

# Fundamental and social rights in the green transition - energy efficiency and energy poverty

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## Contents

<b>1. EXECUTIVE SUMMARY</b>	<b>3</b>
<b>2. Reaching climate targets through energy efficiency</b>	<b>6</b>
2.1. Energy efficiency .....	9
2.2. Just Transition .....	13
2.3. Energy poverty.....	15
2.4. Fundamental rights impact assessment .....	22
<b>3. Addressing different aspects of energy efficiency and energy poverty: Technical assistance action carried out in Spain launched by the Energy Poverty Advisory Hub.</b>	<b>24</b>
3.1. Leaving no one behind – target groups, eligibility, accessibility, equality.....	26
3.2. Impact .....	32
3.3. Information, communication and social acceptability .....	36
3.4. Stakeholder engagement and participation .....	38
3.5. Governance and accountability, data and monitoring.....	39
<b>4. Conclusions and key recommendations</b>	<b>45</b>
4.1. Main effects.....	46
4.2. Challenges and gaps.....	48
4.3. Lessons learned and good practices.....	50
4.4. Recommendations .....	51
<b>Annexes</b>	<b>53</b>

# 1. EXECUTIVE SUMMARY

The Spanish National Energy and Climate Plan (NECP)<sup>1</sup> identifies energy efficiency in the housing sector as a pivotal strategy for achieving climate objectives and reducing carbon emissions. Despite the plan's ambitious goals, progress towards these targets remains unclear. Substantial efforts are needed, particularly in light of the recent years marked by historically low renovation rates. The plan's implementation faces significant challenges, including a lack of accountability and the absence of a national coordinating body to manage efforts at the regional and local levels. Although EU Recovery funds are cited as a potential financial source, the NECP lacks comprehensive details on public funding mechanisms and strategies to attract private investment. Administrative barriers and complex application processes for renovation grants further limit accessibility, particularly for low-income households.

Improving energy efficiency aligns with another key NECP objective: eradicating energy poverty, as outlined in the EU's *Clean Energy for All Europeans* package<sup>2</sup>. Energy inefficiency remains a primary driver of energy poverty. To this end, the NECP references the National Strategy Against Energy Poverty 2019–2024 (ENPE)<sup>3</sup>, which aims to alleviate this pressing issue.

The NECP was initially drafted in 2020 and underwent several revisions before its finalisation in 2024. Its development, along with the ENPE's implementation, was significantly influenced by external crises, including the COVID-19 pandemic and the war in Ukraine. These events shifted priorities and funding towards emergency interventions such as the *Iberian Exemption*<sup>4</sup> and the *Energy Security Plan*<sup>5</sup>. However, these crises likely delayed the adoption of long-term measures under the ENPE, such as designing clear policy roadmaps. Critically, the national authority did not take steps to establish an interministerial working group to coordinate various stakeholders—including the Autonomous Communities—or to introduce legal obligations or mandates for different national and lower levels of governance. Within the framework of multilevel governance, these omissions highlight significant gaps in accountability for driving transformative change. While progress has been achieved in energy poverty policymaking, its implementation remains hindered by a lack of a clear national framework for monitoring and accountability, a lack of political commitment, and inadequate multilevel coordination.

## Challenges at the Local Level

Research and fieldwork indicate that efforts to address energy poverty primarily take place at the local level, within a complex ecosystem of actors. Municipalities often lead these initiatives

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<sup>1</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). [National Energy and Climate Plan Spain - Final updated NECP 2021-2030](#) (Plan Nacional Integrado de Energía y Clima (PNIEC) 2021-2030).

<sup>2</sup> European Commission. (2019). [Clean Energy for All Europeans Package](#).

<sup>3</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty' 2019-2024](#) (ENPE Estrategia Nacional contra la Pobreza Energética).

<sup>4</sup> Haro Ruiz, M., Schult, C., & Wunder, C. (2024). [The effects of the Iberian exception mechanism on wholesale electricity prices and consumer inflation: A synthetic-controls approach](#). *Applied Economics Letters*, 1–7.

<sup>5</sup> Spain, Spain Government (2022). [More Energy Security \(+ SE\) Plan](#).

but frequently face challenges due to a mismatch between their assigned responsibilities and the resources or expertise provided by national authorities. Social services departments within municipalities bear significant responsibilities for engaging vulnerable populations affected by energy poverty and implementing interventions. However, these departments are often overburdened. Furthermore, the reliance on short-term, project-based funding for third-sector organisations and understaffing in local authorities weakens the potential for designing and implementing long-term intervention strategies.

Engaging and assisting households affected by energy poverty presents a significant challenge, largely due to resource limitations, expertise gaps, and the lack of robust methods for quantifying and assessing the phenomenon. Despite these challenges, the groups disproportionately impacted by energy poverty are well-documented: those disproportionately affected by energy poverty are low-income households, often in poorly insulated homes. Households in the private rental sector face complications in terms of additional financial burdens and legal barriers. Migrants, older adults, women-led households, and single-parent families are especially vulnerable. The most severe and neglected cases occur in substandard housing and informal settlements, where residents endure overcrowding, inadequate basic services, and structural deficiencies—conditions that may violate fundamental human rights. The energy poverty income profile is now changing and includes moderate and middle-income groups, driven by widening income inequality, persistent inflation, and rising housing and energy costs.

### **The Role of Technical Assistance (TA)**

Case studies of the technical assistance (TA) action implemented in Spain under the European Commission’s Energy Poverty Advisory Hub initiative were investigated to understand challenges, opportunities and promising practices in the Spanish Energy transition. It has been instrumental in addressing the above-mentioned knowledge gap. This initiative assisted local authorities in providing targeted assistance, for example in creating data protocols and conducting an assessment of the energy poverty phenomenon. Indeed, most TA initiatives focus on diagnostics, such as raising awareness, conducting preliminary assessments, establishing data protocols, and offering foundational guidance. Fewer TA actions have progressed to the planning stage, as seen in Murcia, Getafe, and Valencia. Although the full effects of TA efforts will materialise over time, early outcomes are promising, particularly in Murcia’s implementation of local energy poverty measures.

### **Conclusion and recommendations.**

The Spanish strategies – ENPE and NECP have the potential to address both climate and social challenges by prioritising energy efficiency and combating energy poverty. However, achieving these goals requires stronger coordination, improved local support, streamlined funding mechanisms, and sustained political commitment. In this landscape, this set of recommendations has emerged.

### ***Centralised Coordination and Policy Development***

A national oversight body should be established to streamline efforts, enhance coherence between local and regional actions, and facilitate data-driven, evidence-based policymaking. This would create comprehensive, integrated governance mechanisms that promote systematic policy development and implementation.

### ***Targeted Support and One-Stop Shop Energy Advice Centre***

The energy poverty strategy prioritises designing focused interventions for vulnerable groups. This includes increasing the social housing stock and developing comprehensive support frameworks for marginalised communities, ensuring that those most at risk receive targeted, meaningful assistance. Additionally, a stigma-free advisory service should be promoted to provide comprehensive and accessible energy guidance for people living in the homeownership and private tenure, such as a one-stop shop energy advice service<sup>6</sup>.

### ***Funding and Regulatory Reforms***

Legislative amendments could be developed to facilitate energy efficiency improvements, with a specific focus on streamlining processes in the private rental market. The approach involves creating incentive structures for property upgrades and establishing clear regulatory pathways.

### ***Staffing and Continuous Professional Development***

Significant investment should be made in human resources, increasing personnel in social services and energy transition departments. Targeted professional development programmes will be implemented to provide ongoing training and skill enhancement.

### ***Institutional Collaboration***

A collaborative approach should be emphasised, encouraging cross-departmental cooperation and integrating city council staff from project inception. By leveraging external perspectives and breaking down institutional silos, the strategy aims to promote holistic, cooperative approaches to energy transition.

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<sup>6</sup> Boza-Kiss, B., Bertoldi, P., Della Valle, N. and Economidou, M., (2021). [One-stop shops for residential building energy renovation in the EU](#), EUR 30762 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-40100-1.

## 2. Reaching climate targets through energy efficiency

This chapter synthesises the key elements of energy efficiency policies in the residential sector, then focuses on energy poverty and vulnerable consumer characteristics as outlined in the National Integrated Energy and Climate Plan 2021-2030 (NECP)<sup>7</sup> and its associated primary legislative and policy documents. Apart from the NECP, the main policy documents taken into consideration are Energy Poverty 2019-2024 (Estrategia Nacional Contra La Pobreza Energética 2019-2024, from now on ENPE,<sup>8</sup> the Just Transition Strategy (JTS - Estrategia de Transición Justa)<sup>9</sup> and the Spanish National Climate Change Adaptation Plan 2021-30 (Plan Nacional de Adaptación al Cambio Climático), PNNAC)<sup>10</sup>.

The NECP serves as the primary document outlining climate targets. Energy efficiency stands as one of the core plan objectives, with a focus on the housing sector, including specific sections on building energy efficiency and residential equipment renewal<sup>11</sup>. Under Law 7/2021<sup>12</sup> on climate change and energy transition, the NECP functions as the national strategic planning tool integrating energy and climate policies to achieve EU objectives. The law mandates guiding principles of "protecting vulnerable groups, with special attention to the children" and "gender equality". Nevertheless, the children are mentioned solely once in the plan, with the reference to energy poverty. Conversely, the plan states that it is strongly committed to a gender perspective with a dedicated section on gender mainstreaming, but there are no concrete measures addressing gender equality in the NECP.

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<sup>7</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). [National Energy and Climate Plan Spain - Final updated NECP 2021-2030](#) (Plan Nacional Integrado de Energía y Clima (PNIEC) 2021-2030).

<sup>8</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty' 2019-2024](#) (ENPE Estrategia Nacional contra la Pobreza Energética).

<sup>9</sup> Spain, Minister of Ecological Transition and Demographics. (2019). [Spanish Just Transition Strategy](#) (Estrategia Española de Transición Justa).

Spain, Minister of Ecological Transition and Demographics, Institute for the Just Transition - (2023). [Spain, 4 years towards a just energy transition](#).

<sup>10</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge, (2020). [Spanish National Climate Change Adaptation Plan 2021-30](#). Action 8.3.

<sup>11</sup> The energy efficiency's objectives are described in section 2.2 and its policies in section 3.2. Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). - [National Energy and Climate Plan Final updated NECP 2021-2030](#).

<sup>12</sup> [Spain, Law 7/2021, of 20 May, on climate change and energy transition](#) (Ley 7/2021, de 20 de mayo, de cambio Climático y transición energética). BOE num. 121, of 21.05.2021.

The plan explicitly references the ENPE<sup>13</sup> as a key document for addressing energy poverty and protecting vulnerable consumers. The strategy has been written to comply with the mandate established in Article 1 of Royal Decree-Law 15/2018.<sup>14</sup>

The ENPE specifies that the following groups need special protection because of the health-energy poverty nexus. These are listed in this manner in the ENPE<sup>15</sup>:

- i.) “Older adults, minors, pregnant women, people with illnesses and people with disabilities.
- ii.) People with a low education level.
- iii.) People living in substandard housing.
- iv.) Women due to the phenomenon of the feminisation of (energy) poverty.
- v.) Single-parent households.
- vi.) Migrants.”<sup>16</sup>.

It appears that the NECP is lacking accountability because no legal instrument is assigned to coordinate, implement and monitor the plan<sup>17</sup>. Previous research confirmed that this crisis in accountability and legitimacy for a fair energy transition is a common issue across the EU, including Spain<sup>18</sup>.

The NECP points out multiple public bodies -at the state, regional, and local levels- responsible for the monitoring and implementation of several specific measures, including those to reach building energy efficiency targets<sup>19</sup>. Nonetheless, no criteria or methodology is described to undertake such monitoring of measures and there is no mention on how to coordinate different methodologies for assessment at the regional or local level. Indeed, in Spain, the policies for

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<sup>13</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty’ 2019- 2024](#).

<sup>14</sup> [Spain, Royal Decree-Law 15/2018, on urgent measures for energy transition and consumer protection](#) (Real Decreto-ley 15/2018, de 5 de octubre, de medidas urgentes para la transición energética y la protección de los consumidores).

<sup>15</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty’ 2019-2024 \(ENPE\)](#).

<sup>16</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty’ 2019-2024](#).

<sup>17</sup> The Royal Decree 958/2018 established an Interministerial Commission for Climate Change and Energy Transition responsible to elaborate the NECP. Nevertheless, the law does not identify which national body is accountable or responsible of coordinating the implementation of the NECP or its monitoring. [Spain, Royal Decree 958/2018, of 27 July, establishing and regulation the Interministerial Commission for Climate Change and Energy Transition](#) (Real Decreto 958/2018, de 27 de julio, por el que se crea y regula la Comisión Interministerial para el Cambio Climático y la Transición Energética). -

<sup>18</sup> Sareen, S., and Haarstad, H. (2020). [Legitimacy and accountability in the governance of sustainable energy transitions](#). *Global Transitions*, 2, 47–50.

<sup>19</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). - [National Energy and Climate Plan. NECP 2021-2030](#). Measure 2.8 and measure 2.9 section 3.2.

energy efficiency are designed, managed and implemented at the level of the Autonomous Communities<sup>20</sup>. Moreover, the NECP allocates significant responsibilities to local authorities<sup>21</sup>.

For example, the NECP frequently references the Spanish Urban Agenda (AUE)<sup>22</sup> in relation to building energy efficiency. The AUE is a non-regulatory roadmap that aims to achieve the UN and EU's urban sustainability targets by 2030. It includes energy efficiency objectives covering multiple sectors: building, transport, and productive sectors: these projects have been now primarily financed through the Recovery, Transformation and Resilience Plan (RTRP)<sup>23</sup>. The plan was prompted by the COVID-19 outbreak, with Spain emerging as one of its primary beneficiaries. This crisis, along with another major external disruption—the Ukraine War—completely transformed the energy transition landscape from 2020 onwards. The war prompted several emergency measures in 2022, and the "More Energy Security (+ SE) Plan"<sup>24</sup>. Additionally, Spain introduced the 'Iberian exemption' (effective until 2023)<sup>25</sup> in agreement with the European Commission, aiming to contain prices during the energy crisis.<sup>26</sup>

These accountability issues in the NECP are also reflected in the coordination and implementation of the ENPE and energy poverty policy-making. Indeed, most interviewees criticise the lack of national coordination and support for energy poverty policy-making and interventions and the absence of an official observatory for monitoring progress. Whilst the ENPE was intended to establish coordination through an Interministerial Working Group—collaborating with Autonomous Communities and fostering cooperation with local entities and third-sector representatives—neither this guideline nor any others were ever published.

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<sup>20</sup> The multilevel governance of the NECP and its climate targets is further complicated by Spain's unique political system, which is often considered a quasi-federal model with distinctive characteristics. The Constitutional Court refers to this framework as the 'State of Autonomous Communities'.

<sup>21</sup> On the multilevel governance and role of public authorities in the energy transition please see: Mora Ruiz, M. (2023). [Climate change, energy transition and territorial decentralisation in Spain](#). *Revista d'Estudis Autònoms i Federals. Journal of Self-Government*, 37, 127–155.

Fernández de Losada, A. (2023). [The Spanish Recovery Strategy, An Urban Paradox. The Case of Barcelona](#). CIDOM publication.

<sup>22</sup> Spain, The Ministry of Transport, Mobility and the Urban Agenda. (2019). [The Spanish Urban Agenda](#).

<sup>23</sup> Spain, Presidency of the Government of Spain, (2020). [Recovery Plan, Transformation and Resilience –España Puede](#) (2020).

<sup>24</sup> Spain, Spain Government (2022). [More Energy Security \(+ SE\) Plan](#).

<sup>25</sup> European Commission, (2022). [State Aid: Commission Approves Spanish and Portuguese Measure to Lower Electricity Prices Amid Energy Crisis](#). Press Corner, June 8, 2022.

<sup>26</sup> Robinson, M., Arcos-Vargas, A., Tennican, M., Nuñez, F., (2023). The Iberian Exception: An overview of its effects over its first 100 days. <https://www.oxfordenergy.org/publications/the-iberian-exception-an-overview-of-its-effects-over-its-first-100-days/>

Haro Ruiz, M., Schult, C., & Wunder, C. (2024). [The effects of the Iberian exception mechanism on wholesale electricity prices and consumer inflation: A synthetic-controls approach](#). *Applied Economics Letters*, 1–7.

## 2.1. Energy efficiency

The energy efficiency targets in Spain set by the NECP include a 39.5% reduction in primary energy consumption and a 43% reduction in final energy consumption by 2030<sup>27</sup>. Reducing emissions in the building sector is crucial to achieving these climate targets. The current renovation target is a total of 1,377,000 housing units. Among others, the Spanish Urban Agenda (Agenda Urbana Española, AUE) appears highly important due to its substantial funding and its focus on local authorities. The AUE manages projects at the local level and receives resources from the Recovery, Transformation, and Resilience Plan (RTRP)<sup>28</sup>. It includes energy efficiency objectives across all sectors: buildings, transportation, and productive industries<sup>29</sup>.

The NECP does not list current programmes, but it summarises objectives and targets. The political bodies responsible for designing and implementing energy efficiency policies are the Spanish Autonomous Community governments.<sup>30</sup>

### ***Energy efficiency in existing buildings in the residential sector***<sup>31</sup>

The primary focus in the residential sector is the renovation of existing building stock, which is considered highly inefficient. Approximately 90% of the building stock was constructed before the first approval of the Technical Building Code in 2006<sup>32</sup>, and 60% was built before the approval of any energy efficiency regulations.<sup>33</sup>

The eligible actions include but are not limited to thermal installations, thermal envelopes, efficient heat and cold networks, Information and communication technology devices (ICT), and entire renovations at different scales, from the building to the neighbourhood level. Other eligible actions encompass information, communication and training strategies, but they are described broadly. They vary between online platforms or the training of citizens in important areas such as energy savings at the workplace, neighbourhood communities, household appliances, lighting, and energy certification of buildings<sup>34</sup>. The financial mechanisms outlined in the NECP vary from tax benefits, loans and public aid programmes. Currently, the main financial component of the rehabilitation support mentioned there is based on RTRP aid programmes. It includes all programmes financed by Next Generation EU funds as part of the

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<sup>27</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). [National Energy and Climate Plan. NECP 2021-2030](#). Measure 2.8 section 3.2.

<sup>28</sup> Spain, Presidency of the Government of Spain (2020) [Recovery Plan, Transformation and Resilience – España Puede](#) (2020).

<sup>29</sup> Spain, Ministry of Transport, Mobility and the Urban Agenda. (2019). [The Spanish Urban Agenda](#).

<sup>30</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). [National Energy and Climate Plan Spain - Final updated NECP 2021-2030](#).

<sup>31</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). [National Energy and Climate Plan Spain - Final updated NECP 2021-2030](#). Measure 2.8 section 3.2.

