Energy poverty in Italy 2024[1]

Developments in energy demand, prices and expenditure – In 2024, according to the aggregate estimates in the latest *National Energy Situation in 2024* report (in Italian), Italian households' domestic[2] energy expenditure fell by just under 15 percent compared with the previous year. In particular, spending on electricity purchases declined by 21.3 percent, while spending on gas fell by 10.7 percent (Table 1). Since quantities consumed increased for both energy sources (+3.9 and +2.6 percent, respectively), the reduction is attributable to a substantial decrease in prices[3].

Table 1

Trends in quantities, expenditure and prices of electricity and gas

(year-on-year percentage changes, 2024 vs. 2023)

	electricity	natural gas
quanties	+3,9	+2,6
expenditure	-21,3	-10,7
implicit prices*	-25,2	-13,2

Source: MASE, National Energy Situation in 2024, for quantities and expenditure of electricity and gas. Implicit prices are approximated by the difference between expenditure and quantities.

As in previous years, winter weather conditions represented one of the main determinants of heating expenditure (about half of domestic energy expenditure is concentrated between November and March). According to ISAC CNR data, 2024 was

[1] Authored by Ivan Faiella, Luciano Lavecchia, Raffaele Miniaci, and Paola Valbonesi. The opinions expressed are personal and do not in any way reflect the institutions to which they belong. For citation: OIPE (2025), Energy Poverty in Italy in 2024, Italian Observatory on Energy Poverty, Levi-Cases Center, University of Padua. Thanks to Ilaria Arigoni, Andrea Cutillo, Patrizio Pagano, Letizia Valdoni, and the Banco dell'Energia Foundation for their support.

[2] Household energy expenditure includes electricity and heating purchases. Fuels used for private transportation (cars, motorcycles, etc.) are excluded from the analysis.

[3] These price dynamics, implicitly derived from aggregate spending and quantity trends, are not directly comparable with those found in Eurostat's average unit costs for electricity and gas. Spending trends also do not fully align with the information available from the Istat Household Expenditure Survey.

characterized by a winter with milder temperatures than the historical comparison period (1991–2020), particularly in the Alpine area and in southern regions (excluding the Islands).

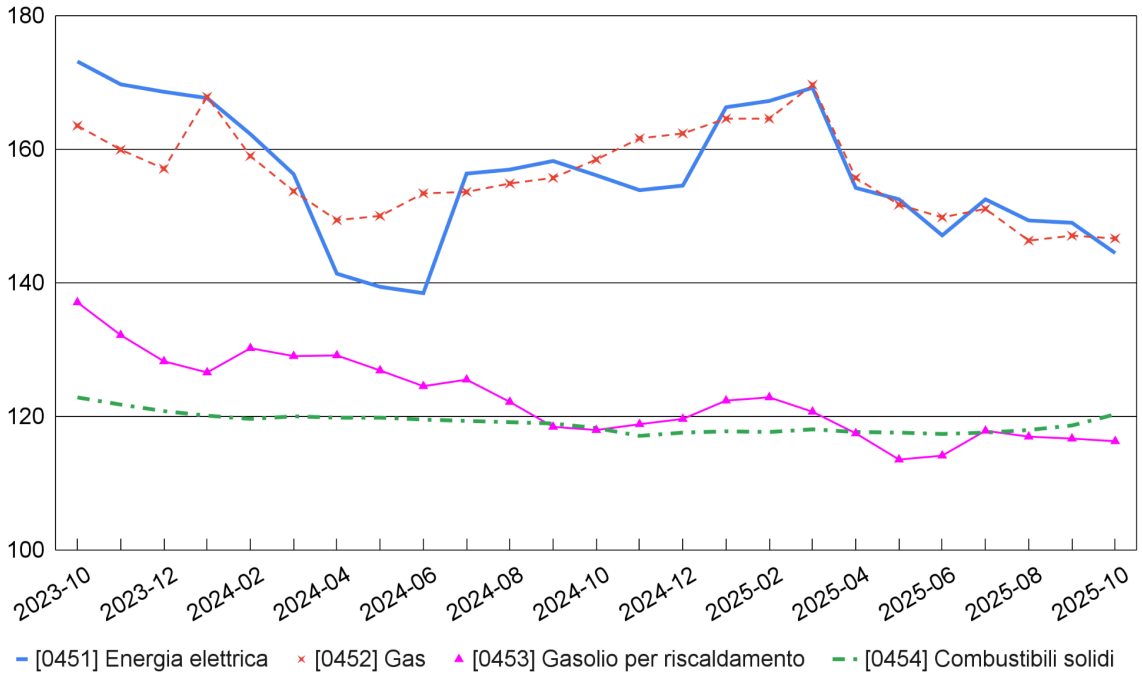
With regard to price trends, Figure 1 shows the relevant components of the consumer price index for the whole population (NIC), with June 2021 as the base period, the last month before the start of the 2021–22 energy shock. At the end of 2024, electricity and gas prices were still 60 percent higher than at the beginning of the upward phase starting in July 2021; prices of solid and liquid fuels were about 20 percent higher. In October 2025, electricity and gas prices decelerated, but remained around 45 percent above June 2021 levels.

