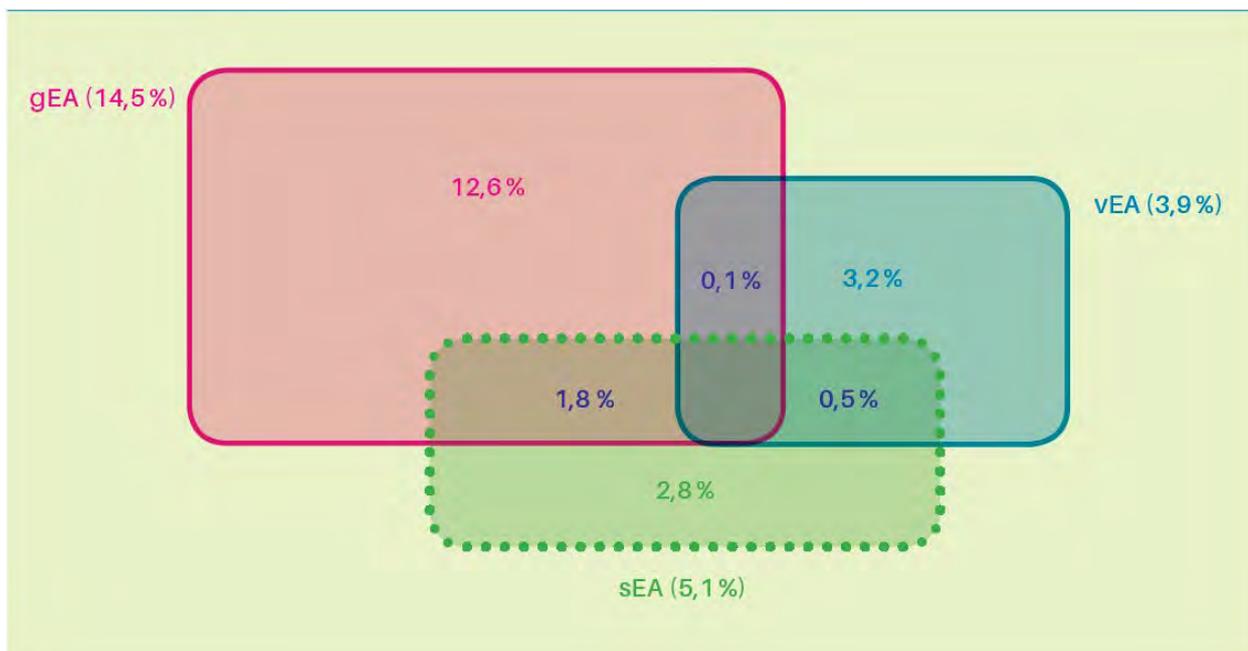


Figure 1. Relation between measured energy poverty (gEA), hidden energy poverty (vEA) and subjective energy poverty (sEA) in Belgium.

**Figure 1** shows the relation between measured energy poverty (gEA), hidden energy poverty (vEA) and subjective energy poverty (sEA). From the figure, it becomes clear that there is only a limited overlap between the different categories of energy poverty in Belgium. All in all, taking into account the overlaps, 21% of Belgian households are potentially at risk of falling into energy poverty according to one of the three definitions.

### **2.1.3 Indicators of vulnerability derived from policy measures**

Next to the official definition of energy poverty, certain policy measures aimed at reducing (the risk of) energy poverty target vulnerable groups based on precisely defined access criteria.

For instance, households who are in one of the following situations are entitled to receive a free energy scan:

- protected' customers that are entitled to a social maximum energy tariff (customers that enjoy certain social welfare benefits or payments are eligible, e.g. seniors with a minimum pension allowance, people with a labour incapacity, etc.);
- customers with a budget meter (a budget meter is installed if the customer has problems in paying the bill of the energy provider of last resort – i.e. the DSO);
- customers that are eligible for a social energy loan;
- customers who are at risk of being disconnected (such a request always has to be filed with an judged by a 'local advisory committee');
- customers living in a dwelling belonging to a social housing corporation;
- tenants paying a maximum rental price of 462,72 euro, or 512,74 euro in certain cities.

Such official policy criteria can be interpreted as 'indicators of vulnerability'.

### **2.1.4 Indicators of vulnerability derived from consumer statistics**

From the annual energy poverty barometer certain groups can be identified that show a higher risk of falling into energy poverty.

About 70% of **households that are at risk of poverty in general** also fall into one or more of the above-mentioned categories of energy poverty. The three lowest disposable income deciles run the highest risk of falling into energy poverty. On the other hand, the overlap between energy poverty and poverty in general is not complete, as 40% of energy poor households (according to at least one of the above-mentioned definitions) is not at risk of poverty in a general sense.

**Tenants** are clearly at a higher risk of energy poverty than owners. 21,9% of tenants are energy poor (according to the 'measured energy poverty' indicator), while only 11% of owners fall into this category.

**Owners without a mortgage loan** are at a higher risk of energy poverty than owners. 15,4% of owners without a mortgage loan are energy poor (according to the 'measured energy poverty' indicator), while only 6,2% of owners with a mortgage loan fall into this category. This correlation appears to be counter-intuitive, but is explained by the fact that single person households and senior owners are over-represented in the category of owners without a mortgage loan, and these types of households are at a higher risk of falling into energy poverty (cf. infra).

**Single person households and single parent households** are clearly at a higher risk of energy poverty than others. 26,9%/20,3% of single person/single parent households are energy poor (according to the 'measured energy poverty' indicator), compared to the average of 14,5% for all households. Single parent households are predominantly (84%) composed of a single mother + child(ren).

**Single person households** account for 57,7% of the 'measured energy poor' households. Out of the energy poor single person households, 48,4% are seniors (older than 65 years). **Old age in combination with living alone** clearly represents a risk factor regarding energy poverty. This is explained by the fact that senior people often experience a significant drop in disposable income, while they often live in old energy-inefficient dwellings that are too big for their needs.

Not surprisingly, **households without a labour income** are over-represented in the category of 'measured energy poor'. 26,3% of households without a labour income are energy poor (according to the 'measured energy poverty' indicator), compared to the average of 14,5% for all households.

Finally, 16,2% of **households living in an energy-inefficient dwelling** are energy poor (according to the 'measured energy poverty' indicator), compared to the average of 14,5% for all households.

## 2.2 Finland

### 2.2.1 Official definitions of energy poverty

In Finland, there is no official definition, statistics or specific information sources for measuring, energy poverty or vulnerability in regards to energy markets in Finland. Energy poverty as an issue is not acknowledged in Finland and is viewed as part of a larger poverty issue. No measures targeted specifically to alleviate energy poverty are in place in Finland.

### 2.2.2 Energy poverty statistics

There are still very few studies or statistical data in Finland on energy poverty. Two previous studies have been done for the Ministry of Environment on risk of energy poverty in Finland: Ympäristöministeriön raportteja 21/2013: Selvitys energiaköyhyydestä [1] and as follow up Ympäristöministeriön raportteja 6/2015:

Pienituloisen omistusasujan energiaköyhyys [2]. The first study by the Ministry of Environment estimated the risk of fuel poverty and energy costs in different type of households. It identified that the people most at risk of energy poverty are low-income households, such as low-income families and pensioners, living outside the urban area in large-non-energy efficient dwellings (p. 38 [1]).

In order to estimate the risk for energy poverty and the characteristics affecting the energy expenditure of a household, in Assist research, we have analysed the results of the Market survey on vulnerable consumers' needs, expectations and interests, (further described in the Vulnerable Consumers Fuel Poverty Report) that was conducted as part of Assist project. The survey was distributed both electronically with an email link to home owners via Home Owners Association and with paper version to the elderly that does not have access to an electronic survey via The Association for welfare of the elderly. In total the survey was distributed to 24 484 people and 4660 answers were collected.

It should be noted that the sample for the survey in Finland was selected based on previous research in to energy poverty, and the survey was targeted to homeowners and elderly. Thus, the socio-demographic aspects in the data acquired through the survey, such as age employment status, dwelling characteristics cannot be considered statistically representative of the whole Finnish population.

The purpose of the analysis was to identify categories/clusters of customers that might be vulnerable, taking under consideration their Annual Electricity and Heating costs as a share of their income (Electricity/Heating costs). For this reason, a feature selection and clustering methodology has been designed and implemented, in order to first select the most important variables and then use them as the criteria for separating customers into clusters.