<sup>32</sup> Spain, Royal Decree 314/2006. [Technical Building Code](#). (Codigo tecnico de la edificación - CTE, ley 314/2006).

<sup>33</sup> Renonbill, (2020). [The residential building sector in Spain](#). Renonbill Project.

<sup>34</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). [National Energy and Climate Plan Spain - Final updated NECP 2021-2030](#).

Housing Rehabilitation and Urban Regeneration Plan implemented via the AUE<sup>35</sup>. The total estimated public support for this measure in the period 2021-2030 amounts to EUR 3.067 million, which is forecast to come from European Regional Development Funds (ERDF) and RTPP funds<sup>36</sup>. At the moment, pilot projects at the local level are starting managed via the AUE. It provides direct financial assistance to local entities (municipalities and provincial councils) to develop pilot projects that facilitate the implementation of the AUE and serve as examples or guides for other municipalities.<sup>37</sup>

The RTPP<sup>38</sup> cites Spain's Long-Term Renovation Strategy (LTRS)<sup>39</sup> to establish targets for building renovation. The LTRS aims to renovate 1.2 million of the 18.7 million primary residences by 2030. The plan targets an average of 71,000 home renovations annually. According to the LTRS, the total renovation investment required from 2020 to 2030 is €41.5 billion, with €15.5 billion anticipated from private investment for upgrading cooling and heating systems, supported by €2.6 billion in public funds. The RTPP allocates €6.8 billion in grants, roughly matching the €7 billion public investment outlined in the LTRS for 2030 and expects to attract €4.5 billion in private investment. It is not clear how these private investments should come in and who is responsible and accountable for these funds<sup>40</sup>.

The NECP does not mention the state of advancement towards these climate targets. An assessment carried out by the Buildings Performance Institute Europe in 2021<sup>41</sup> shows that the legislation and policies at that time were unlikely to considerably accelerate the rate of renovation in line with the strategy.

In recent years, in the building sector (residential or overall) the rate of renovation lags yearly at 1% of the renovation rate against the average annual rate of 3% recommended rate from the European Commission.<sup>42</sup> Furthermore, a large number of renovated buildings are public buildings (e.g. city council, schools etc.) so they do not affect the residential sector<sup>43</sup>; the renovation efforts need to be increased and a holistic approach should be adopted<sup>44</sup>. At the

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<sup>35</sup> Spain, Government of Spain, (2023). [Component 2: Housing Rehabilitation and Urban Regeneration Plan](#).

<sup>36</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). [National Energy and Climate Plan Spain - Final updated NECP 2021-2030](#).

<sup>37</sup> Spain, The Ministry of Transport, Mobility and the Urban Agenda. (2019). [The Spanish Urban Agenda](#).

<sup>38</sup> Renovate EU - Spain, (2021). [How transformational are the National Recovery Plans for buildings renovation?](#)

<sup>39</sup> Spain, Secretariat-General of The Urban Agenda and Housing, (2020). [Update Of the Long-Term Strategy for Energy Renovation in The Building Sector In Spain \(Eresee\)](#).

<sup>40</sup> Renovate EU- Spain, (2021). [How Transformational Are The National Recovery Plans For Buildings Renovation?](#), p. 3.

<sup>41</sup> Staniaszek, D., Kockat, J., Broer, R., & Fernández Álvarez, X., (2021). [Long-term renovation strategies: A stock-taking of EU Member States' strategies](#). Buildings Performance Institute Europe.

<sup>42</sup> Segurado, P. A., (2021) [Energy renovation of buildings in Spain and the EU. Lessons learned and main recommendations](#). Odyssee-Mure. Policy Brief.

<sup>43</sup> Segurado, P. A., (2021) [Energy renovation of buildings in Spain and the EU. Lessons learned and main recommendations](#). Odyssee-Mure. Policy Brief.

<sup>44</sup> Segurado, P. A., (2021) [Energy renovation of buildings in Spain and the EU. Lessons learned and main recommendations](#). Odyssee-Mure. Policy Brief.

moment, though, there is no assessment of the progress of this target. Conversely, a study <sup>45</sup> indicates that the excessive bureaucratic requirements, along with economic and financial factors and owners' lack of awareness stand out as the most prominent barriers to accessing Next Generation EU funds for building renovation in Spain.

Several interviewees pointed out that the difficulty in renovating the building stock is one of the main issues of energy efficiency and energy poverty eradication, being one of the root problems of this phenomenon. The experts suggested that in Spain there is a lack of awareness on the subsidies, an overburdened bureaucracy to apply for these, and legal barriers, particularly regarding the issue of split incentives in private rental properties. Moreover, there are financial barriers, especially for those with low income or in temporary or precarious employment. Subsidies very rarely cover the entire costs for the renovation; these incentives are often issued in the form of tax breaks, partial repayments or loans. The tendency is to rely on market-driven solutions, which, according to some experts, create barriers to access for low-income households in both the homeownership and private rental markets. Housing costs—whether rent or mortgage payments—can cause significant stress, often taking precedence over other financial commitments in subsidized intervention, such as zero-interest loans or investments in energy-efficient technologies. This tendency to avoid future financial commitments, despite their potential long-term benefits, frequently hinders investment in more sustainable solutions:

*“Rehabilitation is a red flag we face in Spain, and I think in Europe as well [...] For many years, buildings have been constructed with poor quality, and the housing stock in cities and towns across Europe has significantly aged. Now we find ourselves needing to renovate, and it’s very complicated. Renovation is complex not only because of the process itself but also because, despite the substantial funding available at both national and European levels, this aid isn’t reaching families due to the complexity of the topic”.*

In this context, it must be noted that the social housing tenure thus has more favourable legislation to be the recipient of public funding, if certain criteria are met because it is considered a measure and Services of General Economic Interest (SGEI)<sup>46</sup> in consideration of the application of the State Aid Regulations <sup>47</sup>. Nevertheless, the share of this tenure in Spain is solely 2.5% (Housing Europe, 2023)<sup>48</sup>, among the lowest in Europe. So, it seems paramount to renovate the existing social housing stock and construct more energy-efficient social housing to accommodate vulnerable households.

Moreover, it is essential to address the issue of how to attract investments to private ownership (in rental or homeownership). Next GenerationEU can also attract funds for the mass retrofitting of the districts considered most vulnerable and populated by households at risk of social exclusion. Literature reveals legal and procedural barriers as well as data limitations, that hinder

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<sup>45</sup> Pérez-Navarro, J.; Bueso, M.C.; Vázquez, G., (2023). [Drivers of and Barriers to Energy Renovation in Residential Buildings in Spain—The Challenge of Next Generation EU Funds for Existing Buildings](#). *Buildings*, 2023, 13, 1817.

<sup>46</sup> European Commission, (2005). [Decision of the European Commission of 28 November 2005 on the application of Article 86\(2\) of the EC Treaty \(new Article 106\(2\) TFUE\)](#).

Please see also more information on social housing and the State Aid regulations here <https://www.iut.nu/eu/state-aidsgei/>

<sup>47</sup> European Commission, (2012). [Treaty on the Functioning of the European Union \(consolidated version\), Articles 107-109](#). Official Journal of the European Union, C 326, 47-390.

Please see more information here [https://competition-policy.ec.europa.eu/state-aid/overview\\_en](https://competition-policy.ec.europa.eu/state-aid/overview_en)

<sup>48</sup> Housing Europe. (2023). [The state of housing in Europe 2023](#). Housing Europe.

the uptake of Next Generation EU funding<sup>49</sup>, and reveal challenges in the fair energy transition due to political short-termism<sup>50</sup>. Fieldwork highlighted an example in this regard: a renovation project in Valencia's Virgen de los Desamparados district, a highly deprived area, financed by EU funds. The city council had already allocated funding and completed community engagement, securing residents' approval. However, a shift in the political majority is leading to delays in the project, ultimately resulting in its suspension, at least temporarily.<sup>51</sup>

### ***Renewal of residential equipment***<sup>52</sup>

Another primary goal of the NECP in terms of residential energy efficiency is home appliance renewal to reduce energy consumption by improving the energy efficiency of the household appliance stock. According to the NECP, one of the EU's most effective tools to promote energy efficiency in energy-intensive equipment is eco-design and energy labelling rules<sup>53</sup>, contributing around half of the 2020 energy savings target in Spain<sup>54</sup>.

The actions proposed in this NECP<sup>55</sup> are primarily communication efforts aimed, mainly targeting the population at promoting awareness and the use of more efficient appliances, understanding energy labelling, including their environmental and financial benefits. As well, voluntary agreements with producing companies are mentioned. Moreover, plans are designed by the Autonomous Communities to provide grants for purchasing efficient home appliances. These

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<sup>49</sup> Costa-Campi, M. T., Choi de Mendizábal, Á., Jové-Llopis, E., & Trujillo-Baute, E. (2023). [Pobreza energética: ecosistema de agentes para combatirla mediante intervenciones de proximidad](#). Fundación Naturgy.

Pérez-Navarro, J.; Bueso, M.C.; Vázquez, G. (2023). [Drivers of and Barriers to Energy Renovation in Residential Buildings in Spain—The Challenge of Next Generation EU Funds for Existing Buildings](#). *Buildings*, 2023, 13, 1817.

<sup>50</sup> Costa-Campi, M. T., Choi de Mendizábal, Á., Jové-Llopis, E., & Trujillo-Baute, E. (2023). [Pobreza energética: ecosistema de agentes para combatirla mediante intervenciones de proximidad](#). Fundación Naturgy.

<sup>51</sup> Please see more information on the original project at this link [https://aeioluz.com/wp-content/uploads/2022/06/AAFF\\_REHAB\\_NEXT\\_VLC.pdf](https://aeioluz.com/wp-content/uploads/2022/06/AAFF_REHAB_NEXT_VLC.pdf) (2022).

<sup>52</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge, (2024). - [National Energy and Climate Plan. NECP 2021-2030](#). Measure 2.9 section 3.2.

<sup>53</sup> European Parliament and Council of the European Union. (2017). Regulation (EU) 2017/1369 of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU (Text with EEA relevance). Official Journal of the European Union, L 198, 1-23. The EC and the Member States decide to revise and to homologate the energy-labelled products, then published in 2021.

<sup>54</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge, (2024). - [National Energy and Climate Plan. NECP 2021-2030](#). Measure 2.9 section 3.2.

<sup>55</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge, (2024). [National Energy and Climate Plan. NECP 2021-2030](#).

renovation plans are usually carried out on a rolling basis every one or two years in each Autonomous Community <sup>56</sup>. The NECP does not mention these plans.<sup>57</sup>

## 2.2. Just Transition

The NECP does not delve into the “leave no one behind” concept. Similarly, the Spanish National Climate Change Adaptation Plan 2021–2030<sup>58</sup> mentions it just once in correspondence with a reference to the European Green Deal.

Conversely, the NECP mentions very frequently the just transition but without defining it. The NECP states that policies should contribute to social justice and bridging the inequality gap by creating mechanisms to ensure a just transition for the most vulnerable. It often refers to the Spanish Just Transition Strategy (JTS) too<sup>59</sup>. This strategy, while recognising the importance of eradicating energy poverty via residential energy poverty, focuses the strategy primarily on supporting economic sector transformation and fostering job creation and retention, but it does not mention further energy poverty or vulnerable consumers. The JTS focuses on developing policies and supporting workers directly affected by ecological transitions, specifically, those impacted by the closure or conversion of coal mining operations and coal power plants.

Instead, the Spanish NECP explicitly and frequently mentions vulnerable consumers, people at risk of poverty, women, the inclusion of certain geographic areas, and workers affected by the green transition policies, referring to the just transition or social justice or fairness<sup>60</sup>. However, it does not provide further details in defining vulnerable consumers or people at risk of energy poverty. Instead, the NECP make references to the National Strategy for Energy Poverty 2019-2024 <sup>61</sup> to address issues related to energy poverty.

There is a broader description of energy poverty in the ENPE that describes it as a situation of poverty that is linked to the use of energy services and is associated with energy policies. There is one more specific definition that comprises the causes<sup>62</sup>:

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<sup>56</sup> For example in Galicia - information available at <https://www.inega.gal/es/ayudas/plan-renove-de-electrodomesticos-ano-2024-in414b-in414c> or in Navarra , information available at <https://gobiernoabierto.navarra.es/es/participacion/enviar-aportacion/2459/1/plan-renove-electrodomesticos>

Please see a list of plans for Autonomous Communities (dated 1 October 2024) at <https://tusayudas.es/vivienda/plan-renove-electrodomesticos/>

<sup>57</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). - [National Energy and Climate Plan. NECP 2021-2030](#).

<sup>58</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge, (2020). [Spanish National Climate Change Adaptation Plan 2021-30](#) (Plan Nacional de Adaptación al Cambio Climático - PNACC).

<sup>59</sup> Spain, Minister of Ecological Transition and Demographics. (2019). [Spanish Just Transition Strategy](#) (Estrategia Española de Transición Justa).

<sup>60</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). - [National Energy and Climate Plan. NECP 2021-2030](#).

<sup>61</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty' 2019-2024](#).

<sup>62</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty' 2019-2024](#)), p. 24.

*“Energy poverty is the situation in which a household cannot meet its basic energy supply needs due to insufficient level of income, which may be exacerbated by having an energy-inefficient dwelling.”<sup>63</sup>*

Some experts highlighted that the cause of building energy efficiency is not emphasized enough in the ENPE’s definition, despite its relevance in the country and the energy prices are excluded despite being an important cause of energy poverty. We could also highlight a further gap in this definition: the disproportionate needs of a household; disproportionate needs are considered in the literature<sup>64</sup> as a major cause of energy poverty. Some individuals or households might require significantly more energy than the average to meet basic living standards, due to factors beyond their control, such as health-related factors<sup>65</sup>.

The criteria for energy poverty are associated with the definition of vulnerable consumer for energy services, defined in 2017 by the Law “on the regulation of the vulnerable consumers, social discount and other measures for the protection of the domestic consumer of electrical energy”<sup>66</sup> and its subsequent modifications<sup>67</sup>. According to this legislation, the different vulnerability factors include:

1. Income;
2. recognised disability equal to or greater than 33%;
3. victims of gender-based violence and victims of terrorism;
4. a single-parent family;
5. large family<sup>68</sup>;
6. recipients of the Minimum Vital Income <sup>69</sup>;

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<sup>63</sup> In original “*La pobreza energética es la situación en la que se encuentra un hogar en el que no pueden ser satisfechas las necesidades básicas de suministros de energía, como consecuencia de un nivel de ingresos insuficiente y que, en su caso, puede verse agravada por disponer de una vivienda ineficiente en energía*”. ENPE (2019), p. 6. Definition translated by the authors.

<sup>64</sup> Jessel, S., Sawyer, S., & Hernández, D. (2019). [Energy, Poverty, and Health in Climate Change: A Comprehensive Review of an Emerging Literature](#). *Frontiers in Public Health*, 7, 357.

<sup>65</sup> Carrere, J., Peralta, A., Oliveras, L., López, M. J., Marí-Dell’Olmo, M., Benach, J., & Novoa, A. M. (2021). [Energy poverty, its intensity and health in vulnerable populations in a Southern European city](#). *Gaceta Sanitaria*, 35(5), 438–444.

Jessel, S., Sawyer, S., & Hernández, D. (2019). [Energy, Poverty, and Health in Climate Change: A Comprehensive Review of an Emerging Literature](#). *Frontiers in Public Health*, 7, 357.

<sup>66</sup> [Spain, Law 897/2017 on regulation of the vulnerable consumers, social discount and other measures for the protection of the domestic consumer of electrical energy](#) (Real Decreto 897/2017, de 6 de octubre, por el que se regula la figura del consumidor vulnerable, el bono social y otras medidas de protección para los consumidores domésticos de energía eléctrica), 6 October 2017.

<sup>67</sup> [Spain, Law 4/2022 on consumers and users’ protection in situation of social or economic vulnerability](#). (Real Decreto Ley 4/2022, de 25 de febrero, de protección de los consumidores y usuarios frente a situaciones de vulnerabilidad social y económica), 25 February 2022.

<sup>68</sup> Criterion for large family: households with three or more children under 21 years of age or up to 25, if they do not have their income. Special circumstances applies too. The minimum is two children in single parent households or if one of the children have a form of disability superior to 33%. Special circumstances applies too in case of severe disabilities (superior to 65%). Spain, [Law 40/2003, of November 18, on the Protection of Large Families](#) (Ley 40/2003, de 18 de noviembre, de Protección a las Familias Numerosas).

<sup>69</sup> The Minimum Vital Income (*Ingreso Mínimo Vital*, IMV) is a financial benefit designed to ensure a basic level of income for individuals and families at risk of poverty and social exclusion ([Spain, Royal Decree-Law 20/2020](#)).

7. recipients of social pension or pension for invalidity.

Vulnerable consumers are eligible for the social discount on energy bills<sup>70</sup>. Additionally, this legislation delineates two other specific profiles:

- A) the definition of severely vulnerable consumers who can receive a higher discount <sup>71</sup>;
- B) The definition of the consumer at risk of social exclusion who is not responsible for paying their energy bill and whose supply cannot be cut off.

## 2.3. Energy poverty

Energy poverty is highlighted as a priority throughout the NECP, with its strategy outlined in the ENPE (2019-24)<sup>72</sup>. The strategy has undergone prior consultation and was developed by an inter-ministerial working group that included experts and NGOs focused on energy poverty and environmental protection. In theory, the strategy indicates that the Autonomous Communities and both NGOs and regional representatives were supposed to be involved in monitoring the strategy's implementation<sup>73</sup>, but this working group had never been established. The ENPE encompassed strategic lines and measures that were intended to be developed later, but mentioned, they were never designed or published. Consequently, the strategy fell significantly short of providing a clear roadmap and recommended measures. There is a notable lack of vertical coordination across different levels of governance, accompanied by significant mismatches in skills, responsibilities, and resource allocation. Nevertheless, it still serves as a central reference and a starting point for those aiming to combat discrimination and inequality within the energy transition and to eradicate energy poverty.

*"There is a national strategy for energy poverty in Spain [...], but it doesn't obligate anyone to anything. However, this strategy does ask municipalities to take a series of actions in the area of energy poverty and prevention. This strategy acts as a support, trying to monitor what is happening in Spain regarding energy poverty. It is still voluntary because the strategy is not binding; it is not a law"*

The strategy also outlines indicators for energy poverty. These are derived from the recommendations provided by the Energy Poverty Observatory (EPOV) and its successor, the Energy Poverty Advisory Hub (EPAH). Data was supposed to be updated annually, but in practice was only updated until 2021<sup>74</sup>. It is not clear who should be legally responsible for updating the

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<sup>70</sup> Better described in section 2.3.