Looking at distributional effects (fig. 2), the share of domestic energy expenditure across household expenditure deciles[4] is essentially unchanged compared with 2023: the poorest households (those in the first deciles of the expenditure distribution) continue to allocate 8–9 percent of their total expenditure to energy goods, compared with 3–4 percent among the wealthiest households.

Figure 1

Trends in final prices of domestic energy carriers

(2021-06=100)



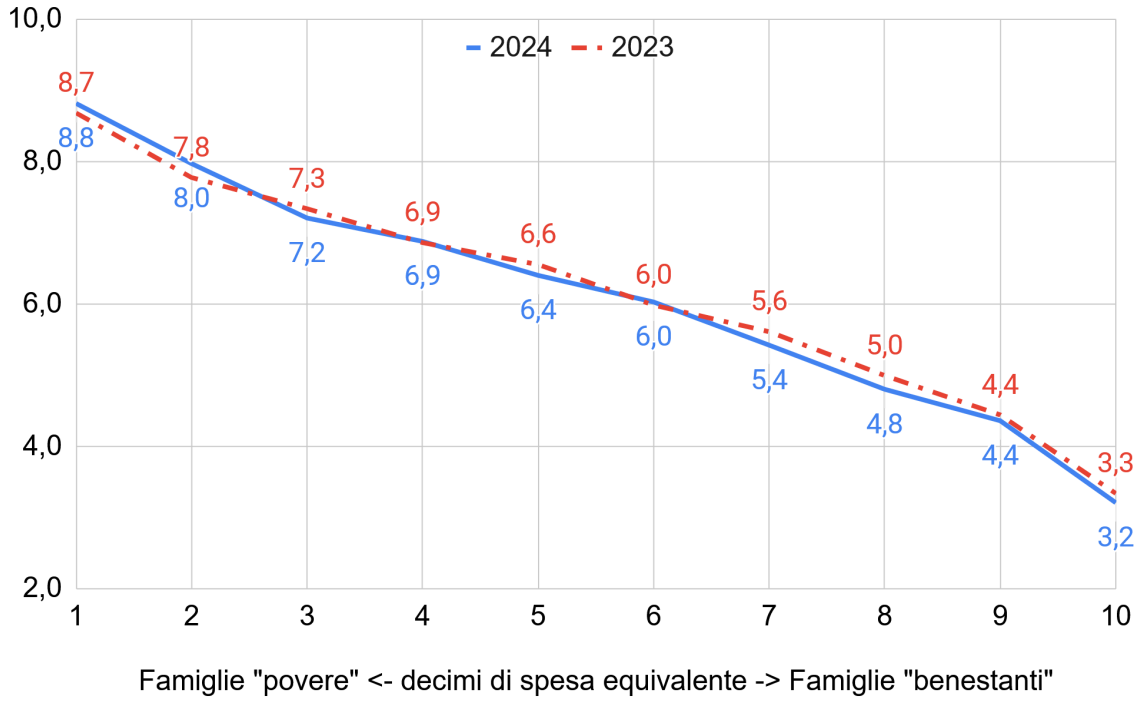
Source: Istat, prezzi al consumo per l'intera collettività (NIC).