**Table 1 Characteristics of cluster participants based on decision rules**

CLUSTERS	# SAMPLES	% OF SAMPLE	CHARACTERISTICS
CLUSTER1	84	2%	<ul style="list-style-type: none"> <li>Financial situation: <i>1 or 2</i></li> <li>Employment status: <i>Employed, Student, Unable to work, Home-maker or Inactive</i></li> <li>Year of building: <i>&lt;=1970</i></li> </ul>
CLUSTER2	123	3%	<ul style="list-style-type: none"> <li>Financial situation: <i>1 or 2</i></li> <li>Employment status: <i>Employed, Student, Unable to work, Home-maker, Inactive</i></li> <li>Year of building: <i>&gt;1970</i></li> </ul>
CLUSTER3	43	1%	<ul style="list-style-type: none"> <li>Financial situation: <i>1 or 2</i></li> <li>Employment status: <i>Retired</i></li> <li>Ability to maintain adequate temperature: <i>No</i></li> </ul>

CLUSTER4	316	8%	<ul style="list-style-type: none"> <li>• Financial situation: <i>1 or 2</i></li> <li>• Employment status: <i>Retired</i></li> <li>• Ability to maintain adequate temperature: <i>Yes</i></li> </ul>
CLUSTER5	25	1%	<ul style="list-style-type: none"> <li>• Financial situation: <i>1 or 2</i></li> <li>• Employment: <i>Unemployed</i></li> <li>• Marital status: <i>Married or cohabitant</i></li> <li>• Central heating and cooling: <i>No</i></li> </ul>
CLUSTER6	260	6%	<ul style="list-style-type: none"> <li>• Financial situation: <i>3 or 4</i></li> <li>• Employment status: <i>Employed, Student, Unable to work, Home-maker, Inactive or Unemployed (not Retired)</i></li> <li>• Marital status: <i>Divorced/separated, Unmarried or widow (not married or cohabitant)</i></li> </ul>
CLUSTER7	1325	32%	<ul style="list-style-type: none"> <li>• Financial situation: <i>3 or 4</i></li> <li>• Employment status: <i>Employed, Student, Unable to work, Home-maker, Inactive or Unemployed (not Retired)</i></li> <li>• Marital status: <i>Married or cohabitant</i></li> </ul>
CLUSTER8	1036	25%	<ul style="list-style-type: none"> <li>• Financial situation: <i>3</i></li> <li>• Employment status: <i>Retired</i></li> </ul>
CLUSTER9	915	22%	<ul style="list-style-type: none"> <li>• Financial situation: <i>4</i></li> <li>• Employment status: <i>Retired</i></li> </ul>

After clustering some vulnerability criteria of the clusters are examined, to identify clusters that have a high possibility to include vulnerable customers (see Table 2). These criteria are:

- The proportion of people in the dataset with Electricity/Heating costs greater than 10%. We have used 10% as threshold, following the definition of energy poverty in several EU countries such as UK, even though this is not an official criteria or threshold in Finland.
- The proportion of people in the dataset with Electricity/Heating costs greater than 20%.
- Average proportion of Electricity/Heating costs per cluster.
- Share of survey participants that declared inability to maintain adequate temperature in their household.
- Share of survey participants that receive social benefits.
- Proportion of people that declared they do not have enough money for primary needs (Perception of Financial situation = 1)
- Proportion of people that declared they have enough money for primary needs, but not for non-basic expenses (Perception of Financial situation = 2)

The classification of the clusters into vulnerable and non-vulnerable was done based on the combination of the examined characteristics and is shown in Table 2 using colours (red for vulnerable, green for non-vulnerable).

**Table 2 Identification of vulnerable clusters (Red: vulnerable, Green: not at risk)**

CLUSTERS	E/H costs > 10%	E/H costs > 20%	Average E/H costs	No ability to maintain adequate temperature	Social Benefits	Financial situation=1	Financial situation=2
CLUSTER3	70%	28%	17%	100%	26%	14%	86%
CLUSTER4	44%	9%	11%	0%	10%	15%	85%
CLUSTER5	36%	12%	12%	20%	64%	4%	96%
CLUSTER1	35%	8%	10%	33%	35%	6%	94%
CLUSTER8	24%	4%	8%	3%	6%	0%	0%
CLUSTER2	17%	3%	6%	15%	23%	15%	85%
CLUSTER6	13%	3%	6%	4%	10%	0%	0%
CLUSTER9	10%	2%	5%	1%	4%	0%	0%
CLUSTER7	5%	1%	4%	4%	16%	0%	0%

It appears from the statistic clustering analysis, that, the households that can be considered most at risk of being vulnerable or energy poor are households that have retired, unemployed, student, unable to work, home-maker or inactive and feel that their financial situation is so weak that they cannot afford the basic needs such as food, heating and electricity or that they can just manage but are unable to afford anything more. The result puts emphasis on perception of one's situation.

## 2.3 Italy

In Italy, there is no formal definition of Energy Poverty, apart from the requirements to obtain the energy bonus (based on equivalent income): this means that there is no formal procedure to calculate which part of the population is affected by this situation.

However, some reliable scientific literature has been produced, that could help solving the issue. In particular, in October 2017, a study (ref. [4]) was published, that proposes a methodology for Energy Poverty definition and tries to calculate how many Italians are affected by Energy Poverty. This study has then been considered as a reference for the National Strategic Energy Plan 2017, published by the Ministry of Economic Development.

The methodology starts from the issue that, in Italy, there is no possibility to relate household income with household energy expenses in official and reliable statistical documents. Thus, most Energy Poverty indicators cannot be applied to the Italian situation and new ones shall be found.

In order to define Energy Poverty, this new methodology starts from the definition of 140 families of buildings (based on their climatic zone, construction age and materials, type of building – e.g. villa, apartment, etc...) for which energy needs are calculated. From energy needs, by using fuel prices, it is possible to compute the amount of money needed to keep the house adequately warm (reach a minimum

level of thermal comfort). Then, a family is defined “energy poor” if, for the type of household it lives in, it has an energy expense that, when subtracted from the other expenses contained in the national statistics, it falls under the line of relative poverty. This study has estimated that around 12% of Italian families should be “Energy Poor”.

In order to define which are the type of households that fall under the definition of Energy Poverty, RSE has proposed a clusterization based on the statistical analysis of the expenses of Italian population, starting from the national statistics (ref. [5]). Each of the 12 identified clusters was defined on the basis of its energy expense.

Several “unofficial” indicators were used, to understand the level of risk for each cluster:

- Energy expenditure lower than half of the median
- Incidence of energy expenditure higher than double the median
- Absolute poverty
- Energy expenditure higher than double the average
- Energy expenditure higher than food expenditure
- Scarce economic resources
- Insufficient economic resources
- Not achieved 75% of the minimum thermal comfort.

The clusters more at risk of energy poverty are 1, 3, 7, 11, 12, which represent, overall:

- % of population: 32,5%
- 1 indicator: 24,5% of the overall population
- 2 indicators: 12,0% of the overall population
- 3 indicators: 4,6% of the overall population.

It has been decided to consider “at risk” those who have 1 or 2 indicators of energy poverty in the “red area” (see Figure 2).

This has allowed to estimate that between 12 and 24% of the Italian population is at risk of Energy Poverty. However, there is no unique definition of the type of household that is “most at risk”, because there are different clusters to which potential “Energy Poores” belong.

CLUSTER	Mean energy expenditure and percentage of families inside the cluster	Criterion #1	Criterion #2	Criterion #3	Criterion #4	Criterion #5	Criterion #6	Criterion #7	Criterion #8
		1	410 € 15.8%	39.7%	10.0%	8.2%	1.2%	2.9%	40.9%
2	580 € 24.8%	21.2%	9.8%	5.8%	2.3%	4.2%	34.7%	5.8%	23.0%
3	594 € 9.8%	16.2%	17.2%	8.0%	3.1%	4.6%	42.0%	10.2%	27.2%
4	708 € 9.7%	13.2%	10.1%	2.3%	5.7%	4.7%	35.2%	5.3%	27.3%
5	927 € 7.9%	4.5%	19.4%	2.0%	11.0%	6.6%	32.6%	4.5%	26.2%
6	1125 € 3.2%	3.4%	15.2%	1.3%	20.4%	7.6%	21.5%	4.2%	41.5%
7	661 € 3.0%	16.2%	13.0%	10.1%	4.3%	6.5%	53.0%	18.2%	44.7%
8	1010 € 7.4%	4.2%	24.2%	5.2%	13.4%	10.7%	46.5%	8.8%	34.2%
9	1113 € 10.0%	5.4%	13.9%	3.9%	17.9%	9.9%	36.5%	7.3%	33.2%
10	1277 € 4.6%	2.1%	25.2%	5.0%	27.0%	10.6%	39.7%	5.9%	33.8%
11	1716 € 2.4%	2.0%	22.1%	1.1%	45.1%	17.0%	33.0%	4.3%	43.0%
12	1945 € 1.5%	5.8%	31.9%	0.9%	50.9%	22.6%	34.5%	11.1%	20.8%

Figure 2 Energy poverty risk per cluster of energy expense

## 2.4 Poland

The energy poverty affects even 9.6 percent of Polish households, so over 4 million people, as the latest available research shows. The most threatened groups are lonely people living in large houses in the countryside, tenants of old, municipal buildings, big families living in large houses countryside, and poor inhabitants of single-family houses in villages and small towns (IBS, 2016).

Such a conclusions can also be drawn from the survey conducted as part of the ASSIST project. The phenomenon of energy poverty is not always the same with

economic, general poverty. Actually, some people suffer general poverty and energy poverty and both those are combined. But there are much more reasons of energy poverty than just income below the official minimum. The sources can be also the technical condition of a flat or building, as well as low level of knowledge and low consumer activity. Therefore, thinking about energy poverty in the context of the project and activities undertaken in it, aimed at reducing and mitigating the problem, one should take a broad definition of it: energy poverty is a phenomenon resulting from difficulties in meeting basic energy needs, in a place of living, at a reasonable price. In this perspective, we will include those groups of people who pay bills regularly, but often they do not have enough money to pay for other important life needs, like living alone pensioners in large old apartments or houses with catastrophic technical parameters. There are also group of people, saving energy and feeling very uncomfortable in their home or even badly affecting their health. They do not know how to save reasonably and effectively, who can help them and how to get dedicated, more effective and long-term aid rather than a small monthly energy allowance. The activities of the ASSIST project will be addressed also to abovementioned groups of households.

