

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

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1. EXECUTIVE SUMMARY

The report assesses Greece's Green Transition strategy, particularly through the Exoikonomo 2023 program. Greece's Green Transition significantly impacts its economy and environment, focusing on renewable energy expansion, enhanced energy efficiency and greenhouse gas emissions reduction. Main goals include a 55% emissions cut and 82% renewable electricity by 2030, supported by major investments in clean energy and sustainable infrastructure. These measures aim to combat energy poverty, create green jobs, and phase out lignite by 2028, fostering a carbon-neutral future.

Exoikonomo 2023 is a key programme within that framework, aimed at improving the energy efficiency of residential buildings. It provides grants in the form of subsidies and interest-free loans for low-income households to fund upgrades like insulation, window replacements, and efficient heating systems. Beneficiaries are selected based on income and property criteria, with funding covering up to 75% of costs. The programme aligns with Greece's climate goals and strategy to combat energy poverty, as outlined in the country's NECP, which include reducing energy consumption and carbon emissions while lowering household energy expenses.

While Exoikonomo has improved energy efficiency and enjoys relevant public support, critical issues hinder its impact, particularly regarding equitable access, effectiveness, and social inclusivity, while there is a lack of publicly available data on its performance and impact, which hinders a meaningful assessment of its implementation.

A key finding of the report is the difficulty faced by Exoikonomo in consistently engaging low-income and vulnerable households, despite their declared prioritisation. Many barriers prevent these groups from benefiting fully, as the application process requires digital skills and is relatively complex in its bureaucratic aspects. Limited outreach efforts fail to adequately inform these groups, and technical consultants face delays in communication with key implementing bodies that further restrict accessibility. As a result, numerous low-income and vulnerable households could potentially be excluded or struggle with programme requirements.

More importantly, significant financial barriers also hinder access to the programme. The high upfront costs discourage low-income households, despite the availability of subsidies and interest-free loans, as banks appear to obstruct access to these loans. Additionally, the programme's scoring system, designed to prioritise those in need, is weakened by practical challenges, while inconsistent funding disrupts planning and reduces stability. Moreover, reported high dropout rates among approved applicants in

previous iterations of the programme seem to reflect frustration and impasses with delays and financial burdens.

According to input from interviewees, the programme's impact monitoring primarily focuses on technical outcomes, such as energy savings, while overlooking key factors like improvements in living conditions, poverty reduction, and housing affordability. This lack of comprehensive social impact assessment raises concerns about Exoikonomo's effectiveness in addressing energy poverty. Impact assessments of fundamental and social rights seem to be lacking as well. Furthermore, the absence of a formal complaints' mechanism exposes gaps in accountability, while interviewees noted that Exoikonomo's implementation has contributed to rising housing and construction-related costs, including increases in rents, worsening Greece's housing crisis.

Stakeholders' engagement in Exoikonomo is widely informal, lacking a structured platform for feedback and consultation. Interviewees expressed the need for a more standardised process and broader representation of key stakeholders in consultations, including consumer unions and local civil society groups, to ensure that meaningful feedback is generated, and diverse needs are considered. Further recommendations included streamlining the application process, simplifying documentation, and strengthening communication between consultants and programme administrators. For example, establishing one-stop information hubs at the municipal level, or advisory centres at the neighbourhood level could enhance accessibility for vulnerable populations, particularly those with limited digital skills.

The report contributes to the reflection on the challenges of achieving a 'just transition' in Greece, highlighting a troubling gap between Exoikonomo's official inclusive vision and its practical implementation. The barriers faced by low-income households highlight the difficulty of creating an equitable energy transition. While Exoikonomo has made strides in energy efficiency and generally garnered public approval, its current structure risks exacerbating existing inequalities, potentially leaving vulnerable groups further marginalised in Greece's shift to cleaner energy.

In conclusion, the research highlights that to make Exoikonomo and similar programmes effective in the context of a just transition, substantial reforms and adjustments are needed. Key areas for improvement include ensuring the meaningful inclusion/participation of low-income households, enhancing outreach to vulnerable groups, simplifying the application process, enhancing social impact monitoring, and strengthening transparency and accountability. Overall, the Exoikonomo 2023 findings show that a technically successful, well-funded and popular programme can still fall short if it lacks an inclusive, equity-focused approach that ensures accessible benefits for all.

2. Reaching climate targets through energy efficiency

Greece's climate and energy plans are defined by the National Energy and Climate Plan (NECP), approved With Decision No. 4/23.12.2019.¹ NECP outlines the country's roadmap for achieving climate and energy transition goals for 2021-2030 in accordance with EU policy priorities. Key targets include reducing greenhouse gas emissions, increasing renewable energy use, enhancing energy efficiency, and phasing out lignite for electricity generation by 2028.

The National Energy and Climate Plan was updated in 2023 (it is characterised as the 2023 Preliminary Draft NECP)² and a new NECP was presented in mid October 2023⁴. The latter has not yet been published in the Official Gazette like its 2019 predecessor.

The updated 2023 NECP draft retains core goals from 2019, such as promoting renewable energy, reducing greenhouse gas emissions, combating energy poverty and enhancing energy efficiency across all sectors. However, it introduces more ambitious targets, increasing the greenhouse gas (GHG) reduction target to 55% by 2030 compared to 1990 levels, up from 43% in the 2019 NECP, and raising renewable energy's share in total consumption to 44% (up from 35% in the 2019 NECP). Additionally, renewable electricity production is targeted to reach 82%, compared to 67% in the 2019 NECP.⁵

¹ Greece, Governing Council of Economic Policy (Διοικητικό Συμβούλιο Οικονομικής Πολιτικής), [Ratification of the National Energy and Climate Plan](#) (Επικύρωση του Εθνικού Σχεδίου για την Ενέργεια και το Κλίμα), (Ο. Γ. Β' 4893/ 31-12-2019), 31 December 2019.

² Greece (2023), Ministry of the Environment and Energy, [National Energy and Climate Plan-Preliminary Draft Revised Version](#), Athens, December 2023

⁴ Note that this is merely a brief presentation and not the finalised full NECP of 2024, that remains to be published; for more information visit Ministry of environment and Energy official website available at: National Plan for Energy and Climate. (Εθνικό Σχέδιο για την Ενέργεια και το Κλίμα)

⁵ European Commission (2023), Assessment of the draft updated National Energy and Climate Plan of Greece, SWD(2023) 929 final , Brussels, 18.12.2023 the brief and EU Commission Factsheet. For more information visit the official website on :

Moreover the finalised 2024 NECP provides more concrete targets with regards to improving energy efficiency, estimating an annual renovation rate of residential buildings during the period 2025-2030 of 68,000 renovations, dropping to 64,000 for 2031-20240, and then rising again to 83,000 for 2041-2050.⁶

The Ministry of Environment and Energy coordinates and oversees the implementation of the NECP, while the Governmental Committee on Energy and Climate (established by PYS 31/30.09.2019)⁷ monitors progress. An integrated Monitoring Mechanism ensures the continuous evaluation and adaptation of policies to meet targets through the operation of the NECP Monitoring Working Group.

The Just Transition strategy in Greece focuses especially on regions heavily reliant on lignite (Western Macedonia and Megalopolis), aiming at a full withdrawal of lignite units by 2028. The ‘Master Plan – A Just Development Transition Plan’⁸ was prepared and presented in 2020 and outlines the steps towards the post-lignite era, including measures and provisions on, among others, economic restructuring, securing jobs and creating new ones, support of agricultural production and tourism, and employee’s retraining. Support from the European Just Transition Fund also plays an important role in terms of increased inflow of funds to support relevant policies, along with the European Bank and other EU programs, such as Horizon, Connecting Europe Facility and Invest EU. Engagement with local communities through consultations with local bodies

https://commission.europa.eu/https://commission.europa.eu/document/download/526112ad-79d5-4c55-8a87-0456cf49d318_en?filename=Factsheet_Commissions_assessment_NECP_Greece_2023.pdf

⁶ The Ministry of Environment and Energy (2024), [National Plan for Energy and Climate](#) Preliminary Draft Revised Version (Εθνικό Σχέδιο για την Ενέργεια και το Κλίμα, Αναθεωρημένη έκδοση), Athens, August 2024 p. 150-151.

⁷ Greece (2019), Ministerial Council Decision, *Establishment, Composition, and Operation of the Interministerial Committee for Energy and Climate* (Σύσταση, συγκρότηση και λειτουργία της Διπυργικής Επιτροπής για την Ενέργεια και το Κλίμα) A 147/2019, Government Gazette A, 1 October 2019.

⁸ Ministry of Environment and Energy, Steering Committee of the SOMS Updated Fairness Master Plan Development Transition of the lignite areas (Επικαιροποιημένο Master Plan Δίκαιης Αναπτυξιακής Μετάβασης των λιγνιτικών περιοχών), Athens 11 December 2020.

involved (regions, municipalities, chambers) is identified as a necessary condition for the successful conclusion of the project. Further updates of the Plan are not available.

Relevant legislation (e.g., Law 4872/2021, Government Gazette A' 247/10.12.2021)⁹ promotes economic diversification and social support in affected regions (Western Macedonia and Megalopolis), while plans to combat energy poverty include improving social tariff and exploring new aid tools, such as 'energy cards' for vulnerable households (NECP 2019, chapter 3.6.4.1; NECP 2023, chapter 3.4.4).¹⁰ 'Energy cards', as further outlined in The Action Plan to Combat Energy Poverty, are a tool designed to allow vulnerable households to access specific quantities of energy products (e.g., heating fuels) at subsidized prices to ensure minimum thermal comfort. The programme is tailored for emergencies, such as severe economic downturns or extreme weather conditions, and varies by climate zone. Beneficiaries can only use the cards for pre-determined energy products, with no option to convert their value into cash or alternative energy sources.¹¹

Among the challenges that remain are the lack of clear definitions and detailed measures for vulnerable groups, an overall neglect of the social dimension, and the lack of a clear timetable for the retirement of lignite units.

As supported by interviews with different stakeholders, Greece's national climate and energy plans follow and/or are directly linked to the EU's Green Transition and its targets to achieve energy efficiency and conservation goals for up to 2050. (In any case, most of the interviewees did not address effects of national measures or project implementation more broadly speaking and chose to focus more specifically on Exoikonomo, hence we did not generate substantial input in this area).

⁹ Greece (2021), Fair Development Transition, Regulation of Specific Issues Related to the Phasing Out of Lignite, and Other Urgent Provisions (Δίκαιη Αναπτυξιακή Μετάβαση, ρύθμιση ειδικότερων ζητημάτων απολιγνιτοποίησης και άλλες επείγουσες διατάξεις) Law No. 4872 (OG A' 247/10-12-2021)), 10 December 2021.

¹⁰ Greece, Governing Council of Economic Policy (Διοικητικό Συμβούλιο Οικονομικής Πολιτικής), Ratification of the National Energy and Climate Plan (Επικύρωση του Εθνικού Σχεδίου για την Ενέργεια και το Κλίμα), (Ο. Γ. Β' 4893/ 31-12-2019), 31 December 2019; see p. 55662; NECP 2023, p. 224..

¹¹ Greece (2021), The Action Plan to Combat Energy Poverty, (Σχέδιο Δράσης για την Καταπολέμηση της Ενεργειακής Ένδειας) August 2021 Version: v6 available at The Action Plan for Energy Poverty., p. 32.

2.1 Energy efficiency

A big portion of Greece's building stock (more than half) was constructed prior to the 1980s, with 60% of the country's building stock belonging to the lowest energy classes (E-G), thus making their renovation crucial to address modern standards of energy efficiency and structural integrity.¹² At the same time, buildings account for approximately 40% of the country's total energy consumption, a figure that highlights the potential impact of energy-saving upgrades in this sector.¹³ Additionally, Greece faces high levels of energy poverty,¹⁴ underscoring the urgency for sustainable renovations that could reduce energy costs and improve living conditions.

In this context, Greece has presented a series of energy efficiency initiatives aimed at reducing greenhouse gas emissions and addressing energy poverty, which, however, do not seem to form part of a cohesive national strategy. Key programmes include: 'SAVE 2023' (ΕΞΟΙΚΟΝΟΜΩ 2023), which had an initial €300 million budget (with €60 million for combating energy poverty the overall budget then raised to €532 million as a response to increased demand)¹⁵ to upgrade buildings and reduce energy consumption by over 30%; the 'SAVE – RENOVATE' (ΕΞΟΙΚΟΝΟΜΩ – ΑΝΑΚΑΙΝΙΖΩ) programme, targeting young people, with €200 million for energy upgrades and €100 million for home renovations; 'Photovoltaics on the Roof' (Φωτοβολταϊκά στη στέγη) and 'Recycle – Change Water Heater' (Ανακυκλώνω – αλλάζω θερμοσίφωνα)' programmes that promote renewable energy and more efficient appliances. Public buildings are also being upgraded through the 'ELECTRA' (ΗΛΕΚΤΡΑ) programme, with a €640 million budget, aiming at 30% annual primary energy savings and a 30% reduction of CO₂.

These programme are foreseen to contribute to Greece's climate targets by cutting energy use and CO₂ emissions, reducing reliance on fossil fuels, and enhancing energy

¹² The Ministry of Environment and Energy (2024), [National Plan for Energy and Climate Preliminary Draft Revised Version](#), Athens, October 2023

¹³ Greece (2021) [Report on the long-term strategy for renovating the stock](#), Athens, March 2021.

¹⁴ The percentage of people unable to keep home adequately warm in 2023 in Greece was 19.2%. The EU average was 10.6%, meaning that energy poverty in Greece is almost double than the EU average.
<https://ec.europa.eu/eurostat/web/interactive-publications/housing-2024>

¹⁵ For more information visit Government official website:
<https://exoikonomo2023.gov.gr/to-programma>

security. Among the challenges that can be observed are (a) the lack of coordinated national planning for energy efficiency, (b) limited access to capital, (c) an insufficient assessment of the human rights component of energy efficiency and (d) non-implementation of Energy Efficiency projects by industry. There is also a need for better education and awareness initiatives, targeting stakeholders, to support wider adoption of energy-saving measures.¹⁶ On the positive side, the creation of an Energy Efficiency Fund (or Fund for Energy Efficiency)¹⁷ and supportive tax relief policies to encourage both private and public sector investment in energy efficiency can be seen as promising practices.