[4] To calculate the tenths, the equivalent monthly expenditure is taken (calculated using the Carbonaro equivalence scale) and, once the families have been ordered by this value, they are divided into ten groups of equal size.

Figure 2

Incidence of energy expenditure per tenth of equivalent expenditure

(percentage values)



Source: Our calculations on the Household Expenditure Survey (2023 and 2024), Istat.

Energy poverty in 2024 – In 2024, according to the indicator used by OIPE[5], 2.4 million households were in energy poverty, equal to 9.1 percent of the total (fig. 3). Although this represents the historical maximum of the series, the figure is broadly stable compared with the previous year, particularly when considering the confidence interval of the estimates ([8.4; 9.7])[6]. The increase is mainly due to a larger number of households with an energy expenditure share above the norm (identified as twice the average value[7]).

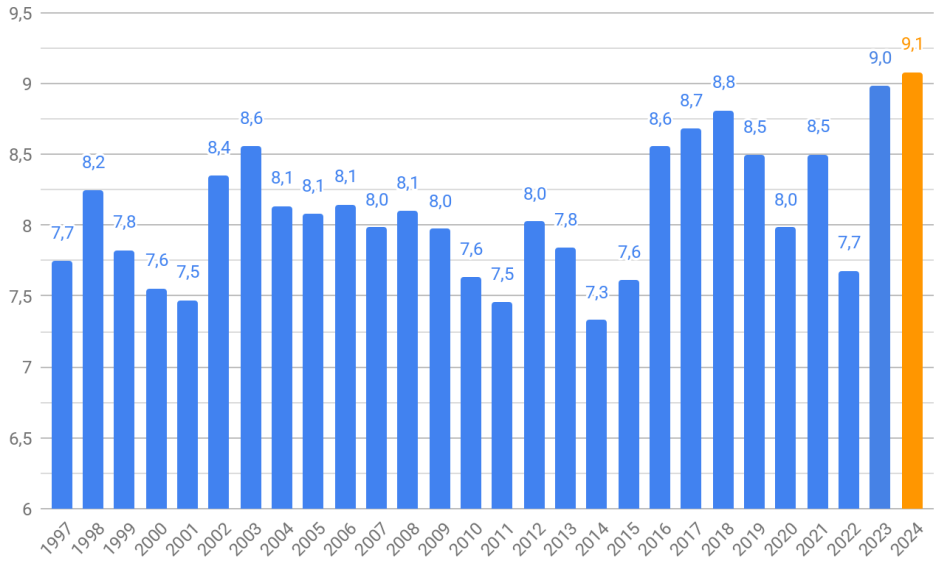
[5] For the methodology, see Faiella and Lavecchia (2021), Energy poverty. How can you fight it, if you can't measure it?, Energy and buildings, 233. The microdata can be freely downloaded from the Istat website while the codes for estimating the indicator are available, in R and Stata formats, on the Observatory website (link).

[6] The variability estimate only roughly takes into account the survey's sampling design, as it does not have all the necessary information. Specifically, the method presented is a linear approximation of the variance in a two-stage design, assuming that all municipalities with a population greater than 50,000 inhabitants are self-representative (i.e., always included in the sample). This method does not consider the variability in the reference thresholds; similar evaluations regarding the variability of relative poverty indicators indicate that this approximation is also acceptable for estimates on regional domains.

