



GREEN & SOCIAL HUB

THE SOCIAL DIMENSION OF ENERGY POVERTY

Research in the G&S Hub
municipalities

A cura di



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EXECUTIVE SUMMARY

Energy poverty is a complex and multifaceted challenge, defined as the inability to ensure household's energy needs. The consequences of energy poverty include individual health, as well as social and community well-being, since combating energy poverty means promoting a more equitable and inclusive green transition.

The Green & Social Hub project, within which activities this research has been carried out, aims to contribute to the knowledge of the phenomenon and identify appropriate measures to counter social inequalities in the green transition, through integrated local policies aimed at combating the different dimensions of poverty (energetic, economic, social, educational), with active involvement of vulnerable population groups and experimenting integrated intervention models.

Therefore, this report inquires the social dimension of energy poverty, with particular reference to the Italian context in which Green & Social Hub is implemented, by analysing the measures that have been put in place to combat it, both at national and regional level.

The report also focuses on the analysis of energy poverty in the 3 Italian different-sized municipalities, located in different regions, that are involved in the Green & Social Hub project. The document presents the results of a research carried out in these municipalities, which investigated the main characteristics of the target groups affected by energy poverty and the measures put into place to combat it.

The results confirm that energy poverty in these areas affects individuals and households only partly coinciding with an economic poverty target. Furthermore, although all municipalities have implemented some measures as a first attempt to combat energy poverty, the interventions were not preceded by a specific needs analysis and were implemented in a disorganised and fragmented manner, without collaboration between the different sectors of administration, in particular the environment and social sectors. In this direction, the activities of the Green & Social Hub project are an important tool to experiment with an integrated model that involves local administrators and stakeholders in the fight against energy poverty.

WHAT IS ENERGY POVERTY?

Energy poverty is a condition of inability to access the socially and materially necessary levels of energy consumption; it is due to a combination of factors such as: low family income, high energy costs, high energy consumption due to low energy efficiency. Energy poverty puts physical and mental health at risk, reduces performance at work and school and also has negative effects on the environment.

Since energy poverty is a multidimensional phenomenon detected in a complex social and technical context, it cannot be measured by one single indicator. The European Commission’s Energy Poverty Advisory Hub (EPAH) has developed a set of indicators to describe this phenomenon in its complexity, recently updated and revised (October 2023). The indicators cover four macro-thematic areas: climate, housing conditions, mobility and socio-economic aspects. The macro-areas and indicators are shown in the following table, extracted from the Energy Poverty National Indicators Report: "Uncovering New Possibilities Expanded Knowledge" (https://energy-poverty.ec.europa.eu/document/download/b00326ad-da4b-43cd-a99e-574eb587fce7_en?filename=EPAH2023_2nd%20Indicators%20Report_Final_0.pdf).

Table 4: NEW INDICATORS, CODES AND (SUB)TOPICS

Topics	Subtopics	EPAH Indicator	EUROSTAT Code
Climate		Cooling degree days	NRG_CHDDR2_M
		Heating degree days	NRG_CHDDR2_M
Facilities/housing	Energy Consumption and Equipment	Final energy consumption in households by energy use	NRG_D_HHQ
	Energy Consumption and Equipment	Final energy consumption in households by type of fuel	NRG_D_HHQ
	Building Stock	Pop. considering their dwelling as too dark	TESSI295
Mobility		Pop. who cannot afford a regular use of public transport	ILC_MDES13A and ILC_MDES13B
Socio-economic aspects	Health	Causes of death	HLTH_CD_ASDR2
	Socio Economic and Living Conditions	Disposable annual household income	NAMA_10R_2HHINC
	Socio Economic and Living Conditions	Housing cost overburden rate	ILC_LVH007A
	Health	Pop. reporting a chronic disease	HLTH_EHIS_CD1I
Socio-economic aspects Facilities/housing Mobility	Energy Consumption and Equipment Mobility Building Stock Health	Final consumption expenditure of households	NAMA_10_CO3_P3

At individual level, the European Energy Poverty Observatory identifies several indicators that define critical conditions:

- too low energy consumption
- too high share of income spent on energy
- late payment of bills
- inability to keep the house adequately warm in winter (or cold in summer).

Secondary indicators of energy poverty include excessive winter mortality or serious housing quality problems such as roof leaks, moisture in floors, walls or foundations, mould on windows.

In Europe, Southern and Eastern countries are particularly affected by energy poverty compared to Central (Western and Northern) countries. The fact that the Nordic countries suffer less from energy poverty than the warmer Southern European countries, on the one hand, confirms that energy poverty is largely determined by incomes and housing performance, and on the other hand, highlights the significant weight of summer heat in Southern countries.

According to data on energy poverty collected by Welforum in 2020, in Italy in 2018 8.8% of households were in energy poverty conditions. The indicator, adopted by the Italian government's policy documents, measures energy poverty in terms of the share of households with both too high electricity and heating costs, and households in severe deprivation and with zero heating expenditure. Regarding the territorial dimensions of energy poverty, the indicator "records a more serious situation in the Southern Italian regions, especially Sicily". In terms of family size, the indicator obviously reveals a growing link between the energy poverty index and the number of household members.

COVID, WAR IN UKRAINE AND ENERGY POVERTY

The COVID-19 pandemic and the war in Ukraine exacerbated the energy problem, increasing existing vulnerabilities and inequalities, including domestic energy consumption.

While the pandemic led to an increase in household consumption, the war contributed to an increase in energy costs. During the pandemic lockdown, the house became the space hosting many activities that previously took place outside it. This led to a high use of heating (so that you can stay warm all day), hot

water (for washing your hands often), cooking (to prepare food at home instead of eating out), lighting. Energy demand also changed, such as electricity for smart working, distance learning and domestic recreation (such as extensive use of streaming platforms, etc.). As a result, in many households, energy expenditure increased just when the pandemic's devastating effects on the labour market dramatically reduced incomes. Many households incurred higher energy costs with lower incomes. This led to two cross-vulnerabilities: low-income households often live in less energy efficient homes and need to use more energy to achieve the same level of service than households living in energy efficient homes. In addition, low-income people are employed in sectors most affected by the crisis caused by the pandemic and have therefore lost part or all of their working incomes. It can therefore be assumed that the pandemic has worsened the situation of families who already lived in vulnerability or overt energy poverty.

In Italy, energy poverty is currently calculated taking into account the ISEE (a statistic indicator of the family's economic conditions). However, experts suggest it does not take into account several important factors. Energy poverty is, in fact, multidimensional and can result from low incomes and high energy prices but is also linked to housing conditions - old houses, uninsulated fixtures, absence of heat coat and too old appliances. Access to the local network, which is not always guaranteed, and the lack of information on possible reductions in bills also have an impact. Finally, the climatic conditions must be considered, as a harsh winter or a hot summer can lead to higher energy consumption and higher heating or cooling costs.

A fair and just transition looks simultaneously at these three dimensions:

ENVIRONMENTAL

Quality of public space; Green public spaces: reforestation, biodiversity; Public transport: soft and sustainable mobility; Climate adaptation plans; Energy: reducing consumption, energy efficiency and renewable sources; Air quality; Water: combating drought; Policies for sustainable food systems (food policy); Waste management.

SOCIAL

Housing (public housing, social housing, housing first, rent support, cohousing); Integration of foreign communities; Gender equality and LGBTQ+ rights; Participation; Community spaces; New educational models; Income support and poverty alleviation (energy, education; food); Territorial and proximity health, psychological support; Cultural and sports welfare.