## 2.5 Spain

Although there is no single definition of internationally accepted energy poverty, this can be considered as the "difficulty or inability to guarantee an adequate temperature and access to other essential energy services at a reasonable price" ([7]). The energy-poor person depends on the combination of three factors: low income, low quality of buildings and high energy prices ([8] & [9]). The project, ASSIST, contributes to solving the challenges of energy poverty by helping to low-income people, or in other words: economically vulnerable people. In this sense, Directive 2009/72 / EC of the European Parliament emphasizes the importance of the European Union member states carrying out measures that protect vulnerable consumers.

In Spain, as on an international level, there is no definition of energy poverty but there is a definition of vulnerable consumer. Specifically, article 3 of Royal Decree 897/2017 gives a definition of vulnerable consumer linked to the Public Indicator of Multiple Effects Income (IPREM). This same law links the vulnerable consumer with the energy aids that he can receive. In particular, there are three types of vulnerable consumers: (1) vulnerable, (2) vulnerable and (3) vulnerable at risk of exclusion. In addition to these three, pensioners and large families can also receive help in the rates.

At this moment, in Spain there is no official methodology or specific information sources for measuring the energy poverty rates in the country. However, there are several statistical sources freely available at the National Institute of statistics (INE)

that can be used to calculate suitable indicators to estimate the intensity of the problem, their evolution over time and to produce valuable disaggregated results.

In particular, two sources of key data have been proved to be very useful for analysing the energy poverty situation in Spain; i) micro-data from the survey on family budgets (Encuesta de Presupuestos Familiares; EPF) for the period 2006-2014 and ii) micro-data from the survey of Conditions of life (Encuesta de Condiciones de Vida, ECV) for the period 2006-2014.

According to the report made by ACA ([16]) the indicators calculated show that a significant part of Spanish households undergo conditions associated to energy poverty, that is, a significant proportion of households in Spain are considered to be in situation of energy poverty. More in concrete, results show that as of 2014:

- 11% of households (5.1 million citizens) stated to be unable to keep their home adequately warm during the cold season.
- 8% of households (4.2 million citizens) stated to be in arrears on utility bills including domestic energy.
- 15% of households (6.2 million citizens) devoted more than 10% of their annual income to domestic energy.
- 10% of Spanish households (4.9 million citizens) was in difficulties as per the official energy indicator of the UK. This means that, when discounted housing and energy costs, their income was below the monetary poverty line (60% of the equivalent median income); and that their equivalent energy expenditure was above the Spanish median.
- 21% of households (12.1 million citizens) was in difficulties according to the MIS indicator approach. According to this approach, their income after housing and domestic energy costs was below the highest Integration Minimum Income level of the country (corresponding to the Autonomous Community of Basque Country) less the average housing and energy costs of a Spanish household.

Furthermore, spatially disaggregated results reveal that differences in climatic conditions across the country do not explain disparities in energy poverty levels in Spain, which are more associated to the level of studies of the household occupants, the type of family (Single-parental, large family, single person households have higher risk of being energy poor), or the labor situation of the household.

## 2.6 United Kingdom

Fuel poverty in England ([17]) is measured using the Low Income High Costs (LIHC) indicator. Under the LIHC indicator, a household is considered to be fuel poor if:

- they have required fuel costs that are above average (the national median level)
- were they to spend that amount, they would be left with a residual income below the official poverty line

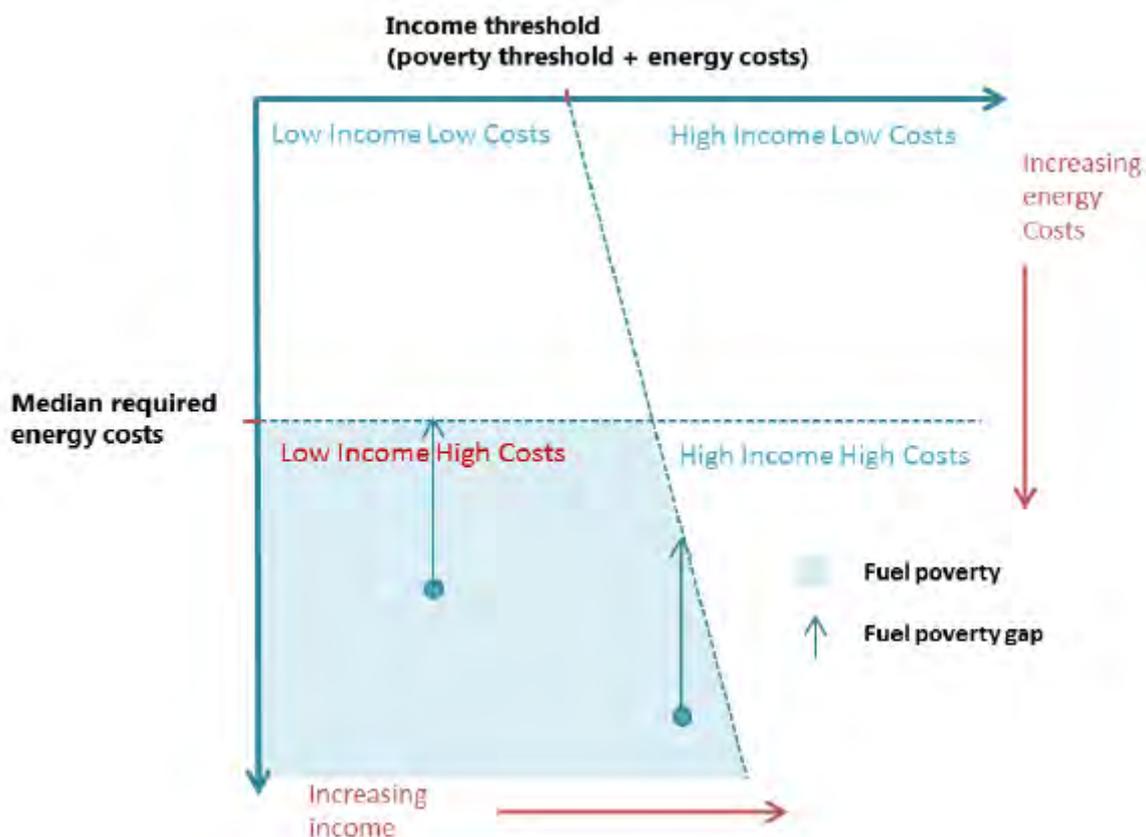


Figure 3 Fuel poverty under the Low Income High Costs indicator

Low Income High Costs is a dual indicator, which allows us to measure not only the extent of the problem (how many fuel poor households there are), but also the depth of the problem (how badly affected each fuel poor household is). The depth of fuel poverty is calculated by taking account of the fuel poverty gap. This is a measure of the additional fuel costs (in pounds) faced by fuel poor households to meet the non-fuel poor household threshold. This is illustrated in Figure 3, where the indicator consists of:

the number of households that have both low incomes and high fuel costs (shown by the shaded area in the bottom left hand quadrant in Figure 3); and

the depth of fuel poverty among these fuel poor households. This is measured through a fuel poverty gap (shown by the vertical arrows in Figure 3), which represents the difference between the required energy costs for each household and the nearest fuel poverty threshold.

To get a sense of the depth of fuel poverty at a national level, the fuel poverty gap for each individual household is aggregated across all fuel poor households to produce an overall aggregate fuel poverty gap.

The fuel poverty indicator is a relative measure, as it compares households to national income thresholds and national median energy costs. A change in income will only have an impact on fuel poor households if they see relatively larger income changes (increase or decrease) than the overall population; the same is true for household energy costs. As a result, the proportion of households in fuel poverty remains, on the whole, stable over time, whereas the fuel poverty gap (which is measured in pounds) is more closely linked to changes in energy prices and the economy and therefore, a more informative measure when looking at the direct impacts of fuel poverty over time.

In December 2014, the Government introduced a new statutory fuel poverty target for England<sup>2</sup>. The target is to ensure that as many fuel poor homes as reasonably practicable achieve a minimum energy efficiency rating of a Band C<sup>3</sup>, by 2030. To support the implementation of this target, the Government published 'Cutting the cost of keeping warm: a fuel poverty strategy for England [11], in March 2015. The strategy also set out interim milestones to lift as many fuel poor homes in England as is reasonably practicable to Band E by 2020; and Band D by 2025, alongside a strategic approach to developing policy to make progress towards these targets.

## 2.7 Action boundaries definition at EU level

Starting from the main results of D5.1, it has been tried to reach a common definition of the boundaries of the action, that could allow the different partner to understand which groups of population should be targeted.

### 2.7.1 Belgium

It emerged that there are 6 target groups that qualify for receiving a free energy scan:

- 'protected' customers that are entitled to a social maximum energy tariff (customers that enjoy certain social welfare benefits or payments are eligible, e.g. seniors with a minimum pension allowance, people with a labour incapacity, etc.);

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<sup>2</sup> Fuel poverty is a devolved matter, with each nation in the UK having its own policy target, measurement and outputs. See Annex B for further information.

<sup>3</sup> Household energy efficiency ratings are banded from G (lowest) to A (highest).