[7] Per maggiori informazioni sulla metodologia di stima, cfr. la sezione "Come si misura la povertà energetica" del sito dell'OIPE. For more information on the estimation methodology, see the "How is energy poverty measured" section of the OIPE website.

Figure 3

Energy poverty in Italy
(percentage values)



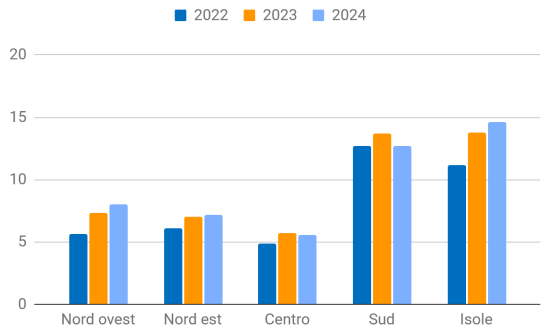
Source: Our own calculations based on the Household Consumption Survey (1997-2013) and the Household Expenditure Survey (2014-2024), Istat. The trend over time should be interpreted with caution given the methodological changes that have occurred over the years (e.g., changes in collection methods and classifications adopted).

At the territorial level (fig. 4a), the share of households in energy poverty increases in the Islands (+0.8 percentage points) and in the North-West (+0.7 p.p.), while it decreases by almost one percentage point in the South and remains unchanged in the Centre and North-East .

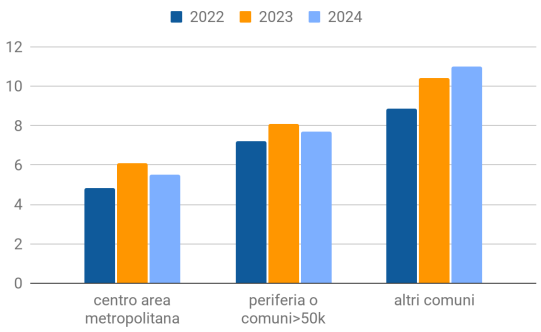
Figure 4

Energy poverty in Italy
(percentage values)

a) by territorial division



b) by type of municipality



Source: our calculations on the Household Expenditure Survey (2022-2024), Istat.

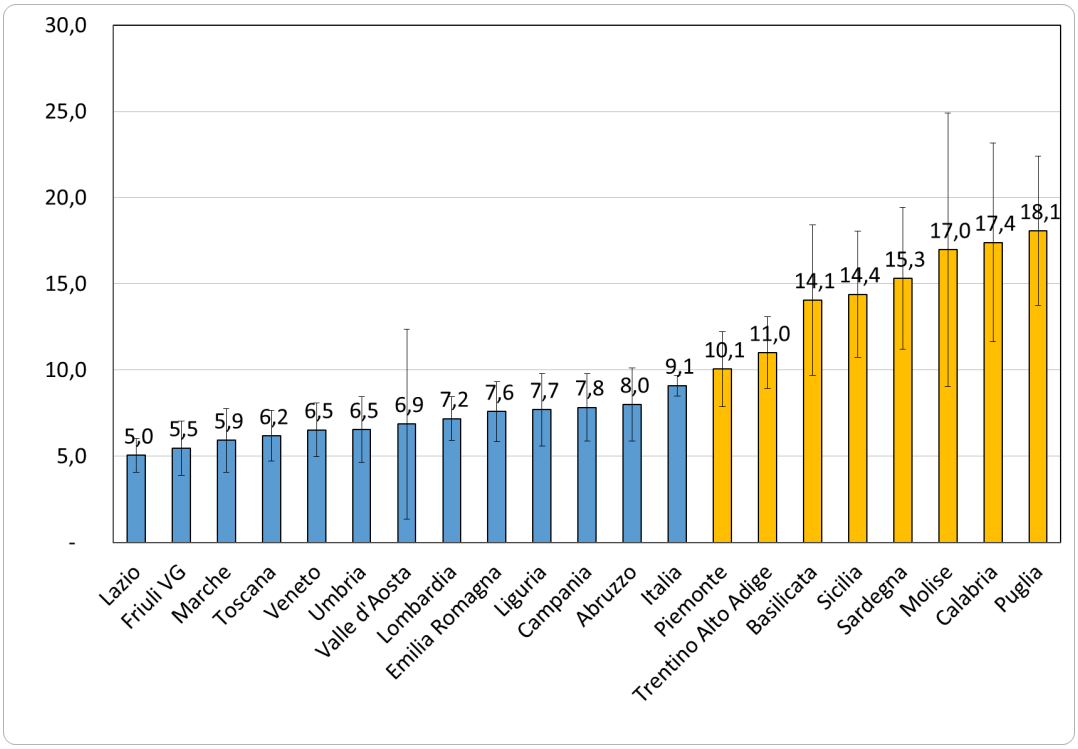
A greater concentration of the phenomenon in suburban areas and small municipalities is confirmed (fig. 4b).