ECONOMIC

Investment in the Knowledge Economy; Law and income support; Responsible innovation; Mutualism and cooperation; Urban regeneration; Quality job creation; Green jobs; Tackling unemployment; Vocational training; Circular economy; Manufacturing in urban contexts; Local commerce; Innovation and social entrepreneurship; Data governance and technological innovation; Logistics (impact management and sustainability).

OBJECTIVES AND METHODS

The research carried out within the GSHub project's activities aims to design the picture of energy poverty at local level, in the three involved municipalities, outlining its main characteristics: who are the citizens/ households most affected? Where and in what conditions do they live? Which supports do/can they use?

The aim of the research is to improve the reading and diagnosis of energy poverty at local level, identifying the most appropriate measures to combat it in municipalities of different sizes.

The research was also carried out on the basis of the information provided by EPAH Handbook 1: A Guide to Energy Poverty Diagnosis¹.

¹<https://energy-poverty.ec.europa.eu/observatory/publications/epah-energy-poverty-advisory-hub-handbook-1-guide-energy-poverty-0>

The analysis phase at local level is the basis to plan interventions and policies, because it allows to understand the specific causes of the phenomenon. The Handbook can help local administrators to plan appropriate actions for the problem:

- a. Is there energy poverty in the municipality?
- b. Where is it concentrated?
- c. What is the severity of the situation?
- d. Who are those most affected?
- e. What are the most significant determining factors?
- f. What perception do the agents involved have of this problem?

On the purpose to answer to some of these questions, the following activities were carried out in each of the three municipality partners (Avezzano, Bassiano and Crispiano):

1) Collection of data on persons and households taken over by the territorial social service, in particular:

- number of persons and households taken over by social services
- number of households and individuals with ISEE range that does not exceed the income limit of 9,530 euros;
- number of households with at least 4 dependent children with ISEE value not exceeding 20 thousand euros;
- main socio-demographic data (sex, age, composition of the household, level of income) of persons and households in charge of social services, with focus on single parents and large families and information on services and benefits required
- number and type of households receiving income support and measures (e.g. electricity, gas and water utility bonuses)

2) Interview with the coordinator of territorial social services

The interview investigates the number and characteristics of families and individuals who are/have been beneficiaries of income subsidies and supplements (what measures in particular? minimum income (citizenship, inclusion, etc.), school fees, book bonuses, utility bonuses, etc.); on individuals and households who have benefited from gas user discounts, electricity and water; on households that have

benefited from deferred and ratepaying or from the prohibition of interruption of energy supply in critical periods.

In particular, the coordinator was asked to specify what are the specific characteristics of individuals and families who require income support and measures (by characteristics such as age, sex, occupation and sector of employment, family composition, country of origin, type of dwelling, etc.)

3) Interviews with key stakeholders (e.g. local Caritas, parishes, voluntary associations, consumer associations, etc.), with the aim to collect information about the scale and characteristics of the phenomenon, including specific reference to vulnerable individuals and families who are not intercepted by social services.

THE SOCIAL DIMENSION OF ENERGY POVERTY

The aim and ambition of the research is to provide indication to target the most vulnerable people in policies countering climate change, including at local level, to make them all safe in facing new social and environmental risks. The study entitled "Evolution of energy poverty in Italy", carried out by the Italian Observatory on Energy Poverty (OIPE) in collaboration with the Fondazione Banco dell'energia- the non-profit organization that supports families in situations of economic and social fragility- pictures the trend of energy poverty in Italy during 2022, based on the latest available ISTAT data.

Energy poverty in Italy increases among middle-income households and decreases among economically weaker ones. According to the OIPE analysis, all Italian households have been affected by rising energy prices, but in different ways. The most vulnerable households, which benefited from support and price containment measures, suffered less from increases, which instead gave a financial stalemate to middle-class households. This analysis shows that two million people in Italy, or 7.7% of the total population, live in energy poverty, that is, they cannot access the energy services necessary for their well-being: adequate lighting, heating, cooling.

In 2022, Italy recorded a 32% increase in energy spendings, or 500 euros more than the previous year: figures that push the average annual expenditure for electricity and heating to 1915 euro. Consumer prices - according to the OIPE analysis - have risen by 50% and 34.7% respectively for electricity and gas. If you only take into account heating, instead, the expenditure has increased by 29%: a more moderate figure made possible by the global increase in temperatures. Calabria is the region with the

highest percentage of households in energy poverty. In contrast, the number of families in difficulty in the Islands and in the Centre is declining, while in the North the level remains stable with some discomfort in smaller towns and suburban areas. At regional level, Tuscany and Marche region have the lowest figures with 4.5% of people living in energy poverty, while Calabria has the highest figures with 22.4%. This is also the region with the largest increase: +5.7%, in contrast to a reduction or substantial stability in other Italian regions.

The reduction of energy poverty in 2022 was dependent on government subsidies and temporary interventions on taxation as well as tariff components of energy products. However, according to the OIPE, a strategy based on rigorous analysis and targeted tools would be needed to reconcile public finance constraints with the effectiveness of interventions that should only target vulnerable families. The data presented by OIPE show, indeed, that the actions introduced by both government and social workers in recent years have produced some results, but attention must be given to consolidate the results obtained, even if energy supply prices in 2023 have decreased.

Box n.1 –The EPAH method and handbooks

To support national and local governments in tackling energy poverty, the EPAH developed a specific methodology with operational tools, including guidelines for analysis, preparation and implementation of specific actions to support vulnerable target groups. The methodology consists of 3 phases:

Diagnosis

This phase aims to involve stakeholders and analyse the main characteristics of energy poverty at local level: which are the most affected target groups and/or areas, etc.

Planning

This phase aims to prepare a set of actions specifically addressing energy poverty in line with the characteristics identified in the diagnosis phase

Implementation

This phase involves financial planning, implementation and monitoring of planned actions

MEASURES TO TACKLE ENERGY POVERTY AT NATIONAL AND REGIONAL LEVEL

As stated before, in recent years the impact of energy costs required central, regional and local governments to take measures to reduce and combat it.

At national level, general economic support measures have been provided for most of the time, with only a few cases explicitly referring to energy poverty.

The main measures are:

Electricity, gas and water bills bonus

As we have already mentioned, in our country the ISEE is the indicator to calculate energy poverty: households with a low ISEE and therefore experiencing economic difficulties are entitled to discounts on gas, electricity and water. In general, the income limit must not exceed 9,530 euros, but for households with at least 4 dependent children the ISEE value should not be higher than 20 thousand euros.

Electric bonus

Until March 2024, the Electric Bonus was in force, a bonus that only concerns electricity. In this case, the ISEE limit is up to 15 thousand euros, while for families with 4 dependent children it rises up to 30 thousand euros.

Ordinary purchase card

An ISEE value not exceeding 8,052.75 euros - limit that increases to 10,737 euros for 75 and more years old people – is the condition to get the “ordinary purchase card”. This is a card for economically disadvantaged households with children under 3 years of age or over 65. The card is charged at 80 euros every month and can be used for food expenses, gas and electricity.

Inclusion Allowance 2024

From December 2023, it is possible to apply for the Inclusion Allowance, one of the measures that replaces the Citizenship Income. In this case, the ISEE value of 9,360 euros must not be exceeded, but at least one child, a disabled person or an elderly member over 60 years old must be present in the household.