Most, if not all, our interviewees had a difficulty in providing an informed assessment on whether targets on energy efficiency that have been set in Greece have been met, to what extent, and how they might have contributed to the climate targets, which seems to be a result of the unavailability of official analyses that assess existing policies/measures and offer concrete evaluations on their impact. The unavailability of information regarding evaluation, monitoring and data collection on relevant actions was confirmed interviewees involved in the coordination of the action under study. Some commented on Greece's broader green transition targets of (1) reducing carbon emissions by 35%, (2) increasing the energy efficiency of buildings, and (3) raising the share of renewable energy in the national energy mix to 42%, stressing that Exoikonomo 2023 was specifically aligned with the second goal of improving energy efficiency in buildings, emphasising that these challenges are significant and called for faster progress, especially considering the country's high proportion of energy-inefficient properties. It was also stressed that a core objective of Exoikonomo 2023 is to enhance the energy efficiency of properties in Greece. However, no official data marking the progress towards these targets has been identified.

2.2 Just transition

Greece's energy transition, particularly the phase-out of lignite by 2028, integrates the concepts of 'just transition' and 'leave no one behind', at least in principle. As already mentioned above, Just Transition focuses on a fair shift away from lignite, prioritising

¹⁶ Galanis, P. (2023) *Climate Change Law [Δίκαιο για την κλιματική αλλαγή]*, Athens: Nomiki Bibliothiki.

¹⁷ For more information visit Hellenic Development Bank official website on [Hellenic Development Bank](#); see also [The Economic Courier \(2021\), '«Προίκα» 10 εκατ. ευρώ στο Εθνικό Ταμείο Ενεργειακής Απόδοσης'](#), 28 October 2021

affected regions (Western Macedonia and Megalopolis). The [Just Transition Development Plan](#)¹⁸ supports job creation, worker retraining, and economic diversification in these areas, with incentives for investment in infrastructure, agriculture, and tourism to ensure a sustainable post-lignite economy. The Leave No One Behind aspect is related to tackling energy poverty by improving social tariff¹⁹ and potentially introducing an ‘energy card’ for vulnerable households,²⁰ while financial support is planned for improving the energy efficiency of homes, with the aim to ensure equitable access to cleaner energy and lower costs.

Key legislation supporting this framework includes Law 4872/2021,²¹ which regulates the transition process in lignite-dependent regions (Western Macedonia and Megalopolis) and promotes economic diversification in both lignite and oil-dependent areas (e.g. Crete and Aegean islands). More generally, the relevant legal and policy framework is embedded in the National Energy and Climate Plan (NECP) as outlined above. However, even in the latest version of NECP, the issue is inadequately addressed. As noted in the EU Commission’s assessment, the 2023 NECP Draft addresses just transition in a limited way, offering scant analysis of the social, employment, or skills impacts of the energy and climate transition on vulnerable groups. It also lacks detailed policies or measures to address these challenges. Additionally, the draft NECP’s content diverges from the Territorial Just Transition Plans (TJTPs)²², creating uncertainty about the impact on planned measures. Resources allocated to supporting just transition are not clearly detailed. Finally, the plan provides insufficient information for preparing the Social Climate Plan or ensuring its consistency with the NECP.²³

¹⁸ Greece, The Ministry of Environment and Energy, (2020), [Just Transition Development Plan of lignite areas](#), 18 September 2020.

¹⁹ For more information see the gov.gr website on [Κοινωνικό Οικιακό Τιμολόγιο](#).

²⁰ For more information see the Information Request, p. 11, and the Citizen’s guide website: [What is the Universal Electricity Supply Service](#).

²¹ Greece (2021), Fair Development Transition, Regulation of Specific Issues Related to the Phasing Out of Lignite, and Other Urgent Provisions (Δίκαιη Αναπτυξιακή Μετάβαση, ρύθμιση ειδικότερων ζητημάτων απολιγνιτοποίησης και άλλες επείγουσες διατάξεις) **Law No. 4872** (OG A' 247/10-12-2021), 10 December 2021.

²² EUROPEAN COMMISSION (2021) , Commission Staff Working Document on the territorial just transition plan SWD(2021) 275 final, Brussels, 23 September 2021

²³ European Commission (2021), Assessment of the draft updated National Energy and Climate Plan of Greece, SWD(2023) 929 final, Brussels, 18 December 2023

2.3 Energy poverty

In Greece, there is no unified national legal definition for energy poverty.²⁴ That said, energy poverty is a pressing issue for the country, particularly exacerbated by the global economic crisis and more recently by the energy crisis.²⁵ According to the Hellenic Statistical Authority (ELSTAT), for 2023 in Greece 14.4 % of households (39.7% of poor households) faced the financial inability to cover adequate heating during the winter, 24.9% (64.7% of poor households) declared difficulty in timely payment of bills (e.g. electricity, water, natural gas), while 13.5% (22.6% of poor households) live in houses with leaking roofs, damp walls, floors, foundations or rotten frames.²⁶ According to Eurostat, the percentage of people unable to keep their home adequately warm in 2023 in Greece was 19.2%. The EU average was 10.6%, meaning that energy poverty in Greece is almost double than the EU average.²⁷

In this context, energy poverty has been identified as a priority within Greece's national energy policies, particularly in the National Energy and Climate Plan (NECP), which prioritizes measures to improve energy access and affordability, although it lacks explicit categorization of vulnerable groups, which is a serious deficiency. More specifically, the Greek NECP identifies energy poverty as a priority due to its exacerbation by the prolonged economic crisis of the last 10 years. It acknowledges that a substantial part of the population struggles to heat their homes, a problem even more pronounced among vulnerable groups. Key related targets include reducing energy poverty by 50% in 2025 and by 75% in 2030 compared to 2016. Relevant measures include energy efficiency upgrades, promoting renewable energy, introducing energy cards for vulnerable households, and targeted financing programmes. A dedicated Action Plan to combat Energy Poverty is also outlined in the NECP with the aim to ensure a sustainable and monitored response to the challenge. However, as stressed in the EU Commission's assessment, specific measures to tackle the problem are not always

²⁴ Galanis, P., (2023), *Climate Change Law* (ed. Nomiki Bibliothiki), (Δίκαιο για την κλιματική αλλαγή), pp. 171-172.

²⁵ Metaxa K. (2023), 'A chronicle of energy poverty in Greece', May 2023 available at [A chronicle of energy poverty in Greece](#)'.

²⁶ Hellenic Statistical Authority (2024) [Material And Social Deprivation And Living Condition](#) , Piraeus, 3 April 2024 | .

²⁷ EUROSTAT (2024), [Housing in Europe – 2024 edition](#), November 2024

detailed in the revised 2023 NECP²⁸, which lacks a concrete timetable for implementing these measures and does not consistently set up a clear link between the actions proposed and specific targets for reducing energy poverty .²⁹

[The Action Plan to combat energy poverty was](#) published on 28/09/2021 (OG B' 4447), which covers the period 2021-2030 and forms the national strategy for dealing with the challenge.³⁰ It focuses on reducing household vulnerability, promoting energy efficiency, and enabling access to renewable energy. Key measures include financial support through social tariffs and subsidies, energy-efficient building upgrades, and fostering local energy communities. The plan emphasizes monitoring energy poverty using specific indicators, coordinating efforts through an interministerial committee. Public awareness campaigns and sustainable energy practices are also included.³¹ The Plan, however, has not been implemented yet, making it impossible to provide data on effectiveness and implementation.

Another way in which the Greek government has tried to respond to soaring energy/fuel prices, especially during the peak of the energy crisis, has been through power subsidies and other measures, like a 'Fuel Pass' and a 'Power Pass',³² for households, businesses and farmers to respond to their energy needs, spending around 7 billion euros from September 2021 to July 2022.³³ These were government allowances/vouchers that were designed ad hoc with the aim to mitigate the economic impact of the energy crisis and respond to cost-of-living challenges. They did not form part of a broader sustainable programme and it is not clear whether they will be implemented again.

²⁸ The Ministry of Environment and Climate (2023), [National Energy And Climate Plan Preliminary Draft Revised Version](#), October 2023

²⁹ European Commission (2021), *Assessment of the draft updated National Energy and Climate Plan of Greece*, SWD(2023) 929 final, Brussels, 18 December 2023

³⁰ Greece, *The Action Plan to Combat Energy Poverty*, (Σχέδιο Δράσης για την Καταπολέμηση της Ενεργειακής Ένδειας) August 2021 Version: v6 available at [The Action Plan for Energy Poverty](#).

³¹ Greece, *The Action Plan to Combat Energy Poverty*, (Σχέδιο Δράσης για την Καταπολέμηση της Ενεργειακής Ένδειας) August 2021 Version: v6 available at [The Action Plan for Energy Poverty](#).

³² The Green Tank (2023) "[Addressing the energy crisis: Greece's performance and the utilization of funds](#)", Athens, June 2023.

³³ The Green Tank estimates that by 'the end of 2022, nearly €10.7 billion were raised for the implementation of measures to address the energy crisis' (p. 9).

Programmes like ‘SAVE 2023’ (ΕΞΟΙΚΟΝΟΜΩ 2023) and ‘SAVE – RENOVATE’ (ΕΞΟΙΚΟΝΟΜΩ – ΑΝΑΚΑΙΝΙΖΩ) target vulnerable households,³⁴ with the first restricting €60 million out of its €300 million initial budget exclusively for vulnerable households, and the second features a sub-section titled ‘Save for young people’, making €40 million available exclusively to vulnerable households.

In terms of promising practices, the mere acknowledgment of energy poverty in national policy and the introduction of supportive measures can be regarded as progress, while the ongoing consultations and stakeholder engagement could potentially enhance the responsiveness of the plans to local needs. On the other hand, the implementation of measures, such as the proposed ‘energy cards’, or even The Action Plan to Combat Energy Poverty³⁵ as a whole, has faced delays and uncertainty. Moreover, vulnerable groups are not clearly defined and categorised in the NECP,³⁶ creating uncertainties in targeting and scope. Finally, even for the programmes that have been or are currently being implemented, there seems to be a lack of robust monitoring mechanisms leading to uncertainty about the effectiveness and actual impact of relevant programmes and initiatives.

Regarding ‘SAVE 2023’ (ΕΞΟΙΚΟΝΟΜΩ 2023) in particular, there were some diverging views among interviewees on the number of applicants actually benefiting from the programme and the latter’s role in fighting energy poverty. For an interviewee involved in the coordination of the programme, its social character and sensitivity are undisputed:

“The programme has both political and social sensitivity, that is, it subsidises disabled people, it subsidises multi-child families, it has... economic criteria, it

³⁴ The only specific criteria to define vulnerable households in the programme is related to income. To qualify as a vulnerable household, individual income must not exceed €5,000, while the family income must not exceed €10,000. For more information visit Greece 2.0 official government website on:

<https://exoikonomo2023.gov.gr/kriteria-axiologeses>

³⁵ Greece (2021), The Ministry of Environment and Energy, *National Action Plan to combat energy poverty* (Εθνικό Σχέδιο Δράσης Καταπολέμησης Ενεργειακής Ένδεια), ΥΠΕΝ/ΓΔΕ/89335/5599 (OG B' 4447/28.09. 2021), 28 September 2012.

³⁶ An interviewee from a key coordinating partner for Exoikonomo 2023 suggested that there was a clear threshold for categorising vulnerable households, identifying the latter with citizens that were entitled to the social bill: ‘*who do we mean vulnerable in Greece? - we mean the beneficiaries of the “social bill” (...) which means an income of up to 10,015 euros [per annum]*’.

subsidizes differently depending on the income criteria of each person, so it has a social character.

“Το πρόγραμμα έχει μέσα και πολιτική και κοινωνική ευαισθησία, δηλαδή, επιδοτεί ΑμεΑ, επιδοτεί πολύτεκνες οικογένειες, έχει... οικονομικά κριτήρια, επιχορηγεί διαφορετικά, ανάλογα με τα εισοδηματικά κριτήρια του καθενός, άρα, έχει και κοινωνικό χαρακτήρα”.

Another interviewee, specialising on energy poverty, however, stressed an interesting distinction between energy poverty and poverty more broadly speaking, partly contradicting the above view:

“Exoikonomo in residencies is a tool to achieve the targets of energy saving in the country and energy poverty. It is not a tool of social policy. (...) The goal is energy saving. There are other ways, other ways for social policy (...) And this was exactly the large discussion we had in 2019 and 2020 when we included this in the National Plan for Energy and Climate where we wanted to differentiate the general poverty from energy poverty. Obviously, a poor person is also in energy poverty too (...) But when we put out an action for energy upgrade, for combatting energy poverty, in my opinion, the most weight must be concentrated on the energy part (...) Now, obviously the needs are countless for everyone. To answer what you asked me about if what is done is sufficient: Obviously, it is not sufficient, since it is not sufficient for the target of energy saving; we are dealing with 68,000 and at the best, now that we also had the RRF, 40,000 renovation took place in a year (...) So, obviously – I don't know the exact number of persons with disabilities, single parent families and multi child families, but I'm sure it is not sufficient – this is clear”.

“Το “Εξοικονομώ” στις κατοικίες είναι ένα εργαλείο για να επιτευχθεί ο στόχος εξοικονόμησης της χώρας, η ενεργειακή φτώχεια. Δεν είναι ένα εργαλείο γενικότερης κοινωνικής πολιτικής. (...) Η μεγαλύτερη βαρύτητα είναι στην εξοικονόμηση ενέργειας. Υπάρχουν κι άλλοι τρόποι, άλλα εργαλεία να γίνει κοινωνική πολιτική (...) Και ήταν ακριβώς η μεγάλη συζήτηση που είχαμε το '19 και το '20 όταν το βάλαμε στο ΕΣΕΚ, όπου ακριβώς θέλαμε να διαφοροποιήσουμε την γενικότερη φτώχεια από την ενεργειακή φτώχεια. Προφανώς ο φτωχός είναι και ενεργειακά φτωχός (...) Αλλά όταν βγάζουμε ένα πρόγραμμα για την ενεργειακή αναβάθμιση, για την αντιμετώπιση της ενεργειακής φτώχειας, πρέπει για εμένα η μεγαλύτερη βαρύτητα να δίνεται στο ενεργειακό κομμάτι (...) Τώρα προφανώς οι ανάγκες είναι άπειρες για όλους. Για να απαντήσω σε αυτό που με ρώτησες αν επαρκούν: Προφανώς δεν επαρκούν, αφού δεν επαρκούν για τον στόχο της εξοικονόμησης, δηλαδή μιλάμε για 68.000 και στην καλύτερη και τώρα που είχαμε το RRF ανακαινίστηκαν 40.000 τον χρόνο (...) Άρα προφανώς - δεν ξέρω τον ακριβή αριθμό των ΑμεΑ, των μονογονεϊκών οικογενειών, των πολυτέκνων αλλά είμαι σίγουρος ότι δεν επαρκούν - αυτό είναι ξεκάθαρο.”

This latter point is interesting for another reason too, as it contrasts the claim of another interviewee involved in the coordination of the programme that categorically stated that all applications by potential beneficiaries have been accepted, which would mean that no one was left out:

“So far all applications have been received, 100% [...] They were all such that all the applications... that were submitted in the specified application period were all put in... of course it worked backwards here in reality, that is, applications were submitted, the ministry saw what the demand was and made sure that they found resources to cover them all”.