At the regional level (fig. 5), the percentage of households in energy poverty ranges from 5.0 percent in Lazio (confidence interval [4.1; 6.0]) to 18.1 percent in Apulia (confidence interval [13.7; 22.4]). Sardinia records the largest increase (+2.8 p.p.), followed by Piedmont (+2.3 p.p.) and Umbria (+1.6 p.p.). The region with the largest reduction is Basilicata (−3.7 p.p.), followed by Campania (−1.8 p.p.) and Calabria (−1.7 p.p.). These comparisons should be treated with caution due to the high variability of the estimator when applied to limited sample sizes.

Figure 5

Energy poverty by region in 2024

(percentage values)



Source: our calculations on the Household Expenditure Survey (year 2024), Istat.

To assess whether these variations suggest any form of convergence, one can analyze how the difference between the regional share of households in energy poverty and the national average has changed. Comparing the last two three-year periods (2019–2021 and 2022–2024), heterogeneous[8] dynamics emerge (fig. 6). Some regions reduce their gap with the national average starting from higher levels (Abruzzo and Basilicata), others from lower levels (Lombardy).

In other regions, however, the gap widens (starting from lower levels in the case of Marche and Lazio, and from higher levels in the case of Molise and Apulia). The wide

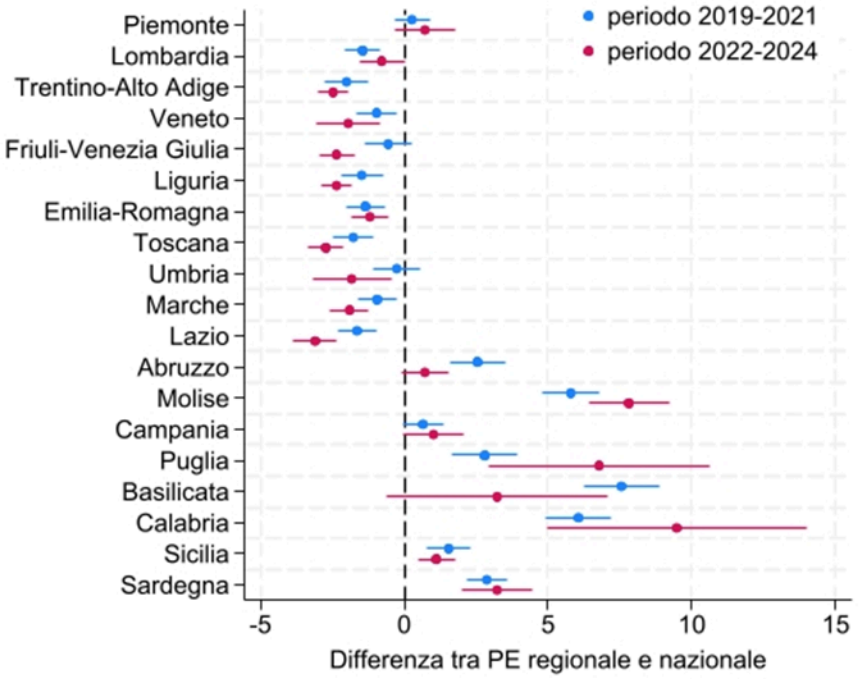
[8] The analysis is based on a series of linear regressions on aggregated regional data that estimate how regional effects over time influence the gap between the share of households in PE at the regional level and the national value. The ranges of the estimates are constructed using robust standard errors.

confidence intervals nonetheless highlight the limits of the analysis, which would require larger sample sizes and auxiliary regional-level information.