The following table shows the main measures taken in the years 2022-2024 at both national and regional levels.

Area	Year	Measure	Description	Link
Italy	2024	National Energy Income	It supports the construction of domestic photovoltaic systems for residential units of households in economic distress	https://www.gse.it/servizi-per-te/fotovoltaico/reddito-energetico
Italy	2024	Ecobonus	Tax deductions for energy efficiency of buildings	https://bonusfiscali.enea.it/
Marche Region	2022	Regional measure to combat energy poverty and criteria to allocate the fund – year 2022	Economic support to families to tackle increase energy bills	https://www.norme.marche.it/atto/detail.html?id=1690678
Marche Region	2023	Family Energy Call	Grants to households for investments in energy saving and renewable energy production, for residential units in the regional territory	https://www.regione.marche.it/Regione-Utile/Energia/Bandi-di-finanziamento/id_8563/7263
Apulia Region	2022	Regional Energy Income	Grants to households with ISEE not exceeding 20,000 euros to purchase and install renewable energy systems for domestic use	https://istanzere.politicheenergetiche.regione.puglia.it/
Basilicata Region	2023	Gas Bonus	Cancellation of the gas bill costs for the main residential building in Basilicata, thanks to compensation agreements with energy companies	https://www.regione.basilicata.it/giunta/site/giunta/detail.jsp?fw=1&otype=1053&id=3085712
Sicily Region	2023	Support programme for persons living in Sicily: exceptional contribution to purchase and install photovoltaic panels and electricity storage systems	Contributions for the purchase and installation of photovoltaic panels and storage systems (there are no requirements, except being a natural person resident in Sicily and owner or co-owner of a residential property)	https://www.regione.sicilia.it/la-regione-informa/programma-sostegno-favore-persone-fisiche-residenti-sicilia-contributo-straordinario-l-acquisto-l-installazione-pannelli-fotovoltaici-nonche-sistemi-accumulo-energia-elettrica

At national level, the so-called Ecobonus was highly criticised and revised in recent years, and animated debate during the last parliamentary election campaign. The measure, which has been significantly reduced this year, provides for tax deductions for energy efficiency of buildings, with the aim to lead homeowners towards environmental sustainability and energy savings. The deductions were in fact focused on buildings efficiency (thermal coat, replacement of fixtures and boilers, air conditioning system, photovoltaic and solar plants for the production of clean energy, etc.). Beyond the political debate, in which the discussion focused mainly on cases of fraud and the poor sustainability of public accounts, the measure had the merit to encourage a restructuring of heating installations, cooling and thermal insulation of old buildings that are very numerous in our country to meet the new requirements dictated by climate change in a sustainable way (energy saving and production of renewable energies).

Another national initiative is the establishment of the National Energy Income, a measure aimed at supporting the installation of domestic photovoltaic systems to serve residential units of households even in economically disadvantaged situations. This measure in some cases directly addressed the issue of reducing inequalities due to climate change, supporting precisely those sections of the population that are most vulnerable and poor, most affected by the damages of climate change. Supporting the poorest citizens in renewable energy production means not only offering bonuses to help them pay their overcharged bills, rather, to enable them not only to face new risks due to climate change but also and above all to seize new opportunities, by supporting them in the autonomous or community production of renewable energies and guiding them towards sustainable consumption styles. Old houses are inefficient and amplify the risk of energy poverty, in fact for the houses of more recent construction the specific weight of energy poverty is reduced to 5.4% for those built in the 90s, 3.9% for those of the years 2000 (Enea 2022).

The table shows how, once again, in our country the regions have moved and regulated through very different political logics and plans of intervention. In some cases, the measures adopted at both national and regional levels have a more emergency character, that is to support households in the payment of electricity and gas bills through the provision of income supplements. Among these, the virtuous case of the Basilicata region should be mentioned in particular, which, thanks to compensation agreements with energy companies, has planned in 2023 the cancellation of the costs in bills for the gas component of the main dwelling of residents in Basilicata. In other cases, regions have directed funding to support the development of sustainable energy infrastructures.

In 2020-21 and 2021-22, the Veneto region set up a New Vulnerability Fund for the provision of an economic contribution that can be integrated with the emergency funds available to the municipalities. Different types of expenditure may be identified as reimbursable if they are considered relevant by social services.

<https://www.regione.veneto.it/web/rete-degli-urp-del-veneto/nuove-misure-contrasto-poverta#fondo%20vulnerabilit%C3%A0>

It is currently in approval the New Regional Energy Plan that often refers to energy poverty, even though it does not provide for targets and times (<https://www.regione.veneto.it/web/energia/piano-energetico-regionale>).

Several regions have adopted measures to support the installation of photovoltaic panels: Sicily Region, for example, has approved the "Support Program for natural persons resident in Sicily and owners and co-owners of a residential property". The program gives exceptional contribution to purchase and install photovoltaic panels and electricity storage systems.

Apulia Region introduced the Regional Energy Income approved in 2022, LR n.42/2019 that provides for the payment of grants to families with ISEE not exceeding 20,000 euros to purchase and install systems to produce renewable energy for domestic use. Through the criterion of a low - but not extremely low - ISEE, the regional measure precisely supports those targets who usually do not access to incentives and economic facilities while having a strong need for support.

Lombardy Region approved in 2023 an Energy, Environment and Climate Plan that includes a line of action "Measures to combat energy poverty" but it provides very general actions (and no specific objectives, time, etc.).

<https://www.regione.lombardia.it/wps/portal/istituzionale/HP/DettaglioRedazionale/istituzione/direzioni-general/direzione-generale-ambiente-e-clima/preac-programma-regionale-energia-ambiente-e-clima/preac-programma-regionale-energia-ambiente-e-clima>

The Milan municipality – in December 2023 – approved the guidelines to develop a Plan “Towards a common energy wellbeing”. Welfare, housing and environment sectors are involved, in order to ensure and integrated approach to tackle energy poverty.

<https://www.comune.milano.it/-/palazzo-marino.-verso-il-comune-benessere-energetico-dalla-giunta-le-linee-di-indirizzo-per-un-piano-per-il-contrasto-alla-poverta-energetica>

Lazio Region developed a Regional Energy Plan, updated in 2022, that includes tackling energy poverty among its aims. Foreseen measures include public residential buildings energy efficiency as well as the involvement of the most disadvantaged segments of the population in renewable energy communities

<https://www.regione.lazio.it/cittadini/tutela-ambientale-difesa-suolo/piano-energetico-regionale-per-lazio>

In 2022, the Region also approved a law on energy income for households with ISEE under 35 thousand euros that provided incentives to purchase domestic appliances for the production of domestic hot water, even if run on fossil fuels, and use of heating and induction cooktops. The energy income was then abolished because the incentives did not only concern renewable sources and would therefore be in contradiction with the promotion of renewable energy sources, envisaged by the measures on energy communities.

<https://www.nextville.it/news/53414/lazio-abrogato-il-reddito-energetico-per-fare-spazio-alle-ce/>

In October 2024, the regional council approved a resolution to support already established energy communities. They may receive an increase in their contribution if economically disadvantaged people participate in the community or if it implements social inclusion projects. The fund allocated is €10 million. <https://www.regione.lazio.it/notizie/Sostenibilita-via-libera-sostegno-comunita-energetiche-rinnovabili>

Tuscany Region approved the LR 42/2022 “Promotion and support to renewable energy communities”, stating contributions to the constitution of energy communities and benefits for those including vulnerable beneficiaries or public residential buildings’ managing authorities.