<sup>71</sup> Spain, [Law 4/2022 on consumers and users' protection in situation of social or economic vulnerability](#). (Real Decreto Ley 4/2022, de 25 de febrero, de protección de los consumidores y usuarios frente a situaciones de vulnerabilidad social y económica), 25 February 2022.

<sup>72</sup>Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty' 2019-2024](#).

<sup>73</sup> Cabrero, Gregorio Rodríguez and Vicente Marbán (2020). [Spain: National Strategy against Energy Poverty 2019-2024](#). ESPN Flash Report 2020/04, European Social Policy Network (ESPN), Brussels: European Commission.

<sup>74</sup>The country fiches adopted the Eurostat data to define Spanish energy poverty (two self-reported data are also used in the national data. Inadequate home temperature in winter (% population) 20,6%; Late

data. National media have accused the government of concealing this data, thereby failing to meet its commitments.<sup>75</sup>

NATIONAL INDICATORS OF ENERGY POVERTY				
INDICATORS	2018	2019	2020	2021
Excessive expenditure 2M (% households)	16.9	16.7	16.8	16.4
Hidden energy poverty HEP (% households)	11.0	10.6	10.3	9.3
Inadequate home temperature in winter (% population)	9.1	7.6	10.9	14.3
Late payment of household utility bills (% population)	7.2	6.6	9.6	9.5

**Table 1 Spanish national indicators of energy poverty (2018-2021).**<sup>76</sup>

The Directorate-General for Energy (DG-ENER)<sup>77</sup> published the 2023 data for energy poverty in Spain, using Eurostat data. Two match the self-reported data of the Spanish indicators are 1) Inadequate home temperature in winter (% population): 20,6% and 2) Late payment of household utility bills (% population): 9,6%. There are also other two indicators: 3) the population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor (% population) 23% and 4) the AROP (at risk of poverty) 20,3%.

The data is also reported for Autonomous Communities in the official update of the indicators, part of the energy poverty strategy<sup>78</sup>. However, there are no data at the local level because ES-SILC (Spanish data Survey of Living Conditions) data is not statistically significant at the level of local municipalities<sup>79</sup>; this is a significant gap because the fight against energy poverty is carried out mainly at the local level of governance within a quite complex ecosystem of agents: the data gap hinders the assessment of energy poverty at the local level and impedes possible progresses

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payment of household utility bills (% population) 9,6%; Population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames of floor (% population) 23% AROP (at risk of poverty) 20,3%; DG- Ener, (2024). State of the energy union report 2024 - country fiches. [https://energy.ec.europa.eu/publications/state-energy-union-report-2024-country-fiches\\_en](https://energy.ec.europa.eu/publications/state-energy-union-report-2024-country-fiches_en)

<sup>75</sup> Lema, M. (2024). [The Government conceals energy poverty data from the year of the war in Ukraine](#), EL Confidencial (El Gobierno oculta los datos de pobreza energética del año de la guerra en Ucrania).

<sup>76</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge, (2022). [Update of the indicators of the National Strategy Against Energy Poverty](#).

<sup>77</sup> Directorate-General for Energy (DG-ENER), (2024). [State of the energy union report, - country fiches](#).

<sup>78</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge, (2022). [Update of the indicators of the National Strategy Against Energy Poverty](#).

<sup>79</sup> Méndez Martín, J. M. (2019). The Spanish Survey of Living Conditions (ES-SILC). [Characteristics and methodological development](#). Spanish Journal of Statistics, 41–56. Information also confirmed by an expert interview.

when interventions are carried out unless a local monitoring system is implemented. Indeed, often the local actors design and implement ad hoc projects, frequently funded by the EU<sup>80</sup>. In some cases, they have developed or are currently developing at the moment more comprehensive strategies such as Barcelona<sup>81</sup> or Valencia. Public administration typically leads these local efforts, with varying degrees of involvement across initiatives. Social services play a crucial role in engaging with vulnerable households, especially in cities lacking specific departments or semi-public entities dedicated to energy transition and rights to equitable energy access.<sup>82</sup>

Actions and policymaking on energy poverty are quite fragmented, with significant regional and geographical differences in commitment and awareness as the fieldwork has shown. In some cases, there is very little awareness of energy poverty or there are no reliable assessments of the local situation. On the contrary, both literature and fieldwork position Catalonia at the forefront of awareness and policies addressing energy poverty. There, NGOs began campaigning on energy poverty awareness in the late 2000s, including the creation of the Alliance against Energy Poverty in 2014<sup>83</sup>. In 2015, the Catalan government passed its legislation on energy poverty<sup>84</sup>, even preceding the national government and sparking constitutional controversy<sup>85</sup>, yet ultimately encouraging national action leading to the law on vulnerable consumers<sup>86</sup>. Therefore, the national picture in terms of policy and actions is fragmented.

#### **Bono Social Electrico.** (Electricity social discount)

A detailed overview of the measures and energy poverty assessment for each Autonomous Community was outside the scope of the research. At the national level, there is the social discount on energy prices: the electricity social discount, the “bono social electrico” (often in

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<sup>80</sup> Costa-Campi, M. T., Choi de Mendizábal, Á., Jové-Llopis, E., & Trujillo-Baute, E. (2023). [Pobreza energética: ecosistema de agentes para combatirla mediante intervenciones de proximidad](#). Fundación Naturgy.

<sup>81</sup> Barcelona City Council, (2018). [Strategy for Inclusion and Reduction of Social Inequalities in Barcelona 2017.27](#).

<sup>82</sup> Costa-Campi, M. T., Choi de Mendizábal, Á., Jové-Llopis, E., & Trujillo-Baute, E. (2023). [Pobreza energética: ecosistema de agentes para combatirla mediante intervenciones de proximidad](#). Fundación Naturgy.

<sup>83</sup> Please see more information on the Catalan alliance against energy poverty here <https://pobresaenergetica.es/es/quienes-somos/que-es-ape/>

<sup>84</sup> [Spain, Law 24/2015, of July 29, on urgent measures to address the emergency in housing and energy poverty](#) (Ley 24/2015, de 29 de julio, de medidas urgentes para afrontar la emergencia en el ámbito de la vivienda y la pobreza energética).

<sup>85</sup> In 2015, the national government filed a complaint to the Constitutional Court against Catalan Law 24/2015 on energy poverty and measures to protect vulnerable household. The law was suspended by the Tribunal. Subsequently, Catalonia and the central government negotiated to resolve some of these conflicts. Agreements were reached to ensure certain aspects of protection against energy poverty, although in some cases, it was necessary to amend specific articles of the Catalan law to align them with national regulations.

<sup>86</sup> Spain, [Royal Decree 897/2017, of October 6, regulating the figure of the vulnerable consumer, the social subsidy, and other protection measures for domestic electricity consumers](#) (Real Decreto 897/2017, de 6 de octubre, por el que se regula la figura del consumidor vulnerable, el bono social y otras medidas de protección para los consumidores domésticos de energía eléctrica).

short just bono social<sup>87</sup> ) and, more recently the thermal social discount for heating purposes (gas), called “bono termico”<sup>88</sup>. There are detailed data available on recipients of the bono social down to the provincial level, which can be cross-referenced by category (vulnerable consumer, severely vulnerable consumer, and at risk of social exclusion), and updated monthly.<sup>89</sup>

Generally speaking, there is a lack of awareness of the social discount; a study commissioned by the Red Cross showed only 30% of the sample population who were eligible for the social discount were aware of this measure<sup>90</sup>. Moreover, experts suggest that there is a stigma associated with these measures and contacting social services, that prevent individuals from seeking assistance. One interviewee pointed out a psychological reason, namely shame, that might prevent people from turning to social services sometimes.

*“Shame, one hundred per cent, it's shame. I believe this is quite European, not just Spanish. I think the issue of going to social services for help carries a stigma that people don't like. It's something that makes you say, 'Wow, how embarrassing, right?’”*

According to several interviewees, these feelings are particularly prevalent among individuals who have suddenly experienced a reduction in income, such as pensioners and those who have become unemployed. Particularly they highlight the profile of older adults, who never had to ask for help from social services. Moreover, they mentioned households that previously had no significant difficulties paying bills and maintaining thermal comfort. The profile of the population affected by energy poverty has also changed in recent years. It was once closely linked to individuals with low incomes, but now it includes those with lower- middle-income levels.

*“In recent years of the energy crisis, we have observed that the profile of energy poverty, which was previously concentrated among individuals with very low incomes, has expanded to include also lower to middle-income families—those who, for instance, had no difficulty paying their bills before but are now struggling.”*

Several interviewees proposed modifications to the income criterion for accessing the social energy tariff, a recommendation that aligns with findings in the existing literature<sup>91</sup> before the Ukraine war crisis. Moreover, a recent study suggests that close to 8 out of every 10 potential beneficiaries do not get the subsidy. Moreover, whereas two out of three current beneficiaries are low-income, one out of three is not. The majority of the households that are not classified as low-income are large families. Within this category of bono social

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<sup>87</sup> Please more information here <https://www.miteco.gob.es/es/energia/energia-electrica/bono-social/que-es.html>

<sup>88</sup> Please more information on the energy discount here: [https://sede.miteco.gob.es/portal/site/seMITECO/ficha-procedimiento?procedure\\_id=489&procedure\\_suborg\\_responsable=196&procedure\\_etiqueta\\_pdu=null](https://sede.miteco.gob.es/portal/site/seMITECO/ficha-procedimiento?procedure_id=489&procedure_suborg_responsable=196&procedure_etiqueta_pdu=null)

<sup>89</sup> Social Bonus Beneficiary Data. Electricity Social Bonus Beneficiaries in Spain at 30.09.2024. available at <https://www.miteco.gob.es/es/energia/energia-electrica/bono-social/datos-beneficiarios-bono-social.html>

<sup>90</sup> Barrella R., Mora Rosado R., Romero, J.C., (2023). The impact of energy poverty on the social vulnerability of the population served by Spanish Red Cross in the context of the inflationary crisis. (El impacto de la pobreza energética en la vulnerabilidad social de la población atendida por CRE en el contexto de la crisis inflacionaria). Boletín sobre Vulnerabilidad Social. Nº. 32, pp. 1 - 141, December 2023.

<sup>91</sup> García Alvarez, G., & Tol, R. S. J. (2021). [The impact of the Bono Social de Electricidad on energy poverty in Spain](#). *Energy Economics*, 103, 105554.

category, more than 60% of middle-to-high-income large-family beneficiaries receive the subsidy, while just 40% of the low-income large-family households do<sup>92</sup>.

<b>BONO SOCIAL ELECTRICO RECIPIENTS</b>				
	<b>VULNERABLE CONSUMERS</b>	<b>SEVERELY VULNERABLE CONSUMERS</b>	<b>AT RISK OF SOCIAL EXCLUSION</b>	<b>TOTAL</b>
<b>TOTAL</b>	761.712	863.641	7.036	1.632.389
<b>% of TOTAL</b>	46,66%	52,91%	0,43%	100,00%

Table 2 Data on recipients of the bono social electrico in Spain (September 2024)<sup>93</sup>.

Moreover, the data for the bono social electrico clearly indicates that the number of beneficiaries of the social discount for the category at risk of social exclusion is almost negligible, totalling solely around 7000 recipients in a country of almost 50 million population. It must be noted that of the 7,036 beneficiaries, 5,760 are from the Extremadura region, so the rest are around 1300 recipients<sup>94</sup>. The other Communities report extremely low numbers—some even having zero or just one beneficiary. This figure is deemed unrealistic considering the data available on social exclusion<sup>95</sup>. An expert noted, with hyperbole, that:

*“From the beginning [of the introduction of the subsidy], over the past around 10 years, the data we had has consistently shown that solely around 5,000 to 6,000 families [at risk of social exclusion] across Spain receiving it—a negligible figure when you consider that the European indicator for poverty and social exclusion is normally between 20% and 30% of the Spanish population. So with 5,000 people, we’re talking about 0.01% of the population”*

<sup>92</sup> Collado Van-Baumberghen, N., and Martínez Jorge, Á. (2024). *Report on the social subsidy: Coverage, impact, and improvement proposals* (Informe sobre el bono social: Cobertura, impacto y propuestas de mejora). Esade Center for Economic Policy & Political Economy.

<sup>93</sup> Social Bonus Beneficiary Data. Electricity Social Bonus Beneficiaries in Spain at 30.09.2024. Available at <https://www.miteco.gob.es/es/energia/energia-electrica/bono-social/datos-beneficiarios-bono-social.html>

<sup>94</sup> Other Autonomous Communities report extremely low numbers—some even having zero or just one beneficiary. These number would need to be further investigated, including the outlier of Extremadura, because it is a unique case in Spain in this matter.

<sup>95</sup> Please note the currently the data for the 2023 that could serve as proxy are: Severe material deprivation is around 9%, the Low work intensity is 8% and AROPE (Population at risk of poverty or social exclusion) indicator is around 26.5%. Please note that these data are proxy to understand the situation at the national level not indicators of individuals or household eligible of the bono social at the risk of social exclusion. Data available at [https://www.ine.es/dyngs/Prensa/en/ECV2023.htm#:~:text=The%20AROPE%20rate%20\(percentage%20of,26.0%25%20for%20the%20previous%20year.](https://www.ine.es/dyngs/Prensa/en/ECV2023.htm#:~:text=The%20AROPE%20rate%20(percentage%20of,26.0%25%20for%20the%20previous%20year.)

To be considered a consumer at risk of social exclusion, the contract holder must meet the requirements to be classified as a severely vulnerable consumer<sup>96</sup> and, additionally, be supported by the social services of a Public Administration (regional or local) that finances at least 50% of their electricity bill in the regulated market. In cases of temporary inability to pay, the electricity supply cannot be interrupted.

There might be several likely reasons behind this gap. Firstly, as mentioned, there is a lack of awareness of the *bono social*. According to interviews and data, in some cases, NGOs, such as Red Cross or Caritas, cover the entire cost of energy bills for some households at risk exclusion<sup>97</sup>.

Moreover, many of the potential beneficiaries might live in *infraviviendas*—inadequate housing that fails to meet basic living conditions and safety standards and has more urgent needs to attend to. They might not seek assistance due to the risk of encountering discrimination or stigmatisation<sup>98</sup>. Social workers might have significant challenges in reaching these vulnerable households or lacking personnel.

Additionally, some individuals at risk may rent their residences without a contract, have utility bills registered in other people's names, or live in squats<sup>99</sup>. Despite government efforts to simplify income verification procedures, many socially excluded households remain unable to provide proof of income or lack thereof. The situation is further complicated by the potential presence of illegal grid connections among those who could qualify for social assistance. The notably low number of recipients receiving the “*bono social*” for those at risk of social exclusion warrants further investigation. In summary, both the fieldwork findings and the existing literature consensually recommended three key actions: promoting awareness of the measure, modifying the income eligibility criteria, and simplifying the administrative procedure<sup>100</sup>.

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<sup>96</sup> To be defined as severely vulnerable consumer, a household should have an annual income  $\leq$  50% of the thresholds established to be considered a vulnerable consumer or if have any member of the household is recipient of the Minimum Vital income (IMV). As well there are special circumstances in case of a large family or recipient of the social pension or pension of invalidity to be considered as severely vulnerable consumer. More information on the definition of vulnerable consumer in 2.2.

<sup>97</sup> Barrella R., Mora Rosado R., Romero, J.C., (2023). The impact of energy poverty on the social vulnerability of the population served by Spanish Red Cross in the context of the inflationary crisis (El impacto de la pobreza energética en la vulnerabilidad social de la población atendida por CRE en el contexto de la crisis inflacionaria). *Boletín sobre Vulnerabilidad Social*. Nº. 32, pp. 1 - 141, December 2023.

<sup>98</sup> Please see also Casas, F., Cornejo, J.M., Colton, M. et al. (2000). [Perceptions of Stigmatization and Satisfaction with Services Received, Among Users of Social Welfare Services for the Child and the Family in 3 European Regions](#). *Social Indicators Research* 51, 287–308 (2000); and Sepúlveda Carmona, M. (2021). [From stigma to rights: Uncovering the hidden dimension of poverty](#). In M. F. Davis, M. Kjaerum, & A. Lyons (A c. Di), *Research Handbook on Human Rights and Poverty*. Edward Elgar Publishing.

<sup>99</sup> Please see also Middlemiss, L., Gillard, R., Pellicer, V., & Straver, K. (2018). [Plugging the Gap Between Energy Policy and the Lived Experience of Energy Poverty: Five Principles for a Multidisciplinary Approach](#). In C. Foulds & R. Robison (A c. Di), *Advancing Energy Policy* (pagg. 15–29). Springer International Publishing.

<sup>100</sup> Please note that in 2024 (terminated on 30 October 2024) there were the public consultations for the modification of law on the “*bono social*” terminated so some modifications are likely to occur. Please see as a reference here: <https://www.miteco.gob.es/es/energia/participacion/2024/detalle-participacion-publica-k-709.html>

## Summer Energy Poverty

The fieldwork reveals an increasingly serious concern in ensuring thermal comfort and energy services in summer from the interviewees supported by robust quantitative and qualitative data<sup>101</sup>. Heatwaves are more frequent and more intense, starting earlier than in the past, such as June. Figure 1 shows the land surface's extremely high temperatures on 11 July 2023 during a 10-day heatwave. It is estimated that there is an excess mortality of 10% in these heatwaves<sup>102</sup>. Data and literature show that it will be an increasing issue in Spain and the rest of South Europe<sup>103</sup>.

The ENPE underscores this issue.<sup>104</sup> However, experts note that the existing literature has predominantly focused on winter energy poverty, even in Southern European countries, with more emphasis placed on the financial challenges of paying energy bills.

*"It is also true that countries like Italy, Spain, and Greece have been working on energy poverty for many years, but it is also true that it has always been thought of from the perspective of cold [weather]. It is becoming clear that discussing summer energy poverty is an imperative need due to heatwaves and climate change and their effects on people's health"*

Some Interviewees also specifically highlight the difficulty of measuring "summer energy poverty" at the official level. At the moment, there is only the indicator of whether families were able to maintain a comfortable temperature in the summer, specifically whether they could keep their homes cool, reintroduced in 2023 in the Spanish SILC (Survey on Income and Living

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<sup>101</sup> Sánchez-Guevara Sánchez, Carmen , Núñez Peiró, Miguel , Gayoso Heredia, Marta , Torrego Gómez, Daniel , Sanz Fernández, Ana , Simeonov, G., Karamitrev, G., Kampouridou, Anneta, Kyrkou, Danai, Musetti, L., Zimelli, D., Serasols, A. and Plana Izquierdo, M. (2024). [Dealing with Summer Energy Poverty: a Guide](#). Universidad Politécnica de Madrid (Coolrise consortium).