“Μέχρι στιγμής έχουν παραληφθεί όλες οι αιτήσεις, 100% Όλοι ήταν τέτοιοι, που όσες αιτήσεις... υποβλήθηκαν στο προσδιοριζόμενο διάστημα υποβολής αιτήσεων μπήκαν όλες...βέβαια εδώ λειτούργησε ανάποδα στην πραγματικότητα, δηλαδή υποβλήθηκαν αιτήσεις, είδε το υπουργείο ποια ήταν η ζήτηση και φρόντισε να βρει πόρους να τους καλύψει όλους”.

This seems to be confirmed in relevant media reports,³⁷ so it could be that the former interviewee was referring to previous iterations of Exoikonomo.

An interviewee also indirectly acknowledged Greece’s limited scope of policies and initiatives in combating energy poverty, as they consider Exoikonomo 2023 probably the main, if not only, instrument in combating energy poverty in the country:

“It is possibly the only and most efficient measure of energy upgrade throughout the years and keeps getting better, it is one of the measures that contribute a large portion of the energy saving that is being reported as our national target, it is the main instrument of combating energy poverty, the long-term combating of this phenomenon, its improvement is obvious, it has a very high demand and it will be continued. It is possibly the main and most efficient measure of energy saving in Greece”.

“Είναι ίσως το μοναδικό και το πιο αποτελεσματικό μέτρο ενεργειακής αναβάθμισης διαχρονικά και βελτιώνεται, είναι από τα μέτρα που συνεισφέρουνε ένα μεγάλο κομμάτι της εξοικονόμησης που δηλώνεται σαν εθνικός στόχος, είναι το βασικό εργαλείο αντιμετώπισης της ενεργειακής φτώχειας, της μακροπρόθεσμης αντιμετώπισης του φαινομένου, η βελτίωσή του είναι εμφανής,

³⁷ Το Vima (2023) ‘«Εξοικονομώ 2023»: Δεκτές και οι 31.549 αιτήσεις που υποβλήθηκαν’ available at: [«Εξοικονομώ 2023»: Δεκτές και οι 31.549 αιτήσεις που υποβλήθηκαν.](#)

έχει πολύ μεγάλη ζήτηση, θα συνεχιστεί.. είναι ίσως το βασικότερο και αποτελεσματικότερο μέτρο εξοικονόμησης ενέργειας στην Ελλάδα.”

2.4 Fundamental rights impact assessment

Article 62 of Law 4622/2019 requires a regulatory impact assessment for every draft law, addition or amendment, as well as regulatory decisions of major economic or social importance.³⁸ There are no additional obligations to conduct fundamental rights impact assessments in environmental or the national energy or climate change mitigation legislation and measures in the NECP or in the just transition law (Law 4872/2021).³⁹ However, the (general) Impact Assessment template addresses social impacts and fundamental rights, although not in a very detailed way.⁴⁰

³⁸ Greece (2021) Executive State: organisation, function and transparency of the Government, the governmental organs and central public administration (*Επιτελικό Κράτος: οργάνωση, λειτουργία και διαφάνεια της Κυβέρνησης, των κυβερνητικών οργάνων και της κεντρικής δημόσιας διοίκησης*), Law 4622/2019, OG A' 133/07.08.2019.

³⁹ Greece (2021), [Fair Development Transition, regulation of specific issues of de-lignification and other urgent provisions](#), (Δίκαιη αναπτυξιακή μετάβαση, ρύθμιση ειδικών θεμάτων απολιγνιτοποίησης και άλλες επείγουσες διατάξεις) Law 4872/2021, (O .G. A', no 247/10.12.2021), 10 December 2021.

⁴⁰ For more information visit Secretariat General of the Government official website available on [Good Regulation: legislation, manuals, circulars, Good Regulation in the EU: REFIT Programme & "Fit for Future" Platform, Legislative and Administrative Codification, opengov.gr consultation, Good Regulation in the OECD](#)

3. Addressing different aspects of energy efficiency and energy poverty: The ‘Exoikonomo 2023’

The ‘SAVE 2023’ (ΕΞΟΙΚΟΝΟΜΩ 2023) programme (from now on Exoikonomo 2023)⁴¹ is a project aimed at enhancing energy efficiency in residential buildings across Greece. Supported by the EU’s Recovery and Resilience Facility (RRF), it features a €532 million budget and builds upon previous programmes like ‘Save at Home’ (Εξοικονόμηση κατ’ οίκου)⁴² and ‘Save 2021’ (Εξοικονομώ 2021)⁴³. Its primary objectives are to reduce energy consumption and greenhouse gas emissions, lower costs for citizens, improve living conditions, and ensure safety and health in residential areas/spaces. The programme also aims to achieve primary energy savings of over 30% for each beneficiary/property.

The legal foundation for Exoikonomo 2023 is a joint decision by the Greek Ministers of Finance, Development and Investments, and Environment and Energy, specifically the decision ΥΠΕΝ/ΥΔΕΝ/55246/807/18.05.2023,⁴⁴ with amendments published on 02.02.2024. The programme aligns with EU directives and national strategy focused on energy efficiency and climate change adaptation.

The funding for Exoikonomo 2023 is structured to support both energy upgrades and the needs of vulnerable households.⁴⁵ The total budget is €532 million, including more

⁴¹ For more information see Official government webpage on: [exoikonomo2023](https://exoikonomo2023.gov.gr/).

⁴² For more information visit Hellenic Development Bank official website on: <https://hdb.gr/programma-exoikonomisi-katoikon/>

⁴³ For more information visit Greek Government official web portal on: <https://exoikonomo2021.gov.gr/>

⁴⁴ Greece, Decision of the Ministers of Finance, *Development and Investments, and Environment and Energy, Call for proposals for SAVE 2023* (Προκήρυξη του Προγράμματος «Εξοικονομώ 2023» No 55246/807/18-05-2023, , (OG B’ 3323/19-05-2023), 19 May 2023.

⁴⁵ An energy upgrade refers to a mandatory improvement of at least three energy classes for each eligible property (whether a house or apartment) in relation to its

than €178 million allocated specifically to address energy poverty. The budget is divided into two application cycles: the first cycle has a budget of €422 million (with €68 million for energy poverty), and the second cycle is set at €110 million, exclusively targeting energy-vulnerable households with annual incomes below €5,000 for individuals and €10,000 for families. Exoikonomo 2023 commenced in June 2023, with application periods for two cycles: the first from 12 June to 15 November 2023, and the second for 7 February to 29 March 2024.

The programme facilitates various energy efficiency upgrades, including:

- Replacement of windows and frames.
- Installation/upgrade of thermal insulation.
- Upgrading heating and cooling systems.
- Renewable energy hot water systems.
- Smart home management systems.

The financial support for the above interventions can cover up to 75% of total costs, with subsidy rates varying based on income. After beneficiaries are included in the programme, regardless of the method of covering their own contribution (own funds or loan), 70% of the approved grant amount, as determined in the Inclusion Decision, is credited to their designated bank account. The payment of the remaining grant amount and/or loan is completed within sixty (60) days after the successful verification of the certification statement for the completion of the work. Further costs that are 100% covered by the programme include energy audits, consultant fees, permits that might be needed for the renovation works, and the issuance of Electronic Building Identity. They are covered via reimbursements/subsidies, but low-income and vulnerable households can benefit from state-guaranteed interest-free loans to cover expenses.⁴⁶

The programme involves three key stakeholders:

1. The Sub-Directorate 2 of the Energy Sector of the Ministry of Environment – Responsible for planning and coordination.

initial energy performance certificate (P.E.A.). Specifically, the upgrade ensures that the building achieves an energy rating of at least category B in cases of major renovations. The goal is to reduce primary energy consumption by more than 30%. As this is described at *Guidelines of programme implementation “Save 2023”* (Οδηγός Εφαρμογής Προγράμματος «Εξοικονομω 2023»), p. 16.

⁴⁶ Greece, (2023), Ministry of environment and Energy, Guidelines Of Programme Implementation “Save 2023” (Οδηγός Εφαρμογής Προγράμματος «Εξοικονομω 2023»), Athens, May, see pp. 33-34, 56, 60, 69.

2. The Technical Chamber of Commerce of Greece (TEE) – Implementing partner managing the overall action and payments.
3. The Hellenic Development Bank S.A. (HDB) – Responsible for financial management.

Beneficiaries are practically required to work with a Technical Consultant, chosen by them, who provides guidance through the application process, oversees construction work, and ensures compliance with energy-saving targets.

Exoikonomo 2023 aims to achieve significant energy savings of at least 213 ktoe⁴⁷ annually and improve energy efficiency in 105,000 residential units by 2025.⁴⁸ The programme emphasises the need for modernization in response to evolving climate data and the integration of new technologies. It prioritises support for low-income households, vulnerable groups, and properties that consume more energy.

In this context, studying Exoikonomo 2023 is highly relevant for addressing energy poverty and enhancing energy efficiency in Greece. This programme targets the energy upgrade of residential buildings, a significant need given that much of Greece's building stock predates modern efficiency standards and buildings account for approximately 40% of the country's energy consumption. Indeed, by offering grants and subsidised loans, Exoikonomo 2023 aligns with Greece's goals outlined in the country's NECP, to reduce greenhouse gas emissions, increase renewable energy use, and support vulnerable households. These measures have the potential to lower energy costs but also to contribute to Greece's green transition and sustainable energy policies.

⁴⁷ Kilotonnes of oil equivalent.

⁴⁸ For more information visit Greek Government official web portal on <https://exoikonomo2023.gov.gr>.

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

In the official framework of Exoikonomo 2023 priority is given to:

- Lower income households.
- Vulnerable groups (including people with disabilities, single-parent families, and families with multiple children);
- Energy-consuming properties.
- Degree-days, which account for the four climate zones in Greece, from warm to cold (colder areas are prioritized): A: Southern Greece, including most islands and Crete, B: Central Greece, Attica, and Sterea Ellada, C: Northern Greece, D: Northern Greece's peripheral areas with the coldest temperatures.
- Age of the property, with older properties receiving priority.

Even though Exoikonomo's official guide does not provide explicit justification for prioritising these groups, it can be deduced from Greece's NECP and Action Plan to Combat Energy Poverty that the rationale of the programme is rooted in addressing energy poverty, which disproportionately affects economically vulnerable groups. These groups often live in energy-inefficient homes, leading to higher energy costs and adverse health outcomes. Moreover, according to a relevant study, the economic crisis that hit Greece after 2010 exacerbated housing inequalities and had a disproportionate impact on the most vulnerable groups. Low-income tenants, migrants, and refugees were hit the hardest, with their already precarious position in the housing market worsening. Indebted property owners were also significantly affected, as the rules of the game changed due to the accumulation of housing loan debts, the pressure on banks to clear their balance sheets of non-performing loans, and the significant increase in property taxes.⁴⁹ By prioritizing low-income households, the programme seeks to ensure equitable access to the benefits of energy efficiency, mitigate social inequalities, and align with broader environmental and energy-saving goals.⁵⁰

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⁵⁰ See also the recent announcement for the second cycle of the programme, in which the Minister and Deputy Minister of the Environment and Energy state that the aim is to improve the living conditions of people in vulnerable households and reduce their energy costs. For more information visit Ministry of Environment and Energy official website on: For more information visit Ministry of Environment and Energy official

In sum, Exoikonomo 2023 targets vulnerable households and energy-vulnerable individuals who face energy poverty. Even though the programme is not based on a clear definition of energy poverty, by prioritising improvements in the energy efficiency of residential buildings, especially for vulnerable and low-income households, it is addressing the challenge as defined by the EU,⁵¹ with energy poverty referring to the inability to afford adequate energy services, such as heating or cooling. Exoikonomo 2023 aims to contribute to tackling energy poverty by offering financial support for energy-saving renovations in homes, which will lower household energy consumption and thus the associated costs. In this sense the programme tackles energy poverty in Greece by reducing both the cost and the energy demand of vulnerable households, addressing the EU's concerns of high energy costs and the inaccessibility of essential energy services.

Vulnerable households are specifically targeted for funding in the second circle of Exoikonomo 2023, as it is only people with personal income up to €5,000 or families with income up to €10,000 that can apply, and they benefit from higher subsidies. This group includes low-income households, people with disabilities, and those in remote or economically disadvantaged regions.

For a residence to be eligible to receive funding under Exoikonomo 2023, it must meet the following criteria:

- It must be legally constructed.
- It must not be designated for demolition.
- It must serve as the primary residence (note: rented properties are also eligible, but not those used for short-term rentals, such as Airbnb).
- It must have an initial Energy Certificate with a rating of C or lower.

There are five income categories which are eligible to apply, based on annual personal and family income:

Category 1: Personal Income: < €5,000 / Family Income: < €10,000

Category 2: Personal Income: €5,000 - €10,000 / Family Income: €10,000 - €20,000

Category 3: Personal Income: €10,000 - €20,000 / Family Income: €20,000 - €30,000

website on: <https://ypen.gov.gr/xekinaei-o-v-kyklos-tou-programmatos-exoikonomo-2023/>

⁵¹ EUROPEAN COMMISSION, (2023), [EU guidance on energy poverty](#), SWD(2023) 647 final, Brussels, 20 October 2023

Category 4: Personal Income: €20,000 - €30,000 / Family Income: €30,000 - €40,000

Category 5: Personal Income: > €30,000 / Family Income: > €40,000

The percentage of grant support varies by income category and depends on whether the property is the applicant's primary residence or is rented/conceded:

Category 1: Main Residence: 75% / Rented/Conceded: 65%

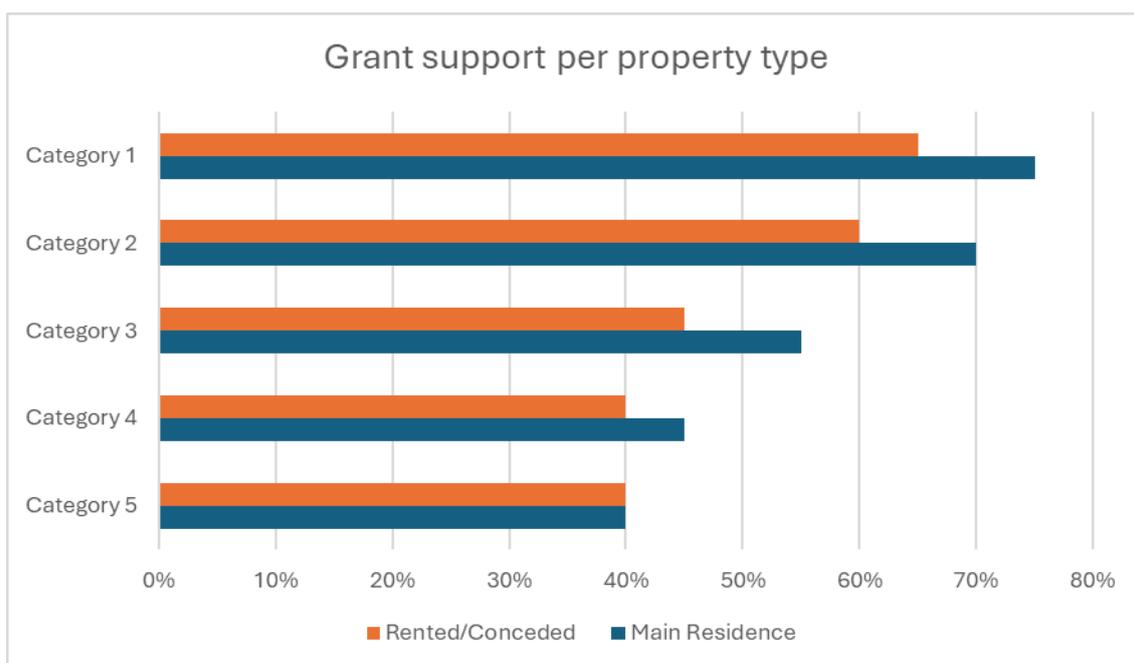
Category 2: Main Residence: 70% / Rented/Conceded: 60%

Category 3: Main Residence: 55% / Rented/Conceded: 45%

Category 4: Main Residence: 45% / Rented/Conceded: 40%

Category 5: Main Residence: 40% / Rented/Conceded: 40%

The percentage of grant support per category and type of residence are presented in the graph below.