- customers with a budget meter (a budget meter is installed if the customer has problems in paying the bill of the energy provider of last resort – i.e. the DSO);
- customers that are eligible for a social energy loan;
- customers who are at risk of being disconnected (such a request always has to be filed with an judged by a ‘local advisory committee’);
- customers living in a dwelling belonging to a social housing corporation;
- tenants paying a maximum rental price of 462,72 euro, or 512,74 euro in certain cities.

### 2.7.2 Finland

In Finland, the following conclusions were reached, about the targets for the action:

- Financial situation 1 or 2 (Not enough money for primary needs (food and energy bills) OR Enough money for primary needs, but not for non-basic expenses).
- Retired, unemployed, student, unable to work, home-maker or inactive people in the household.
- Other variables are not important (household age, ability to maintain adequate temperature, marital status, type of heating system).

CLUSTER	E/H costs > 10%	E/H costs > 20%	Average E/H costs	No ability to maintain adequate temp.	Social Benefits	Financial situation=1	Financial situation=2	% of esp.
C3	70%	28%	17%	100%	26%	14%	86%	1%
C4	44%	9%	11%	0%	10%	15%	85%	8%
C5	36%	12%	12%	20%	64%	4%	96%	1%
C1	35%	8%	10%	33%	35%	6%	94%	2%
C8	24%	4%	8%	3%	6%	0%	0%	25%
C2	17%	3%	6%	15%	23%	15%	85%	3%
C6	13%	3%	6%	4%	10%	0%	0%	0%
C9	10%	2%	5%	1%	4%	0%	0%	22%
C7	5%	1%	4%	4%	16%	0%	0%	32%

15% ↑

Figure 4 Energy Poverty risk estimation in Finland

### 2.7.3 Italy

A precise action target has not been defined yet. From clusterization, it emerges that the following groups are at more risk than others:

- Geographical area: south and islands → Clusters 1, 3, 7 → “lower” energy expense;
- Geographical area: north and center → Clusters 11, 12 → Highest energy expense;

- In the northern and central areas: ONLY single persons; all types of heating systems; all types of households
- In the southern area: all types of families, households and heating systems (or not relevant)

Being the households so different in the affected clusters, there is a list of several types of contacts for Action implementation: social housing cooperatives, consumer associations info points, social workers cooperatives, energy efficiency goods sellers and municipalities.

### 2.7.4 Poland

The issue for Poland is that the different indicators don't always "agree" with each other. So, to find a precise target of the action, is very difficult.

An example is reported in the following figures, where the indicators are compared, considering different household characteristics among those considered in the clusterization reported in document D5.1. In red, the parameters for which indicators are more disaligned.