<sup>102</sup> Please see more information here: Instituto de Salud Carlos III (2024). [Heat and excess mortality: MoMo and Kairós facilitate the study of risk estimates and possible alerts due to high temperatures](#).

<sup>103</sup> Torrego-Gómez, D., Gayoso-Heredia, M., San-Nicolás Vargas, P., Núñez-Peiró, M., & Sánchez-Guevara, C. (2024). [Recognising summer energy poverty. Evidence from Southern Europe](#). *Local Environment*, 29(4), 495–523.

<sup>104</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty' 2019-2024](#). See for instance p. 26 or 33.

Conditions) in 2023. This data shows that 33%, or 1 in 3 households cannot keep their home cool during the summer, which would be the highest of all the energy poverty indicators in 2023.<sup>105</sup>

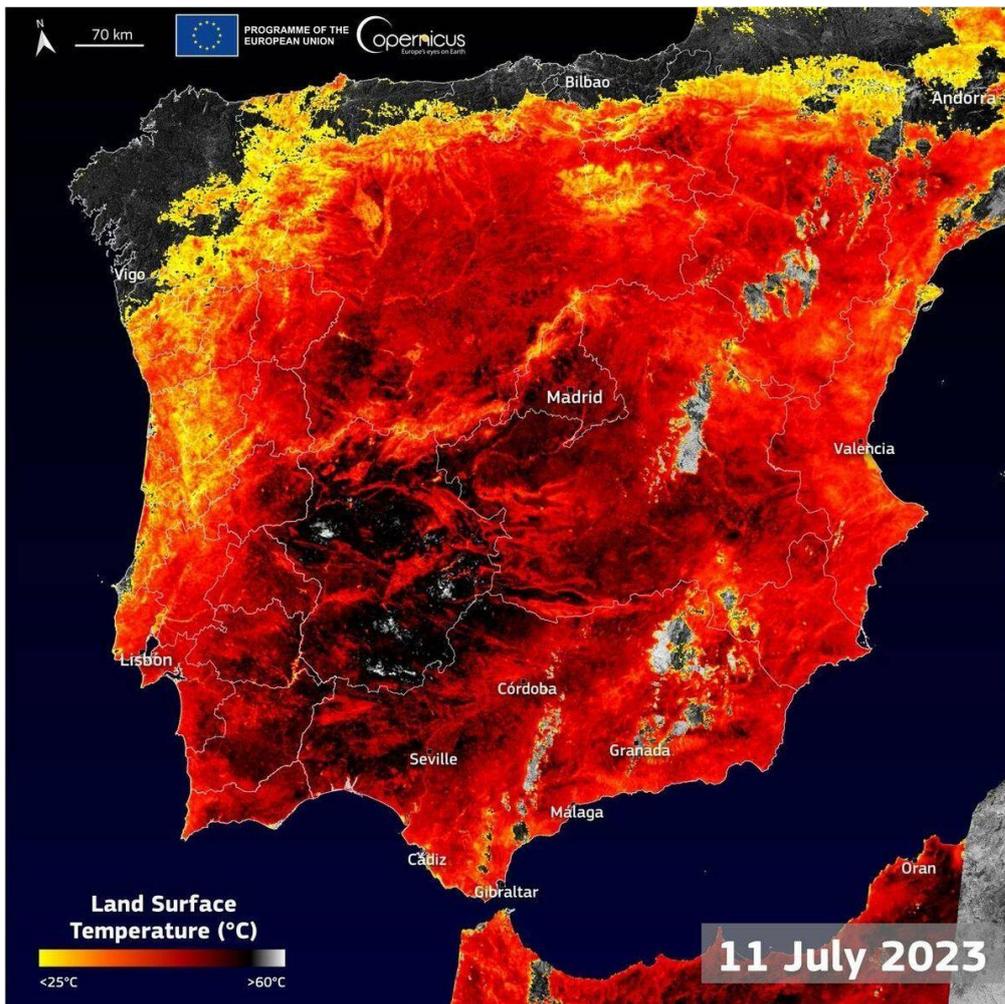


Figure 1 Satellite image of land surface temperature (°C) in Spain. 11 July 2023

## 2.4. Fundamental rights impact assessment

The NECP or any other national Spanish legislation do not provide any obligations to undertake a social impact assessment or fundamental right assessments for an energy transition project. The national legislation solely obliges to undertake an ex-ante environmental impact assessment (EIA) for the large majority of large infrastructure projects, including energy projects<sup>106</sup>.

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<sup>105</sup> Romero Mora, J. C., Barrella, R., & Centeno Hernández, E. (2023). [Report on energy poverty indicators in Spain 2023 \(Informe de indicadores de pobreza energética en España 2023\)](#). Instituto de Investigación Tecnológica, Comillas Pontifical University.

<sup>106</sup> Spain, [Law 21/2013 on Environmental Assessment](#) (Ley 21/2013, de 9 de diciembre, de evaluación Ambiental).

The NECP contains an entire ex-ante study on the socio-economic and health impact in 2020<sup>107</sup>. Interestingly, the study includes the estimated impact of energy efficiency measures for the income quintile, the variation in the energy consumption in vulnerable or no vulnerable households, and households that are no longer in energy poverty situation according to the indicators 10% and 2M<sup>108</sup>. However, as far as we know, there is no assessment of the current real progress of these indicators or any other social impact or fundamental rights assessments associated with the specific measures in the energy transition<sup>109</sup>.

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<sup>107</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). [Spain - Final updated NECP 2021-2030](#).

<sup>108</sup> 2M: -Disproportionate expenditure: percentage of households whose energy expenditure in relation to their income is more than double the national average. 10%: households who spent more than 10% of their income on energy bills).

<sup>109</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). [Spain - Final updated NECP 2021-2030](#).

### 3. Addressing different aspects of energy efficiency and energy poverty: Technical assistance action carried out in Spain launched by the Energy Poverty Advisory Hub.

The action that was investigated more in-depth was the technical assistance (TA) carried out in Spain, delivered by the EU Energy Poverty Advisory Hub (EPAH)<sup>110</sup>. It provided a selected expert(s) for the duration of max 9 months to provide know-how within a specific local energy poverty objective. The project was selected for an in-depth analysis because it would shed light on how energy poverty alleviation is tackled at the local level. At this level of governance, within a complex ecosystem of stakeholders, significant responsibilities are assumed in advancing energy efficiency and combating energy poverty<sup>111</sup>.

Another key reason to investigate the TA is that it was implemented across various regions in Spain, which allows for more generalised insights. As noted, in Spain, energy efficiency policies and some energy poverty laws are primarily managed at the autonomous community level or local level, meaning that many energy poverty initiatives tend to be region-specific or *ad hoc*.

EPAH launched its technical assistance programme in 2022, finalised in 2023, with the second edition following in 2023, finalised in 2024<sup>112</sup>. In these two editions, they funded 14 technical assistance actions in Spain, 7 each year<sup>113</sup>. Local projects generally move through three phases: diagnosis, planning, and implementation.

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<sup>110</sup> Please see more information here <https://energy-poverty.ec.europa.eu/about>

<sup>111</sup> Costa-Campi, M. T., Choi de Mendizábal, Á., Jové-Llopis, E., & Trujillo-Baute, E. (2023). [Pobreza energética: ecosistema de agentes para combatirla mediante intervenciones de proximidad](#). Fundación Naturgy.

<sup>112</sup> EPAH website (2024) <https://energy-poverty.ec.europa.eu/our-work/technical-assistance>.

<sup>113</sup> Call 2022, finalised in 2023. EPAH website (2024) <https://energy-poverty.ec.europa.eu/our-work/technical-assistance>.

Public authorities: Murcia (Murcia Autonomous Community), Lorca (Murcia Autonomous Community), Getafe (Madrid Autonomous Community), Sitges (Catalonia), Montsià region (Catalonia), Cadiz (Andalusia), Cerdanya region (Catalonia).

Call 2023 finalised in 2024.

The majority of the projects in Spain focused on the diagnosis phase, often an early assessment of the energy poverty circumstances phenomenon and providing some initial recommendation on how to proceed and measures or early works for energy poverty alleviation projects such as assessing the viability of energy communities to aid households experiencing energy poverty (e.g., Cerdanya Municipality in Catalonia). Murcia (2022), Getafe (2022), and Valencia (2023) worked in the planning phase, working on specific interventions to be implemented. No action worked directly and specifically with residential energy efficiency showing the difficulty to work on this aspect.

The fieldwork concentrated primarily on the TA initiatives in Murcia and Valencia, as both actions were in the planning phase during separate iterations of the assistance programme. These case studies provide an opportunity to examine how from the planning stage these measures are or will be implemented, so also their opportunities, gaps and promising practice during the TAs themselves and their subsequent practical development. Furthermore, Valencia's intervention focused on activities and training in "summer energy poverty": which is an essential growing concern in Spain. To the extent possible, the findings relating to TAs implemented in other Spanish municipalities were also considered in the analysis, via interviews or other published data.

#### **The Technical Assistance of European Energy Poverty Advisory Hub (EPAH)**

The European Energy Poverty Advisory Hub (EPAH) - EU initiative of the Directorate-General for Energy (DG ENER) has a specific objective, among others, that aims to provide technical assistance and resources to local governments in their efforts to tackle energy poverty, providing resources to develop local strategies and policies. Within this wider approach, they launched a specific programme across the EU, the technical assistance (TA) action that provided tailored expert support to local authorities across Europe. Each selected municipality gets matched with relevant experts based on their specific needs and geographic areas. These experts assist in assessing energy poverty circumstances or planning, executing, and monitoring energy poverty reduction initiatives.

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Public authorities: Baix Empordà council (Catalonia), La Palma island (Canary Islands), Les Garrigues region (Catalonia), Pallars Jussà region (Catalonia), Pamplona (Navarra), Girones (Catalonia), Valencia (Valencia Autonomous Community).

### 3.1. Leaving no one behind – target groups, eligibility, accessibility, equality

The target group of the action are individuals and households in energy poverty. There is a consensus between the existing literature and the fieldwork findings on the profile of individuals and households affected by energy poverty<sup>114</sup>, thus the identification of which groups are fairly clear. There are gaps, though, in the exact quantification of people in energy poverty and its socio-demographic composition at the local level. The interviewees revealed gaps and challenges in how to detect people affected by energy poverty, how to engage them and how to intervene. The most challenging step in addressing energy poverty is intervention. The interventions are considerably hindered by multiple problems such as limited financial resources, bureaucratic complexity, insufficient trained personnel or legal barriers to energy efficiency renovation.

Interviewees consistently highlighted the critical importance of increasing skilled personnel—particularly in social services departments—and securing political commitment, including mitigating the pervasive issue of political short-termism. The latter emerges as a substantial barrier in combating energy poverty<sup>115</sup>. Field research underscores the necessity of a comprehensive energy poverty strategy and dedicated officials capable of transcending short-term political issues.

Notably, though, some experts working on energy poverty think that carrying out energy deprivation is an opportunity to tackle several social issues in the most disadvantaged households or communities.

*“The social reality is complex and intertwined. For me, [working] on [the concept] energy poverty is a methodological tool to start intervening and addressing many other social issues that affect families.”*

Indeed, social workers could intervene in other spheres of life for households affected by energy poverty when addressing this form of deprivation. In fact, people affected by energy poverty are likely to be simultaneously affected by other disadvantages, whether financial or educational. Social workers might monitor the dropout of children and teenagers from school or support such households in receiving other financial benefits to which they may be entitled, such as large family benefits or the Minimum Vital Income.

#### **Population affected by energy poverty: who are they?**

Firstly, the interviewees emphasised that energy poverty should be understood as a manifestation of broader poverty and deprivation, specifically expressed through energy services

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<sup>114</sup> Aristondo, O., & Onaindia, E. (2018). [Inequality of energy poverty between groups in Spain](#). *Energy*, 153, 431–442.

Costa-Campi, M. T., Jové-Llopis, E., & Trujillo-Baute, E. (2019). [Energy poverty in Spain: An income approach analysis](#). *Energy Sources, Part B: Economics, Planning, and Policy*, 14(7–9), 327–340.

Rosa, R., Solís-Guzmán, J., & Marrero, M. (2020). [Energy poverty goes south? Understanding the costs of energy poverty with the index of vulnerable homes in Spain](#). *Energy Research & Social Science*, 60, 101325.

<sup>115</sup> Costa-Campi, M. T., Choi de Mendizábal, Á., Jové-Llopis, E., & Trujillo-Baute, E. (2023). [Pobreza energética: ecosistema de agentes para combatirla mediante intervenciones de proximidad](#). Fundación Naturgy.

usage, as it was also described in the ENPE<sup>116</sup>. Often, they refuse an oversimplified definition of this phenomenon with fixed and universal conditions with a specific set of characteristics but see it as multidimensional and comprising systemic causes.

These households belong to low-income households and often live in very inefficient houses<sup>117</sup>. People living in the private rental market are disproportionately impacted<sup>118</sup>. Interviewees specified some sub-groups and their intersections, such as single parents, people with low education levels, woman-led households<sup>119</sup>, older adults and people suffering from health issues, similar to the current literature<sup>120</sup>. The interviewees underscored to pay more particular attention to single parents and the intersection of age, health and social isolation in older adults. Not surprisingly, it highlights the disproportionate impact on the migrant population.<sup>121</sup>

*"The prevalence of energy poverty among the migrant population is higher than among the Spanish population. It's not a very revolutionary discovery, right?"*

Recent data<sup>122</sup> and some interviewees indicate that the income profile of people experiencing energy poverty is expanding, now encompassing not only low-income individuals. However, fieldwork shows that in some cases there is a lack of awareness of this trend or there are individuals and households that are more of a priority to address.

### **Gaps and Challenges in detection and engagement.**

According to most interviewees, the identification of which groups are the most affected is fairly clear. There are gaps, though, in the exact quantification and disaggregation, especially at the local level, how to detect them and how to engage them.

Specific gaps and challenges were identified in effectively reaching and assisting certain groups:

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<sup>116</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty' 2019-2024.](#)

<sup>117</sup> Romero Mora, J. C., Barrella, R., & Centeno Hernández, E. (2023). [Report on energy poverty indicators in Spain 2023. \(Informe de indicadores de pobreza energética en España 2023\).](#) Instituto de Investigación Tecnológica, Comillas Pontifical University.

<sup>118</sup> Taltavull de La Paz, P., Juárez Tárrega, F., Su, Z., & Monllor, P. (2022). [Sources of Energy Poverty: A Factor Analysis Approach for Spain.](#) *Frontiers in Energy Research*, 10, 847845.

<sup>119</sup> Cuerdo-Vilches, T., & Navas-Martín, M. Á. (2024). [Examining Energy Poverty among Vulnerable Women-Led Households in Urban Housing before and after COVID-19 Lockdown: A Case Study from a Neighbourhood in Madrid, Spain.](#) *Sustainability*, 16(15), 6680.

<sup>120</sup> Torrego-Gómez, D., Gayoso-Heredia, M., Núñez-Peiró, M., & Sánchez-Guevara, C. (2024). [Mapping summer energy poverty: The lived experience of older adults in Madrid, Spain.](#) *Energy Research & Social Science*, 110, 103449.

<sup>121</sup> Jacques- Aiviñó, C., Peralta, A., Carrere, J., Marí-Dell'Olmo, M., Benach, J., & López, M.-J. (2022). [Qualitative evaluation of an intervention to reduce energy poverty: Effects perceived by participants according to typologies of social vulnerability.](#) *Energy Policy*, 167, 113006.

<sup>122</sup> Romero Mora, J. C., Barrella, R., & Centeno Hernández, E. (2023). [Report on energy poverty indicators in Spain 2023. \(Informe de indicadores de pobreza energética en España 2023\).](#) Instituto de Investigación Tecnológica, Comillas Pontifical University.

**Older adults' Households:** although they are one of the primary target groups of social services, there is the perception that older adults affected by energy poverty are not sufficiently detected. It should also be noted that Spain has a significantly ageing population <sup>123</sup>.

**Socially Isolated Individuals:** they lack a support network or regular interaction with community members or authorities, and often go unnoticed. This group faces unique barriers due to their limited connections, making them less likely to seek support proactively. Often older adults are also socially isolated.

Some interviewees reported difficulties in detecting and engaging members of foreign-origin populations. Cultural and language barriers and mistrust towards Spanish authorities can lead these individuals to rely more on informal community networks for support. In consideration of the composition of migrants, Arabic was identified as a major language barrier<sup>124</sup>. However, this difficulty in engaging depends on the interviewee's opinion on the capacity of their organisations to have translators.

**Challenges in the lived experience of vulnerable households:** many low-income households do not turn to social services because of multiple reasons. Factors include a lack of awareness about available support, lack of awareness of their rights, a normalisation of their situation deprivation, or more immediate concerns, such as securing food or managing pressing health or family issues.

The following quote captures the idea of the complexity of everyday life in a vulnerable household:

*"These are families facing many difficulties. So perhaps, well, this is just one more issue among others, and maybe they aren't experiencing it as something overly burdensome because it is accompanied by other issues that are much more serious. For example, a washing machine—a washing machine that's leaking water[...]. They might not even consider the fact that this faulty washing machine does not work very well and is using a lot of energy, which then raises their utility bill. But in the end, they have a washing machine; they can't afford a new one, but at least they're able to wash their clothes."*

Some interviewees also highlighted the challenge of reaching individuals affected by energy poverty who do not align with the typical 'users' profile for social services. These "typical users" are various sociodemographic groups in low-income situations and those with severe disabilities or chronic illnesses. According to some interviewees, local authorities currently lack a comprehensive awareness of these hidden energy poverty groups, lack capacity, or prioritise other groups. The main groups are:

1. **Groups experiencing sudden economic decline** – This may include older adults who retire with significantly lower incomes compared to their employment wages and those who face unexpected unemployment. Consequently, these individuals often lose the capacity to

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<sup>123</sup> Please see the link for more detailed data on Spanish Demographics. Older adults represent 20% of the population in 2023. <https://www.ipsos.com/en/almanac-2024/spain-country-old-no-country-young#:~:text=Spain%20is%20the%20country%20that,be%20aged%2065%20or%20older>.

<sup>124</sup> Please note that the population of Moroccan origin or nationality represents the largest group of migrants who are non-native Spanish speakers. Please see more information and data here [https://www.ine.es/dyngs/Prensa/en/ECP4T23.htm#:~:text=The%20main%20nationalities%20of%20imigrants,%20and%20Romanians%20\(8%2C100\)](https://www.ine.es/dyngs/Prensa/en/ECP4T23.htm#:~:text=The%20main%20nationalities%20of%20imigrants,%20and%20Romanians%20(8%2C100)) and <https://www.statista.com/statistics/445784/foreign-population-in-spain-by-nationality/>

maintain thermal comfort in their homes or pay their bills. They were not used to these conditions and tend not to turn to social services, due to also socio-psychological reasons.<sup>125</sup>

2. **Lower - to middle-income households**<sup>126</sup> –households now represent a growing sector of those experiencing energy poverty, as experts and recent academic data highlight. These groups are not covered by the protections of social services because they are not “under their radar”. At the same time, these groups are not seeking their assistance. Sometimes this group intersects with **households in private rental properties**. Utility bills are often a secondary concern compared to high rent<sup>127</sup>, which is especially elevated in major cities, such as Barcelona, Madrid or Valencia. Additionally, these renters cannot make improvements to building energy efficiency, as renovations are the landlord’s responsibility. The challenge lies in the flexibility of rental agreements, legal constraints, and the ability of tenants to negotiate potential renovations, even if such upgrades could be provided at no cost<sup>128</sup>.