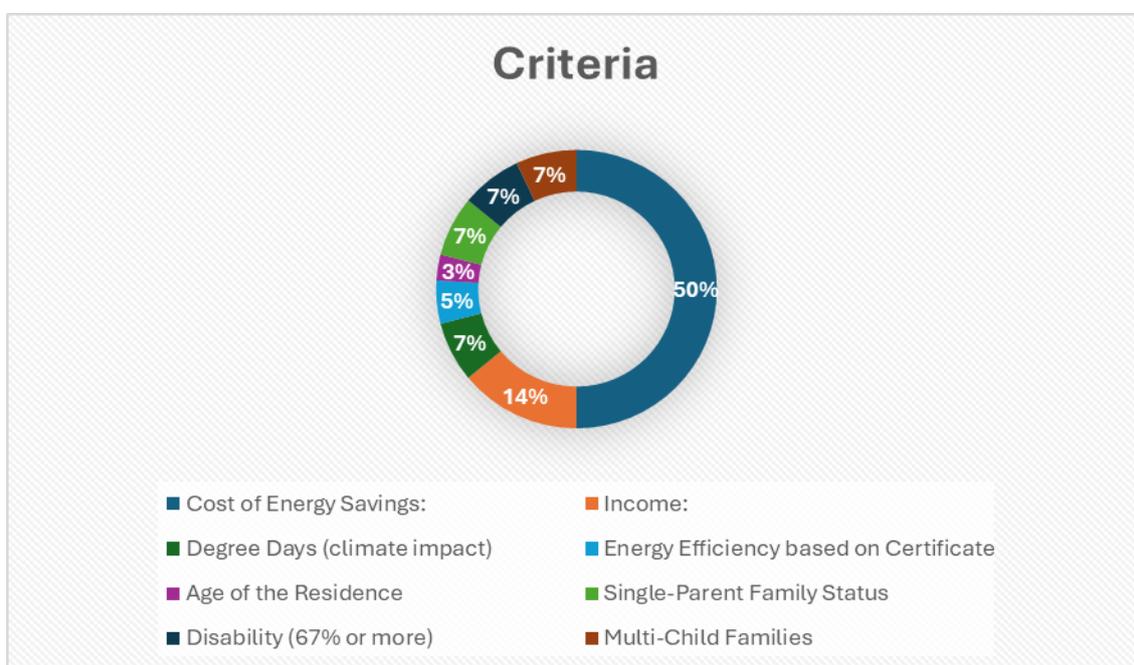


The evaluation of applications is based on several criteria,⁵² with each criterion assigned a specific weight:

⁵² Greece, (2023), Ministry of environment and Energy, *Guidelines Of Programme Implementation "Save 2023"* (Οδηγός Εφαρμογής Προγράμματος «Εξοικονομω 2023»), Athens, May 2023, see Section 5.6, p. 48.

1. Cost of Energy Savings: 50%
2. Income: 14%
3. Degree Days (climate impact): 7%
4. Energy Efficiency based on Certificate: 5%
5. Age of the Residence: 3%
6. Single-Parent Family Status: 7%
7. Disability (67% or more): 7%
8. Multi-Child Families: 7%

The weights of each criterion, and their size in relation to one another, in Exoikonomo's scoring system are represented in the graph below.



Extra conditions for filing an application include:

- Each individual can only submit one application.
- Each residence can only have one application filed.
- Residences that received funding in previous programs are ineligible for this action, with some exceptions.⁵³

⁵³ Exceptions refer to the case of apartments participating in a Type B apartment block application under the 'Εξοικονομώ-Αυτονομώ' (Save-Autonomize) Programme, for which it is allowed to submit an application as an individual apartment under

Eligibility is generally related to income levels, and special provisions are in place to assist low-income households, single-parent families, large families, and individuals with disabilities. These categories can receive up to 75% subsidies for their renovation projects, and can even benefit from interest-free loans, whereas households with higher incomes are eligible for lower subsidy rates (40%).

Provision in eligibility to target vulnerable groups in Exoikonomo 2023 is a promising practice in principle, as, on paper, it seems to benefit those most at risk of energy poverty. However, the application process, in practice, requires digital literacy and involves gathering technical and financial documentation, which may prove complex for certain vulnerable groups (e.g. older people, those with limited digital literacy), posing a practical barrier to full participation. Moreover, and crucially, the need for upfront financing of renovation costs can be a serious challenge for low-income households with limited savings because they might. To put it in other words, low-income applicants may face extreme difficulties covering their portion of the costs before receiving the expected subsidy.

Moreover, while the programme emphasises the inclusion of vulnerable households, there are concerns about whether all eligible groups are adequately informed or able to access the program's benefits. Gaps exist in outreach, and the administrative burden of the application process could exclude some of the most marginalised populations, especially in rural or isolated areas.

A few interviewees involved in the coordination and implementation of the programme seem to agree that the eligibility criteria are sufficient in targeting specific groups, especially the more vulnerable ones. Some stress how Exoikonomo 2023 has built on previous iterations of the programme, forming some kind of norm that has not been changed despite changes in the relevant ministry and government.

“The programme doesn’t have a problem, because it has anticipated them and it gives bonuses to the people with disabilities and... it is based on financial criteria, following a [specific] logic (...). ‘You are in need, I give you a bigger grant; you have a smaller need, I give you a smaller grant’. I think in that part [means target groups and eligibility], it has no failures (...) it was cleverly set up and that’s why no Minister

Exoikonomo 2023. Greece, (2023), Ministry of environment and Energy, *Guidelines Of Programme Implementation “Save 2023”* (Οδηγός Εφαρμογής Προγράμματος «Εξοικονομω 2023»), Athens, May 2023, see 2023, pp. 15-16.

dared to modify it, that is, they all adopted it, changed the rates possibly, made some minor improvements but they kept the same approach”

“Το πρόγραμμα δεν έχει κάποιο πρόβλημα, γιατί τα έχει προβλέψει και bonus δίνει στους Αμεα και.. το πηγαίνει με οικονομικά κριτήρια πολύ σωστά σε μια λογική (...). Έχεις ανάγκη, σου δίνω μεγαλύτερη επιχορήγηση, έχεις μικρότερη ανάγκη, σου δίνω μικρότερη επιχορήγηση, νομίζω ότι σε αυτό το κομμάτι δεν έχει αστοχίες (...) ήταν αρκετά έξυπνα στημένο και για αυτό τον λόγο και δεν τόλμησε κανένας Υπουργός να το τροποποιήσει, δηλαδή, όλοι το υιοθέτησαν, άλλαξαν τα ποσοστά ενδεχομένως, έκαναν κάποιες μικροβελτιώσεις αλλά, το κράτησαν σε αυτή τη λογική.”

However, such views contrast with input from experts from civil society, and even others involved in the coordination of the programme, who identify important gaps, accessibility challenges and barriers. Indeed, the exclusion, in practice, of low-income households and those in the most vulnerable position seems to emerge as the core problem of the programme, mentioned by most of our interviewees. As it is put by an interviewee coming from a regulatory agency:

“I believe that the middle class, those with medium incomes who have a small financial capacity to save some money [...]. If you look at a vulnerable household, I don't know to what extent they will have any money to finance and pay for these renovations. Vulnerable households are always vulnerable. I don't know how someone would suddenly 'generate' money to invest in frame windows or anything else. It's very, very difficult, especially when someone is facing an objective survival issue, like making a living “.

“Θεωρώ ότι πιο εύκολα επηρεάζονται η μεσαία κατηγορία, τα μεσαία εισοδήματα τα οποία έχουν μια μικρή οικονομική δυνατότητα κάπως να μαζέψουν μερικά χρήματα [...]. Αν πας σε ένα ευάλωτο νοικοκυριό, δεν ξέρω κατά πόσο ο άλλος θα έχει κάποια χρήματα να πάει να χρηματοδοτήσει και να το πληρώσει. Το ευάλωτο νοικοκυριό είναι πάντα ευάλωτο. Δεν ξέρω πως θα “γεννήσει” ξαφνικά χρήματα ο άλλος για να πάει να τα κάνει κουφώματα ή οτιδήποτε άλλο. Είναι πάρα πάρα πολύ δύσκολο. Όταν ο άλλος έχει ένα αντικειμενικό πρόβλημα επιβίωσης, βιοποριστικό δηλαδή.”

Consensus in this area is striking indeed, as more experts coming from civil society and even coordinating partners confirm:

“[...] when we think that a very poor household with an income of 10,000-15,000 can co-fund 20% of an investment – this is the rate – we are fools. To make it clearer,

with a 10,000 income, I don't think you can put in 4,000 on your own. I think it's self-evident and it makes no sense".

" [...] ότι όταν εμείς σκεφτόμαστε ότι ένα πολύ φτωχό νοικοκυριό της τάξης των 10.000-15.000 εισόδημα μπορεί να συγχρηματοδοτήσει το 20% μιας επένδυσης, όπως είναι το ποσοστό, είμαστε γελασμένοι . Δηλαδή με 10.000 εισόδημα δε νομίζω ότι μπορείς να βάλεις και 4.000 μόνος σου, να στο πω έτσι.. Νομίζω είναι αυτονόητο και δεν έχει λογική".

"Access is quite difficult; it requires having your own capital. This, therefore, creates a filter that easily excludes those without financial means. A low-income household does 3,000 euros to prepay for the work. This is a significant barrier. It's not easy for most households to find the necessary guidance to prepare their proposals, locate the right engineers, submit applications to the programme, and cover all the costs that obviously need to be paid upfront. Because of this major difficulty, there are market reports – though not substantiated or proven – that suggest it's common practice for engineers to take on these costs for households that can't afford them, naturally seeking some profit through the process. This often results in overcharging invoices, and ultimately, fewer projects end up being completed for poorer households. This is a common practice."

"Η πρόσβαση είναι αρκετά δύσκολη, απαιτεί να έχεις ίδια κεφάλαια. Επομένως αυτό δημιουργεί... φιλτράρει τους μη έχοντες πολύ εύκολα. Ένα νοικοκυριό που είναι χαμηλής εισοδηματικής κλάσης δεν έχει 2, 3 χιλιάδικα για να προπληρώσει τις εργασίες. Αυτό είναι πολύ βασικό block. Δεν είναι εύκολο για τα περισσότερα νοικοκυριά να βρουν τις απαραίτητες συμβουλές που χρειάζονται για να καταρτίσουν τις προτάσεις, για να βρουν τους κατάλληλους μηχανικούς, για να κάνουν τις αιτήσεις στο πρόγραμμα και να καλύψουν όλο το κόστος το οποίο προφανώς πρέπει να καλυφθεί προηγουμένως. Ακριβώς επειδή υπάρχει αυτή η μεγάλη δυσκολία, υπάρχουν αναφορές στην αγορά. Δεν είναι εμπειριστατωμένες ή αποδεδειγμένες, αλλά υπάρχει αυτό ευρύτερα στην αγορά. Ακριβώς επειδή τα νοικοκυριά δεν μπορούν να πληρώσουν όλα τα κόστη που προηγούνται μιας αίτησης, πολλές φορές τα αναλαμβάνουν οι μηχανικοί αυτά τα κόστη. Προφανώς, όμως, παίρνοντας και κάποιο κέρδος μέσα από αυτή τη διαδικασία. Που σημαίνει ότι υπερ-κοστολογούνται τα τιμολόγια τους και καταλήγουν να γίνονται λιγότερα έργα τελικά στα πιο φτωχά νοικοκυριά. Αυτό είναι μια συνήθης πρακτική."

"(...) those who struggle to join the programme are low-income households because they cannot cover their share of the costs. That is the main issue. Middle- and upper-income households complete the process without problems. My experience with my own clients showed that low-income households simply can't manage."

“(...) αυτοί οι οποίοι δυσκολεύονται να μπουν είναι τα φτωχά νοικοκυριά γιατί δεν μπορούν να αποπληρώσουν το ποσοστό συμμετοχής τους. Αυτό είναι το πρόβλημα. Τα μεσαία και προς τα πάνω νοικοκυριά ολοκληρώνουν κανονικά. Η εμπειρία μου από το δικό μου το πελατολόγιο έδειξε ότι φτωχά νοικοκυριά δεν μπορούν.”

What is more, the role of the banks seems to emerge as another element hindering participation of low-income households in the benefit of the programme is also highlighted. Concerns about the exclusion of low-income, vulnerable households from the programme and the rather counterproductive role of the banks was a recurrent theme in most of our interviews, commonly expressed by interviewees coming from civil society. One stressed that as long as banks are involved in the process, such households would be excluded. Consequently, they concluded that the measures aimed at supporting low-income households have not been effectively implemented in Exoikonomo 2023, leaving this segment of the population largely excluded from accessing energy-efficient property upgrades.

“The banks did not proceed with the loans because these individuals were unable to qualify, either due to having ‘red loans’ or not meeting the financial criteria. If three out of four cannot currently secure a loan to take part in Exoikonomo, it’s clear that even these vulnerable individuals will not be able to take part at all”.