Figure 6

Differences between regional and national energy poverty

(percentage values)



Source: Our calculations based on the Household Expenditure Survey (2019-2024), Istat.

Children and foreign households – The share of households in energy poverty with children, which increased compared with 2023 (+0.8 p.p.), stands at a higher level than the overall average; the incidence remains more concentrated among households whose reference person is foreign. More than one quarter of households in energy poverty include at least one child, corresponding to 1.1 million exposed minors (fig. 7a), a 5 percent reduction compared with 2023.

Households in energy poverty with children account for 11.4 percent of the total, higher than the overall average (9.1 percent; fig. 7b). Compared with 2023, there is a significant reduction in the number of minors whose reference person[9] is foreign (−12.5 percent), compared with a more limited reduction among minors in households with an Italian reference person (−1.1 percent).

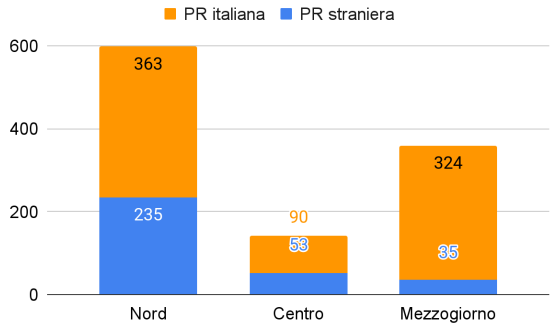
At the territorial level, the total number of minors involved decreases in the South (−22 percent) and in the Centre (−4 percent), while increasing in the North (+9 percent). Overall, the incidence of the phenomenon is higher among "foreign" households, both with children (2.5 times higher) and without children (2.8 times higher).

[9] La persona di riferimento è di norma l'intestatario della scheda di famiglia in Anagrafe cui è stata inviata la lettera dell'Istat.

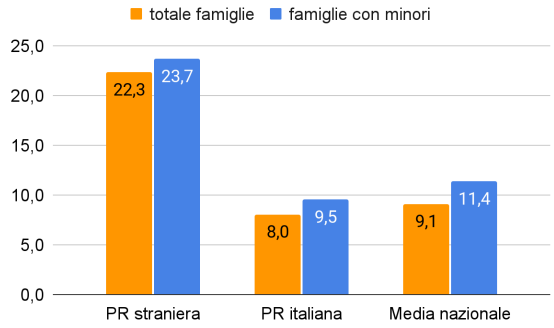
Figure 7

Children and energy poverty in 2024

a) Number of children in energy poverty by citizenship of the reference person and distribution
(thousands of units)



b) fFamilies in energy poverty by citizenship of the contact person
(percentage share of families)



Source: Our calculations based on the Household Expenditure Survey (2024), Istat.

Policies to combat energy poverty **–** From 2021 to today, social bonuses (electricity and gas), the main instruments to combat energy poverty in Italy, have undergone numerous changes both in access conditions (shift to an automatic system and modification of ISEE thresholds) and in amounts, generating several discontinuities.

In 2024, with the elimination of the supplementary component introduced in 2022 and the return to the ordinary, inflation-indexed access threshold of €9,530, the bonuses reverted to an "ordinary" regime, also eliminating the graduality of benefit provision (80 percent) beyond the €8,625 threshold.