### Cases of extreme poverty and the “infravivienda”

There is limited awareness in institutions and research on the cases of extreme cases of energy poverty, associated with people living in “infravivienda”. The term in Spanish refers to substandard and overcrowded houses, that might be in urban districts or in (semi)-informal settlements, close to the city or isolated (also called in Spanish “asentamiento chabolistas”). In the isolated settlements, the population often lives in caravans, tents or shelters built with scrap materials. The isolated settlements are largely composed of a population of foreign nationality or Romani background (of Spanish or foreign nationality)<sup>129</sup>. The ENPE<sup>130</sup> refers to the “infravivienda” only once, either inside or outside of informal settlements, and seemingly without much emphasis, even though it constitutes the most flagrant infringement of basic fundamental rights. The NECP does not even mention the case of the “infraviviendas”.

Targeting intervention towards these groups poses significant challenges at every stage of policy-making. There are substantial research gaps and obstacles throughout the policy-making process, from initial assessment to reaching and engaging these collectives and intervention

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<sup>125</sup> Sepúlveda Carmona, M. (2021). [From stigma to rights: Uncovering the hidden dimension of poverty](#). In M. F. Davis, M. Kjaerum, & A. Lyons (A c. Di), *Research Handbook on Human Rights and Poverty*. Edward Elgar Publishing.

<sup>126</sup> In EU-SILC (European Union Statistics on Income and Living Conditions) terminology the equivalised disposable income brackets are classified into the income quintile of the population. Plain English terms “lower” and “middle income” refers to the second and third quintile, while the low income at the first quintile income. Please see here for EU-SILC terminology: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Equivalised\\_disposable\\_income](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Equivalised_disposable_income)

<sup>127</sup> Daly, M. (2017). [Money-Related Meanings and Practices in Low-Income and Poor Families](#). *Sociology*, 51(2), 450-465.

<sup>128</sup> Beltrán-Velamazán, C., Arbulu, M., Gómez-Gil, M., Rueda-Esteban, M., Espinosa-Fernández, A., & López-Mesa, B. (2024). [Indicators and Data in Spain Regarding an Overview of Worst Performing Segments of the National Building Stock, Rented Properties and Energy Poverty](#). In B. López-Mesa & X. Oregi (A c. Di), *Assessing Progress in Decarbonizing Spain’s Building Stock* (pagg. 157–178). Springer Nature Switzerland.

<sup>129</sup> Please see more information on these isolated settlements here Fundación Secretariado Gitano and Fundación ISEAK (2023). [Study on the Profile and Situation of People Living in Shantytown Settlements and Substandard Housing in Spain](#). (Estudio sobre el perfil y la situación de las personas en los asentamientos chabolistas y de infravivienda en España).

<sup>130</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty’ 2019-2024](#).

design and implementation. The situation is further complicated by numerous urgent competing priorities in these cases, extremely complex circumstances, lack of political commitment, and persistent discrimination.<sup>131</sup>

A notable case is the Cañada Real Galiana, a semi-informal settlement near Madrid, which has been an object of some studies. It is composed of a mix of houses, sometimes but not always degraded or substandard housing, prefabricated houses and shelters built using scrap material<sup>132</sup>. It has been reported to the Council of Europe as a dramatic example of human rights violations, due to various factors including the lack of electricity grid connection<sup>133</sup> or access to water. The European Committee of Social Rights, a body of the Council of Europe, has asked Spain to adopt immediate measures to guarantee adequate access to electricity and heating in Cañada Real but the situation has not been addressed<sup>134</sup>.

Within this research, the situation of extreme poverty in the historical city centre of Lorca has been identified. There, around 80% of the homes visited by TA staff and social workers do not meet basic standards of habitability, safety, or access to water and energy. Many energy needs are met through makeshift fires inside homes or on the street, and residents often cook in unventilated rooms, practices that are both unsafe and unhealthy. Additionally, buildings have sustained severe damage from lack of maintenance and the 2011 earthquake, with widespread dampness and moisture issues that prevent them from ensuring adequate thermal comfort in summer and winter. These poor conditions contribute to respiratory and cardiovascular problems, as well as dermatological issues, especially in children. The low quality of housing pushes many residents to seek refuge in public spaces, particularly the primary school, which has come to serve as a social centre. In addition to its educational role, the school refers cases to local authorities, helps families access aid, and even provides meals for children.<sup>135</sup>

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<sup>131</sup> Please see more information on these isolated settlements here Fundación Secretariado Gitano and Fundación ISEAK (2023). [Study on the Profile and Situation of People Living in Shantytown Settlements and Substandard Housing in Spain](#). (Estudio sobre el perfil y la situación de las personas en los asentamientos chabolistas y de infravivienda en España).

<sup>132</sup> Ruiz-Rivas, U., Tirado-Herrero, S., Castaño-Rosa, R., & Martínez-Crespo, J. (2023). [Disconnected, yet in the spotlight: Emergency research on extreme energy poverty in the Cañada Real informal settlement, Spain](#). *Energy Research & Social Science*, 102, 103182.

And Gonick, S. (2015). [Interrogating Madrid's "Slum of Shame": Urban Expansion, Race, and Place-Based Activisms in the Cañada Real Galiana](#). *Antipode*, 47(5), 1224–1242.

<sup>133</sup> European Committee of Social Rights Complaint, [Case document 1, \(2021\). Violations of Articles 11, 15, 16, 17, 20, 23, 27, 30, 31 and E of the Revised European Social Charter in relation to the power outage in Sectors 5 and 6 of the Cañada Real Galiana](#).

<sup>134</sup> Please see more information here <https://www.feantsa.org/en/press-release/2022/10/28/?bcParent=27> and here Please also Defence for Children International (DCI), European Federation of National Organisations working with the Homeless (FEANTSA), Magistrats Européens pour la Démocratie et les Libertés (MEDEL), Confederación Sindical de Comisiones Obreras (CCOO), (2022). Collective Complaint No. 206/2022: [Spain's failure to ensure heating and electricity supply in Cañada Real](#). European Committee of Social Rights.

<sup>135</sup> Please see data from EPAH description here (2023). <https://ecoserveis.net/es/epah-lorca/> Also for more details on the lived experience of the residents please press articles such as <https://www.laverdad.es/murcia/lorca/servicios-sociales-centra-20220227001358-ntvo.html> and <https://cadenaser.com/murcia/2024/01/10/sin-agua-y-sin-climatizacion-asi-vive-una-familia-de-lorca-en-un-garaje-radio-lorca/> Please note that there seems to be a substantial portion of population of Romani heritage, but there are no exact data quantification for this.

An illustrative quote signals that this extreme situation might go unnoticed by research and institutions:

*“And then there are very extreme situations that are invisible. [...] So, when you enter certain houses, you’re walking through a neighbourhood and imagining what those interiors are like[.], where a lot of people are just cold, but suddenly there are situations of poverty within those homes that make you think about how people are living in that situation. I don’t know how to put it, [...], we’re here in these middle-class environments where reports are written for the European Commission. In this little bubble, we’re in, we imagine that the homes are like our own, where people are just cold.”*

The role of social services departments and third sector organisation: gaps and challenges in human resources.

The fieldwork revealed that the role of social services departments and third-sector organisations, such as charitable organisations and cooperatives, is pivotal in addressing energy poverty. These organisations engage with vulnerable households and the broader population. Also, they collaborate intensively with other organisations responsible for energy advice such as one one-stop shops (OSS)<sup>136</sup>; for instance, in Valencia, vulnerable households often visit the OSS upon recommendations from third-sector organisations, and they actively in the assisting the processes for taking appointments. Social workers and third-sector organisations collaborate also sometimes with local ombudsmen, such as in Catalonia. However, social workers, especially in the public administration face significant challenges due to inadequate personnel, training, expertise, and, in the third sector, unstable working conditions.

The large majority of interviewees acknowledged the chronic shortage of staff in public service and the growing number of social needs they are expected to address. A previous study shows that 88% of social services professionals believe that their services were already saturated before the pandemic, and it worsened the situation<sup>137</sup>. Several interviewees also pointed to an increased bureaucratic burden in recent years. Furthermore, the Spanish ageing population intensifies the demands on social services, necessitating an increase in human resources specifically telecare and home care<sup>138</sup>. Many interviewees noted that these services are at a breaking point, such as:

*“The reason [that vulnerable households are not always referred to the ombudsperson] is the collapse of social services as well; they are truly overwhelmed because they handle this and two thousand other tasks. Social services are increasingly producing reports for various purposes, rather than focusing on the ongoing support of the individuals within their care”.*

Additionally in households in extremely vulnerable conditions, some interviews noted that addressing energy poverty might not always be feasible without additional personnel and expertise. In these situations, an expert noted:

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<sup>136</sup> Boza-Kiss, B., Bertoldi, P., Della Valle, N. and Economidou, M., (2021) [One-stop shops for residential building energy renovation in the EU](#), EUR 30762 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-40100-1.

Please also see more information for one- stop shops in section 3.3.

<sup>137</sup> General Council of Social Work, (2022). [IV Report on Social Services in Spain and the Social Work Profession](#).

<sup>138</sup>Socio-Healthcare Balance of Dependency and Disability, (2024). [Report on Index DEC-Development of Social Services](#) (Indice Desarrollo de los Servicios Sociales).

*"You're in a context where energy poverty is almost the least of their problems. Social workers are overwhelmed like they're trying to empty the sea with buckets, and then you come along and start talking to them about energy poverty, and they say, 'These people [vulnerable households] don't even have a place to die.'"*

Concerning the third sector, there is an additional issue with strategic funding planning, which leads to uncertainty and challenges in organising interventions. Energy services even semi-public organisations or eco-social cooperatives are working with high turnover and sometimes in precarious working conditions. Many charitable organisations that work alongside social services of public departments often are funded on a year-by-year basis, with short-term programming that affects their work (see quote below). This results in considerable precariousness for contractors, such as cooperatives, which hinders stability and the ability to properly hire and train staff.

*"I can't plan long-term what I would like to do with these [vulnerable] families or what I can focus on for work because I don't know what funding I will have. It's already late October [2024], and I still haven't had the answers for all the projects I've applied for. [I]t can be so wonderful and beneficial for families in the long term, but [the lack of stability] makes us very cautious when it comes to plan."*

## 3.2. Impact

The (TA) actions have produced varying effects depending upon local objectives and circumstances, and concrete local impacts cannot be generalised<sup>139</sup>. Evidence from fieldwork and published data indicates that in most local case studies, the TA provided expertise that would have been difficult to obtain otherwise. Indeed, the TA seems to fill one of the voids in the national energy poverty policy-making, in terms of providing knowledge transfer. The Valencia case stands as a notable exception, as the Valencia city council already possessed a robust structure and requested support to complement their existing work on energy poverty and energy rights.

The large majority of the TA focused on the diagnostic phase, during which they provided initial assessments to understand the situation and/or established groundwork to determine the viability of specific plans, such as the development of energy communities. Often, these assessments produced data protocols, that can be transferrable. Indeed, these data protocols are collected and systematised in the EPAH Handbook of diagnosis<sup>140</sup> which can serve other public authorities to produce autonomous analyses using the existing data.

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<sup>139</sup> Please see the reports of the results in this website <https://energy-poverty.ec.europa.eu/our-work/technical-assistance> (filter Spain and click on relative locations).

<sup>140</sup> Energy Poverty Advisory Hub, (2023). [Energy Poverty Advisory Hub \(EPAH\) Handbook 1: A Guide to Energy Poverty Diagnosis](#).

Moreover, these local assessments unveil the characteristics of the energy poverty phenomenon outside the main cities like Barcelona<sup>141</sup>, Madrid<sup>142</sup>, Seville<sup>143</sup>, and Valencia<sup>144</sup>, so in more neglected areas. Even in Catalonia, where there is considerable awareness and research, the TA proved valuable in systematically identifying which groups are affected by energy poverty and how it manifests in smaller cities, counties<sup>145</sup>, or rural areas, often more neglected. An expert for instance noted the complexity in the Baix Empordà county located in Catalonia:

*“[for example ] Baix Empordà is an area with more coastal towns and there is the inland area, much colder, much more humid, and very different issues also regarding immigration and the type of population. When you have situations like a population that comes in the summer, because there are many summer houses, but during the winter there is very little population, [...]it affects the day-to-day life of a municipality and the municipality doesn't have a real understanding [of the energy poverty phenomenon] or [of] what is happening in the area in these aspects.”*

The TA in the diagnosis phase contributed to shed light on more hidden or neglected areas of the country. However, there is no systematic monitoring system in place after the TA Interventions. Two cases that were examined in greater detail - Murcia and Valencia, where TA operated at the planning stage- demonstrated that the TA actions proved extremely beneficial for future interventions.

In Murcia's case (realised in 2022-23), the Murcia city council is currently implementing specific measures. The TA appeared to play a crucial role in starting to implement the municipal Energy and Water Poverty Plan that had been drafted in 2017<sup>146</sup>, but not implemented previously, as part of the local Sustainable Energy and Climate Action Plan (SECAP) one of the relevant documents for the Covenant of Mayors initiative<sup>147</sup>. The TA action contributed to the city's application for another NextGenerationEU fund for a project called “Mi Hogar con Energia y Agua” (My Home with Energy and Water<sup>148</sup>), which led to the development of a comprehensive

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<sup>141</sup> Tirado-Herrero, S. (2022). [Measuring Energy Poverty at the Urban Scale: A Barcelona Case Study](#). In C. Rubio-Bellido & J. Solis-Guzman (A. c. Di), *Energy Poverty Alleviation* (pagg. 267–284). Springer International Publishing.

<sup>142</sup> Sánchez-Guevara Sánchez, C., Sanz Fernández, A., Núñez Peiró, M., & Gómez Muñoz, G. (2020). [Energy poverty in Madrid: Data exploitation at the city and district level](#). *Energy Policy*, 144, 111653.

<sup>143</sup> Alba-Rodríguez, M. D., Rubio-Bellido, C., Trisancho-Carvajal, M., Castaño-Rosa, R., & Marrero, M. (2021). [Present and Future Energy Poverty, a Holistic Approach: A Case Study in Seville, Spain](#). *Sustainability*, 13(14), 7866.

<sup>144</sup> Gómez-Navarro, T., Calero-Pastor, M., Pellicer-Sifres, V., Lillo-Rodrigo, P., Alfonso-Solar, D., & Pérez-Navarro, Á. (2021). [Fuel poverty map of Valencia \(Spain\): Results of a direct survey to citizens and recommendations for policy making](#). *Energy Policy*, 151, 112162.

<sup>145</sup><sup>145</sup> Translation of “comarca”, an administrative in Catalonia that comprise several city councils – sometimes very small city councils like for administrative, economic, and regional planning purposes.

<sup>146</sup> Murcia City Council, (2017). [Municipal plan against energy and Water Poverty Plan](#). (Plan Municipal Contra la Pobreza Energetica e Hidrica del Ayuntamiento De Murcia).

<sup>147</sup> <sup>147</sup><https://transparencia.mimurcia.murcia.es/sites/default/files/2021-05/Estrategia%20Mitigaci%C3%B3n%20definitivo.pdf>  
[https://mycovenant.eumayors.eu/storage/web/mc\\_covenant/documents/8/HdXepAL7AYO\\_XJqxf0XH\\_hwo5WcC-3Ci.pdf](https://mycovenant.eumayors.eu/storage/web/mc_covenant/documents/8/HdXepAL7AYO_XJqxf0XH_hwo5WcC-3Ci.pdf) More information on the initiative of the Covenant of Mayors in Murcia can be found at <https://www.pactocaldesregmurcia.es/>

<sup>148</sup> Information and process to [https://serviciosociales.murcia.es/docs/Upload/2023\\_MiHogarFinal.pdf](https://serviciosociales.murcia.es/docs/Upload/2023_MiHogarFinal.pdf). The process also led to the publication of handbook in water and energy saving and efficiency targeting

set of measures to address energy poverty at the household level. The interventions are carried out by the social services department of Murcia and other third organisations involved. The set of measures includes, among others, individual training on how to read bills and, assistance in switching energy companies, a home visit to suggest or to undertake improvements, or support for applying to social energy subsidies or other financial subsidies, if eligible. The social services department of Murcia also conducted workshop groups on energy efficiency and markets.

The TA was a central component in creating the conditions needed to implement the existing plan to combat water and energy poverty. The TA facilitated the activation plan by carrying out stakeholder activities, providing training, and working on co-creating indicators to monitor progress. It was essential expertise, and the TA acted as a catalyst for stakeholders' collaboration and commitment. An expert commented:

*"The assistance we've received through the EPAH, which allowed us to hire an energy advisor, has been a divine gift for us. Having a specialized professional has helped us overcome the difficulty of dedicating more time to those activities, allowing much more meticulous and detailed work to be done, which has been fantastic for us".*

Also, the TA action in Lorca, apart from conducting a systematic assessment to better understand the situation, contributed to a broader approach to attracting EU funds to finance comprehensive and targeted interventions to such deprived and neglected districts (See in 3.1 for a short description).<sup>149</sup> In cases of extreme disadvantage around the country, intervening remains highly challenging without thorough assessments, committed personnel, and above all, the capacity to attract funds, along with strong political commitment.

In Valencia (2023-24), the TA implemented training on summer energy poverty - as mentioned, a growing concern in the country. Conversely to Murcia, the main effects are not yet immediately visible but will be seen in the future, as an interviewee noted:

*"So, in general, I believe the results of EPAH were very positive, but it will take time to see their full impact. It was like planting the seed to bring the culture of energy poverty and heat into municipal policy. We are working on energy poverty issues, and from there, things will start to flourish, but it's still early in terms of what we're doing."*

This training offered guidance on interventions at the urban planning level, including practical solutions such as climate shelters and shaded areas in parks and at the household level.