<https://raccoltanormativa.consiglio.regione.toscana.it/articolo?urndoc=urn:nir:regione.toscana:legge:2022-11-28;42>

Abruzzo Region approved a regional law for the promotion of renewable energy communities in 2022, with provision for a fund, annually determined in accordance with budgetary allocations

http://www2.consiglio.regione.abruzzo.it/leggi_tv/testi_vigenti/insieme.asp?numero=8&anno=2022&lr=L.R.%2017%20maggio%202022,%20n.%208&passo=../abruzzo_lr/2022/lr22008.htm&passa=http://leggi.regione.abruzzo.it/leggiereg/2022/1008.htm

Molise has just presented a draft law (2 October 2024) for the promotion and development of renewable energy communities <https://consiglio.regione.molise.it/node/25764>

Campania Region promoted the development of renewable energy communities - also as a countermeasure to energy poverty - through the DGR n. 451 of 01/09/2022, reserved for small municipalities, with a population of less than 5000 inhabitants <https://www.regione.campania.it/assets/documents/dgr-n-451-del-01092022.pdf>

Calabria Region, as well, enacted a regional law (LR n.25/2020, later amended and supplemented by LR n. 20/2023) for the promotion of renewable energy communities.

<https://www.consiglioregionale.calabria.it/bdf/api/BDF?numero=20&anno=2023>

The Region developed a website – called “Calabria Energy” – targeting municipalities to support them in the implementation of renewable energy communities <https://energia.calabriaimpresa.eu/>. Indeed, renewable energy communities are the main measure to tackle energy poverty at regional level, as stated in the preliminary report of the regional Integrated Plan for Energy and Climate <https://www.regione.calabria.it/wp-content/uploads/2023/08/Rapporto-preliminare-PRIEC.pdf>

Apulia Region established the Regional Energy Income with LR n.42/2019 and allocated the fund to encourage the purchase of renewable energy production facilities for low-income households <https://politiche-energetiche.regione.puglia.it/reddito-energetico>. In the regional guidelines for promoting SECAPs (Sustainable Energy and Climate Action Plans), the Region identified –in line with the "Covenant of Mayors" European initiative - the pillar of energy poverty, together with the mitigation and adaptation pillars. However, the guidelines do not provide guidance on the energy poverty pillar, nor do they include social sector technical figures among the focal points for implementation and monitoring of the plan.

Basilicata Region has introduced the Gas Bonus measure (see table above).

Sicily Region issued in 2022 a public call for the promotion of renewable energy communities addressed to municipalities. The community is explicitly mentioned as a tool to reduce energy poverty. The call states that at least 10% of energy participants are in energy poverty.
https://www.regione.sicilia.it/sites/default/files/2022-06/Avviso%20comunit%C3%A0%20energetiche%20regione%20siciliana_rev_DRE_6giu2022_sant.pdf

The Region established an economic contribution to install photovoltaic panels for natural persons (see table above).

Sardinia Region established Regional Energy Income through LR n.15/2022 and approved the agreement with the GSE (Energy Services Manager), the establishment of the working capital and the guidelines for implementing directives with Resolution n.38/142 of 2023

<https://delibere.regione.sardegna.it/protected/67757/0/def/ref/DBR67655/>. The same regional law allocated a fund to support municipalities in the development of renewable energy communities, as well.

In some regions, assemblies presented law proposals to establish a Regional Energy Income (never approved): Lombardy, Veneto, Umbria, Lazio, Campania.

MEASURES TO TACKLE ENERGY POVERTY IN THE G&S HUB MUNICIPALITIES

The project aims to reconstruct the reference framework of the 3 municipalities involved in the project including the initiatives taken at local level to combat energy poverty and the different emerging profiles of poverty energy in our country.

AVEZZANO MUNICIPALITY

Avezzano is an Italian municipality in L'Aquila province in Abruzzo, which became a city by decree of the president of the republic on 21 June 1994. It has a population of 40,891 inhabitants.

In the Local Social Plan of the Municipality - Social Area district n° 3 of the Abruzzo Region, there is no explicit mention to energy poverty, it has not been analysed or addressed nor are the interventions aimed at combating it explicitly foreseen. Reference to families and households in poverty is, instead, maintained. However, in the period 2021-2023, the local administration intervened several times with measures to combat energy poverty. The first Notice, published by the Municipality in November 2021

(protocol 70640 of 23/11/2021), aimed to support families affected by the Covid emergency with economic contributions to partially cover the costs for household energy users, gas and water, in addition to contributions to support the payment of TARI (waste tax) and housing leases, for the year 2021, period 1 January - 30 September. The Notice is addressed to families who, on the date of submission of the application, are resident in the municipality and are in economic difficulty due to a reduction in income resulting from a health emergency caused by Covid 19 attributable to one of the following causes:

- a. loss of employment;
- b. labour reduction;
- c. suspension of self-employment;
- d. termination of professional or business activity;
- e. reduction of professional or business activity;
- f. unemployment;
- g. non-renewal of atypical fixed-term or employment contracts;
- h. company and trade union agreements with drastic reduction of working hours;
- i. a serious illness or death of a member of the household;
- j. increase in certified expenses incurred by the household to purchase medicines, to ensure social assistance interventions or for payment of social health or funeral expenses;
- k. other necessity state.

Applicants should also:

- have no bank and/or postal deposits exceeding € 20,000;
- be in possession of a valid ISEE certificate for an amount not exceeding € 15,853.63;
- not have adhered to the concurrent notice for Spending Vouchers issued by the Municipality of Avezzano.

The benefit granted in support of domestic utilities is calculated on the basis of 80% of the total value resulting from the bills produced by the applicant, up to a maximum of € 300.00.

Not having exhausted the funds available with the applications received and deemed admissible under the above-mentioned Notice, the Municipality of Avezzano issued a new edition of the same in February

2022 (protocol 11131 of 28/2/2022). The new Notice is entirely similar to the previous one, except that the requirement “not to have requested a spending voucher” has been waived.

In total, through these two notices, the Municipality of Avezzano granted support to 131 families in difficult conditions, including energy poverty, in 2022 (see next paragraph). The Municipality of Avezzano also provided assistance for the following years. The beneficiaries of these grants, as described in more detail below, are families in a general condition of economic poverty, which also manifests itself as energy poverty and, in particular, difficulties in paying bills.

However, the Municipality subsequently considered it appropriate to target middle-class families as well. At the end of 2022, a further Notice was published (protocol 77378 of 19/12/2022) aimed at countering the emergence of new poverty and helping citizens in difficulty, through the provision of contributions aimed at partially covering the expenses related to household utilities for the supply of electricity, water and gas, relating to the year 2022, period 1 January - 30 November.

As for previous notices, applicants must be resident on the municipal territory at the date of submission of the application and be in a condition of economic difficulty due to reduced income due to one of the following causes:

- a. loss of employment;
- b. labour reduction;
- c. suspension of self-employment;
- d. termination of professional or business activity;
- e. reduction of professional or business activity;
- f. unemployment;
- g. non-renewal of atypical fixed-term or employment contracts;
- h. company and trade union agreements with drastic reduction of working hours;
- i. a serious illness or death of a member of the household;
- j. increase in certified expenses incurred by the household to purchase medicines, to ensure social assistance interventions or for payment of social health or funeral expenses;
- k. other necessity state.