Between 2021 and 2024, the introduction of automatic recognition and the raising of access thresholds led to a significant increase in the number of potential beneficiaries and, consequently, in bonuses paid, rising from 1.35 million in 2020 to a peak of 7.58 million in 2023, before declining to 4.5 million in 2024 (ARERA, 2025). The lowering of the threshold in 2024 (from €15,000 to €9,350) resulted in a sharp reduction in the number of bonuses (−40.5 percent year-on-year) and in amounts disbursed (−78.8 percent, from €2.143 billion to €453 million; ARERA, 2025). Although official information on the number of beneficiary households[10] is not available, recent analysis (Tanda e Segre, 2025) suggests that between 2021 and 2023 these increased from 2.5 to 4.5 million.

[10] The gas bonus requires a connection to the grid, a requirement common in most municipalities in the country, except for several parts of Sardinia and mountainous areas. Households with central heating cannot be covered by the automatic mechanism and must apply specifically.

Box: Changes in social bonuses over time

- 2009–2021: application-based mechanism; threshold lower than current (€7,500 until 2016, then indexed to inflation up to €8,265).
- From 2021: automatic recognition (no application required, only ISEE request); threshold set at €8,625.
- 2022–2023: extraordinary measures in response to high energy prices; temporary expansion of eligibility (ISEE up to €12,000 from Q2 2022 and €15,000 in 2023); introduction of a supplementary component and benefit graduality.
- 2024: elimination of supplementary components and graduality; lowering of the ordinary threshold to €9,530.
- 2025: ordinary threshold unchanged (€9,530) and introduction of an extraordinary €200 bonus for households with ISEE up to €25,000.

With regard to the effectiveness of bonuses in reducing energy poverty, there is limited overlap between the electricity bonus and vulnerable households: in 2024, fewer than one fifth of households in energy poverty benefited from the electricity bonus. Tanda e Segre (2025) also shows that raising the ISEE threshold did not increase take-up among the poorest fifth of households, but rather among the second and third quintiles. Simulations suggest that only one eighth of households in energy poverty exited this condition thanks to bonuses. These findings point to the need for more targeted interventions[11].

As OIPE, we have long proposed unifying the electricity and gas social bonuses into a single energy bonus, paid directly into bank accounts, modeled on the universal child allowance, with amounts graduated by ISEE level, household size and climate zone.

OIPE also recommends a focus on social housing, in particular public residential housing (ERP), which hosts over 690,000 households (1.5 million people), one fifth of whom are in energy poverty. ERP currently benefits from subsidized financing under the PNRR (€1.381 billion), a modest amount compared with the over €128 billion allocated to the superbonus.

Within this framework, between July and November of this year OIPE conducted a survey[12] on two samples of households residing in ERP, in collaboration with ACER Reggio Emilia and Arca Capitanata (Foggia). The survey aims to assess housing

[11] An analysis is underway in collaboration with ARERA on the impact of bonuses on recipients' behavior in the 2022-2024 period.

[12] The survey was funded by the NextGenerationEU, GRINS - Growing Resilient, INclusive and Sustainable project (GRINS PE00000018 - CUP D13C22002160001). Once the data collected has been analyzed and any improvements made, the questionnaire will be available for distribution to other ERP organizations and for developing analyses useful for defining policies to combat PE in such vulnerable contexts.

conditions, identify the impact of energy costs—especially electricity and heating—and evaluate perceived housing comfort. Preliminary analysis reveals strong heterogeneity among households and highlights the need for granular information to design effective measures.

Milan, December 17th, 2025

About us – The Italian Observatory on Energy Poverty (OIPE) is an informal network of researchers and experts from universities, research centers and Italian and foreign institutions interested in energy poverty. Founded in 2019, it is chaired by Paola Valbonesi (University of Padua), supported by a Steering Committee composed of Luciano Lavecchia (Bank of Italy) and Raffaele Miniaci (University of Brescia). OIPE conducts research and disseminates accurate information on energy poverty. OIPE is part of the "Giorgio Levi Cases Center for Energy Economics and Technology Studies" at the University of Padua.

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