The measures at the city level, such as more structured climate shelters and shaded areas are going to be incorporated into the broader plan of the city to Combat Energy Poverty and the Right to Energy, which, according to the interviewees, is now being crafted by the Valencia's Department of Energy and Climate. This approach moves beyond a simple action list of measures, but it provides a framework and is designed collaboratively with multiple city departments, including housing, health, statistics, and urban planning. Therefore, training on summer energy poverty for the officers of these departments has been crucial so they could then contribute from their perspective and expertise. On the other hand, the measures at the household level designed during the TA training are incorporated or are going to be incorporated

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residents and for professionals available at [https://serviciosociales.murcia.es/docs/Upload/2023\\_GuiaAhorro-EnergAgua\\_compressed-\(1\).pdf](https://serviciosociales.murcia.es/docs/Upload/2023_GuiaAhorro-EnergAgua_compressed-(1).pdf)

<sup>149</sup> La Verdad. Ruiz, I. (2022). [The Lorca City Council is using European funds to fight energy poverty](#) (El Ayuntamiento de Lorca recurre a fondos europeos para luchar contra la pobreza energética)

Murcia.com, (2023). [The Lorca City Council receives a grant of more than 1.94 million euros from the European Commission for a Life Project focused on housing rehabilitation](#). (El Ayuntamiento de Lorca recibe una subvención de la Comisión Europea de más de 1,94 millones de euros para un Proyecto Life de rehabilitación de viviendas).

into the one-stop shops. Possibly, according to the interviewees, these measures will be incorporated within the energy poverty interventions of the local third actors organisations.

The one-stop shop for energy advice (OSS) emerges from the literature<sup>150</sup> and fieldwork as a good practice to transfer all over the country to ensure energy rights. For example, the OSSs in Valencia<sup>151</sup> are organised into different areas to cater to the specific needs of users. When an individual, whether vulnerable or otherwise, visits, they are directed to the relevant section, such as solar panel installation and renewable energy, home renovation, energy saving and efficiency, environmental education, or energy rights and energy poverty. It is important to note that vulnerable households often visit the OSS upon recommendations from third-sector organisations or the local services department. In addition to providing assistance and training, OSS personnel may also conduct home visits. During these visits, they can install small efficiency kits with simple energy-saving measures and carry out minor repairs such as repairing an electrical panel, addressing moisture damage with painting, or even replacing a heat pump. OSS in Valencia also organises group workshops for peer-to-peer assistance.

Beyond Valencia, other major cities such as Madrid, Zaragoza, and Barcelona have established OSSs for years. Local and EU funds<sup>152</sup> have promoted the expansion of these centres recently, leading to new openings in the rest of the country such as smaller towns, such as Girona (Catalonia) and vulnerable neighbourhoods like Otxarkoaga in Bilbao and Txonta in Eibar (Basque Country). Nevertheless, despite recent efforts, most Spanish cities still lack dedicated OSS.

In conclusion, the provision of targeted expertise in energy poverty to local authorities has proven beneficial in several ways: it helps initiate understanding of local situations, assists in overcoming implementation barriers for energy poverty plans and strategic measures, and contributes to existing strategies. Significantly, the provision of energy poverty expertise can serve as capacity building, creating a foundation to uptake more substantial grants. This suggests that if local authorities are expected to play an important role, as highlighted in the NECP and the Spanish Urban Agenda,<sup>153</sup> in the fair energy transition, they must be equipped with the necessary tools and expertise to both take action and secure funds.

Lastly, it must be noted that at the EU level, the technical assistance, along with other EPAH activities, have contributed to the energy poverty policy-making discourse, such as in the European Commission's Recommendations on Energy Poverty<sup>154</sup> or in documents of the

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<sup>150</sup> Marmolejo-Duarte, C., Biere-Arenas, R., Spairani-Berrio, S., & Crespo-Sánchez, E. (2022). [Las One-stop-shops como modelo emergente en la gestión de la rehabilitación energética en España](#). *Ciudad y Territorio Estudios Territoriales*, 54(213), 593–620. [h](#)

<sup>151</sup> Please more information here <https://aeioluz.com/2020/08/oficina-verde-ayuntamiento-de-valencia/> or here <https://energy-poverty.ec.europa.eu/discover-community/epah-atlas/ov-oficina-verde-green-office>

<sup>152</sup> For a list of the initiative, please see Marmolejo-Duarte, C., Biere-Arenas, R., Spairani-Berrio, S., & Crespo-Sánchez, E. (2022). [Las One-stop-shops como modelo emergente en la gestión de la rehabilitación energética en España](#). *Ciudad y Territorio Estudios Territoriales*, 54(213), 593–620.

<sup>153</sup> Please see section 2.3 for further details.

<sup>154</sup> Please see European Commission (2023). [Commission recommendation \(EU\) 2023/2407 of 20 October 2023 on energy poverty](#). Official Journal of the European Union, L 2407, 1-15. (particularly recitals 37 and 42.

Please see also: European Commission. (2023). [Staff working document on energy poverty and its implications \(SWD/2023/647 final\)](#).

European Parliamentary Research Service<sup>155</sup>. It seems that the knowledge built from this action contributes to creating a virtuous circle from EU institutions to local actions and vice-versa within this policy-making discourse.

### 3.3. Information, communication and social acceptability

Desk research and fieldwork reveal that the interventions on energy poverty at the local level are divulged and communicated to the public through a mix of digital and physical channels, such as the city website, newsletters and social media, public campaigns, special events and posters, local media outlets, educational and community activities, partnerships with local organisations such as charitable organisations and cooperatives.

According to most interviewees, energy poverty continues to carry a stigma. Seeking assistance from social services and third-sector organisations—which currently conduct most engagement activities for vulnerable households—can also be stigmatising, potentially deterring people from accessing available support. Experts emphasised that implementing a universal approach should be a priority: Interviewees recommended keeping communication about assistance and support as neutral as possible, avoiding stigmatising language such as 'poverty' or 'disadvantaged'. An expert clarified that it is better to talk about rights than poverty<sup>156</sup>:

*“We prefer to talk to the right to energy than energy poverty alleviation”*

The energy one-stop shops (OSSs) are specifically addressed to everyone to avoid stigmatisation and to cater to everyone to have a universalistic approach. These communicate, inform and support energy efficiency, renewable energy, and energy rights. They provide guidance on energy markets and subsidies and offer technical expertise and training<sup>157</sup>.

At the national level, several experts also noted the lack of an official communication channel for energy poverty measures such as on the energy social discount and the possibility of switching energy companies, also in the regulated market - despite the ENPE's recommendations on creating it<sup>158</sup>. This channel could also provide more information such as possibilities for the general population to seek assistance from energy OSS or their local city council to have support. However, the interviewees recognised the role of the Spanish national

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<sup>155</sup> Widuto, A. European Parliamentary Research Service (2023). [Energy poverty in the European Union](#). European Parliamentary Research Service policy briefing.

<sup>156</sup> Also, in the literature please see Sepúlveda Carmona, M. (2021). From stigma to rights: Uncovering the hidden dimension of poverty. In M. F. Davis, M. Kjaerum, & A. Lyons (A c. Di), *Research Handbook on Human Rights and Poverty*. Edward Elgar Publishing. <https://doi.org/10.4337/9781788977517.00011>

<sup>157</sup> Marmolejo-Duarte, C., Biere-Arenas, R., Spairani-Berrio, S., & Crespo-Sánchez, E. (2022). Las One-stop-shops como modelo emergente en la gestión de la rehabilitación energética en España. *Ciudad y Territorio Estudios Territoriales*, 54(213), 593–620. <https://doi.org/10.37230/CyTET.2022.213.5>

<sup>158</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty' 2019-2024](#).

and local media in raising awareness of energy poverty in the policy discourse as a consequence of advocacy and academic work on this phenomenon as also shown by the literature<sup>159</sup>.

While the role of national media is recognised, fieldwork findings pointed out the importance of tailoring messages and media channels to effectively reach relevant target groups, avoiding campaigns in outlets that are less commonly accessed by the most vulnerable households.

They therefore suggest that national media, especially television and news outlets, should also inform the general public about options for saving on energy costs, such as switching to the regulated market or seeking support from authorities or NGOs.

Lastly, in terms of targeted communication, it was highlighted that the cold calling and aggressive marketing tactics via phone from energy companies have proved controversial. The National Commission on Markets and Competition (NCMC) closely monitors the commercial practices of electricity companies in attracting customers or altering contract conditions, particularly via phone. The regulator has long been warning about the unethical practices of some companies in both the electricity and natural gas sectors. In just over three years, from 2017 to 2020, the NCMC imposed a total of 27 fines on major electricity companies, amounting to approximately 4 million euros, for violating consumer protection regulations—mostly for formalizing electricity and gas contracts without obtaining properly the customer's consent.<sup>160</sup>

The government with the Autonomous Communities had intensified the vigilance on unethical and misleading practices<sup>161</sup>. At the moment, the government is discussing prohibiting energy companies from contacting consumers by phone to offer or change supply contracts. The only exceptions will be if the consumer explicitly requests the call or if the consumer initiates contact with the company. This measure aims to prevent consumers from being trapped in misleading or disadvantageous contracts<sup>162</sup>. An expert highlighted some of the specific malpractices of energy companies based on their experience. For instance, while some interventions successfully helped vulnerable households switch to affordable regulated market contracts, energy companies subsequently persuaded these households to switch again to less affordable contracts. This prevalently occurred in older adult households.

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<sup>159</sup> Sanz-Hernández, A. (2024). [Medios de comunicación y «stakeholders» contribución al debate público de la pobreza y justicia energética en España](#). *Revista Española de Investigaciones Sociológicas*, 168, 73–92.

Sanz-Hernández, A. (2019). [Social engagement and socio-genesis of energy poverty as a problem in Spain](#). *Energy Policy*, 124, 286–296.

<sup>160</sup> El Independiente, (2020). [Electricity companies have accumulated around thirty fines totaling 4 million euros for manipulating contracts](#).

<sup>161</sup> La Moncloa, (2021). [Consumer Affairs will intensify monitoring of misleading advertising regarding energy prices](#).

<sup>162</sup> Iberoeconomía, (2024). [The government bans the contracting of energy services by phone to protect consumers](#). The law was in discussion in the late August 2024, still not formalised.

## 3.4. Stakeholder engagement and participation

The landscape of technical assistance implementation reveals a complex interplay of organisational dynamics, collaborative strategies, and institutional challenges.

In the cases of Murcia or Valencia, the TA provided the opportunity or contributed in Murcia and Valencia to breaking down internal and external “organisational silos”, improving capacity building to create more integrated approaches to addressing energy poverty among the local authorities and the external actors, such as NGOs or cooperatives. The most compelling insight lies in the internal transformation where the TA acts as a catalyst to break traditional bureaucratic barriers such as in the exemplary case of Valencia. An interviewee noted:

*“I mean, coordination between services within a city council is never easy, even though it's the same entity. The work is done in silos, and I'm not saying anything new here. The team approached it with two strategies: top-down and bottom-up.”*

This approach is not merely an administrative re-organisation but can represent a shift in institutional thinking. By employing both top-down directive and bottom-up participatory strategies, the city's Department of Energy and Climate brought internal and external stakeholders into training sessions and encouraged them to incorporate strategies in summer energy poverty into their services. By doing so, the Department of Energy and Climate strategically expanded its partnerships, bringing together urban planners, public health experts, social services, and statistical analysts into a unified approach to energy rights and to create more holistic, integrated responses to energy poverty.

Critically, while the potential for transformation is significant, other interviews underscore the persistent difficulty of this stakeholder engagement, especially within public authorities. Breaking down institutional inertia remains a substantial challenge. Internal administrative challenges can pose significant hurdles in stakeholder engagement activities in projects like TA or other projects funded at the EU or national level. These include insufficient support from upper management, other departments, or political figures, or from internal changes like shifts in priorities or personnel. These governance shifts often make engagement more difficult, posing one of the main challenges to effectively carrying out the collaborative energy poverty project.

Desk research and some experts emphasised the importance of citizen participation, particularly through continuous engagement activities to build trust<sup>163</sup>. This engagement is crucial, as experts and data indicate that institutional trust in political bodies and parties is notably low, especially among those with financial concerns, people who feel their voices are unrepresented, and individuals with lower educational attainment—groups most vulnerable to energy poverty<sup>164</sup>. Public authorities could more effectively leverage third-sector organisations, given

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<sup>163</sup> Parreño-Rodríguez, A., Ramallo-González, A. P., Chinchilla-Sánchez, M., & Molina-García, A. (2023). [Community energy solutions for addressing energy poverty: A local case study in Spain](#). *Energy and Buildings*, 296, 113418.

<sup>164</sup> OECD, (2024). [Survey on Drivers of Trust in Public Institutions 2024 Results - Country Notes: Spain](#).

their grassroots presence and their role as a trusted intermediary which is found relevant in citizen engagement as highlighted by the fieldwork and literature<sup>165</sup>.

Addressing energy poverty surpasses technical solutions, demanding a fundamental reimagining of institutional collaboration, adaptive governance, and holistic problem-solving. This approach is critical given the current energy policy-making landscape, which is predominantly shaped by multi-stakeholder governance interactions at the local level<sup>166</sup>. Interviewees emphasised the importance of local political commitment in fostering stakeholder engagement and the need for more personnel. They specifically highlighted the need for enhanced support from the national government, advocating for the establishment of a national advisory body capable of providing technical assistance that can support capacity building and driving transformative efforts in collaboration.

### 3.5. Governance and accountability, data and monitoring

It appears that there is a significant data gap in energy poverty assessment and metrics, except in cases where local initiatives or academic research have been conducted. To address this issue, technical assistance efforts frequently focus on creating data protocols, establishing monitoring indicators, and conducting initial local assessments of energy poverty phenomena.

Currently, the national indicators for energy poverty, indicated by the ENPE, are not statistically valid at the local government level<sup>167</sup>, but they are valid for use at the national and Autonomous Community level. Furthermore, the national government has not updated its data since 2021<sup>168</sup>.

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<sup>165</sup> Scarpellini, S., Sanz Hernández, M. A., Llera-Sastresa, E., Aranda, J. A., & López Rodríguez, M. E. (2017). [The mediating role of social workers in the implementation of regional policies targeting energy poverty](#). *Energy Policy*, 106, 367–375.

Parreño-Rodríguez, A., Ramallo-González, A. P., Chinchilla-Sánchez, M., & Molina-García, A. (2023). [Community energy solutions for addressing energy poverty: A local case study in Spain](#). *Energy and Buildings*, 296, 113418.

<sup>166</sup> Costa-Campi, M. T., Choi de Mendizábal, Á., Jové-Llopis, E., & Trujillo-Baute, E. (2023). Pobreza energética: ecosistema de agentes para combatirla mediante intervenciones de proximidad. Fundación Naturgy.

<sup>167</sup> National Statistical Institute of Spain (INE), & Méndez Martín, J. M. (2019). [The Spanish Survey of Living Conditions \(ES-SILC\). Characteristics and methodological development](#). *Spanish Journal of Statistics*, 41–56.

<sup>168</sup> Please note though that there are data available on recipients of the electricity social discount (bono social). Please see more information in section 2.3.

At the moment, solely the Chair of Energy Poverty at the Pontifical Comillas University<sup>169</sup> is publishing these indicators<sup>170</sup>.

This persistent gap in energy poverty data underscores a critical need for improved data collection and analysis to support more effective policymaking and targeted interventions.

In the context of evaluating EU projects, it is crucial to address the challenges associated with post-project assessments. In this regard, it is noteworthy that the technical assistance (TA) actions lack a formal post-monitoring phase, similar to many EU-funded projects. Interviewees expressed mixed opinions on this aspect. Some argued that it is essential to include follow-up measures, to understand the effects and possible improvements. Others, however, felt that the limited availability of funds would be better allocated to financing new projects rather than post-monitoring.

## Safeguard And Complaint Mechanisms

The set of measures on energy poverty intervention across the country, such as those mentioned in Murcia and Valencia consists of a diverse array of interventions designed to support residents with energy-related challenges. Some measures are tailored specifically, such as providing new equipment; there are no complaints mechanisms in place for these measures. The residents can submit complaints for existing measures such as the social energy discount (electric or thermal) or switching energy providers; the procedures to make a complaint depend on the matter at hand. Complaints to the relevant authority can be submitted regarding the refusal of the social energy discount, doubts about energy billing, malpractice in switching contracts, delays in processing applications such as for energy appliances, and inconsistencies in the compensation. Moreover, the complaint mechanism and responsible bodies vary across autonomous communities. The complaint procedure also differs based on whether the energy provider operates in the regulated or free market. The complaint mechanism seems to be fairly complicated for the general population at the moment. Should these issues remain unresolved, residents can appeal to the National Ombudsperson (in Spanish “Defensor del Pueblo,”) or in certain regions, to the local ombudsperson that has regional jurisdiction. Some autonomous communities have ombuds institutions with extended powers. For example, the regional ombudsperson of Catalonia (*Síndic de Greuges*) has the competence to interact directly with the private companies that provide services of generalised interests such as energy companies on behalf of Catalan residents. It has established efficient procedures for energy-related complaints

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<sup>169</sup> They publish the indicators of the Spanish government and propose others too. Romero Mora, J. C., Barrella, R., & Centeno Hernández, E. (2023). [Report on energy poverty indicators in Spain 2023 \(Informe de indicadores de pobreza energética en España 2023\)](#). Instituto de Investigación Tecnológica, Comillas Pontifical University.

<sup>170</sup> The latest data updated dates back October 2024, for the 2023 energy poverty national data. [https://www.iit.comillas.edu/documentacion/informetecnico/IIT-24-3031/Informe\\_de\\_Indicadores\\_de\\_pobreza\\_energ%C3%A9tica\\_en\\_Espa%C3%B1a\\_2023.pdf](https://www.iit.comillas.edu/documentacion/informetecnico/IIT-24-3031/Informe_de_Indicadores_de_pobreza_energ%C3%A9tica_en_Espa%C3%B1a_2023.pdf)

and contributed to the pact on energy poverty between the Catalan government and Endesa<sup>171</sup>, one of the main energy providers. This ombudsperson has been involved in energy poverty issues for more than a decade releasing periodically relevant reports for Catalonia<sup>172</sup> and working with the Catalan local authorities and the Catalan Alliance of energy poverty<sup>173</sup>, one of the first advocacy associations for energy poverty in the country.

On the contrary, the National ombudsperson does not have competencies in interacting with the energy companies nor possess executive powers<sup>174</sup>. Instead, it has primarily an advisory and oversight role, protecting citizens' rights by issuing reports to the *Cortes Generales* (Spanish Parliament). These reports are non-binding but offer recommendations that inform policy, providing a largely persuasive and political influence on behalf of citizens in their dealings with public administration.

Generally, households should first address complaints with their energy providers, escalate unresolved issues to the appropriate authority, and only then contact the national ombudsperson. A substantial portion of complaints are inadmissible because residents bypass the appropriate agency and approach the ombudsperson directly, because of the complexity of the mechanism above described<sup>175</sup>. On the one hand, the ombudsperson is working to guide complainants more effectively by using clear and plain language to direct citizens to the appropriate agency. On the other hand, the ombudsperson's office is also preparing a proposal for the Ministry of Energy, advocating for a national meetup that includes the national government and all Autonomous Communities to standardise and simplify procedures for energy-related issues.