In this notice, however, the ISEE limit for applying is raised to € 26,000.00, with a priority for households with ISEE between € 12,000 and € 26,000 and whose members are not beneficiaries of Income or Citizenship Pension. The target group is thus a middle-income group, no longer in extreme poverty. The contribution is also modulated according to the composition of the household, with a maximum amount of 300.00 € for households up to two members, 400.00 € for households with 3 or 4 members and 500.00 € for households with 5 or more members.

BASSIANO MUNICIPALITY

The Municipality of Bassiano is part of the Monti Lepini District LT/3, together with the municipalities of Maenza, Priverno Prossedi, Roccagorga, Roccasecchadei Volsci, Sezze and Sonnino. The District, in implementation of the Regional Council Resolution of 7 December 2022, No. 1161, received an amount of 225,645, EUR 75 to help households in need to cope with rising electricity costs for household users. Lazio Region, in fact, intended to support citizens and families in social and economic fragility who live in municipalities in Lazio, with the payment of an economic contribution to limit the negative effects of the exceptional increase in energy prices, and allocated 15 million euro, on the chapter U0000C21932 named "ARMO - REGIONAL FUND FOR THE RINCARO ENERGY (L.R. No. 19/2022, ART. 9, CC. 163-165) - § CURRENT TRANSFERS TO LOCAL ADMINISTRATIONS DGR 1161/2022. Regional fund for the increase of energy pursuant to article 9, paragraphs 163 and seg. of the regional law no. 19/2022-. Provision of one-off financial aid to households in need. Finalisation of the commitment booking n. 67750/2022 for the amount of Euro 15,000,000.00, in favour of the City of Rome and the lead entities of the social health districts (referred to DGR 660/2017) allocating the amount of € 5,000,000.00 in favour of the City of Rome and 10,000,000.00 euro in favour of the 36 remaining social and health districts on the basis of the criteria and weights defined in the Regional Social Plan (DGR 971/2019) for financial year 2022.

District LT/3, in line with the provisions of Lazio Region, published an expression of interest for the distribution of economic aid to citizens according to the following criteria and modalities:

- one-off aid amount set at EUR 150,00;
- beneficiaries are citizens who meet the following requirements:

1. residents registered in the registry office of one of the municipalities of the Social and Health District LT3 Monte Lepini
 2. ISEE value not higher than € 25,000.00
 3. Electricity users
- the aid is cumulable with other facilities to cope with exceptional energy price increases;

The applications were submitted on the institutional web site of the Municipality of Priverno and on the website of each Municipality of the District, which have, following the investigation, identified the beneficiaries and prepared two rankings based on the ISEE certificate (the first one ordered according to ISEE values containing the requests of those who have not received the facilities provided for in the Aid Decree (D.L. 9 August 2022, n. 115 converted with modifications from L. 21 September 2022, n. 142 Urgent energy measures, water emergency, social and industrial policies); the second ranking, always ordered according to the value of ISEE, is related instead to those who have received facilities under the Aid Decree (D.L. 9 August 2022, n. 115 converted with modifications from L. 21 September 2022, n. 142 Urgent measures in the field of energy, water emergency, social and industrial policies);

The financial support from the Municipality of Priverno, municipality/ lead body of the socio and health district LT/3, has been granted until the end of available funds and at the latest by 31 December 2023.

CRISPIANO MUNICIPALITY

The municipality of Crispiano, in Taranto province, is located in Apulia Region, one of the Italian regions that has established a support measure to increase and spread the production of energy from renewable sources in the regional territory, focusing on the most vulnerable groups, in order to combat energy poverty and reduce social inequalities. The Region has, in fact, set the Regional Energy Income, a measure that promotes the progressive spread of renewable energy production facilities at and for residential domestic users through a grant to purchase and install such equipment, as a priority, for users in socio-economic difficulties. This is intended to stimulate the energy transition, while promoting the creation of a local supply chain in the field of installation, maintenance and management of renewable energy production facilities. The income beneficiaries are required to sign an agreement with GSE (Energy Services Manager), introduced by the decrees implementing the Legislative Decree 8 November 2021, n. 199.

The Regional Energy Income includes 5 stages:

- Allocation of the fund to purchase renewable energy production facilities;
- Publication of a regional list of economic operators qualified for the installation and maintenance of electricity and heat production systems powered by renewable sources to which beneficiaries of the measure can turn;
- Users can install the systems through the grants provided by the fund;
- The electricity produced and not self-consumed is sold on the network and remunerated by the GSE.
- The revenues obtained from the introduction into the grid of the excess electricity produced can be reinvested to feed the fund for energy income, in an ideal cycle that repeats itself going to form a revolving fund.

Clean energy production on site also leads to the concept of self-consumption, which results in savings in bills for users. It should be stressed that the energy income also aims at an expansion of employment in terms of both design and installation, as well as maintenance.

ENERGY POVERTY IN THE G&S HUB MUNICIPALITIES: FEATURES ANCHE CHARACTERISTICS

AVEZZANO MUNICIPALITY

In collaboration with the social service of the municipality of Avezzano, a small study was carried out on the data concerning the beneficiaries of the 3 notices that between 2021 and 2022 have provided economic contributions to alleviate energy poverty, through bonus for paying energy bills.

No gender-disaggregated data could be obtained, so the analysis cannot take account of this important dimension.

The first announcement was published in November 2021 and provided for economic contributions for different types of needs: payment of bills, house rent, TARI (waste tax). The target were people in

economic hardship (ISEE not exceeding 15,853.63) and not beneficiaries of the Covid spending voucher that municipalities were distributing through national funding in the same period.

In view of the few applications received, the municipality published a new edition of the notice in February 2022 that eliminated this last requirement, opening up the application also to beneficiaries of the spending voucher.

The following table shows the main data for beneficiaries who have only requested and received the utility bonus, with a specific focus on one of the criteria that define energy poverty, namely the difficulty in paying for energy consumption.

	First notice Covid 19				Second notice Covid 19			
	Total	ITA citizenship	EU citizenship	Non-EU citizenship	Total	ITA citizenship	EU citizenship	Non-EU citizenship
N. beneficiaries of the bonus	27	19	3	5	102	86	3	12
Mean age	49	52,3	37,3	44,8	53	52,7	39	46,6
Mean number of family members	2	2,1	2	2,4	3	2,9	2,3	3,25
% of beneficiaries also receiving Citizenship Income (or Pension)	11	10	0	1	29	24	0	5

As the table shows, and the Municipality of Avezzano itself acknowledged, the families granted the contribution through the first notice were only 27. When the application was open to the recipients of the Covid spending voucher as well, they were 102. The households benefiting are largely of Italian nationality (70% in the first notice and 84% in the second) and small on average (2 or 3 members on average). The average age of applicants is 49 in the first notice and 53 in the second, higher for applicants with Italian citizenship, while it is under 40 for applicants with non-EU citizenship. Among those who have been awarded the grant, only a part also receives the Citizenship Income or Pension: the percentage is highest in the first notice, where it reaches 40%, while it is below 30% in the second notice. This suggests that the difficulty in paying bills - an indicator of energy poverty - does not only affect the population group with the highest economic poverty - due to absence of work and other forms of

income - but also households that do not benefit from poverty measures and probably fall into the category of "working poor".