“Οι τράπεζες δεν το προχώρησαν διότι οι αυτοί οι άνθρωποι δεν μπορούσαν ούτε αυτό να πάρουν λόγω του ότι υπήρχαν κόκκινα δάνεια ή δεν είχαν τα οικονομικά κριτήρια. Αν τρεις στους τέσσερις δεν μπορούν αυτή τη στιγμή να πάρουν το δάνειο προκειμένου να συμμετάσχουν στο “Εξοικονομώ” καταλαβαίνετε ότι ακόμη και αυτοί οι ευάλωτοι δεν θα συμμετέχουν καθόλου”.

Similar concerns regarding the inclusion of vulnerable households were expressed by an interviewee involved in the coordination of the programme, who acknowledged what was described as a ‘paradox’: Since the programme does not cover the 100% of the expenses of renovations, but, in maximum, the 75% of the total costs, the beneficiary has to come up with the 25% of the amount right in the beginning of the action. According to them, it is rather certain that low-income households are not able to come up with this amount. Moreover, even though Exoikonomo 2023 includes the option of interest-free loans to finance the participation rate of vulnerable households, the private banks that act as partners in practice refuse them to applicants from such households, even though there is special provision from such applicants in the programme. In this sense, the banks seem to

not uphold their commitment.⁵⁴ The following excerpt coming from an energy inspector⁵⁵ and technical advisor is telling:

“(...) in this programme, the banks, although they are required to, did not provide loans to low-income households as outlined in the programme guidelines. This is important.”

“Σε αυτό το πρόγραμμα οι ρημάδες οι τράπεζες, ενώ είναι υποχρεωμένες, δεν δανειοδοτούσαν τα φτωχά νοικοκυριά όπως έλεγε ο Οδηγός του προγράμματος. Αυτό είναι σημαντικό”.

Therefore, as several of our interviewees put it, one might have the need (to be supported by the action), but they don't have the (minimum financial) means required to be a part of it. The fact that this issue was brought up by interviewees working in different sectors highlights the significance of the problem in the programme's design across different groups of stakeholders.

None among the interviewees offered any concrete data or at least estimations of what this meant in practice and how one might assess the inclusion of vulnerable households in the programme. We were offered rough estimations about a previous iteration of Exoikonomo (that of 2021), that out of a sum of 110,000 applications submitted, only 5,000 applications among the ones approved/accepted were from vulnerable households, which amounts to a mere 4.5%. However, we were not able to cross-check and confirm these numbers.

⁵⁴ This is a finding supported by several of our interviews, however, despite our efforts, we could not acquire any relevant data to assess the extent of the problem. We made repeated attempts to arrange an interview with the Hellenic Development Bank with the aim to cross check this finding and request relevant data, however, this was not made possible. Nor were we able to establish whether the banks that denied to uphold their commitment to providing loans to low-income households would face any consequences.

⁵⁵ Energy inspectors are certified engineers employed by the Technical Chamber of Commerce of Greece. They assess the energy performance of buildings, conducting audits and issuing Energy Performance Certificates (EPCs). They ensure that interventions align with program guidelines and verify improvements post-upgrade. <https://exoikonomo2023.gov.gr/-/odegies-pros-tous-energeiakous-epitheoret-1>

Interestingly, the Ministry responsible for coordinating and overseeing the programme, seems to be aware of some of these issues, attempting to mitigate certain negative effects, but without there being a clear picture regarding the exact form and effectiveness of such attempted remedies.

“The Ministry of Energy stepped in and pulled the banks into line, so there shouldn't be any issues for Exoikonomo 2023 now”

“Αποφάσισε το Υπουργείο Ενέργειας και τράβηξε αυτιά στις τράπεζες τώρα οπότε δεν θα υπάρχει πρόβλημα για το “Εξοικονομώ 2023”.

To sum up, it seems that there is a broad consensus forming among experts across different sectors and levels of engagement with the programme that there is a serious problem with essentially excluding the most vulnerable, despite the declared aims and official provisions of Exoikonomo, making it rather doubtful whether the programme actually serves the ‘leave no one behind’ strategy, while also creating a serious issue with regards to the discrimination and equality aspects.

3.2 Impact

Several interviewees stressed the positive impact of the programme, with some emphasising its significance for homeowners specifically, while others identified positive effects for the broader market, and particularly the manufacturing sector, as well, suggesting that it fostered growth and development across multiple sectors, with a few of them going as far as to suggest that they could not identify any groups that are negatively impacted by the programme. Overall, interviewees coming from coordinating and implementing partners, as well as regulatory agencies, seemed to be more positive in their assessment of the programme’s impact than experts coming from civil society, who were highly critical of certain aspects.

Experts from civil society expressed concern that the energy-saving results of the Exoikonomo programme are insufficient, noting that most renovations funded through the programme are medium-scale, offering only limited energy-saving benefits, rather than the necessary large-scale improvements. This point was supported by findings from [recent relevant research](#) based on the Ministry of Energy’s data, which indicated that average energy savings from these upgrades have consistently remained below 30% since the start of the Exoikonomo initiatives.

Moreover, as stressed by interviewees involved in the coordination of the programme, as well as others coming from civil society, Exoikonomo 2023 (along with its previous iterations) seems to have contributed to the increase of market prices (referring to construction materials related to the project as well as labour prices, but also rent prices). One of them further explained that this had to do with the fact that because the Exoikonomo actions were transferring money to the beneficiary only at the end of the programme, the contractors could not predict the future materials prices, so they would make high offers from the beginning of the partnership with a beneficiary. Exoikonomo 2023 included downpayments to mitigate such negative consequences. However, according to the same interviewee, the issue has not been resolved because of delays in starting the renovation projects which occurs, in some cases with the liability of the beneficiaries, and in other instances because of bureaucratic delays.

As they elaborate:

“my own assessment is that the programme itself has contributed to... in a way... to... increase prices in the market, which... over the years we have faced too many times, because a lot of people, and our own relatives and acquaintances, and so forth, tell us that the prices they find [in the market] are different if they upgrade their home with Exoikonomo than those if they do so without... and I will not only tell you about the ‘black money’, about not paying VAT, but also about the fact that if a supplier, contractor comes to an agreement with you directly and takes it [the money] from you, he will give you a better price... he'll do it very quickly if he gets his money very quickly too, because quite simply prices change, so he's also dependent on prices and he can't stockpile money in the marketplace, the Exoikonomo, well, given that it's a pay-as-you-go programme, all these years, it did not motivate, by its nature, the suppliers many times to give better discounts; of course, the programme Exoikonomo 2023, like the previous two, has become quite forward-looking, that is, it gives an advance payment, which helps the beneficiary too.”

“Η δική μου εκτίμηση είναι ότι και το ίδιο το πρόγραμμα συνέβαλε στο να... κατά κάποιο τρόπο...να αυξηθούν οι τιμές στην αγορά, κάτι το οποίο...πάρα πολλές φορές, σε όλα αυτά τα χρόνια το έχουμε αντιμετωπίσει, γιατί πολύς κόσμος και δικοί μας συγγενείς και γνωστοί και τα λοιπά μας λένε ότι άλλες είναι οι τιμές που βρίσκουν...που θα κάνουν αναβάθμιση την κατοικία τους, αν είναι με “Εξοικονομώ” και άλλες χωρίς... και δεν θα σου πω μόνο για τα μαύρα χρήματα, για το χωρίς ΦΠΑ, αλλά και για το γεγονός, ότι αν κάποιος προμηθευτής, ανάδοχος έρθει σε συμφωνία μαζί σου απευθείας και τα πάρει από εσένα, αυτός θα σου δώσει καλύτερη τιμή...θα το κάνει πολύ γρήγορα αν θα πάρει τα λεφτά του και

αυτός πολύ γρήγορα, γιατί πολύ απλά οι τιμές αλλάζουν, οπότε και αυτός εξαρτιέται από τις τιμές και δεν μπορεί να στοκάρει στην αγορά λεφτά, το “Εξοικονομώ”, λοιπόν, με δεδομένο ότι είναι ένα πρόγραμμα που πληρώνει στο τέλος, όλα αυτά τα χρόνια, δεν βοηθούσε από την φύση του και τους προμηθευτές πολλές φορές να δώσουνε κάποιες καλύτερες εκπτώσεις, βέβαια το πρόγραμμα “Εξοικονομώ 2023” όπως και τα προηγούμενα δύο έχει γίνει αρκετά εμπροσθοβαρές, δηλαδή δίνει μια προκαταβολή, κάτι που βοηθάει, ναι, και τον ωφελούμενο”

Another interviewee supporting this view summarises the problem through a powerful metaphor, that of Exoikonomo as gasoline thrown into the fire of soaring market prices:

“Exoikonomo, if you wish, adds a further challenge on the supply chain, it multiplies the demand for constructions, in a period that the market is already hot, and this creates... We pour gasoline into the fire. Yes, this is what it does”

“Το Εξοικονομώ αν θέλετε δίνει μια περισσότερη δυσκολία στην εφοδιαστική αλυσίδα, πολλαπλασιάζει τη ζήτηση για κατασκευές, τη στιγμή που έτσι κι αλλιώς η αγορά είναι χοτ και αυτό δημιουργεί... βάζουμε βενζίνη στη φωτιά. Ναι, αυτό το κάνει.”

An expert coming from civil society added the impact of the programme on rising rents:

“What I have in my mind (...) regarding what’s happening now with rents and the real estate market and the whole renovation phenomenon (...) So if a landlord really wants to upgrade that house because they view it as an asset, an economic asset let’s say, then usually what happens is that they raise the rent. And that will push the potential tenant to probably leave and go to another house that’s of the same quality or worse to be able to afford it, so the one who benefits is the one who’s already somewhat financially in a better (...) financial situation because they have another house. They may declare it as a primary residence, but they may live somewhere else. I remember with researchers I had spoken to (...) they told me of a case where a lady had put her house in Exoikonomo when she was living in it and then Airbnb’d it. So, this whole thing tends to reinforce this pressure that there is for a lack of affordable housing, using the funds from the Exoikonomo action”

*“Αυτό μπορώ να το συνδέσω στο μυαλό μου, χωρίς να έχω δεδομένα, σε σχέση με αυτό που συμβαίνει τώρα με τα ενοίκια και την αγορά ακινήτων και τό όλο φαινόμενο των *renoviction* (...) Οπότε αν ένας ιδιοκτήτης θέλει όντως να αναβαθμίσει αυτό το σπίτι γιατί το βλέπει ως ένα *asset*, ένα οικονομικό *asset* ας πούμε, μετά συνήθως αυτό που συμβαίνει είναι ότι ανεβάζει το ενοίκιο. Και αυτό θα ωθήσει τον ενοικιαστή που θα είναι μέσα πιθανά να φύγει και να πρέπει να πάει να ζήσει σε ένα άλλο σπίτι το οποίο είναι ίδιας ποιότητας ή και χειρότερης για να μπορέσει να ανταπεξέλθει, άρα αυτός που επωφελείται είναι αυτός που ήδη είναι κάπως οικονομικά σε μια καλύτερη και υψηλότερη οικονομική κατάσταση γιατί έχει ένα άλλο σπίτι. Μπορεί να το δηλώνει σαν πρώτη κατοικία, να μένει κάπου αλλού όμως. Θυμάμαι με ερευνήτριες που είχαμε μιλήσει (...) μου είχαν πει την περίπτωση όπου κάποια κυρία έκανε “Εξοικονομώ” στο σπίτι που έμενε και μετά πήγε και το έκανε *Airbnb*. Οπότε όλο αυτό το πράγμα τείνει να ενισχύσει αυτή την πίεση που υπάρχει για την έλλειψη προσιτή κατοικίας, χρησιμοποιώντας τα κεφάλαια του “Εξοικονομώ”*”

This side-effect of inflating market prices, from construction costs to rising rents, seen together with the effective exclusion of low-income households from the programme in practice, creates reasonable concern that the programme might be generating substantial negative consequences for broad social strata, affecting particularly those in the most vulnerable position.

3.3 Information, communication and social acceptability

Overall, many among our interviewees seem to agree that Exoikonomo 2023 enjoys positive public perception due to prior successes, with all the relevant information being publicly available and frequent media coverage assisting in dissemination of key information. However, vulnerable groups face significant outreach gaps, and there is insufficient data on applicant satisfaction due to a lack of relevant surveys. Accessibility issues, especially for older persons or visually impaired groups, remain largely unaddressed, indicating design and implementation flaws. Moreover, barriers in the main implementing partner’s communication process, bureaucratic delays, and inaccessible resources for vulnerable groups seem to hinder full participation.

Several interviewees agreed on the popularity and social acceptance of the programme, as it has had several previous iterations, with future ones (i.e. Exoikonomo 2024) already

under way. Most interviewees suggested that the social acceptance of the programme had to do with its successful design and implementation, with negative views, however, being present as well. Various frustrations and often complaints from beneficiaries, technical consultants and engineers involved, mostly related to payment delays, bureaucratic issues and the review process were also regularly mentioned by most interviewees.

With the media already covering the programme, several interviewees considered that there was ample information readily available for every potential applicant/beneficiary of the programme. Some of them suggested that there was no need for any additional measures to increase social support and social acceptance.

It is worth noting that such views about the public perception and social acceptance of the programme seem to be based exclusively on individual perceptions of our interviewees. Indeed, it was confirmed that no surveys have been made to explore the satisfaction of the applicants or the beneficiaries with the programme, with the responsible Ministry not currently planning of organising any such surveys in the future according to input we received. Thus, it is rather impossible to ground claims about the overall satisfaction and positive perception of the programme by the public in concrete data and measures.

It is also worth highlighting some diverging perspectives here, highlighting a contrast between institutional actors (coordinating and implementing partners) and civil society. As stressed by an independent expert, Exoikonomo's specifications might be publicly available on paper, however they are not accessible and broadly understandable in practice as they lack clarity. This is why technical consultants have shouldered, expecting to gain relevant profits. They also likened the programme's communication strategy to a bank marketing a consumer loan, adopting a client-driven approach rather than fostering genuine understanding, rendering the programme's communication strategy a missed opportunity to inform and educate citizens effectively.

“There should be much more careful communication. I'm not saying it should be scientific and heavy, but people need to genuinely connect with the problem. Why is this money being spent? Why is it important to make these changes in our lives? Ultimately, we need to raise awareness among more people and provide information. It's not just about replacing the window frames; it's about knowing how to open them correctly, using shading systems, and turning off the lights. It's about taking the right steps in your home to ultimately reduce your energy needs. This is yet another opportunity being missed”

“Θα έπρεπε να είναι μια πολύ πιο προσεκτική επικοινωνία. Δεν λέω επιστημονική και βαριά. Αλλά ο κόσμος να συνδέεται πραγματικά με το πρόβλημα. Γιατί πέφτουν

αυτά τα χρήματα; Γιατί έχει μεγάλη σημασία να κάνουμε αυτές τις αλλαγές στη ζωή μας; Στην τελική να ευαισθητοποιηθεί ακόμη περισσότερος κόσμος, να ενημερωθεί. Δεν είναι μόνο να αλλάξεις τα κουφώματα στο παράθυρο σου. Είναι να ξέρεις να το ανοίγεις σωστά, να χρησιμοποιείς συστήματα σκίασης, να κλείνεις τα φώτα. Να κάνεις τις σωστές κινήσεις στο σπίτι σου ώστε να μειώσεις τις ενεργειακές σου ανάγκες στην τελική. Είναι ακόμη μία ευκαιρία που χάνεται.”