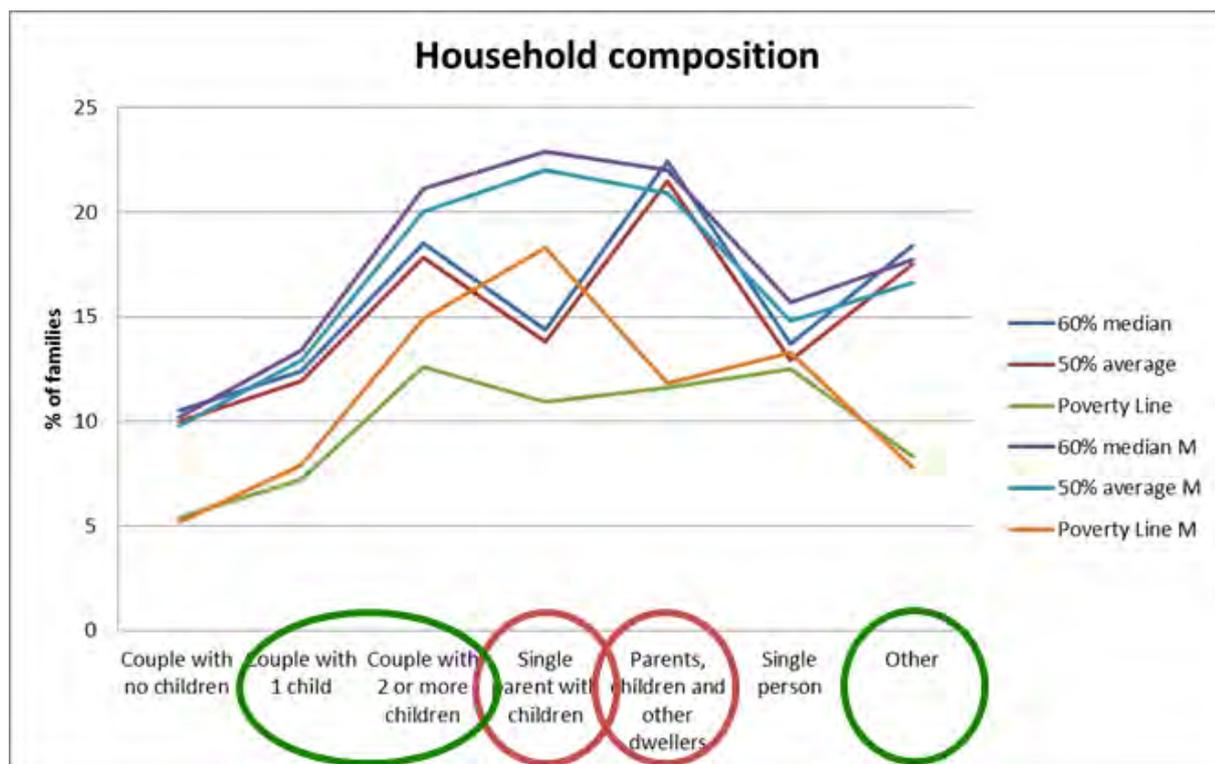


Figure 5 Energy Poverty Indicators estimation based on household composition

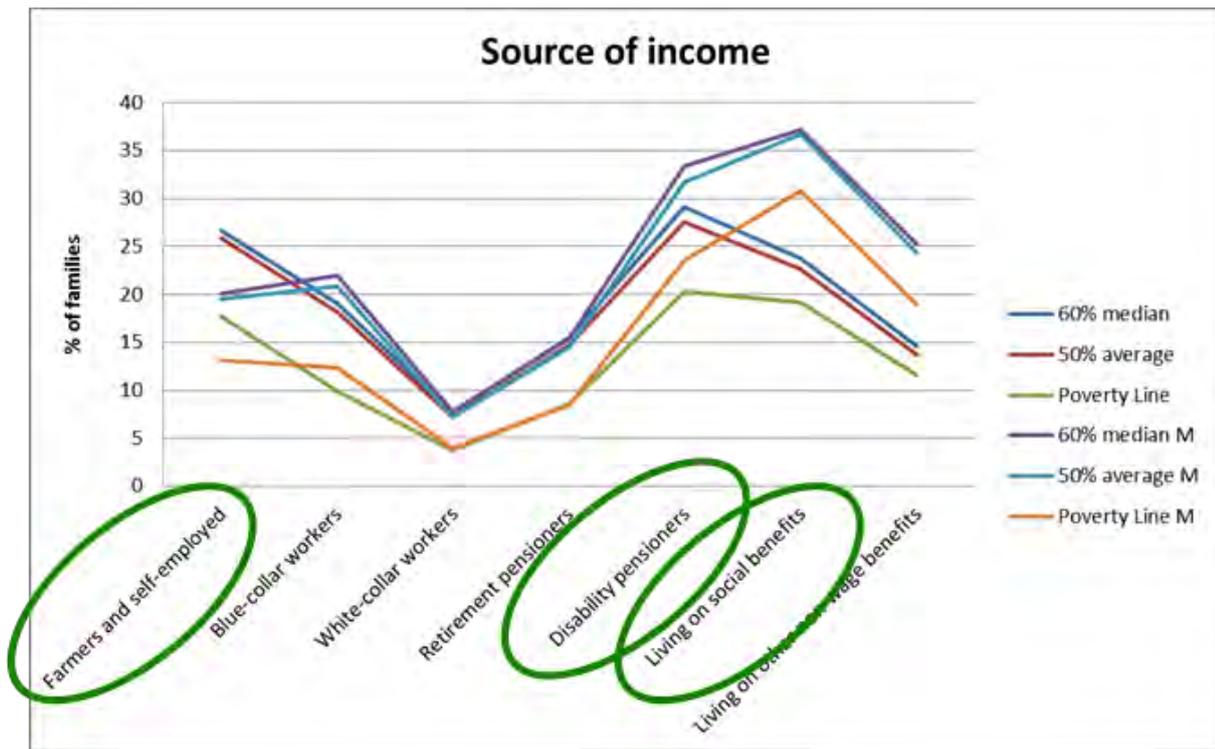


Figure 6 Energy Poverty Indicators estimation based on source of income

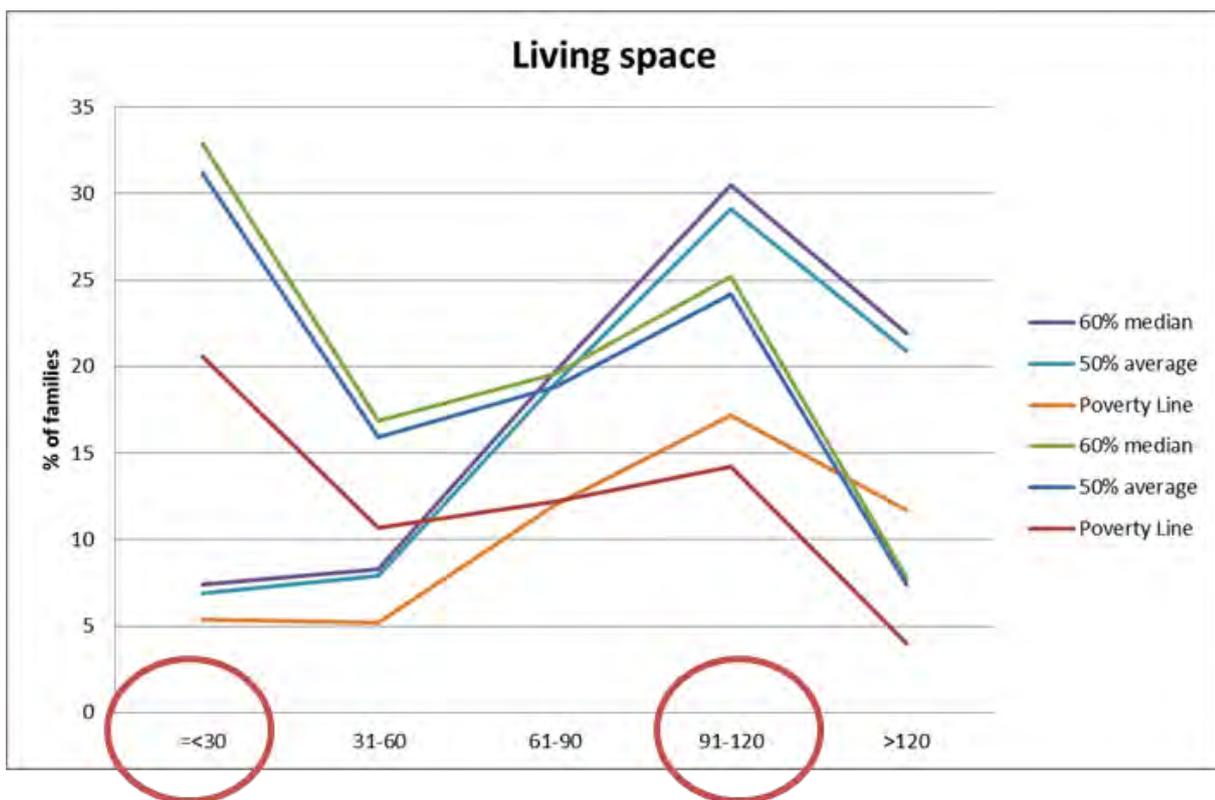
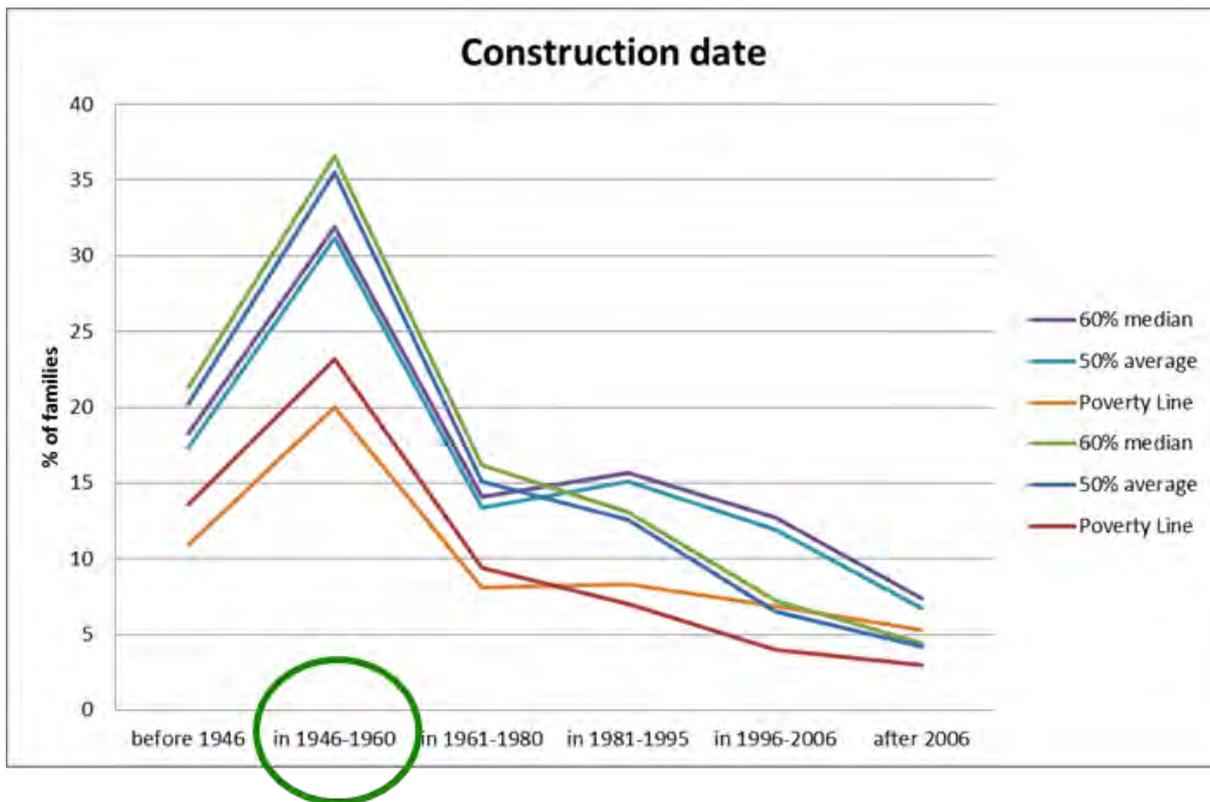


Figure 7 Energy Poverty Indicators estimation based on living space



**Figure 8 Energy Poverty Indicators estimation based on construction date**

Some more parameters have been considered: they are all reported in document D5.1.

From this clusterization, the result is that people more at risk are living in smaller towns and villages, families with children and are self-employed or living on social benefits/disability pensions. The house is old (1946-60) and it is a detached house.

The targets for the action shall thus be:

- In villages: farmers, living in big, old, un-efficient houses;
- In cities: old people living alone in small flats.

### 2.7.5 Spain

In Spain there are several indicators that allow to estimate Energy Poverty at national and local level. However, the more at risk households are those presenting one or more of the following characteristics: households with children under 18; Single-parental, large family, single person households; low level of education; people without a permanent job.

The intention is to tackle well defined target groups of energy consumers already identified as potentially vulnerable, either by the energy companies (aware of the difficulty in the payments of the bills by the end users) or by the social frontend (to which the vulnerable end users might have already gone for social aid).

### 2.7.6 UK

In the UK the targets for the action will be:

- People living in houses with uninsulated solid walls;
- People living in older dwellings (in particular those pre-1850);
- People living in houses from the private rented sector;
- People whose household composition is either: multi-person (adult); single parent with child(ren).

However, the training and the action, in UK, will be different from what happens in the other countries, so for any specificity see the following sections of this document.

### 2.7.7 Boundaries definition workshop results

In order to define action boundaries, a workshop has been held. The goal was to identify which socio-demographic, building and appliances variables were more relevant to define people with higher probability of energy vulnerability.

24 variables were proposed (8 socio-demographic, 9 related to the building and 7 related to electric appliances), and at the beginning of the workshop it was decided to add 3 (1 socio-demographic – Age – 1 related to building – thermal properties of the building envelope – 1 related to appliances – age of the appliances).

The first outcome was that it is not possible to set boundaries related to owned electric appliances (e.g. number of televisions, ownership of a washing machine, etc...), but the only relevant variable is the **age of owned electric appliances**, that can have a strong impact on the electrical consumption of the household.

Then it was decided to analyse first the socio-demographic variables and then the building related ones.

During this analysis, that started from the results of the clusterization performed by each partner for D5.1, it was highlighted that the only constraint that can be put is related to the economic resources of the family, related however to their possibility to pay energy bills: so, for the action, the considered consumers shall have either **INSUFFICIENT or SCARCE economic resources**, that mean that they either don't have enough money to satisfy their basic needs (including energy) or they have enough to satisfy their basic needs (including energy) but nothing to address unforeseen expenses.

Then, since for all the other variables it was impossible to choose a category that universally seemed more at risk of vulnerability, it was chosen to list the "more probable" categories that might be at risk. Moreover, often these categories are linked to each other, meaning that **the single condition is not a constraint but a combination is** (e.g. couples with children, with only one income, in old houses; old people living alone, etc...):

- **Socio-demographic:**

- **Gender:** female people are more subject to the risk to vulnerability, especially when this is connected to being a single parent (single mothers with children are more at risk than single fathers with children, at least in some countries);
- **Household structure:** single parents, single people, large families (more than 3 children);
- **Age of the reference person:** old people (>65) and young people (<34) are more at risk than other adults;
- **Type of income:** unemployed people /people living on social benefits/people living on disabled pensions are more at risk than others.
- Building:
- **Thermal performances of the building and the heating system:** people living in buildings with bad performances of the envelope and/or inefficient heating systems and/or using expensive fuels are more at risk than others;

Other variables, related to building, that are relevant but don't have a "more probable" category are: household surface, type of municipality, type of tenure, type of dwelling and geographic area. For these, there were significant differences among the different countries (eg. In Poland there is high risk of energy poverty for families with children, while in other countries this is more related to single parents with children) or in different parts of the same country (e.g. in Poland, in rural areas the more at risk consumers are farmers living in old houses, while in the cities it is more single persons living in flats).