In this regard, as described above, the Municipality of Avezzano has then published a further notice for contributions to households for payment of household utilities, open to applicants with ISEE up to €26,000 and even setting an access priority for applicants with ISEE between €12,001 and €26,000, precisely with the aim to intercept those households not in conditions of absolute poverty but with economic difficulties linked to the energy crisis and the increase in energy costs - and therefore falling into the category of "energy poor". In response to this announcement, grants were awarded to 263 applicants, with the characteristics showed in the following table:

	Notice Bill payment contribution		
	Total	Applicants WITH priority	Applicants WITHOUT priority
N. beneficiaries of the bonus	263	88	175
Mean number of family members	3	3	3
% of beneficiaries also receiving Citizenship Income (or Pension)	58	0	58
Mean ISEEdvalue	€ 9.246,19	€ 17.420,89	€ 5.135,48
Maximum contribution (meanvalue)	€ 344,10	€ 367,37	€ 332,40

The social service did not provide data on gender, age and citizenship of the beneficiaries of this notice, while the ISEE value is present. Out of the 263 beneficiaries of this measure, about one third (33%) were given priority, with an ISEE between 12 and 26,000 euro. In this group there are no recipients of the Citizenship Income and the mean value of the ISEE reaches about 17,000 euros: therefore, the notice intercepted a target that very hardly accesses other social support measures. This suggests that this measure has probably succeeded in covering a specific need related to energy poverty, which increasingly affects people and households not only in extreme poverty.

66% of the beneficiaries of the measure falls under a target of economic poverty, with an average value of ISEE much lower, equal to about 5,000 euros: about one third of these is also recipient of Citizenship Income or Pension.

BASSIANO MUNICIPALITY

In Bassiano, 7 households benefited from the energy support measure managed by the Social and Health District. However, it was not possible to obtain detailed information on the socio-demographic characteristics of this target group, although the measure coordinator at the District reported that they were predominantly families with underage children.

Interviewed stakeholders from the municipality (social services councillor, social worker, etc.) reported that in this small mountain municipality there are many houses without heating, where mainly elderly people live. These people come from a peasant and popular culture and are not accustomed to heat the house if not through the fireplace. The same difficulty is experienced by the inhabitants in the summer, given the high temperatures due to climate change and the impossibility of cooling houses.

CRISPIANO MUNICIPALITY

In collaboration with the social service of Crispiano municipality, we analysed data of people who were already in charge of the social service or who have turned to the service for the first time with a problem related to the difficulty in complying with the payment of bills. This is one of the household-level indicators used to identify energy poverty conditions. The analysis period covers the years 2021 to 2023.

The table shows the number of users - by gender - who received a contribution from the municipal social service to pay bills (mainly electricity), the average age, the average number of members of the household, the average value of their ISEE, the percentage of users who have benefited from other forms of public support in the same year (Citizenship Income, Naspi, Cassa Integrazione, etc.) and the percentage of requests received by the service for the first time on the total number of applications accepted.

Year	2021			2022			2023		
	Total	Women	Men	Total	Women	Men	Total	Women	Men
n. beneficiaries of the contribution	8	6	2	13	8	5	13	10	3
Mean age	46,25	40,83	62,5	47,69	46,25	50	50,23	53,7	38,66
Mean number of family members	3,125	3,66	1,5	2,38	2,625	2	2,15	2,2	2
Mean ISEE value	€ 3.761	€ 2.687	€ 6.885	€ 3.451	€ 2.911	€ 4.3016	€ 3.115	€ 3.097	€ 3.176
% of beneficiaries who are recipient of other economic support	0	0	0	38,46	37,5	40	15	10	33,3
% of requests received by the service for the first time out of total beneficiaries	12,5	16,67	0	15,38	12,5	20	31	30	33,3

As the table shows, the municipality of Crispiano has financially supported about ten beneficiaries every year through a specific measure for the payment of bills (they were 8 in 2021 and 13 for each of the following two years). Although the data is limited, it appears that the beneficiaries are to a greater extent women, on average younger (except in 2023, where the 3 male beneficiaries are all under 45 years), with more numerous households and lower ISEE.

In addition to these data, the social service has suggested to also take into account the data - related to the year 2022 - in which the municipality has paid the Covid contribution, a national income support measure that has been largely used by the beneficiaries from Crispiano to cover the costs of bills at a time of particular social and economic crisis for the entire country.

Year	2022		
COVID contribution	Total	Women	Men
N. beneficiaries of the contribution	243	154 (63%)	89 (37%)
Mean age	47,41	46,55	48,89
Mean number of family members	2,95	2,85	3,12
Mean ISEE value	€ 4.065	€ 3.954	€ 4.257
% of beneficiaries who are recipient of other economic support	144	88 (57%)	56 (63%)
% of requests received by the service for the first time out of total beneficiaries	102	66 (43%)	36 (41%)

As the table shows, there were much more beneficiaries in this case, reaching up to 243, again with characteristics quite similar to those of the beneficiaries of the utility subsidy: mostly women, younger and with an average ISEE lower than men. In this case, however, men have slightly larger households. The relevant fact here is that a good percentage of beneficiaries - both men and women - of this contribution, also benefited from other forms of public support.

CONCLUSIONS

The growing centrality of environmental issues has certainly a strong impact on the welfare system, questioning some assumptions and principles on which it was built and bringing forth an increasing debate about eco-social welfare (Mandelli 2022). To understand the relationship between economic, environmental and social spheres, three axes are widely referred to: environmental sustainability, economic growth and welfare (Mandelli et al. 2021; Schoyen et al. 2022). These are the three dimensions necessary to develop a governance able to interconnect policies and objectives to be pursued, both at national and global level.

Two aspects need to be taken into account: the first one is that, in current times, inequalities are multidimensional, no longer just about income but about gender and generations, about where you live, education and opportunities. The second one is related to the speed at which the climate crisis is marching beyond all prediction. The EU's Copernicus Climate Change Service, in its monthly bulletin published on 7 November 2024, documents that the temperature in October 2024 was 1.65°C higher than the pre-industrial level, and it is now certain that 2024 was the hottest year ever recorded and the first year with more than 1.50C above pre-industrial levels (1850-1900), a threshold considered by the Intergovernmental Panel on Climate Change (IPCC), beyond which any possibility of turning back becomes more and more difficult. The significant figure is that in 2018, the IPCC recorded for the decade 2006-2015 a temperature increase of 0.87°C compared to the pre-industrial period and predicted that global warming caused by humans would reach +1.5°C around 2040. Although the trend in the upcoming years will be fluctuating, experts report that we are facing a strong acceleration, which also requires policies to counter the climate crisis to be "faster". But as international political debate shows, climate policies can only accelerate if they are based on strong support and acceptance by the majority of the population.

If we do not address the social justice dimension of the ongoing energy transition, we risk fail in our efforts to counter the climate crisis which, in order to succeed, must be able to involve the most socially vulnerable, who represent the majority of the population, consciously and constructively. Appropriate policies are therefore needed to accompany this revolution, avoiding any risk of uneven speed in the transition and, instead, favouring the most vulnerable.