Others stressed that Exoikonomo might be the most well-known energy saving action in Greece, however, this seems to be because it is one of the oldest relevant actions in the country, not because it is based on a successful communication effort. Moreover, it was mentioned that the programme has a negative reputation among the public due to delays in payment, while other suggested that some citizens seem to view the programme as a way in which the State is providing engineers with work, and thus struggling to see the real benefits for them. As with the positive views, such critiques seem to be based exclusively on individual perceptions of our interviewees. Interestingly, some of the interviewees expressing negative views about Exoikonomo’s communication and social acceptability aspects have been applicants themselves in past iterations of the programme, with no success.

An additional aspect that was stressed related to the public perception of the programme has to do with its success in absorbing 100% of its allocated funds, which is considered a significant achievement and unprecedented compared to other programmes. However, this optimistic viewpoint is contradicted by interviewees coming from civil society who stressed a possibly serious deficiency affecting low-income vulnerable households and individuals. As stressed by interviewees, the information available about Exoikonomo is not practically accessible to vulnerable groups. As a result, outreach and awareness-raising activities within the action are often seen as having failed to meet their targets. This is because vulnerable groups are unlikely to seek information about the programme. Moreover, it was noted that many vulnerable people are not even aware of the programme’s existence and are not able to reach out to a Technical Consultant for support or information about upgrading their properties. The everyday challenges faced by such groups prevent them from prioritizing energy-related issues or searching for such information. An interviewee following this line of reasoning cited examples from other countries, such as Portugal, where municipalities are involved in similar actions, and Malta, where the state actively reached out to vulnerable groups based on specific economic and social criteria.

“In Malta [...] the state directly accessed the financial accounts of individuals, identifying those whose income and annual earnings met indeed the criteria, criteria

that were of course higher than the minimum guaranteed income. Through a system of coupons, they were given a certain amount of money, which they could use with receipts to take part in [the equivalent of] Exoikonomo. The approach was very targeted. These people won't come to you, you need to go to them. So, Malta provides a very good example that we can consider. Through AADE (Independent Authority for Public Revenue) we can see the financial status of individuals, understand what properties they own, and how much they earn annually, which would allow us to easily reach these people"

"Στη Μάλτα [...] το κράτος μπήκανε απευθείας στους λογαριασμούς των ανθρώπων οι οποίοι είδαν ότι πραγματικά οι λογαριασμοί τους είναι αυτοί και το ετήσιο εισόδημά τους είναι αυτό και τα κριτήριά τους ήταν φυσικά παραπάνω από το ελάχιστο εγγυημένο εισόδημα και μέσα κάποιων κουπονιών τους έδωσαν κάποια χρήματα προκειμένου αυτοί με αποδείξεις να καταφέρουν να μπουν στο "Εξοικονομώ". Πήγαν δηλαδή πολύ στοχευμένα. Δεν θα έρθουν αυτοί οι άνθρωποι σε εσένα, πρέπει να πας εσύ σε αυτούς. Άρα η Μάλτα έχει ένα πολύ καλό παράδειγμα το οποίο μπορούμε να λάβουμε υπόψη μας και εμείς. Μέσω της ΑΑΔΕ μπορούμε να δούμε τα οικονομικά και να ξέρουμε ο καθένας τι έχει στον λογαριασμό του, τι ακίνητα έχει και πόσα βγάζει τον χρόνο άρα πολύ εύκολα μπορούμε αυτούς να τους πάρουμε".

This is an important insight about accessibility and targeted communication strategies, as it further emphasises the recurring problem that has already been stressed regarding the in-practice exclusion of low-income and vulnerable households from the programme, despite the opposite official declarations and relevant provisions, pointing towards substantial flows in the implementation and possible design of the action.

According to an interviewee's opinion, there are communication barriers between the main implementing partner Technical Chamber of Commerce of Greece (TEE) and Technical Consultants. As they described, all applications are handled by the appointed team at the TEE and organised into files with relevant documents. Once an officer from TEE has reviewed the file, they send their comments and remarks to the applicant's Technical Consultant via email. However, the Technical Consultant cannot directly communicate with the officer handling their specific file, making it difficult to discuss the details of the case. In some cases, as the interviewee mentioned, responses to emails from the TEE officers can take up to two months, slowing down progress and creating frustration for both the Technical Consultants and applicants/beneficiaries.

"A communication issue is that the Consultant does not communicate with the Inspector who is assigned to the beneficiary's file. This is a drawback for me. The Inspector is from TEE. When I submit the documents, they are checked by an

Inspector. I have no direct communication with them, only through an email, which may be answered after one or two months.”

“Many times, you receive a comment that is not clear about what is being requested. And I don’t know what to do. So, if there were a phone line, the problem would be resolved immediately”.

“Ένα πρόβλημα επικοινωνίας είναι ότι ο Σύμβουλος δεν επικοινωνεί με τον Ελεγκτή που έχει χρεωθεί τον φάκελο του επωφελούμενου. Αυτό είναι μείον για μένα. Ο Ελεγκτής είναι του ΤΕΕ. Εγώ όταν υποβάλλω τα ελέγχει κάποιος Ελεγκτής. Δεν έχω επικοινωνία μαζί του. Παρά με ένα email το οποίο μπορεί να απαντηθεί και μετά από έναν, δύο μήνες. “

“Πολλές φορές σου έρχεται μια παρατήρηση η οποία δεν είναι σαφής τι ζητάει. Και δεν ξέρω τι να κάνω. Άρα αν υπήρχε ένα τηλέφωνο θα λυνόταν αμέσως το πρόβλημα”

Lastly, but importantly, our interviewees could not identify any elements/practices related to accessibility and targeting of communications towards different groups with specific needs (i.e. the visually impaired, or the older persons and digitally illiterate),⁵⁶ which creates reasonable concern regarding the actual accessibility of relevant material and information to certain groups within society. According to most our interviewees, there seems to be an over-reliance on the technical consultants. However, if crucial information is not made available in an accessible way to certain groups with specific needs, it is possible that these groups might struggle to even reach the point of collaborating with such a consultant who can then assist them with any issues and practical needs.

3.4 Stakeholder engagement and participation

The picture regarding stakeholder engagement in the design, development, implementation and evaluation of the problem is rather unclear and often contradicting. To put it briefly, stakeholder engagement seems to have been inconsistently applied,

⁵⁶ On our part, we have established that the actions’ website is accessible for persons with impaired vision.

with some groups, including minority and hard-to-reach communities, often left out or only involved on an ad hoc basis. According to our interviewees, while certain consultations occurred, they lacked formalized processes, raising concerns about the exclusion of vulnerable populations, including low-income and minority groups, from meaningful participation and support.

Some of our interviewees, coming from coordinating partners and civil society, suggested that stakeholders were not approached to provide information or assistance at any stage of the programme. Others further clarified that there are no standardised processes for stakeholder engagement and consultation and that unfortunately, relevant consultations that might occur are often implemented on an ad hoc basis, with no corresponding official records, which can be problematic for assessing their actual impact and effects on the programme. Some maintained that stakeholder input was indeed taken into account at various stages, but this often occurred after specific groups acted on their own initiative (e.g. relevant Consumer Associations) and communicating certain issues, grievances and demands to the responsible ministry, without there being any tangible evidence as to how said stakeholder input was actually taken into account, at what stage and in what form. Overall, viewpoints like the above seem to converge on the need for a more formalised and structured process for stakeholder engagement in the programme.

There were also some sharply critical voices among our interviewees, with one coming from civil society stressing that stakeholders were not approached to provide information or assistance at any stage of Exoikonomo. The Ministry seems to lack direct contact with local communities and is unaware of the needs and challenges faced by citizens. This gap, it was suggested, could be filled by civil society organisations and municipalities, as they are in direct line with the most vulnerable groups in society.

Finally, according to information we received, the Technical Chamber of Commerce of Greece (TEE), the key implementing partner, has worked closely with the Association of Multi-child Families to determine the necessary paperwork and procedures. This process, we were informed, included discussions about the requirement for digital signatures, which was not an arbitrary decision but the result of multiple consultations, including relevant virtual meetings. Additionally, the TEE team engaged with organisations representing persons with disabilities to address their specific needs. Ongoing communications with various service departments and stakeholders, as stressed by a representative of TEE, helped refine what documentation would be accepted and how it should be requested. However, we were not able to acquire information on the name of the specific organisations or unions involved in said meetings, which brings us back to the lack of a formalised and structured relevant

process that would involve stakeholder and relevant groups in a more systematic and standardised way.

Moving on to the inclusion and participation of different groups in the action, the picture remains similarly vague and sometimes contradictory. We have seen that in the official Guide of the programme, people with disabilities, multi-child families as well as single-parent families, get extra points when their application is considered. Furthermore, according to the programme's provisions, the lower the income of the applicant, the higher the contribution of the action for the constructions which will be made in the residency. But these aspects do not neatly translate in actual practice, and we have already seen how certain groups, especially low-income and vulnerable households, face serious challenges and even exclusion from the programme. We did not get substantial further input from interviewees⁵⁷ regarding any specific accessibility measures or additional steps taken to ensure the meaningful inclusion of different groups, with some even suggesting that there were never any such steps taken. It is also very telling here that one of our interviewees coming from a key coordinating partner got rather defensive when asked about this specific aspect, showing what appears to be borderline unwillingness to meaningfully take under consideration the specific needs of vulnerable groups; a particularly striking and rather concerning finding of our research.

“Yes, we take them under consideration as much as we can [means the specific needs of vulnerable groups]. I repeat, this ministry is the Ministry of Energy. It is not the ministry of Social Policy. (...) In practice, someone can get help from the people they know. There isn't a state actor which helps in computer literacy.”

“Ναι, τα παίρνουμε υπόψη μας όσο μπορούμε. Σας επαναλαμβάνω, το υπουργείο είναι υπουργείο ενέργειας. Δεν είναι υπουργείο κοινωνικής πολιτικής. [...] Στην πραγματικότητα βοηθιέται κανείς από τους ανθρώπους που γνωρίζει. Δεν υπάρχει κάποιος κρατικό φορέας που βοηθά με την γνώση των ηλεκτρονικών υπολογιστών.”

Following up and further elaborating on the issues on inclusion and participation of more vulnerable groups in the action, the conversation with this interviewee took a rather troubling turn. When asked whether there were, in their view, any other groups that you have seen that they are hard to reach, they replied:

⁵⁷ Greece, (2023), Ministry of environment and Energy, *Guidelines Of Programme Implementation “Save 2023”* (Οδηγος Εφαρμογης Προγραμματος «Εξοικονομω 2023», September 2023.

“Yes, sure, [laughing there are. Roma people, for example, what kind of energy saving are Roma people doing? On the other hand, they are saving energy in the sense that they recycle. However, they recycle in a slightly... illegal way, but if Greece has a system of recycling, this is the Roma people! “.

“Ναι, βέβαια, εντάξει, (γέλια) υπάρχουνε. Οι Ρομά για παράδειγμα, τι εξοικονόμηση να κάνουν η Ρομά; Βέβαια, κάνουνε εξοικονόμηση, με την έννοια ότι κάνουνε ανακύκλωση. Την κάνουνε, βέβαια, με τρόπο λίγο...παράνομο, αλλά, αν έχει η Ελλάδα ένα σύστημα ανακύκλωσης, αυτό είναι οι Ρομά!” .

This line of reasoning, coming from an interviewee from a key coordinating partner that has actual power over the programme’s design and relevant provisions is very concerning as it demonstrates a declared unwillingness to acknowledge and remedy gaps and barriers for the participation of minority and hard-to-reach groups in the programme, ending up with what reads almost like mocking the status and needs of one particularly vulnerable group, that of Roma people, that are facing long-standing challenges having to do with poverty, racism and social exclusion. Therefore, we identified a key deficiency and urgent concern regarding how the most vulnerable households and individuals are being supported: despite being prioritised and included in the action according to the official guidelines, they seem to face significant barriers or are, in fact, effectively excluded.

3.5 Governance and accountability, data and monitoring

Our research indicates that data availability on Exoikonomo 2023’s monitoring remains untransparent, with accountability mechanisms underdeveloped. Although the Technical Chamber of Commerce of Greece (TEE) seems to oversee complaints related to engineer misconduct, no formal complaints system exists, raising transparency concerns. Interviewees noted a focus on technical and energy-saving metrics over social impact but did not mention any official data/reporting into how well vulnerable groups benefit or receive necessary support.

Reporting and monitoring for Exoikonomo 2023 fall under the Ministry of Environment and Energy, in collaboration with TEE and the Hellenic Development Bank (HDB), which oversees the programme's implementation and financial management. According to input we received via interviews, TEE is responsible for evaluating the technical aspects of the applications, while HDB handles the financial review. It was also reported that there is an entire team at TEE dedicated to monitoring, compiling the necessary reports, and handling all the administrative work related to the programmes. This team, as it was explained to us, consists of about 5-6 members and tracks everything related to the Recovery Fund, including statistical monitoring, milestones, and other data, in cooperation with the Hellenic Statistical Authority (ELSTAT). However, we did not manage to get access to detailed information or relevant data⁵⁸

The lack of publicly available and accessible data on the monitoring and evaluation of the programme and its implementation was brought up by several among our interviewees. When asked about the availability of such data to the public, one of our interviewees coming from civil society burst into laughter, responding:

“Now, here we laugh! No... [laughing] There may be some announcements but in order for the public, the non-expert public to understand, you have to translate everything into a language that the non-expert public can understand (...) I think that no, even if somebody wants to, they don't know where to look for it, which agency to turn to, but even the Ministry itself, when we were discussing the action plan to tackle energy poverty (...) because it really is a question of how to do targeted actions - they said they don't know or they would have to ask the Hellenic Statistical Authority, and they have difficulty in giving them... I think that even among themselves they don't have this kind of”

“Εδώ γελάμε! Όχι...[γελώντας]. Μπορεί να υπάρχουν κάποιες ανακοινώσεις ρε παιδί μου, αλλά για να μπορέσει το κοινό, το μη ειδικό κοινό να καταλάβει πρέπει

⁵⁸ Despite our continuous efforts to ensure an interview with a person from the sections of TEE and HDB that are responsible for monitoring and reporting on the action, this was not possible during the duration of the field research, while we could not get hold of any relevant documents/reports, despite our requests. In our communications with the two implementing partners, it never became clear why an interview with any of their members in the relevant departments could not be scheduled. The only publicly available data is raw data regarding mostly provisional approvals of applications which, however, would require meticulous processing and analysis in order to provide meaningful insight to the programme's implementation. For relevant spreadsheets and more information visit Greek Government's official website available on : <https://exoikonomo2023.gov.gr/welcome>

να τα μεταφράσεις όλα σε μια γλώσσα που να καταλάβει το μη ειδικό κοινό (...) Νομίζω πως όχι, ακόμα κι αν κάποιος θέλει, δεν ξέρει πού να τα ψάξει, σε ποιο φορέα να απευθυνθεί αλλά ακόμα και το ίδιο το Υπουργείο, τότε που συζητούσαμε για το σχέδιο δράσης για την αντιμετώπιση της ενεργειακής φτώχειας (...) γιατί είναι ζήτημα όντως πώς θα κάνεις στοχευμένες δράσεις - έλεγε δεν ξέρουμε ή πρέπει να χτυπήσουμε την πόρτα της ΕΛΣΤΑΤ, κι αυτοί δυσκολεύονται να τα δώσουν... Ακόμη και μεταξύ τους δηλαδή νομίζω ότι δεν έχουν αυτή την τέτοια..."