### 3. Country reports

See attachments for each involved country.

## 4. General Conclusions

Since each Country has chosen a different path for the Action implementation, taking into account the intrinsic local differences, it has been chosen to draw the conclusions for each of them. In the final part, a summary of the proposed actions, with some hints on time, costs and monitoring, will be given in forms of tables, for each Country.

### 4.1 Belgium

In Belgium, there are already many initiatives and social obligations to combat energy poverty, but the policy and the local initiatives are not always coherent. It is therefore not self-evident for the vulnerable customer to understand the puzzle of possibilities. The main objective of the Assist project is therefore to strengthen the existing situation and to provide tailor-made support to vulnerable customers.

An additional challenge will be to recruit enough HEA, as Belgium already has a well-developed network of paid energy cutters, carrying out a similar task and with a legal framework. Within the ASSIST project, we are therefore striving for maximum synergy between the two networks.

To add the role of HEA, to those who include volunteering in existing volunteering networks, these organisations are unwilling as they are already over-consumed and are not favorably to launch a new initiative. In order to work with these networks of volunteers, it is important to find a win-win situation for both parties, which is labour-intensive task.

Within the project, the necessary care will also be taken, in addition to the existing group of vulnerable customers, to some specific groups at extra high risk of tumbling into energy poverty, such as large consumers, one older families, single persons...

The actions of Assist are mainly concentrated around:

- Awareness of energy consumption
- Give advice on how to reduce energy consumption by behavior.
- Referring and supervising to existing measures, premiums...

We want to achieve this by advising the target group via home visits of the HEA's on the one hand and by informing and advising the ASSIST project via digital means on the other hand. (GSM, email, facebook...) and this in close cooperation with the network of energy cutters.

### 4.2 Finland

The main obstacles in alleviating energy poverty and vulnerability in Finland are the lack of clear definitions and indicators of energy poverty and vulnerability, the challenges of targeting and reaching these groups and the lack of financial support mechanisms, in particular to improve energy efficiency in households.

In Finland the advanced social security system mitigates poverty as but there is a structural problem with existing aid schemes: they do not adequately encourage energy efficiency measures. To improve Energy efficiency energy advisory services are offered by both the National Energy Agency Motiva and NGO's. Although according to the responses received from the vulnerable as part of Assist reasearch, large portion of vulnerable consumers have never heard of programs or services offered to help consumers optimize their energy use, which signifies the need for advisory services to be targeted at these particular groups. Challenges might accure from people being reluctant for home visits or giving their personal consumption data and these issues need to be carefully addressed when the action is implemented.

The Assist project seeks to address obstacles by reaserching the problem that up until now has had very little tention paid in Finland, defining target groups in advance and providing counseling through new channels and bringing new interactions between sectors and operators. Within the Assist project advisors will be trained from both energy and social sector. Advice will be provided on the web, by e-mail, by telephone, on personal meetings and on home visits. In connection with the project, Energy Cafes will be organized, which will allow for personal contacts between advisorsand advisers and allow also for peer to peer support.

### 4.3 Italy

In Italy there are several barriers to implementation of concrete actions against Energy Poverty. The main one is the lack of a definition and the difficulty or impossibility to use international indicators to calculate the amount of people that are affected by it. However, by using statistical means, it has been possible to evaluate which parts of the population are more at risk of being in Energy Poverty.

For these people, several actions have been defined, that are reported in English in par. 9.7. The actions have been described at a macro-level, as action categories, and at a lower level as single types of actions. For all of them, a tentative proposal of times and costs has been performed, in order to evaluate their feasibility.

However, based on the different types of HEAs and the availability of spaces and times, each of the identified type will be further planned in details and implemented.

As an example, dedicated counselling might be declined not just in an evaluation of the energy consumption of the household, advices and monitoring, but also in the support in requesting economic subsidies for low-income consumers.

The organization of two think tanks with stakeholders and experts has been very fruitful to understand which actions to propose, which were the barriers and the constraints to implement each of them and how to improve actions design. It has also helped in establishing contacts for HEAs recruiting.

## 4.4 Poland

Due to the lack of definition of energy poverty, there is also no legal obligation or methodology to monitor this problem. Unfortunately, the energy poverty is commonly equated with economic poverty. Therefore, the solutions offered to households in energy poverty are mainly limited to temporary relief of symptoms through various types of financial support. As we described earlier in the report, this is a multidimensional phenomenon. Therefore, the system of direct benefits, often needed, but not changing anything in long-term in the situation of the consumer, is outside of the scope of our activities in the ASSIST project. This benefit approach, although often also requiring counselling, seems to be a symptomatic, not a systemic.

Proposed actions - consulting and minor improvements for all, professional investment advice for some consumers - have the potential to bring lasting and effective results such as:

- Changes in consumer habits regarding the use of energy
- Improving the comfort of life, regarding, but not only, heating the flat
- Providing local governments a current data on citizens energy needs for analytical purposes and activities like an estimation of own resources, local energy plan, etc.
- Changes in the approach to the problem, for example, many families pay energy bills, but they cannot afford very basic other needs because they are in a situation of low income and high costs. In such a situation, as they pay regularly and they do not benefit from social aid system, they are not diagnosed even as an energy vulnerable family and they are missed by statistics.

## 4.5 Spain

National action in Spain will be coordinated by Ecoserveis and ADEE and will be monitored by a balanced National Committee with experts from different fields (energy, social, consumers, private, public, university,...).

In Spain there are many actions and initiatives tackling energy poverty this is why ASSIST will focus in two of the identified gaps: lack of trust of the energy agents visiting homes and lack of trust in energy suppliers.

National action will pivot on to axes: action implemented by public home care services and action implemented by suppliers' front-office services.

Home care services professionals are key agents as they visit their users, social services users, regularly which can be very effective while tackling energy poverty and can fulfill this gap of lack of trust identified in past experiences.

In the case of Home care services professionals, the action after the training can be summarized in the following chart:

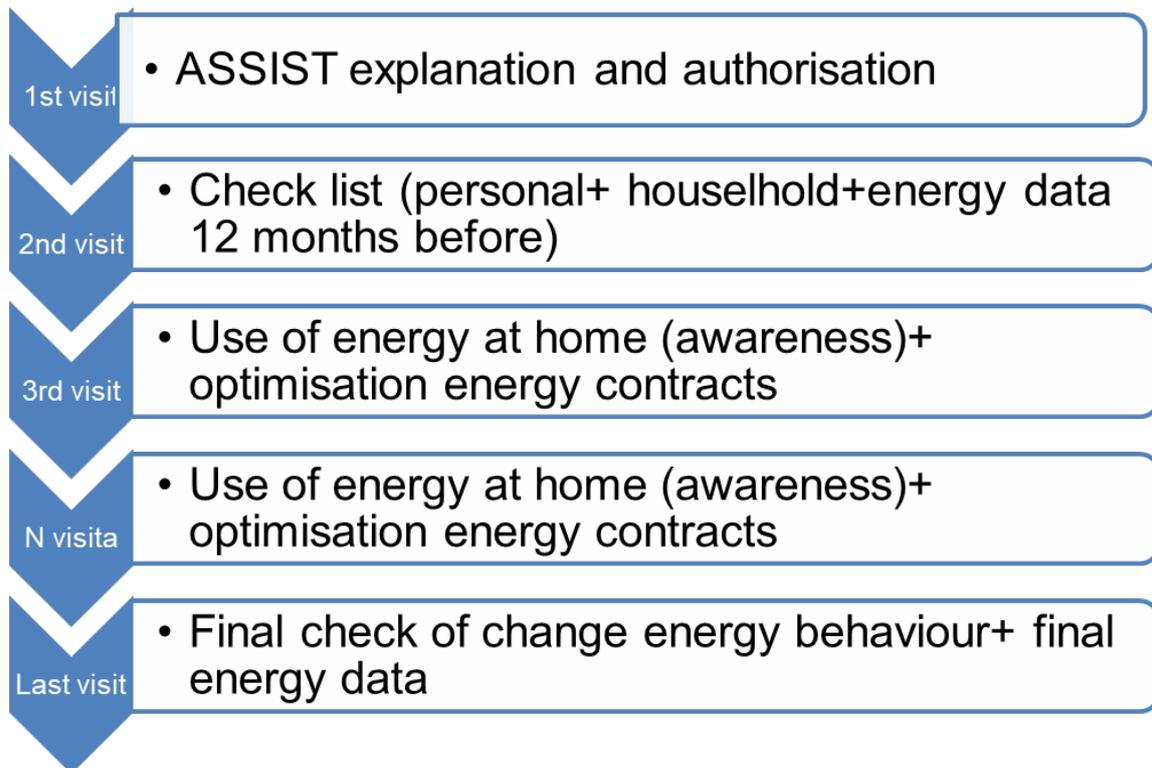


Figure 9 Action plan for Home care services professionals in Spain

In the case of Suppliers front office professionals, the action can be summarized in the following chart:

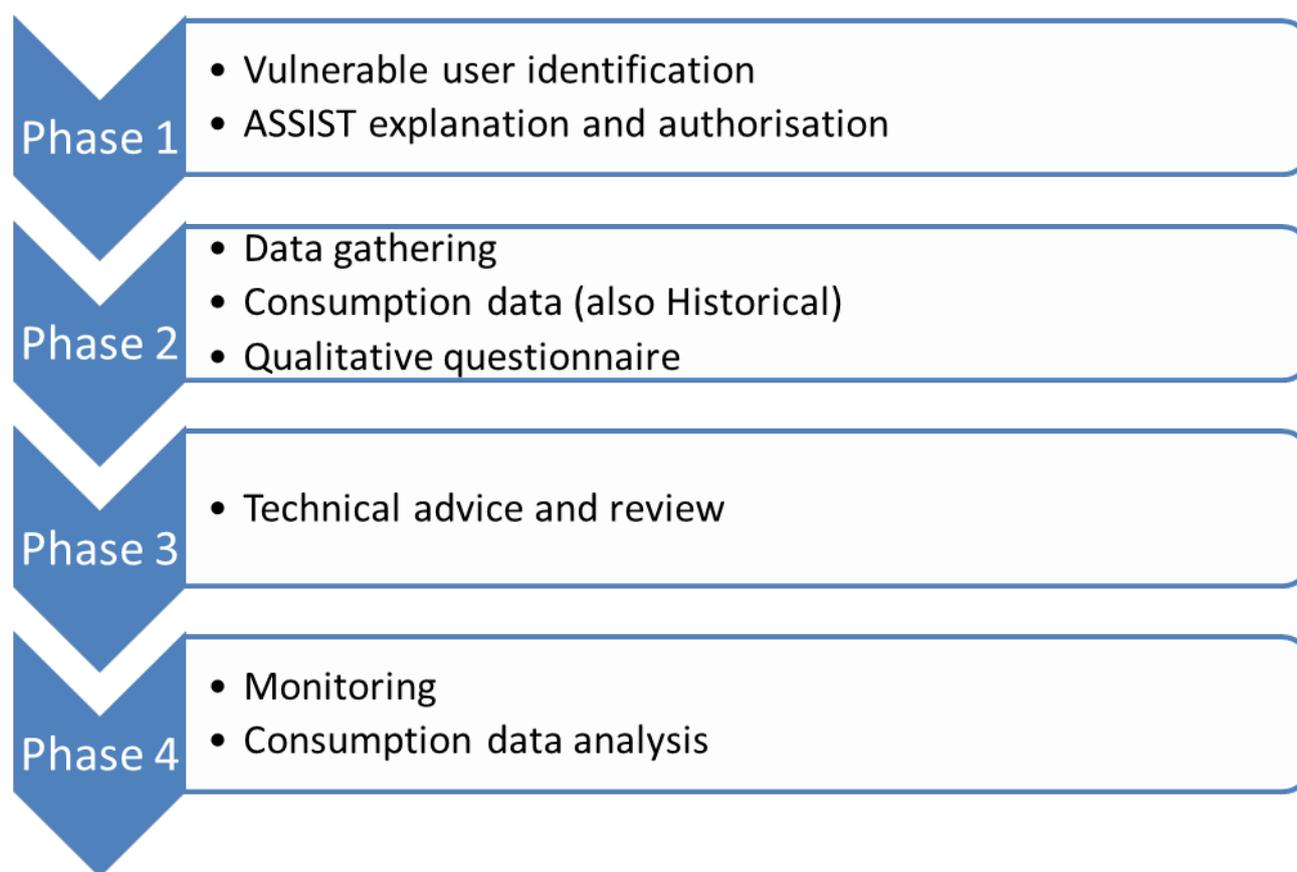


Figure 10 Action plan for Suppliers front office professionals in Spain

## 4.6 UK

As stated previously in the document, the situation in the UK is slightly different from the other partner countries. There is a requirement to engage only 6 HEAs as there already exist certain frameworks and organisations (such as SWEA) providing similar roles and services.

The value of the HEA in the UK will be in the widening of the support available with regards to energy advice, and the raising of awareness around energy poverty in general. There are not the resources in the UK to have as many professional energy advisors as are required, so the HEAs will help to increase the distribution of information and support.

There is also the further opportunity to look specifically at the impact and effectiveness of peer-to-peer HEAs – that is to say HEAs that have previously been vulnerable consumers themselves. It will be interesting to monitor how this group of HEAs communicate the information to the consumers, having had the experience of living in energy poverty themselves.

Working in partnership with a local organisation that will be undertaking the majority of the training and administration burden on behalf of the HEAs is an efficient method for SWEA to maximise the benefits for the ASSIST programme.

The results from the monitoring of the scheme will hopefully provide insightful and valuable data that can be shared with partners across the EU.

## 4.7 Summary of the proposed actions

In the following tables, a summary of the actions proposed in each country is reported.

Key:



Time/costs aligned with ASSIST project development



Alignment of time/costs with ASSIST project development to be verified



Very high time/costs, can be done only in synergy with other projects

4.7.1 Belgium

Table 3 Action proposals for Belgium

Category	Action	Time	Costs	Notes - constraints	Possible solutions and synergies
1. Raise awareness	Responding to local operations around energy initiatives			Approach must be geared to the initiative for maximum effectiveness	Involving the local partner
2. Dwelling consultancy	Guidance when searching for the cheapest energy supplier			Executing V-test, and aid customers with the paperwork	
	Energy tips concerning appliances			Referring to network for rental of devices. (only for WVL)	
	Energy tips for dwelling			Determining quick wins, such as draft strips, radiator foil, ...	
	Eliminating unnecessary large energy consumers			Identify non critical large energy consumers (aquarium, water pumps for pond,...)	
	Guiding with renovating			Explain how premiums work and guide to the right party	

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				Is expensive Complicated for tenants	
3. Active Follow-up	Spreading energy tips in function of behavior			To be effective, must be personalized	
	Follow-up energy consuming			Making customers aware of where their energy is used for, to be more energy-efficient <b>and stimulate them with an incentive</b>	
	Installing a 'woonmeter' (residential meter) to influence their heating pattern			Great target group Is an appliance that helps the customer to monitor his heating and ventilation pattern trough simple indication	Good determination of target group, so less appliances are necessary

4.7.2 Finland

Table 4 Action proposals for Finland

Category	Action	Time	Costs	Notes - constraints	Possible solutions and synergies
Guidance in comparing energy suppliers	Advice on the phone or via email				
Advice concerning appliances and their usage at home	Advice on the phone or via email				
Advising on energy efficiency improvement in the home	Home Visits			energy audit	Can be incorporated to some existing advisor profiles
	could in some cases be incorporated to face to face e.g. Energy Café or persons visit to advisors location			Tips based on age of house, house type and problems identified in discussion	
Tips on energy usage	Home visit			Identifying large unnecessary energy users	

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	Energy café or other visit to energy advisor				
Renovation advice	Home visit			Larger energy efficiency improvements, planning needed renovation	
	phone, email, face to face			Identifying improvement needs in conversation, more general advise	
Advice on energy usage patterns in the home				Making people aware of where their energy consumption behaviour	

**4.7.3 Italy**

**Table 5 Action proposals for Italy**

Category	Action	Time	Costs	Notes - constraints	Possible solutions and synergies
1. Energy Cafè	1.A – At commercial sites (e.g. bars, shops, malls)			The occupancy cost of bars, shops and malls can be different according to the type.	A zero-cost solution would be available in case HEAs are already cooperating with the activity or the energy café takes place during another charity event at the same site.
	1.B – At associations and parish sites			Usually a small contribution is required to rent the rooms	A zero-cost solution would be available in case HEAs are already members of the association/parish or the energy café takes place during another charity event at the same site
	1.C – In schools or public buildings			For free in case HEAs are either students that are doing an internship for ASSIST project or employees of a public entity (e.g. municipality social	

				services)	
	1.D At social housing sites			Feasible only in case there are HEAs that are employees of the social housing cooperatives or people living in social housing	
2. Dedicated counseling	2.A – Soft counseling (analysis of energy bills, questionnaires about family habits, no direct measurement)			It is possible after a first contact has been established, either through an energy café or a different event to which some HEAs participated. There might be a trust issue.	Use of databases already available for consumers associations, municipalities or other entities, where people in need are listed. HEAs shall be coming from these entities.
	2.B – Direct measurement of electrical consumption, soft counselling on thermal consumption			It is possible after a first contact has been established, either through an energy café or a different event to which some HEAs participated. There might be a trust issue Prerequisite: electricity smart meters availability	See above. For smart meters availability, synergies with other projects can be exploited.