The relationship between social and environmental policies is therefore strategic to address the entanglement between social inequality and climate change: the former one affects the climate crisis by increasing the demand for economic growth, increasing the ecological irresponsibility of the richest citizens, reducing the resilience of societies, also hindering the capacity for collective action and reducing the sensitivity of the poorest to climate needs (Gough 2019). Climate change is closely linked to inequalities, and there are many studies and research showing that the responsibilities and impacts of emissions are not equally distributed between and within countries: climate change is thus considered as a new "all-encompassing" or "third generation" social risk (Johansson et al. 2016), which adds to the existing social risks to form a complex multi-layered structure of risks and needs, that generate new types

of distributional conflicts and new forms of injustice between developing and developed countries, between social groups, between present and future generations.

We must, therefore, change the existing structure: whereas the social policies in the 20th century were designed to respond to the challenges of industrialisation, urbanisation and globalisation, the 21st century policies must address inequalities and conflicts, including those arising from climate change and environmental policies. The scenario highlights the limits of the action of the modern social state: the consequences are reflected in different ways on a national and local scale, but the causes are very often (also) on a global scale. This is why eco-social policies are even more characterised by a multi-level governance (Cucca et al. 2023).

Finally, the complexity of the context is increased by the debate on the role that state and intermediate bodies, families and market, should assume in welfare and the risks to be protected from. On the one hand, in public and political debate there is a demand for greater intervention by the State to guarantee social rights and regulate economic dynamics which determine risks and needs - also emphasised by the health emergency in pandemic phase. On the other hand, we see instead the withdrawal of the State on some of the most important social fronts, such as poverty.

In recent years, co-programming and co-design practices have spread and strengthened the opening of collaborative services anchored to the territorial contexts in which they operate. It is therefore increasingly clear how important networks between public administrations and associations are, especially when multi-actor. They act as a fundamental factor in resilience and reaction to shocks: both in the pandemic and in facing natural disasters, the fact that we can count on networks of administrations willing to share information, measures, structures and processes, and above all on a social capital fed by local actors able to offer volunteers and capital goods, has made a difference. Enriching the social capital make territories more able to respond to emergencies.

In addition to direct risks, there are also those that come from policies countering the environmental and climate crisis. If environmental policies do not incorporate the social dimension, they can increase inequalities. Poverty is an increasingly important phenomenon that has had a significant acceleration since 2010, reaching 9.4% of the total population in 2021, more than triple compared to 2.9% in 2006. Moreover, since 2008, the generational trend has reversed: while poverty had hitherto mainly affected older people, it has now started to affect young adults and children since the financial crisis. In 2021 the

percentage of children in absolute poverty (14.2%) was almost three times that of those over 65 in absolute poverty (5.3%) (Istat data).

The data show that poverty is more substantial from a quantitative point of view but above all it is an increasingly complex phenomenon from a qualitative point of view; a condition in which it is much easier to slip than in the past, affecting people with more heterogeneous profiles - resources and needs. It is also multidimensional: the consequences of poverty take on different forms with specific manifestations, characteristics and problems that can be traced back to many poverty dimensions: educational; housing; energy; digital; food; health; in-work. Although all of them have their origin in lack of income, it is reductive and ineffective to think about poverty only in terms of income, without grasping its complexity and multifactoriality, especially without taking into account that the responses must meet specific needs.

Although having been marginal for a long time in the political agenda and delegated to third sector organisations and local authorities, in 2020-2022, poverty has gained importance in public debate and centrality in decision-making processes. In 2020, 4.27% of public social spending was allocated to tackle poverty, while 0.46% was in 2013, ten years ago (Eurostat database). Among the elements that have favoured this change there is certainly the pressure from the European Union, the quantitative growth of the phenomenon, but also the commitment taken by the Alliance against Poverty which has succeeded in reducing the fragmentation of positions and proposals thus managing to open a common dialogue with government institutions. Poverty was a central theme in the 2018 election campaign, and the commitment made on this issue first materialised in the introduction of a national non-categorical minimum income measure based on the principle of selective universalism. The minimum income is intended for anyone below a certain economic poverty threshold regardless of age, family composition, employment status or other specific conditions. Despite many limitations, the measure has nevertheless contained the effects of the pandemic and then the energy crisis.

The year 2023 saw a strategy change in Italy. The Citizenship Income was cancelled and replaced by the Inclusion Allowance (AdI) with a return to a previous logic, that is measures aimed at specific categories (based on family), addressed only to households with underage children, over 65-aged and disabled people. Persons aged between 18 and 59, not disabled and not engaged in care work are excluded from the measure unless they are living together with persons unable to work. A different measure was

introduced for this target, that is the Support for Training and Work (SFL), a monetary support of up to 12 months, conditional on participation in training, guidance and work-related projects. Two different measures, therefore, for continuity of assistance, adequacy of financial contribution, services support and conditionality/activation obligations which, as a result of the injustices listed above, may lead to a confrontation between social groups subject to different protections (Gori 2023; Sacchi et al. 2023; Saraceno 2023).

In addition, public investments have been made to counter the increase in energy costs: "remedial" interventions and monetary transfers specifically aimed at economically disadvantaged families (such as the enhancement of energy bonuses) have been introduced and other more general measures (such as the one-off allowances of EUR 200 and 150). Necessary interventions, according to the estimates of OIPE (Castellini et al. 2023). Indeed, the increase in prices between June 2021 and December 2022 without interventions would have almost doubled the families in energy poverty (from 8.2 to 15.9%). On the side of preventive interventions, for years, the so-called "bonus" route has been pursued, which give the possibility of deducting from taxes the expenses incurred for the building energy upgrading - to which are also added the possibilities of credit transfer and discount on invoice. The tax benefits associated with housing are mostly for people with higher incomes (Baldini and Pavolini 2022). Even when owners of a home, the poorest families are substantially excluded from these measures, either because of lack of skills and difficulty in managing the administrative procedures required; or because the families, not having high incomes, cannot use the deductions provided. Moreover, although the Superbonus was also available to public housing entities managed on behalf of the municipalities, data collected by experts show a marginal access to the measure for public buildings, at least compared to private buildings (Sesana 2022; Lodi Rizzini 2023b).

Access to energy is therefore a recent challenge but particularly emblematic of the current context: it is, in fact, strongly linked to the consequences of climate change - rising temperatures and warmer summers, for example, require more consumption to cool houses -but also driven by inflationary dynamics.

In summary:

- Energy becomes a commodity where citizens are progressively less protected in access and costs are more exposed to market dynamics. One example is the recent shift from protected to free market;
- The consumption amount becomes relevant in relation to the speed of the transition (the less energy is consumed, the greater the contribution to decarbonisation);
- The quality of consumption, in terms of the source of energy consumed, becomes relevant for the reduction of emissions and the health of the environment.

The interweaving of these three dimensions identifies access to energy as a new social risk, which must be addressed to ensure that everyone can access:

- low energy costs and ability to pay bills;
- efficient housing with appropriate technological equipment;
- renewable sources through self-production and/or proximity exchange and/or suppliers of 100% renewable energy at low prices;
- capacity for energy choices.

Therefore, policy interventions need to act simultaneously on several fronts (price regulation, income support, housing policies, incentives for social targets, self-production and proximity exchange support, ...) and at multiple levels (national, regional, local). It is also necessary to involve all the actors (state, market, families, third sector) in relation to the different objectives to be achieved. In this direction the local plan assumes a strategic importance, because self-production, exchange of proximity, efficiency of housing are possible only through the rooting and activation in the contexts of people’s everyday life. The involved dimensions are not only related to individuals and their homes, but also to the places where people live, the life environments of citizens (spaces and sociality), etc. This is why local energy welfare is intertwined with the housing issue and the socio-ecological regeneration of neighbourhoods.