Now, general information on the key principles of funding allocation and eligibility criteria is available. However, detailed impact monitoring, especially regarding social outcomes or fundamental rights, is less evident in publicly accessible sources, while no relevant documentation was sent to us on these matters, despite our follow-up communications and relevant requests to the responsible organisations. For example, Exoikonomo 2023 outlines priorities for vulnerable groups (e.g. low-income households, energy-poor citizens, and those in colder regions), but the extent to which the actual social impacts, such as energy poverty reduction or improved living conditions for vulnerable groups, are tracked or reported remains unclear. Indeed, when enquired specifically about this, none among our interviewees was aware of any specific obligations related to fundamental rights, while none had any information on whether relevant data is disaggregated.

Some of our interviewees mentioned that the KPIs of the funding schemes supporting Exoikonomo (RRF and Re-power of the EU Resilience Fund) have to do with energy saving. Energy saving in the action, according to them, could then be studied by the data provided on the application, i.e. the certificate of energy efficiency during the stage of the application and the certificate of energy efficiency after the intervention, however, once more, we could not get hold of any relevant analyses as this would have to be compiled and published by one of the key institutional partners involved.

Regarding fundamental rights and social impact, the programme officially gives particular attention to low-income and energy-poor households (despite barriers in practice, which we have already covered). However, the available information suggests that monitoring focuses mainly on energy efficiency and the technical execution of renovations, rather than more comprehensive social impacts. This can create challenges for understanding the true effectiveness of the programme in reducing energy poverty or improving the quality of life for vulnerable populations. Especially with regards to fundamental rights, as one of our interviewees coming from an organisation involved in the coordination of the programme (rather cynically) put it:

[...] “we haven't taken the Charter of Fundamental Rights to put it here and say we tick every box” .

[...] “δεν έχουμε πάρει τον καταστατικό Χάρτη των Θεμελιωδών Δικαιωμάτων να τον βάλουμε εδώ πέρα και να πούμε κάνουμε τικ σε κάθε ένα” .

Another issue here is that there does not seem to be a formal complaints mechanism for the programme, which creates reasonable concern about the accountability of the action. The following dialogue between one of our interviewers and an interviewee from a key coordinating partner is very telling. When asked whether there is a complaints mechanism, they replied that they treated every complain that occurred ‘ad hoc’, and not through a formally instituted complaints mechanism. When further asked whether they would be willing to create such a mechanism, their reply was negative.

“I would like to do nothing else. We can hardly go through our emails”.

“ δε θελα να κάνω τίποτα άλλο. Με το ζόρι διαβάζουμε τα email μας”.

The above was partly contradicted by information we received from an implementing partner, suggesting that there are established mechanisms for handling complaints, either through the programme’s official website⁵⁹ or via TEE⁶⁰. This system seems to follow the internal processes of TEE, allowing citizens to report issues such as engineers not performing their duties properly or problems related to contractors and suppliers. Through these mechanisms, TEE seems to have uncovered instances of fraud, such as individuals warning not to proceed with payments because their consultant deceived them or misused their credentials. The TEE, according to said input, has also established objection committees to address and review various issues across all stages of the programme. These committees ensure thorough oversight and resolution of any

⁵⁹ After examining the programme’s dedicated webpage, we could not find any information on a relevant complaints’ mechanism. We assume that the interviewee might have had in mind the communication facility with the programme’s [Helpdesk](#)

⁶⁰ The Technical Chamber of Commerce of Greece (TEE) is the Greek professional organization serving as the state’s official technical advisor and responsible for licensing all practicing engineers in Greece. It operates as a public legal entity with an elected administration under the supervision of the Hellenic Ministry of Infrastructure and Transport. In the context of Exoikonomo 2023, TEE oversees the action’s implementation and issues payment orders.

concerns that arise throughout the programme's implementation. This procedure sounds useful and important; however, it seems to fall short from forming a proper complaints mechanism for the specific programme . It rather forms part of TEE's own processes of checking with engineers and technicians involved in actions that they oversee to prevent fraud.

One promising aspect of the programme, as mentioned before, is its effort to address financial accessibility by offering interest-free loans and significant subsidies (up to 75%) for lower-income households. However, there are reasonable and widespread concerns about upfront financing challenges, as beneficiaries must initially cover some costs before receiving reimbursements. This may delay access for or even totally exclude the most vulnerable groups. Even worse, the interest-free loans seem to be a programme provision that remains on paper , as banks do not approve loans for many vulnerable households according to several among our interviewees.

Another promising practice in Exoikonomo 2023 is the scoring system that prioritizes applications based on income, property age, energy consumption, and geographical factors. This, at least on paper, seems able to help direct resources to those most in need. However, we have firmly established that there are multiple accessibility barriers in practice, like digital literacy and the complexity of the application process, may hinder vulnerable groups from fully benefiting.

Overall, there are substantial gaps in social impact monitoring and potential challenges in ensuring equitable access for all eligible groups. Regarding possible recommendations on improving data and monitoring of the programme, things seem to still be so underdeveloped, that even basic transparency and data availability on the action's implementation, the percentages of vulnerable groups being benefitted and any indicators/metrics on measurable social impacts would constitute major improvements.

4. Conclusions and key recommendations

Greece's green transition strategy, as outlined in the country's NECP, has at its core the phase-out of lignite by 2028 and includes plans to reduce greenhouse gas Emissions, expand renewable energy, enhance energy efficiency and combat energy poverty while diversifying the economy, securing jobs, and retraining workers. Key energy efficiency programmes, such as Exoikonomo 2023, target greenhouse gas reduction and energy poverty, but do not seem to form part of a cohesive and long-term national strategy, as they rely heavily of EU financial support and face implementation challenges. Exoikonomo 2023 prioritises vulnerable households – on paper – but struggles with meaningful inclusion and accessibility, excluding many low-income and vulnerable households in practice. Additionally, the programme seems to have increased market prices (according to several of our interviewees), exacerbating housing affordability issues in conditions that look indeed more like a 'housing crisis'⁶¹. Monitoring and clear targeting of vulnerable groups in relevant programmes remain weak, raising concerns about effectiveness and social impact.

Looking at Exoikonomo more closely, while the programme is considered popular and enjoys substantial social acceptance due to its successful past iterations, it faces significant barriers in reaching low-income and vulnerable groups. Many of potential beneficiaries among these individuals and groups could be unaware of the programme or may not be able to access necessary information, excluding them from potential benefits. Outreach and communication strategies seem insufficient, relying heavily on the role of Technical Consultants without addressing the needs of groups like the elderly, visually impaired and digitally illiterate.

Stakeholder engagement in the programme is inconsistent, with no formal consultation process, relying almost exclusively on ad hoc consultations. Some participation occurs, but it often lacks transparency and structure. Social impact monitoring is weak, focusing more on technical outcomes, such as energy savings, while neglecting broader issues like energy poverty reduction and living conditions for vulnerable populations. In any case, this aspect could not be reliably assessed due to the unavailability of relevant impact assessments and data. Additionally, the absence of a formal complaints'

⁶¹ For more information see ETERON's website on [A depiction of the housing issue in Greece](#).

mechanism raises concerns about accountability and equitable access to the programme's benefits.

Financially, the programme offers interest-free loans and subsidies for low-income households, but upfront costs present significant hurdles for the most vulnerable. The scoring system used aims to prioritise need, but practical barriers such as digital literacy and the complexity of the application process limit equitable access.

Overall, despite its popularity, the programme struggles, if not fails to fully include and support vulnerable groups, leaving gaps in both implementation and monitoring that could undermine its long-term social impact.

4.1 Main effects

The national policies and projects discussed, and especially the Exoikonomo 2023 programme, have had mixed effects. On the positive side, Exoikonomo 2023, that is ongoing, enjoys broad social acceptance, seems to successfully allocate 100% of its funds, and significantly improves energy efficiency in and increases the market value of the properties. It has contributed to a reduction in the consumption of primary energy, a decrease in CO₂ emissions and has improved the thermal comfort for residents of beneficiary households according to our interviewees, even though we could not get hold of any tangible data/evidence on the extent of such effects.

However, Exoikonomo 2023 faces notable challenges, particularly in reaching low-income and vulnerable groups. Communication barriers, such as delayed responses in technical queries and over-reliance on Technical Consultants, hinder accessibility. Vulnerable populations, including the older and digitally illiterate people, face serious risks of exclusion due to insufficient outreach and complex application processes. Stakeholder engagement is inconsistent, with a lack of formal consultation and input, while social impact monitoring focuses on technical outcomes, neglecting broader issues like energy poverty reduction. Financial accessibility is also problematic, with upfront costs deterring the most vulnerable households. Overall, while effective in energy savings, the programme seems to fall short in ensuring equitable access and broader social benefits

Interestingly, our interviewees engaged the least with this aspect of the programme.

4.2 Challenges and gaps

Several challenges were identified, particularly in the Exoikonomo programme. A major issue that we have already stressed is the limited reach to vulnerable and low-income groups, as information is not readily accessible to them, while there are substantial practical challenges hindering their full participation. Although there are provisions to support these groups (such as including high subsidy rates of up to 75%, interest-free loans guaranteed by the state, and priority access), practical barriers (such as upfront financial requirements, digital literacy difficulties, and complex application processes) restrict their involvement. Despite the programme being fully digitalised, bureaucracy remains a significant problem as well, due to the complexity of required documentation. Additionally, monitoring seems to focus primarily on energy efficiency and fails to adequately measure social impacts, such as poverty reduction. And while monitoring is required per programme, unfortunately no tangible reports and/or data are publicly available. The lack of a formal complaints' mechanism raises concerns about transparency and accountability.

The main gap of the programme that we have identified, has to do with the inadequate inclusion, if not exclusion of the most vulnerable households in practice.

“The main problem is that this action is for everyone. While there are social criteria, again it is an action that is mainly aimed – while it foresees income criteria – at an average household that has some money in the bank and will do two or three things and not at those who need it most. So, for me, the right thing to do and the most effective thing to do would be to have three different Exoikonomo schemes. One that is for the energy poor, one that is aimed at solving the heating problem and making buildings a little bit smarter if we can, for those who have some money in the bank. For those who don't, for the hard-to-reach areas, you must have a wide range of tools because the problem is not one for all and common to all”

“Το βασικό πρόβλημα είναι ότι είναι ότι αυτό το πρόγραμμα είναι για όλους. Ενώ υπάρχουν κοινωνικά κριτήρια, πάλι είναι ένα πρόγραμμα που απευθύνεται κυρίως - ενώ έχει μέσα τα εισοδηματικά κριτήρια - για ένα μέσο νοικοκυριό που έχει κάποια χρήματα στην άκρη και θα κάνει δύο τρία πράγματα και όχι γι' αυτούς που το έχουν περισσότερο ανάγκη. Δηλαδή, για εμένα, το σωστό και το πιο αποτελεσματικό θα ήταν να έχουμε τρία διαφορετικά “Εξοικονομώ”. Ένα που να είναι για τους ενεργειακά φτωχούς, ένα που να απευθύνεται να λύσει το πρόβλημα της θέρμανσης και να τα κάνουμε και λίγο πιο smart τα κτίρια άμα μπορούμε, γι' αυτούς που έχουν κάποια χρήματα στην άκρη. Γι' αυτούς που δεν έχουν, για τις δυσπρόσιτες περιοχές, δηλαδή πρέπει να έχεις μεγάλη γκάμα εργαλείων γιατί το πρόβλημα δεν είναι ένα για όλους και κοινό για όλους.”

Another concern is the communication gap between Technical Consultants and TEE, which causes delays and frustration for both consultants and applicants. Stakeholder engagement is also seen as inadequate, with no formal structure in place to ensure meaningful participation. These issues highlight considerable flaws in both the design and implementation of the programme. Improved communication and coordination between key implementing partners are needed, as poor connectivity and communication only add to the bureaucratic burden.

“The most negative aspect of the programme is the bureaucracy. Unfortunately, the services are not yet interconnected, forcing the client, the citizen, the interested party to visit various offices to gather documents. Let me give you a simple example. For instance, it requires you to submit the building permit for the property. Old building permits often did not include a number when the property was at an intersection of streets, i.e., [street name] and [street name]. The programme says: ‘I do not accept the permit for [street name] and [street name]’ and you must apply to the municipality to confirm that your property is on [street name] [number]. This can take two or three months. And I say, ‘Wait a minute. Look, the property’s street number is cross-referenced in the E9 form [the section of the tax declaration that lists property holdings]. That should be enough’. But they don’t accept the E9 form.”

“Το πιο αρνητικό στο πρόγραμμα είναι η γραφειοκρατία. Δυστυχώς οι υπηρεσίες δεν έχουν διασυνδεθεί ακόμα και αναγκάζεται ο πελάτης, ο πολίτης, ο ενδιαφερόμενος να πηγαίνει στις διάφορες υπηρεσίες και να συλλέγει χαρτιά. Να σας πω ένα απλό παράδειγμα. Σου λέει, μου υποβάλλεις την οικοδομική άδεια του κτιρίου, οι οικοδομικές άδειες οι παλιές όταν βρισκόταν σε διασταύρωση το ακίνητο δεν γράφανε νούμερο. Δηλαδή [όνομα οδούς] και [όνομα οδούς]. Δεν υπήρχε το νούμερο. Σου λέει το πρόγραμμα: “Εγώ δεν δέχομαι την άδεια [όνομα οδούς] και [όνομα οδούς]”, θα πρέπει να κάνεις υποβολή αίτησης στον Δήμο και να σου πει ότι το ακίνητό σου είναι στην [όνομα οδούς] [αριθμός]. Αυτό μπορεί να πάρει και δύο και τρεις μήνες. Και λέω εγώ “Μισό λεπτό. Ρε παιδιά, αφού διασταυρώνεται ο αριθμός του ακινήτου, της οδού από το Ε9 [το τμήμα της φορολογικής δήλωσης που αναγράφεται η ακίνητη περιουσία]. Τέλος, δεν χρειάζεται”. Δεν τους αρκεί το Ε9.”