On the topic of human rights and energy, the national ombudsperson has contributed to a proposed law<sup>176</sup> that links energy access with health by recognising “electro-dependence”—a condition for individuals reliant on electrically powered medical devices for essential functions,

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<sup>171</sup> Please see more information here <https://pobresaenergetica.es/es/2021/04/12/las-5-claves-del-convenio-de-endesa/>

<sup>172</sup> Sindic De Greuges (2023) [Energy Poverty In Catalonia 2023: Outstanding Challenges In A Context Of Energy Crisis](#).

<sup>173</sup> Please see more information on the Catalan Alliance on Energy poverty at the <https://pobresaenergetica.es/> <https://www.sindic.cat/site/unitFiles/9675/Informe%20pobreza%20energetica%20julio%202023%20cast%20d%20ef.pdf>

<sup>174</sup> Law on institution and competence of national ombudsperson: [Law 3/1981, of April 6, on the Ombudsperson \(Ley Orgánica 3/1981, de 6 de abril, del Defensor del Pueblo\)](#).

<sup>175</sup> Please see data on admissible/inadmissible complaints in general at: Defensor del Pueblo, (2023). [Annual report 2023: Volume I \[Informe anual 2023: Volumen I\]](#).

<sup>176</sup> Spain, Congress of Deputies (Congreso de los Diputados), (2024). *Report of the Commission for Ecological Transition on energy and climate measures and policies in Spain* [Informe de la Comisión de Transición Ecológica sobre las medidas y políticas de energía y clima en España]. [Boletín Oficial de las Cortes Generales, D-127, p. 57](#).

More information also here [https://www.congreso.es/entradap/l15p/e1/e\\_0018424\\_n\\_000\\_m.pdf](https://www.congreso.es/entradap/l15p/e1/e_0018424_n_000_m.pdf)

where any power outage could pose a life-threatening risk. This issue was also supported by the regional ombudsperson of Andalusia, who previously acted ex officio in this matter<sup>177</sup>.

The proposal includes two main requests:

1. **Definition and Regulation of Electro-dependence:** Establish a legal definition for electro-dependence to recognise individuals who rely on life-supporting electrical devices, thereby facing unique financial and health vulnerabilities due to high electricity costs.
2. **Supportive Measures:** Implement protections for electro-dependent individuals, such as guaranteed uninterrupted power supply, access to discounted tariffs, and provision of backup power systems (e.g., generators or uninterruptible power supplies) during scheduled outages or emergencies.

This proposal underscores the importance of safeguarding electro-dependent households, preventing electricity cuts, and aligning with social policies aimed at expanding protections for vulnerable populations. Nevertheless, the proposal refers to an extreme case of health issues, such as dialysis or oxygen dependence<sup>178</sup>. At the moment, some autonomous communities have already measures associated with energy poverty and electro-dependency, such as Catalonia<sup>179</sup> or at the local level such as in Murcia.

Conversely, an interviewee noted that it is currently more difficult to link human rights in health and energy access when the health risks are not immediately life-threatening due to a lack of energy unless thermal comfort itself is considered a human right. They discussed that institutions such as ombudsmen and academic bodies can help establish the connection between health and energy access, even when conditions are not immediately life-threatening as a fundamental right, but this is more challenging for a court of law. For example, chronic illnesses such as asthma or Chronic Obstructive Pulmonary Disease (COPD) that compromise a dignified quality of life may require consistent, clean and cheap energy access to ensure thermal comfort and air quality. However, establishing a causal link in a court of law can be challenging because of the multifactorial nature of these conditions. The interviewee pointed out that proving that a lack of thermal comfort directly contributes to worsening respiratory illnesses, thereby implicating the right to health, would be difficult. This is because demonstrating a clear, unambiguous cause-and-effect relationship between these factors is often complex and elusive.

Regarding human rights, most interviewees emphasized the importance of energy rights, often preferring to discuss 'ensuring energy rights' rather than focusing on energy poverty alleviation. Several also suggested a stronger connection between housing and energy rights. They seem aware that establishing the right to energy as a human right will not automatically resolve the

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<sup>177</sup> On the involvement of the Andalusian ombudsperson please see more information here <https://www.defensordelpuebloandaluz.es/iniciamos-actuacion-de-oficio-con-objeto-de-mejorar-la-situacion-de-las-personas-electrodependientes>

<sup>178</sup> Please more information here <https://www.defensordelpuebloandaluz.es/iniciamos-actuacion-de-oficio-con-objeto-de-mejorar-la-situacion-de-las-personas-electrodependientes>

<sup>179</sup> Please see more information here <https://web.gencat.cat/es/detalls/article/pobresa-energetica>

issues or guarantee access to affordable, green, and clean energy for everyone, just as housing rights are not fully respected in Spain, despite being a constitutional right<sup>180</sup>. However, the recognition of this right could be beneficial, and as one interviewee pointed out, it might be reflected in taxation, similar to what occurred with food taxation<sup>181</sup>. The VAT in Spain is usually at 21% but it is set at a reduced rate (10%) or even super-reduced (4%) for the food considered “essential” such as bread, fruit and vegetables. At the moment, there are emergency measures in place: the VAT on food can be even 2% or a zero rate for essential food items (e.g.: bread, flour, milk, cheese, eggs, fruits, vegetables, and cereals)<sup>182</sup>. In contrast, the VAT on energy could rise to 21% for gas, and in some cases for electricity, if the power<sup>183</sup> established in the electricity contract exceeds 10 kW.

The national ombudsperson has also expressed interest in working for the improvement of the conditions for the informal settlements, particularly Cañada Real near Madrid (mentioned in section 3.1.)<sup>184</sup> and supported the action of the regional ombudsperson of Andalusia (in Spanish Defensor del Pueblo Andaluz). This regional ombudsperson acted ex officio<sup>185</sup> with initiatives to propose a multi-stakeholder collaboration, including public and private actors<sup>186</sup>, to ensure the rights of consumers and avoid electricity cuts in very deprived districts called “barriadas” across

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<sup>180</sup> Spain, Spanish Parliament (Cortes Generales), (1978). [Constitution of Spain \[Constitución Española\]](#). Boletín Oficial del Estado, BOE-A-1978-31229. Art. 47 Spanish Constitution (1978).

<sup>181</sup> The first law that regulate the VAT (regular, reduced and superreduced) is: Spain, [Law 37/1992, of December 28, on Value Added Tax \(VAT\)](#).

At the EU level, the regulation in VAT differences according to social policies are laid out in Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax (VAT).

<sup>182</sup> At the moment and until the end of the 2024, there are extraordinary measure in place due to crises associated to Ukraine and Middle East war; namely the - Extension of measures to address the effects of the conflicts in Ukraine and the Middle East, and new measures in fiscal, energy, and social matters (2024). (Prórroga de medidas para afrontar los efectos de los conflictos en Ucrania y Oriente Próximo y nuevas medidas en materia fiscal, energética y social) [https://sede.agenciatributaria.gob.es/static\\_files/Sede/Actualidad/Novedades/2024/BOLINFORM%20S EDE RD 4-2024 de 26 de julio.pdf](https://sede.agenciatributaria.gob.es/static_files/Sede/Actualidad/Novedades/2024/BOLINFORM%20S EDE RD 4-2024 de 26 de julio.pdf)

For example, the “common bread” was at 0% until the 1<sup>st</sup> October 2024, and the 2% from from 1<sup>st</sup> October 2%. In “normal” times, the common bread is 4% (super-reduced) and the special bread is 10%, (reduced).

<sup>183</sup> The power is the rate at which electrical energy can be generated in a given unit of time, measured in watt.

<sup>184</sup> Please see more official information here <https://www.defensordelpueblo.es/agenda-institucional/reunion-relativa-la-situacion-la-canada-real/> and here from the press <https://www.europapress.es/epsocial/derechos-humanos/noticia-defensor-pueblo-critica-falta-suministro-electrico-canada-real-no-hay-justificacion-20241204173457.html>

<sup>185</sup> Ex officio action by the Ombudsperson of Andalusia formulated in file 19/2711. More information here <https://www.defensordelpuebloandaluz.es/nos-interesamos-por-los-cortes-de-luz-que-se-producen-como-consecuencia-de-enganches-ilegales>

<sup>186</sup> The action is directed to Ministry of Finance, Industry, and Energy; the General Secretariat for Industry, Energy, and Mines; the Ministry of Development, Infrastructure, and Spatial Planning; the Andalusian Housing and Rehabilitation Agency (AVRA); the Andalusian Federation of Municipalities and Provinces (FAMP); the Government Delegate in the Autonomous Community of Andalusia; and Endesa Distribución (energy company).

Andalusia, most predominantly in the Granada and Sevilla provinces, even if there are processing cases of electricity fraud (direct connections and meter tampering) <sup>187</sup>.

Finally, the link between energy and the right to water, recognised as a fundamental right<sup>188</sup> is associated with the Canary Islands where natural drinkable water is a scarce resource. In these islands, energy plays a crucial role in desalination processes, making water suitable for both drinking and irrigation purposes<sup>189</sup>. Local stakeholders in the Canary Islands within the EU Clean Energy Islands initiative,<sup>190</sup> supported by the National Institute for Energy Diversification and Energy Saving (IDAE - Instituto para la Diversificación y Ahorro de la Energía), are actively working to promote visibility in the energy and water nexus<sup>191</sup> and to address the underlying problems of overconsumption of these resources.

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<sup>187</sup> Please more information here <https://www.defensordelpuebloandaluz.es/nos-interesamos-por-los-cortes-de-luz-que-se-producen-como-consecuencia-de-enganches-ilegales> and <https://www.defensordelpuebloandaluz.es/actualidad/el-defensor-del-pueblo-andaluz-propone-medidas-que-sirvan-de-guia-para-solucionar-el>

<sup>188</sup> United Nations, (2010). *The human right to water and sanitation*, 2010. (Adopted 28 July 2010). Resolution 64/292.

<sup>189</sup> Schallenberg-Rodríguez, J., Veza, J. M., & Blanco-Marigorta, A. (2014). *Energy efficiency and desalination in the Canary Islands*. *Renewable and Sustainable Energy Reviews*, 40, 741–748. and other info can also see here <https://www.laprovincia.es/opinion/2022/11/03/problema-agua-canarias-solucion-78103143.html>

<sup>190</sup> EU initiative launched in 2017 please more information here <https://clean-energy-islands.ec.europa.eu/>

<sup>191</sup> More information available here <https://clean-energy-islands.ec.europa.eu/news/workshop-reducing-emissions-related-water-supply-and-distribution-nexus-between-energy-and>

And Canaria Ahora, (2024). *European workshops in La Palma on emission reduction prioritize 'enhancing circularity in water and energy consumption in response to excessive extraction'*. *Canaria ahora*.

## 4. Conclusions and key recommendations

One of the main goals of the National Energy and Climate Plan (NECP)<sup>192</sup> is the reduction of carbon emissions through energy efficiency in the housing sector. By achieving this, the NECP aims to contribute to another goal of the plan: reducing energy poverty, as recommended by the EU's *Clean Energy for All Europeans*<sup>193</sup> initiative. The NECP primarily refers to the National Strategy Against Energy Poverty 2019-2024 (ENPE)<sup>194</sup>, which aims to alleviate energy poverty.

The NECP was initially drafted in 2020, revised in subsequent years, and finally submitted in 2024. Its revision and elaboration were impacted by major external crises, namely the COVID-19 pandemic and the war in Ukraine. At the same time, the rollout of the ENPE may have been hindered by these crises, as well as energy poverty policymaking more broadly. Emergency measures were introduced to mitigate the impact of inflation and rising energy prices, most notably the Iberian Exemption<sup>195</sup>, which contained energy prices until 2023. Conversely, long-term policies outlined in the ENPE<sup>196</sup>, such as roadmaps and the creation of an interministerial group, have yet to be implemented.

In this context, the fieldwork and literature show<sup>197</sup> that the local level of governance plays an essential part role in implementing interventions and projects to combat energy poverty within multilevel governance in this policy domain. Indeed, Autonomous Communities have relevant responsibility along with the private sector, at the national and local levels. Literature shows that the fight against energy poverty occurs primarily at this local level of governance within an ecosystem of actors where local governments often lead these efforts<sup>198</sup>. However, public authorities face a significant mismatch between their assigned responsibilities and the insufficient resources and expertise provided at the national level. One of the main obstacles to implementing energy poverty targeted intervention is the quantification, detection, and

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<sup>192</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge (2024). - [National Energy and Climate Plan. NECP 2021-2030](#).

<sup>193</sup> European Commission, (2019). [Clean Energy for All Europeans Package](#).

<sup>194</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty' 2019-2024](#).

<sup>195</sup> Haro Ruiz, M., Schult, C., & Wunder, C. (2024). [The effects of the Iberian exception mechanism on wholesale electricity prices and consumer inflation: A synthetic-controls approach](#). *Applied Economics Letters*, 1–7.

<sup>196</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty' 2019-2024](#).

<sup>197</sup> Costa-Campi, M. T., Choi de Mendizábal, Á., Jové-Llopis, E., & Trujillo-Baute, E. (2023). [Pobreza energética: ecosistema de agentes para combatirla mediante intervenciones de proximidad](#). Fundación Naturgy.

<sup>198</sup> Costa-Campi, M. T., Choi de Mendizábal, Á., Jové-Llopis, E., & Trujillo-Baute, E. (2023). [Pobreza energética: ecosistema de agentes para combatirla mediante intervenciones de proximidad](#). Fundación Naturgy.

engagement of individuals and households affected by energy poverty. This is due, among other reasons, to a lack of resources, including personnel and know-how. The EU-funded technical assistance (TA) actions have provided vital support to local governments in addressing the expertise gap.

The majority of TA initiatives have focused on the diagnostic phase: raising awareness of energy poverty, conducting preliminary assessments, establishing data protocols, and providing foundational recommendations. Fewer TA actions have been involved in the planning stage, specifically in Murcia, Getafe, and Valencia. The full impact of TA actions is expected to unfold over time, with early results showing promising outcomes, particularly in Murcia's implementation of municipal energy poverty policies and interventions.

## 4.1. Main effects

### ***Residential energy efficiency and energy poverty.***

The NECP has ambitious targets for renovating the existing building stock, considered quite inefficient; around 60% were built without any energy efficiency regulations in place and 90% were built before 2006 (when the technical code was approved). There is uncertainty if Spain will meet this target because in recent years the rate of renovation is solely yearly at 1% against the annual rate of 3% recommended by the European Commission<sup>199</sup>.

Renovating the building stock is also crucial to eradicate energy poverty at its root. In this regard, the NECP's approach to energy poverty leverages the National Strategy Against Energy Poverty (ENPE) 2019-2024. However, the energy poverty policy-making has been influenced by external crises, specifically COVID-19 and the Ukraine war, which have shifted policy focus. Emergency measures, such as the "Iberian exemption," were introduced. This measure, implemented between July 2022 and June 2023, curbed electricity prices by approximately 40%. Spain also experienced immediate results from this policy intervention, with inflation rates dropping by an average of 3.5 percentage points throughout the twelve months<sup>200</sup>. Nevertheless, during the same period, the roll-out of the ENPE<sup>201</sup> appears to have been delayed. Most notably, some long-term plans drafted in the ENPE, such as its roadmaps for policy design, have yet to be published or implemented. Nevertheless, the ENPE serves as a reference point for stakeholders involved in and concerned with energy poverty and energy rights. A new national energy poverty strategy is anticipated to be published soon, with the expectation that it will include more detailed roadmaps and strategies, along with enhanced coordination and monitoring mechanisms.

### ***Multilevel governance of the fair energy transition and lack of accountability***

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<sup>199</sup> Odysee-Mure (2021). [Energy renovation of buildings in Spain and the EU](#).

<sup>200</sup> Haro Ruiz, M., Schult, C., & Wunder, C. (2024). [The effects of the Iberian exception mechanism on wholesale electricity prices and consumer inflation: A synthetic-controls approach](#). Applied Economics Letters, 1–7.

<sup>201</sup> Spain, Ministry for the Ecological Transition and the Demographic Challenge. (2019). [National Strategy against Energy Poverty' 2019-2024](#).

The energy efficiency policies and energy poverty policy making are distributed within multilevel governance. Autonomous communities have certain responsibilities in coordination with the national and local levels of government. For example, energy efficiency measures and certain energy poverty policies are designed and managed at the Autonomous Community level. The only national measures uniformly implemented across the country are the social energy discounts for electricity (*bono social*) and, more recently (introduced in 2019), for heating (*bono térmico*). Furthermore, the NECP and Spanish Urban agenda expect the local authorities to play a crucial part in the fair energy transition, but the fieldwork and desk research shows that the NECP and national government fail to provide coordination and resources to attract existing funds from national or EU funds. Moreover, at present, there are no legal instruments in place to coordinate and monitor the implementation of the NECP. Furthermore, the Interministerial Working Group, which was planned in the ENPE to coordinate efforts among various actors in tackling energy poverty, was never established. Thus, it seems that there is an institutional void<sup>202</sup> in the multilevel governance of energy poverty policy making. As a result of these conditions emerged a gap (see quote below) between national and local levels in terms of knowledge transfer, personnel, support and resources, which has been recognised previously in the literature<sup>203</sup>.

*“I agree that it would be needed to make the energy transition more just and integrated and to put really the into the discussion the local authorities, but now what we see is that sometimes what national governments just ‘say yes, yes, we need the local governments’, but they don't provide resources, human resources, funding, knowledge. So if you are just sending to others your responsibilities, that's not good. If you are sending responsibilities with infrastructure or with funding, that's fine”*

#### **Technical Assistance action and local energy strategies.**

The TA actions launched by an EU initiative are to provide expertise in energy poverty to local governments across the EU. It seems from the fieldwork that the TA programme acts in this void in Spain with the multilevel governance of energy poverty policymaking. The TA serves a critical role in supplying essential expertise for addressing this phenomenon, encompassing training, capacity building, and comprehensive energy poverty assessments.

The provision of expertise in energy poverty via the TA action has produced different effects according to local objectives and circumstances and cannot be easily summarised but several critical aspects can be highlighted:

1. **Diagnostic tools and initial assessments.** Expertise helps in conducting comprehensive local-level assessments to identify the extent and specific characteristics of energy poverty, laying the groundwork for targeted interventions.
2. **Data protocols and monitoring.** Specialists develop data collection and analysis frameworks, enabling local authorities to monitor energy poverty trends accurately and adapt their strategies based on evidence.

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<sup>202</sup> Hajer, M., (2003). [Policy Without Polity? Policy Analysis and the Institutional Void](#). *Policy Sciences* 36(2): 175–195.