The Forum of Inequalities in its Report “Local Energy Welfare: A new frontier of social and environmental justice in the face of the climate crisis”, published in November 2024, at the end of the European project WEL, highlights how common wealth or social infrastructure is an element of social protection. According to the American sociologist Klinenberg, who studied the relationship between social housing conditions and climate change, in the face of a heat wave that hit the city of Chicago with temperatures up to 52 degrees, the difference between the poorest neighbourhoods was the amount of

"common wealth" present in each district, defined as the "rate of social infrastructure". Lively common areas (public gardens, libraries, recreation centres, sports clubs, squares) mean as much in terms of risk reduction as being equipped with a conditioner. This happened for two reasons: because common spaces can be places where the shortcomings of the individual house are compensated (there are places to attend where people can enjoy common energy services), but also because having common spaces is the precondition to own a relational capital and therefore a support network (if I fall alone in my home, for several hours I might not connect with anyone who notices and claims me). Data collected by Klinenberg in Chicago suggest that "living in a neighbourhood with a social infrastructure, such as Auburn Gresham, taken as a model because very poor but with much common wealth, is the approximate equivalent of having a working air conditioner in every home".

According to the Forum of Inequalities, energy welfare is a welfare system that recognizes that access to renewable energy and energy efficiency is a citizenship right as well as the protagonism in the transition and democratic participation. The climate issue should be integrated and thought as part of the more general welfare that affects many other areas (mobility, health, work, territory).

Based on these reflections, in line with the findings of the Forum of Inequalities' Report, there are five factors that can renew the current welfare by including the dimension of energy welfare, thus overcoming the current redistributive interventions:

- income and private wealth (support for economic capital, so that people have the economic opportunity to make energy choices allowing for access, saving, efficiency, production);
- appropriate technological solutions (support for the provision of appropriate technology capital);
- increase and strengthening of common wealth (support for forms of socialisation of energy production and consumption, care and ecological transformation of places);
- associative and relational networks (acting as community to increase civic and social capital, also as a factor of resilience in the face of extreme climatic phenomena);
- link to actions of different institutions (institutional resource).

The G&S Hub project is showing how the 3 involved municipalities - different in size, location, history and tradition, including politics - tried to intervene to combat energy poverty, but difficulties in data

collection, in identifying the focal points of the actions implemented and, above all, the lack of dialogue and collaboration between two municipal sectors, environment and social affairs, highlights how - despite the passing years - interventions are carried out on the basis of national and regional indications but in a disorganised and fragmented manner. Available funds are often spent and distributed according to the exclusive criterion of income without a reflection on the specific characteristics of energy poverty. In this way, no real strategy to tackle the problem has been built. Given the shortage of staff and the number of interventions and services to be managed by the different sectors of local government, in neither the social service nor the environment sector has been carried out a joint and integrated diagnosis of the phenomenon, and the bonuses were managed according to criteria not adapted to the new features of energy poverty. The environment service has also not shared information on the state of houses, for example through a re-reading and careful analysis of the certification dwellings' energy level. Data such as income level, family composition and energy characteristics of the dwellings should be connected to identify the need for any interventions for energy efficiency - not only in emergency and through economic support, but also structuralaid. The Hubrun by the project provides information, advice and support services and should become a stable service, known and integrated with all the sectors of local government.

Energy poverty must be tackled at local level in a structural way, with a local strategic plan containing actionsto:

- raise local administrators' awareness on the need to analyse energy poverty at local level and search for the most appropriate interventions
- raise managers' and practitioners' in both the environment and social sectors awareness on the need to pool resources and efforts to foster integrated and effective interventions;
- support public-private partnerships that increase awareness on environmentally friendly consumption styles;
- support forms of socialisation of energy production and consumption, care and ecological transformation of sites;
- support associative and relational networks (community work to increase social capital as an element of resilience in the face of extreme climatic phenomena);
- connect all the local institutions to integrate sustainable energy policies and infrastructures.

One of the experimental actions that is being consolidated in response to the energy challenge is the development of renewable energy communities (CERs). These are autonomous legal entities whose members may be natural persons, local authorities (including municipalities), small and medium-sized enterprises. Through these entities the community produces electricity from renewable sources; the energy is shared among members, allowing them to save through self-consumption. Even though renewable energy communities have been the object of significant calls and funding- the National Recovery and Resilience Plan, for example, allocated more than 2.2 billion euros - their dissemination seems difficult mainly because of the lack of specialised technical, legal, economic, financial skills by the local authorities. In order for CERs to become an effective instrument from an integrated (environmental-social) perspective and taking into account the lack of incentive legislation in this direction, the central theme is to work towards aware involvement of fragile social actors, and the construction of solidarity links that go beyond a purely utilitarian dimension. These are paths that require long times and cannot be translated into standardised technical solutions. The construction of CERs should, however, take into account three aspects:

- partial or total finance of the installations. Fragile settlements have lower credit ratings, and therefore need financial and credit support. Grants are needed based on the actual social impact expected of a CER, rather than parameters such as installed power or energy input to the grid. Unlike the Recovery and Resilience Plan contributions, which take into account the number of inhabitants in the area where the CER operates, these grants should be geared to community-generated social value;
- technical legal support, with a view to ensuring the necessary economic/financial viability, with reference to both the infrastructure and the legal form to be taken, and the acceleration of the devolution of accounts, which would significantly maximise the economic and social benefits of CERs, in a perspective of long-term financial sustainability, by guaranteeing that the social interest prevails over that of individuals. Duly funded training initiatives should be dedicated to awareness raising on energy consumption and capacity building for management and allocation of ERC resources to social projects, with the aim of maximising benefits for the territory;
- developing a local team working together and strengthening awareness of the proposed solutions, in relation to changes in personal/family behaviours; as well as building a relationship of solidarity between the members.

With reference to the CER experimental measures, the three project’s municipalities have differences in approach and time of implementation:

In Bassiano (LT), the smallest of the 3 involved municipalities, a CER has been launched but the municipality is neither leader of the initiative nor directly involved. Participation in the G&S HUB project can therefore represent, with all the activities planned by the HUB, a re-thinking of the model and a revision aimed at involving as much as possible those citizens who live in obsolete buildings, without the heating and cooling systems that are now essential to tackle the effects of climate change. The ongoing awareness-raising and territorial activities will thus aim to involve precisely those sections of the population that are culturally most remote from the issue but are in need of innovative interventions. The action will also be extended to the district by linking the social service with the district environment service and starting a shared reflection on energy poverty and the most effective ways of collaboration.

The Municipality of Crispiano is currently starting – within the project’s activities - a participatory path to start the feasibility study for the construction of the CER. This path should be shared by the social service and involve all citizens with particular attention to the weakest and poorest. The work, also in this case, must include the construction of a network of companies, institutions and third sector entities that accompany the development of a social infrastructure even before energy in the territory.

Avezzano is maybe the latter municipality – among the three in G&S Hub – to start a development process for the CER. Due to its larger size, it is even more complicated to integrate the social sector with the environmental sector. The Hub is currently working and could become the first step in an integration process which is essential to tackle energy poverty but also useful to increase and make visible the effects of the interventions visible. Therefore, the local strategic plan should be set up on the basis of this integration.