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	2.C - Direct measurement of electrical consumption and thermal consumption, with dedicated counseling			It is possible after a first contact has been established, either through an energy café or a different event to which some HEAs participated. There might be a trust issue Prerequisite: electricity smart meters availability; thermal comfort meters availability	See above. For smart meters availability, synergies with other projects can be exploited. At the present moment, for the thermal comfort meters the availability is much lower than for electricity meters.
3. Energy Efficiency improvements on buildings	3.A – HEAs as intermediaries between ESCO and citizens			Possible only in synergy with already existing projects. Constraint: some of the costs are however charged to the users.	Need to exploit synergies with other projects
	3.B – Coordination of Collective buying power			Possible only if HEAs are available to act as coordinators Constraint: some of the costs are however charged to the users.	Need to exploit synergies with other projects. Need to find some free financing for vulnerable consumers

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	3.C - Utility as loan grant			<p>Possible only in case there is an available utility.</p> <p>Constraints: all users shall be clients of the same utility. There shall be some insurances/guarantees for the involved utility.</p>	Need to find an available utility.
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**4.7.4 Poland**

Table 6 Action proposals for Poland

No	Category	Action	Time	Costs	Notes - constraints	Possible solutions and synergies
1.	Consumer consultancy provided by Consumer Federation 's (FK) advisors. Surveys.	FK office – FK local branches offices.	✓	✓	During working hours of consumer advisors - a minimum of 20 hours a week	As part of advising and legal assistance provided by FK in cooperation with other HEAs and institutions cooperated on this project.
2.	In-depth social interviews and energy consulting (in the broad sense)	Social workers – offices of the local self-governments	✓	✓	Social workers are fully occupied and the subject of their work is connected with touchy subjects, the data which they have to collect are sensitive for many people (as a structure of household expenses)	Social workers can always "redirect" the consumer to the appropriate HEA with additional competences.
3.	Consumer consultancy provided by the city/poviat consumers ombudsman. Surveys.	Local consumers ombudsman offices.	✓	✓	Consumer Ombudsmen are highly qualified advisors who willingly join in activities for the benefit of consumers.	The local ombudsman as a local government employee, have the opportunity to analyze available funds and grants. He can inform consumers, and collect data from consumers as comments to elaborating and upgrading local plans for supplying residents with

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						energy, gas and heating.
4.	Consultancy provided by the – Energy Advisors of NFOŠiGW (National Fund for Environmental Protection and Water Management)	Energy Advisors offices and in the consumers houses (face to face).			The qualifications of these group of advisors are slightly different than others members of HEA - they are audit experts.	The Possibility of cooperation with the municipal energy engineer. His role is to develop and update the municipality plan for supplying the with heat, electricity and gas fuels. The objectives of his work is to reduce energy consumption and energy costs.
5.	Consulting provided by dedicated employees of energy companies.	Customer service offices			They have a good understanding of consumers needs and behaviours especially in the situation related to bills paying problems.	They could work as a contact point for vulnerable consumers.
6.	Energy Cafe’ – outdoor events (organized by the municipality)	We can join the outdoor event organized locally with our stand.			It is difficult to determine whether there will be non-commercial outdoor local events in the appropriate project timeline.	There is possibility to join an event organize by cities / municipalities
7.	Energy cafe’ – outdoor events (organized by the	We can join the outdoor event organized locally			It is difficult to determine whether the companies will have the	Companies can present their activities to improve energy efficiency and pro-social

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	power company)	with our stand.			budget and the time to organize events in the right for project moment.	activities.
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Table 7 Action proposals for Spain

Category	Action	Time	Costs	Notes - constraints	Possible solutions and synergies
1. Home visits	Regular Home visits following their daily tasks but introducing energy aspects	✔	✔	Time that each professional spends in users homes normally is tight related to the tasks assigned so energy could be relegated to last thing to do.	It is at 0 cost if public authorities are willing to participate and integrate the programme in their local policy
2. Direct feedback	Suppliers front-office professionals would provide energy assessment while meeting their customers	?	?		
3. Telephone call	Suppliers front-office professionals	?	?		

**4.7.6 United Kingdom**

**Table 8 Action proposals for the UK**

Category	Action	Time	Costs	Notes - constraints	Possible solutions and synergies
1. Energy Cafè / Advice drop-in sessions	1.A – At charity partner’s public hub/visitor centre			Usually a financial contribution is required to use the room	It can be at 0 cost if the association is willing to cooperate in the project and/or the HEAs are already volunteers of the association
HEAs work alongside Severn Wye Energy Agency staff only	1.A – Accompany Energy Assessors on home visits and work on telephone advice line			It would not be a financially viable option as Severn Wye would need to set up the volunteering program incl. Training, insurance, data protection etc	Volunteers from another charity could still work alongside our staff, but be part of their volunteering program.
3. Home visits	1.A – Accompany professional in social services or health care to a vulnerable consumer’s home			This work is being carried out anyway so the HEA can add extra value through the energy efficiency/energy poverty advice	
4. HEAs provide training to other volunteers	1.A – Training sessions would be set up to increase the knowledge base, even			This would depend on the competence / confidence levels of	Training for this could be provided by Severn Wye staff and

	if the level of training would not be as high as that for the HEA themselves			the HEAs	run as a pilot project for those HEAs that expressed an interest.
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## 4.8 Proposed monitoring systems

The proposed monitoring systems, defined for each type of action, will be filled during the detailed design of the different actions. As example, one proposal from Belgium is shown.

Table 9 Proposed monitoring system, example from Belgium

Actors				ASSIST Training		ASSIST Action							Action monitoring					
Type of actor	Detail	Name of actor	Name of contact person	HEA target	No. of trained HEAs	Timing	Action	Action target eligibility criteria	Geographical dimension	Geographical area	Estimate on number of people engaged	Success rate	Notes	Reference group (10%)	Monitoring means	Larger group (?%)	Monitoring means	Energy saving
				Type of HEA														
Social	Municipality	Komose, Stebo	An Coninx, Kathy Jansen	vulnerable customers	10	sep - dec 2018	Home visit	Vulnerability	Regional	Regional	200	60		20,00%	Monitoring tools with data collected by HEAs and Energy consumption data provided by utilities			

## 5. References

- [1] L. Oja, A. Vaahtera, I. Vehviläinen, S. Ahvenharju and L. Hakala, “Selvitys energiaköyhyydestä”, Ympäristöministeriön raportteja 21/2013.
- [2] S. Runsten, K. Berninger, J. Heljo, J. Sorvali, P. Kasanen, J. Vihola and U. Uotila, “Pienituloisen omistusasujan energiaköyhyys”, Ympäristöministeriön raportteja 6/2015.
- [3] I. Faiella and L. Lavecchia, “Questioni di Economia e Finanza – La povertà Energetica in Italia”, Banca d’Italia, October 2014.
- [4] I. Faiella, L. Lavecchia and M. Borgarello, “Una nuova misura della povertà energetica delle famiglie”, Banca d’Italia, October 2017.
- [5] Istat, "Spese per consumi delle famiglie: anno 2016," Istat, 2017 [Micro-Data for Research use provided to RSE Spa by ISTAT]: <https://www.istat.it/it/archivio/202093>.
- [6] Rutkowski J., Sałach K., Szpor A., Ziółkowska Z., Instytut Badań Strukturalnych, Policy Paper 1/2018 "Jak ograniczyć skalę ubóstwa energetycznego w Polsce?"
- [7] Ustawa z dnia 26 lipca 2013 r. o zmianie ustawy – Prawo energetyczne oraz niektórych innych ustaw, Dz.U. z 2013 r. poz. 984
- [8] Rządowy Program Czyste Powietrze, 2018, obowiązki operatora programu pełni Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej
- [9] Ustawa z dnia 21 listopada 2008 r. o wspieraniu termomodernizacji i remontów (Dz. U. z 2017 r. poz. 130), z uwzględnieniem zmiany wprowadzonej ustawą z dnia 20 lipca 2017 r. o Krajowym Zasobie Nieruchomości (Dz. U. poz. 1529) oraz zmian wynikających z przepisów ogłoszonych przed dniem 8 maja 2018 r.
- [10] Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej – Program Ograniczenia Niskiej Emisji - PONE
- [11] HM Government, March 2015. “Cutting the cost of keeping warm – a fuel poverty strategy for England” Presented to Parliament by the Secretary of State for Energy and Climate Change by Command of Her Majesty. Available online at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/408644/cutting\\_the\\_cost\\_of\\_keeping\\_warm.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/408644/cutting_the_cost_of_keeping_warm.pdf).
- [12] “Energy poverty – the impact of liberalisation and the economic crisis”, available online at: <https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/energy-poverty-impact-liberalisation-and-economic-crisis>

- [13] Tirado Herrero, S. and Jiménez Meneses, L. (2016). Energy poverty, crisis and austerity in Spain. *People Place and Policy Online*, 10(1), pp.42-56.
- [14] Welsch, H. and Biermann, P. (2014). Energy Prices, Energy Poverty, and Well-Being: Evidence for European Countries. Oldenburg discussion Papers in Economics.
- [15] Obra Social “La Caixa”, “Pobresa Energètica a Catalunya: reptes i dilemes”, available online at: [https://www.diba.cat/documents/14465/91063194/1r+congres+pobresa++energetica\\_v8\\_web.pdf/b59a72b5-654f-4651-9fb8-a231a2b0bc9c](https://www.diba.cat/documents/14465/91063194/1r+congres+pobresa++energetica_v8_web.pdf/b59a72b5-654f-4651-9fb8-a231a2b0bc9c)
- [16] ACA (Asociación de Ciencias Ambientales), 3er Estudio Pobreza Energética en España - Nuevos Enfoques de Análisis, available online at: <https://www.cienciasambientales.org.es/index.php/comunicacion/noticias/567-3er-estudio-pobreza-energetica-en-espana-nuevos-enfoques-de-analisis>
- [17] National statistics, Department for Business, Energy & Industrial Strategy, June 2017, “Annual fuel poverty statistics report 2017 (2015 Data)”, available online at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/639118/Fuel\\_Poverty\\_Statistics\\_Report\\_2017\\_revised\\_August.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/639118/Fuel_Poverty_Statistics_Report_2017_revised_August.pdf)
- [18] Koning Boudewijnstichting (2017). Barometer energieverarmde (2009-2015). Available online at <https://www.kbs-frb.be/nl/Activities/Publications/2017/20170313NT1>



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