<sup>203</sup> Kanellou, E., Hinsch, A., Vorkapić, V., Torres, A.-D., Konstantopoulos, G., Matsagkos, N., & Doukas, H., (2023). [Lessons Learnt and Policy Implications from Implementing the POWERPOOR Approach to Alleviate Energy Poverty](#). *Sustainability*, 15(11), 8854.

3. **Capacity building.** Training local personnel enhances their ability to design, implement, and evaluate energy poverty mitigation measures.
4. **Stakeholder coordination.** The TA action sometimes acts as a catalyst for facilitating stakeholders inside the public authorities and external actors, such as local energy agencies and third-sector organisations.

The large majority of the TA implemented a diagnostic phase: further comprehensive research should be carried out if they are to continue to work on energy poverty and actively use the results of the TA actions such as data protocols. An exploration of TA in Lorca seems promising, the TA action is contributing to a broader project that attracted EU funds for the renovation of the deprived district of Barrio Alto, part of the historical centre. The fieldwork concentrated on two TA actions at the planning stage—Murcia and Valencia—where measures are either being incorporated or already implemented. For example, in Murcia, the TA was carried out in 2022-23, and its significant impact has already been observed. The action helped establish the necessary conditions for implementing the existing plan to address water and energy poverty. Additionally, the TA was an integral part of the process: it acted as a catalyst for stakeholder collaboration, engaged stakeholders, revitalised the local energy and water group, prioritised measures to alleviate energy and water poverty, provided training and consultancy, and established indicators for collaborative progress monitoring. Building on this, the involved actors developed a set of measures and attracted further funding (NextGenerationEU) to implement these initiatives. At the moment the local public authorities and some NGOs are actively working on energy poverty alleviation via this set of measures (more details in section 3.2). The Technical Assistance (TA) initiative effectively contributed to enhancing local capacity-building<sup>204</sup>.

## 4.2. Challenges and gaps

Significant gaps and challenges have been identified across multiple domains of governance and energy policy implementation.

**Energy efficiency goals and residential sector.** Spain's National Energy and Climate Plan (NECP) prioritises energy efficiency to reach climate goals, targeting significant emission reductions in the building sector. However, the NECP's approach has limitations, such as minimal accountability and the absence of a national entity to oversee or coordinate local and regional implementation. The funding strategy exhibits significant limitations. Beyond referencing EU Recovery funds, there are notable deficiencies in identifying alternative public funding sources and developing strategies to attract private investment. Financial support for renovation, including from EU recovery funds often meets administrative hurdles and complex application processes that limit accessibility, especially for low-income households.

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<sup>204</sup> Vincent, C. (2015). [Local government capacity building and development: lessons, challenges and opportunities](#). *Journal of Political Sciences & Public Affairs*, 03(01).

Kanellou, E., Hinsch, A., Vorkapić, V., Torres, A.-D., Konstantopoulos, G., Matsagkos, N., & Doukas, H. (2023). [Lessons learnt and policy implications from implementing the powerpoor approach to alleviate energy poverty](#). *Sustainability*, 15(11), 8854.

**Groups affected by energy poverty and their challenges**<sup>205</sup>. Interviewees pointed out that energy poverty affected particularly low-income households in energy-inefficient homes. Within this group are migrants, older adults, and single parents who are disproportionately affected. The most challenging group is the population living in substandard housing and informal settlements characterised by poor conditions such as overcrowding, lack of basic services, or structural deficiencies. In these cases, there might be serious instances of violation of human rights.

Additionally, income disparities within the population are widening, particularly in light of inflation and rising housing costs. Middle-income sections of the population are increasingly affected but energy poverty but those remain hidden. The private rental market remains the most challenging tenure to intervene, including due to legal restrictions, such as landlords' control over property improvements.

Furthermore, it emerged as a critical issue addressing people affected by summer energy poverty caused by more frequent and longer heatwaves<sup>206</sup>.

**Challenges with policy execution and accountability.** Although policies exist on paper, their implementation is hindered by gaps due to overlapping responsibilities, lack of political commitment and a lack of local coordination. For example, accountability for monitoring rests with local authorities, yet they lack sufficient support. Regional differences also contribute to an inconsistent approach to energy poverty within the country, with some areas demonstrating significant progress in policy-making and awareness (e.g., Catalonia) and others seeming to lack comprehensive support and awareness in energy poverty such as Galicia, partly due to competing urgent priorities.

Interviewees highlighted bureaucratic inefficiencies and legal and procedural obstacles, particularly in the energy efficiency renovation aspects, such as the grant system for allocating funds. The need for political commitment, coordination across governance levels, and clear funding channels emerged as recurring issues. Furthermore, the lack of personnel in public administrations at the local government level and the pressure on social services, coupled with short-term project-based funding models of the third sector organisations, is seen as a core issue that undermines long-term intervention and sustained assistance for vulnerable communities.

**TA action-specific challenges.** The primary challenges in implementing them stem from changes or barriers in internal governance, including staff turnover, shifts in priorities, and a lack of awareness. In instances where the personnel who originally applied for the TA were replaced, the public authorities appeared less engaged, necessitating greater efforts from the experts to involve them.

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<sup>205</sup> Please see section 3.2 for further information.

<sup>206</sup> Torrego-Gómez, D., Gayoso-Heredia, M., San-Nicolás Vargas, P., Núñez-Peiró, M., & Sánchez-Guevara, C. (2024). [Recognising summer energy poverty. Evidence from Southern Europe](#). *Local Environment*, 29(4), 495–523.

## 4.3. Lessons learned and good practices

The TA action highlights that each locality has its own unique needs, with varying levels of preparedness and awareness in the fight against energy poverty. It underscores the multidimensional challenges involved and the necessity of targeted analysis and interventions for specific vulnerable households. In this diverse context, one-stop shops for energy advice<sup>207</sup> emerge as a valuable tool to address these needs while avoiding the stigma often associated with seeking help. However, the accessibility of these services must be improved, particularly for individuals with irregular working hours or childcare responsibilities. Moreover, close collaboration with social services is essential to ensure more effective support.

The fieldwork also revealed that while political commitment is essential, an established collaborative strategy to alleviate energy poverty involving dedicated civil servants and external actors can help overcome the limitations of political short-termism, which has been identified as a significant barrier to alleviating energy poverty at the local.

Furthermore, these urban strategies and broader city planning initiatives should be integrated measures to address summer energy poverty, such as the development of green infrastructure and measures to mitigate urban heat islands. In addition, the strategies should implement targeted communications aimed at vulnerable groups such as older adults or the homeless to ensure that these groups are adequately supported.

At the local level, it is crucial to tailor the approach to local needs but have a universalistic approach to the support services for energy poverty. Each locality requires specific, targeted interventions to address and support the so-called vulnerable groups and the general population. One-stop shops have emerged as valuable tools to provide support while avoiding stigma. The establishment of one-stop shops nationwide is recommended to improve accessibility and streamline services for vulnerable populations, ensuring a more cohesive and accessible support system.

Additionally, within local interventions, mediation and direct support for the targeted population appear essential. Simply providing information is often inadequate. This is true when engaging individuals and when supporting them in specific assistance such as switching energy tariffs, as well as accessing social energy discounts. Interviewees noted that many individuals find energy matters intimidating or are sceptical about the potential for meaningful energy savings. Therefore, the role of personalised assistance and home visits seem pivotal in efforts to alleviate energy poverty as highlighted by the following quote:

*“Often, when it comes to applying for or switching to a standardized rate, a social discount, or similar, many families find it complicated. Having a professional to guide them through these changes, such as advising them on which company offers a better deal, makes the process much easier.”*

Lastly, at the level of safeguards, the Catalan Ombudsman (*Síndic de Greuges*) has emerged as a good practice for protecting the right to energy of Catalan residents because the current legislation grants the Ombudsperson the authority to defend residents' rights in their

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<sup>207</sup> Please see section 3.3 for further information.

interactions with private companies providing public services, such as energy companies<sup>208</sup>. This body can address unlawful energy disconnections with energy companies without other intermediaries. Additionally, it offers a more streamlined approach to handling residents' complaints<sup>209</sup>. In contrast, the complaints mechanisms in many other Autonomous Communities seem rather complicated.

Furthermore, the Catalan Ombudsperson takes a collaborative approach, working closely with the local Alliance Against Energy Poverty and the private energy company Endesa<sup>210</sup>. In addition, it adopts a proactive stance in its engagement with local authorities. This collaboration seeks to prevent the worsening of energy poverty and encourages local governments to take effective and timely actions.

## 4.4. Recommendations

A set of general recommendations for future improvement has emerged from the research.

**National coordination body.** Many interviewees emphasised that a national observatory or advisory hub should be established to coordinate efforts across national, regional, and local levels, enabling data-driven policymaking and fostering a more integrated approach to energy poverty. This proposed entity would not only provide specialised, targeted expertise but also facilitate a more integrated and data-driven approach to policy development.

**Raising awareness on the social energy discount measure.** Literature and interviewees emphasised the importance of implementing targeted communication strategies to raise awareness of the bono social and bono térmico. These efforts should involve utilising a range of communication channels, including digital platforms, traditional media, and community outreach while capitalising on the local presence and expertise of community actors across the region.

**Energy services as human rights.** The majority of interviewees emphasised the importance of recognising energy services as a fundamental right and advocated for their integration with other essential rights, particularly those related to housing, health, and access to water. Particularly, it was highlighted that the need to link energy to extreme health circumstances, such as electro-dependence conditions.

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<sup>208</sup> Spain, Catalanian Autonomous Community. Law 5/2002, of March 27, on the Ombudsperson (Ley 5/2002, de 27 de marzo, del Síndic de Greuges de Catalunya). The Civil Code of Catalonia, Law 3/2010-, which governs contractual relationships between consumers and businesses, including the conditions for energy supply (El Código Civil de Cataluña -Ley 3/2010-, que regula las relaciones contractuales entre consumidores y empresas, incluyendo las condiciones de suministro energético).

<sup>209</sup> Please see more information here <https://www.sindic.cat/es/page.asp?id=65>. If a resident wants to complain against an energy company in Catalonia, they can directly submit a complaint to the Catalan ombuds, bypassing the company itself.

<sup>210</sup> Specifically please see the Pact signed between Catalonia (Autonomous Community) and the Endesa energy company, information here [https://ajuntament.barcelona.cat/serveissocials/es/noticia/acuerdo-para-erradicar-la-pobreza-energetica\\_1054055](https://ajuntament.barcelona.cat/serveissocials/es/noticia/acuerdo-para-erradicar-la-pobreza-energetica_1054055) and <https://pobresaenergetica.es/es/2021/04/12/las-5-claves-del-convenio-de-endesa/> here

Moreover, the following key recommendations at the **local levels of government** have emerged:

***Increasing personnel in local governments.*** One of the key recommendations is to augment staffing within social services and the fair energy transition departments of public authorities, thereby enhancing organizational capacity and operational effectiveness. This encompasses both technical and non-technical positions such as engineers, project managers, energy analysts, urban planners, specialists in citizen and stakeholder engagement, energy advisors, communications officers, public building experts, and social housing specialists. A study from Energy Cities forecasts the need for approximately 2.5 additional full-time positions per municipality each year over the next nine years, with the requirement being three times greater for smaller cities.

***Training for professionals and general and vulnerable populations.*** Concurrently, participants highlighted the paramount significance of two complementary strategies: firstly, implementing targeted professional development initiatives to enhance the capabilities of existing personnel, and secondly, launching comprehensive public education programs to improve societal understanding of energy markets, policy mechanisms, and related transformative measures.

***Collaborative urban strategy and plan.*** Effective collaborative governance at the city level is necessary for the long-term alleviation of energy poverty. Political commitment was deemed essential by most interviewees, but the fieldwork shows that establishing collaborative strategies involving committed civil servants and external actors can be advantageous in overcoming political short-termism. It also emerged that it is essential for projects similar to the Technical Assistance initiative to engage all relevant city council staff from the project's inception. In doing so, it would be easier to effectively break down institutional barriers and promote collaborative cross-departmental approaches. Lastly, it was noted that external projects can sometimes act as catalysts and create momentum for action.

# Annexes

## Annex I. Design of the action

Information about the action	
<p><b>Objective</b></p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> <li>• Objective</li> <li>• Area of contribution</li> <li>• Explicit focus</li> </ul>	<p>The initiative aims to assist in tackling energy poverty by providing <b>Tailored Expert Support</b> and <b>Resource Provision</b>. The assistance might be at the 1) Diagnosis, 2) Planning or 3) Implementation phases. In Spain, the majority of the cases undertook a diagnosis phase, and some of them focused on the planning phase (Murcia and Valencia, Getafe). On paper, there are no TAs in Spain that could carry out the implementation phase due to political, procedure or time/priority reasons.<sup>211</sup></p> <p>However, there is a commitment to do so or to incorporate such practices in the future such as Valencia. In Murcia, the city councils are incorporating such measures and the TAs assisted had a crucial role in it.</p> <p>There is no standardised approach to the Technical Assistance programme across different municipalities. According to the interviewees, the EPAH prompted local Public Administrations (PAs) to identify specific challenges to provide the relevant expertise. However, when municipalities were uncertain about how to proceed, EPAH offered targeted support and "inspirational case studies".</p> <p>The organisation deliberately chose the term "inspirational" over "best case studies" to acknowledge the complex, multidimensional nature of energy poverty. Alternatively, EPAH frequently recommended the diagnostic stage—a systematic assessment of the current situation—which is often a crucial preliminary step for developing more sophisticated initiatives, such as establishing energy communities (sources: interviewees).</p>
<p><b>Background</b></p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> <li>• Starting date</li> </ul>	<p>The technical assistance (TA) is organised by The Energy Poverty Advisory Hub (EPAH) across the EU. The antenna</p>

<sup>211</sup> Please see more information here <https://energy-poverty.ec.europa.eu/our-work/technical-assistance>

<ul style="list-style-type: none"> <li>• Origin and development</li> <li>• Rationale</li> <li>• Stakeholders involved</li> </ul>	<p>for Spain is the organisation Ecoserveis. It is also an organisation part of the core of the EPAH.<sup>212</sup></p> <p>The work of the EPAH is organised in working Packages. as typical for EU projects, including research and policymaking. The EPAH come up with the idea of Technical assistance to directly provide tools to local administrations and test those tools. It is WP called technical assistance, which comprises the initiative and the training courses.</p>
<p><b>Timeline</b></p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> <li>• Timeline and Duration</li> <li>• Milestones, reviews, and amendments planned</li> </ul>	<p>Year 2022 and 2023 <sup>213</sup></p> <p>Max duration: 9 months</p> <p>Call 2022, realised in 2024.</p> <p>Public authorities: Murcia (Murcia autonomous community), Lorca (Murcia Autonomous Community), Getafe (Madrid Autonomous Community), Sitges (Catalonia), Montsià region (Catalonia), Cadiz (Andalusia), Cerdanya region (Catalonia).</p> <p>Call 2023 realised in 2024.</p> <p>Public authorities: Baix Empordà council (Catalonia), Gironès region (Catalonia), La Palma island (Canary Island), Les Garrigues region (Catalonia), Pallars Jussà region (Catalonia), Pamplona, Valencia (Valencia Autonomous Community).</p>
<p><b>Scope and development</b></p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> <li>• Activities included</li> <li>• Planned developments, phases, repetitions or other</li> <li>• Project continuation in the future</li> </ul>	<p><b>Tailored Expert Support:</b> Each selected municipality or organization gets matched with relevant experts based on their specific needs and geographic areas. These experts assist in planning, executing, and monitoring energy poverty reduction initiatives.</p> <p><b>Resource Provision:</b> The program offers various resources, including policy guidance, technical tools, and case studies from other municipalities, to help local governments effectively address energy poverty in their regions.</p> <p>The EPAH assistance will continue for the next 4 years,</p>
<p><b>Internal governance</b></p>	<p>EPAH is an initiative of the Directorate-General for Energy (DG ENER). Among their working packages, there is the</p>

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<p><i>Please include:</i></p> <ul style="list-style-type: none"> <li>• Legal basis</li> <li>• Bodies/units responsible for management, implementation, monitoring</li> <li>• Organigram (please attach if available)</li> <li>• Persons working on the action</li> </ul>	<p>technical assistance action targeting the entire EU. The action was developed internally. A call for the application was launched in 2022 and 2023.</p> <p>The call was made for local public administrations which applied with a co-applicant. In many cases, other local stakeholders were involved later at the beginning of the process. This institutional scaffolding was supported by a local expert designated by the EPAH. EPAH was supervising each local TA.</p> <p>Additional information comes from the fieldwork.</p> <p>The PAs are devoting a specific number of working hours per person that they already specified in the application. The application is very “light”, though. Applicants were asked which kind of problem they have, and why that is a problem in their region. As well, they were also asked to share existing information on the city or particular districts, if they had, of the local problems on social (energy) vulnerabilities.</p> <p>The evaluation was conducted that the quality and diversity of the applications were criteria to select as they could not fund all of them; that is the limit was the financial constraints. It was not clear whether some PAs were not selected solely due to the redundancy of the problem in place (e.g.: too many TAs for energy communities in one country) or because of redundancy AND missing crucial information. In the first round, many PAs, that had their application rejected due to missing information, applied successfully in the second round, including such missing information.</p> <p>After a PA was selected, an expert was designated. At the early stage of the works, the local TAs were asked to define the realistic objectives, based on the general aims, people &amp; stakeholders involved and data present, if any. As such, the real project to carry out during the technical assistance is decided after winning the bid considering the actual resources, data, time and realistic objectives.</p> <p>During the action each local TA (PA + co-applicant + local expert) is reporting to EPAH: one mid-report and final report of the activity. Informally, the EPAH reached out to the local TAs frequently (at least monthly).</p> <p>There are over 10 people at the EPAH who are working on the action. At the EU level. There are over 100 people</p>
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	for the whole technical assistance across the EU including local experts.
<p><b>External governance</b></p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> <li>• Reporting obligations</li> <li>• Accountability</li> <li>• Partnerships</li> <li>• Collaborations</li> </ul>	<p>The technical assistance is part of the EPAH, which is accountable to the EC, specifically DG ENERGY.</p> <p>EPAH is reporting directly to the European Commission for this initiative.</p>
<p><b>Funds</b></p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> <li>• Budget available for the action</li> <li>• Funding sources, (including administrative level)</li> <li>• Information on fundamental rights conditionalities if any</li> </ul>	<p>The total budget is not available. The fund entirely comes from the EC sources. The budget went solely to the local experts, while the Public Administration and the co-applicant did not receive or provide any financial resources but they provided human labour and access to the data, if present.</p> <p>The fund for each local action was the same for every local TA.</p> <p>No explicit relevant conditionalities to the fundamental rights to provide funds or in its official framework.</p>