Our interviewees were so expansive on enumerating challenges and gaps that it is difficult to do justice to the input we received. Here is a brief summary of more key issues (without ranking them by importance):

1. Complex Documentation: Excessive paperwork complicates participation.

2. Poor Audit Communication: Fragmented checks and ineffective oversight.
3. Rising Costs: Increasing material and project expenses create financial strain.
4. Payment Delays: Slow payments frustrate professionals and beneficiaries.
5. Unpredictable Resources: Annual funding is inconsistent, complicating planning.
6. Low Intervention Completion: 30-40% of selected participants drop out due to funding delays or engineer disagreements (refers to past iterations of the programme).
7. Large Beneficiary Pool: Managing many small participants increases administrative burdens and deters banks from funding.
8. Market Fragmentation: The programme has further divided the energy-saving market.
9. Legal Issues: Building permit problems can increase costs and cause dropouts.

Finally, a more general and forward-looking concern has to do with the major challenge of lacking financial resources.

“The main challenge is the financial aspect. These ambitions we have for the energy saving projects collide with the lack of resources. At this time, we cannot imagine where we will find all these billions - it is about 200 billion until 2040 and at the same time the climate change brings natural disasters (...) which further burden the national budgets - and the EU budgets - and they will continue to do so in the next years. So, in this sense, the main challenge is the financial. Where we will find the money.”

“Η κύρια πρόκληση είναι το οικονομικό. Αυτές οι φιλοδοξίες που έχουμε για τα προγράμματα εξοικονόμησης προσκρούουν στην αδυναμία εύρεσης πόρων. Αυτή τη στιγμή δε μπορούμε να φανταστούμε πού θα τα βρούμε όλα αυτά τα δις - είναι γύρω στα 200 μέχρι το 2040 και επίσης ταυτόχρονα η κλιματική κρίση προκαλεί φυσικές καταστροφές (...) οι οποίες θα επιβαρύνουν του εθνικούς προϋπολογισμούς - και τους κοινοτικούς - πολύ περισσότερο τα επόμενα χρόνια. Οπότε η κύρια πρόκληση είναι financial. Πού θα βρούμε τα λεφτά”

4.3 Lessons learned and good practices

Probably the most important lesson learned is the importance of meaningful inclusion, as well as accessible and targeted communication, particularly for vulnerable and low-income groups. The failure to effectively reach and include these groups, despite official provisions, underscores the need for tailored outreach strategies, such as collaboration with municipalities and civil society, but also improvement in the overall design that

would allow households to benefit from the programme even if they are not able to manage upfront payments.

Good practices include the programme's ability to absorb 100% of its allocated funds (according to the estimates of an interviewee and relevant media reports), something that was preceded by a substantial increase in the programme's budget that responded to increased demand. Moreover, previous Exoikonomo programmes used a FIFO (First In, First Out) scheme, meaning applications were evaluated in the order they were received. In contrast, the Exoikonomo 2023 programme allows for a more extended application period, typically lasting two to three months. This new scheme gives potential beneficiaries and Consultants adequate time to apply without the pressure of tight deadlines or uncertainty about whether their application would be accepted. The previous FIFO system had the drawback of closing when a certain number of applications were reached, which led to many being excluded.

Additionally, the scoring system that prioritizes applications based on income, energy consumption, and geographical factors is a promising way to target those in need, but there is an urgent need for this to translate in practice. The involvement of TEE in refining documentation and procedures, as well as in addressing specific needs like those of people with disabilities, shows the value of stakeholder engagement, even if this requires the involvement of more stakeholders in a more formalized and systematic environment.

Some of our interviewees were so positive about Exoikonomo that they consider it a 'good practice' as a whole:

"Good practice...no, the Exoikonomo programme itself is considered good practice compared to other countries, that is, the results of the Exoikonomo programme are impressive compared to other countries, it successfully combines direct subsidies, grants and loan subsidies".

"Καλή πρακτική...όχι, το ίδιο το πρόγραμμα το "Εξοικονομώ" θεωρείται καλή πρακτική σε σχέση με άλλες χώρες, δηλαδή, είδα τα αποτελέσματα που έχει το πρόγραμμα του "Εξοικονομώ" είναι εντυπωσιακά σε σχέση με άλλες χώρες, συνδυάζει επιτυχημένα επιδοτήσεις άμεσες, επιχορηγήσεις και επιδοτήσεις δανείων"

Views like the above, coming from individuals with some kind of official involvement highlight a rather problematic gap in perception, as most of the other interviewees highlighted that things with the implementation and impact of the programme are far from being rosy.

Overall, interviewees seemed much keener to identify gaps and offer recommendations on possible improvements, and did not expand as much on lessons learned and good/transferable practices.

4.4 Recommendations

Our research generated numerous suggestions and ideas for improving Exoikonomo. Indeed, some of the interviewees, especially those that had been involved in some capacity with either implementing or coordinating, had very specific and detailed recommendations, that seem to follow as responses to previously identified gaps and challenges. The most important among them seemed to revolve around simplifying processes, targeting vulnerable groups, and enhancing the programme's efficiency. It is worth mentioning the following in more detail (without ranking them by importance):

1. Simplify procedures both at the application and intervention stages to make the process more accessible for applicants and engineers.
2. Speed up the process and reduce bureaucracy while maintaining focus on climate targets.
3. Remove barriers that impede access by specific groups, especially the more vulnerable ones.
4. Raise the subsidy rate for low-income households from 75% to up to 100%, even if it means reducing subsidies for higher-income groups.
5. Give top priority to properties impacted by natural disasters, such as earthquakes or floods.
6. Redirect funds from wind farms and photovoltaic projects to expand Exoikonomo, allowing more households to benefit from energy efficiency upgrades.
7. Include Consumers Unions and citizen representatives in the programme's design to ensure broader participation and a user-friendly approach.
8. Launch smaller, targeted programmes focusing on specific interventions, such as installing solar water heaters.
9. Improve communication and oversight: Enable direct contact between Technical Consultants and TEE officers and appoint certified Energy Inspectors to oversee the entire process for each applicant.
10. Set up one-stop shops in municipalities to provide accessible information and support, especially for vulnerable populations.
11. Avoid frequent changes in the programme's structure and requirements to ensure stability and clarity for beneficiaries.

12. Integrate social criteria and rights aspects in a more holistic way.
13. Enhance accountability and transparency by making publicly available the relevant reporting mechanisms and data.
14. Create an official reporting and complaints mechanisms.

An interesting recommendation with broader scope that is worth mentioning had to do with establishing local counselling centres, organised at the neighbourhood level, to provide accessible information and assistance for citizens regarding programmes like Exoikonomo as well as other green transition initiatives. According to an independent expert that has worked in civil society organisations, these centres could have a substantial impact on citizens' energy-related behaviours, such as energy efficiency upgrades, sustainable transportation choices, and participation in energy communities. They noted that such advisory services are already common in other European countries and could be implemented in Greece with positive effects.

[We should have] Door-to-door [advisory centres] in the neighbourhood. Advisory centres in the neighbourhood where people can go and ask about all issues related to the green transition. These centres would obviously help with energy upgrades, as well as with transportation, energy communities, and risks. This should be happening. It's something that is common [referring to other countries]. In Greece, it's almost non-existent. This is a good practice that is widely implemented abroad.

“Πόρτα, πόρτα, στη γειτονιά. Συμβουλευτικά κέντρα στη γειτονιά που θα επιτρέπουν στον κόσμο να πηγαίνει και να ρωτάει για όλα τα ζητήματα της πράσινης μετάβασης. Θα βοηθούσαν και την ενεργειακή αναβάθμιση προφανώς αλλά και τις μεταφορές και τις ενεργειακές κοινότητες και τους κινδύνους. Θα έπρεπε στην τελική. Είναι κάτι που συμβαίνει [εννοεί σε άλλες χώρες]. Στην Ελλάδα δεν συμβαίνει σχεδόν καθόλου. Αυτή είναι μια καλή πρακτική που υπάρχει πολύ στο εξωτερικό.”

To sum it up, when focusing on Exoikonomo in particular, key recurring recommendations seem to revolve around simplifying the programme, more effectively targeting vulnerable populations, and improving overall efficiency, transparency and accountability.

Annexes

Annex I. Design of the action

Information about the action	
<p>Objective</p> <p><i>Please include:</i></p> <ul style="list-style-type: none">● Objective● Area of contribution● Explicit focus	<p>The "Exoikonomo 2023" (." Saving 2023") programme⁶² is aiming to improve energy efficiency for residential buildings with a total budget of €532 million (for both the 1st and 2nd circles of application). It is a continuation of the "Exoikonomisi kat' oikon", ("Saving at home"), "Exoikonomo-Aftonomo" ("Saving – Autonomising") and "Exoikonomo 2021" ("Saving 2021"). The design of the programme takes into account an integrated approach to energy saving interventions in the residential building sector and focuses on: reducing the energy needs of buildings and the emissions of pollutants that contribute to the worsening of the greenhouse effect, saving costs for citizens, improving the daily living conditions as well as ensuring the safety and health of citizens when using these buildings and achieve a cleaner environment. Separate incentives are included to support low income and vulnerable households in the form of an increased grant rate and a separate budget. Additionally, beneficiaries have access to an interest-free loan for a period of six years to support the property upgrades.</p> <p>As part of the action, each beneficiary works with a Technical Consultant who guides them through the application process, oversees construction work, handles bureaucratic matters and suggests alternatives or solutions when needed. The</p>

⁶² Greek Republic Ministry Of Environment And Energy Executive Structure Of The Energy Sector, Sub-Directorate 2 Of The Energy Sector, [Programme Guide: Exoikonomo 2023](#), (Οδηγός Εφαρμογής Προγράμματος «Εξοικονομω 2023»), Athens 2023

	<p>involvement of a technical consultant, chosen by the beneficiary, is mandatory to proceed and successfully complete all procedures within the action.</p> <p>‘Exoikonomo 2023’ is based on energy performance certificates, which are issued both before and after the upgrades. A Technical Consultant, chosen by the beneficiary during the planning phase, evaluates the property, designs the intervention plan and recommends appropriate measures to meet the programme’s energy-saving targets. The initial energy consumption of the building is recorded before any interventions. After the upgrades are completed, the Technical Chamber of Commerce of Greece (TEE) randomly selects independent Energy Inspectors from a Register of Energy Inspectors to verify the results.</p>
<p>Background</p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> ● Starting date ● Origin and development ● Rationale ● Stakeholders involved 	<p>In ‘Exoikonomo 2023’ three stakeholders are involved. The Sub-Directorate 2 of the Energy Sector of the Ministry of Environment is the planning and coordination body of the action. The Technical Chamber of Commerce of Greece (TEE) is responsible for the implementation of the whole action and also provides the payment orders. The Hellenic Development Bank S.A. (EAT) holds the financial management of the action.</p> <p>To understand its origin and development, ‘Exoikonomo 2023’ should be considered a continuation of the previous iterations of the ‘Exoikonomo’ programme.</p>

	<p>1. The "Save-Renovate" for 2022⁶³ and 2023 programme concerns young people from 18 to 39 years old, who want to upgrade their energy efficiency and renovate their home. The programme is divided into two sub-sections:</p> <ul style="list-style-type: none"> - 1a) "Save for young people", with a total budget of €200 million and an eligible budget per application of €22,500. In "Save for young people" €40 million is available exclusively for vulnerable households, and concerns energy efficiency interventions (e.g. replacement of old frames, thermal insulation, heating-cooling systems, DHW supply systems and automations). The programme can cover from 45% to 90% of the amount of eligible energy interventions, while the remaining amount can be covered by an interest-free loan¹. - 1b) "Renovate for young people", with €100million budget, has an eligible budget of €10,000 per application and includes renovation interventions, such as bathroom and kitchen areas, replacement of entrance door, replacement and repair of electrical and plumbing installations as well as floors. The programme covers up to 30% of the amount of eligible renovation interventions, up to €3,000, while the remaining amount can be covered by a low-interest loan of up to €7,000. <p>Under the "Exoikonomisi kat' oikon" ("Saving at home")(Cycles A and B) and the "Exoikonomo-Aftonomo" ("Saving - Autonomising") programmes of the 2007-2013 and 2014-2020 programming periods, energy</p>
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⁶³ For more information visit Exoikonomo official webpage on:
<https://exoikonomoneon.gov.gr/>

	<p>interventions were implemented in more than 140,000 homes/building units, while the “Exoikonomo 2021” and “Exoikonomo-Anakenizo gia neous” (“Saving and Renovating for Young Individuals”) in combination with the "Exoikonomo 2023" programme are expected to upgrade an additional 105,000 homes (Exoikonomo 2023 Guide, p.7). The "Exoikonomo 2023" programme adapts to the new conditions shaped by the country's climate data and the European Union directives, while following all updated requirements: citizens' needs, climate change, digitalisation, new technologies, etc.</p> <p>According to the official announcements, the "Exoikonomo 2023" programme is implemented by adapting and improving the existing financial model, aiming to maximize the benefits for citizens by increasing the number of citizens who can participate in the programme, simplifying the certification of interventions and activating the market by mobilizing private capital to finance the required interventions. Thus, the new programme will provide high financial and operational benefits to Greek households while meeting their energy needs.</p>
<p>Timeline</p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> ● Timeline and duration ● Milestones, reviews, amendments planned 	<p>The Exoikonomo 2023 programme began its implementation with the submission of applications via a dedicated online platform (https://exoikonomo2023.gov.gr/) in June 2023. All natural persons who owned a residence across Greece and wished to make (specific) renovating activities which would upgrade the energy efficiency of the residency (and fulfilled all other</p>

	<p>eligibility criteria) could proceed with the application. In the first circle of Exoikonomo 2023, 31.549 applications were submitted as 'eligible in principle', with a total budget of EUR 422.1 million. The second circle of Exoikonomo 2023 was announced on 5.2.2024 with a budget of €110 million, exclusively directed to energy vulnerable households. Specific submission periods were a) 12/06/2023 - 15/11/2023, b) 07/02/2024 - 29/03/2024). No reviews of previous rounds of the action were publicly available or made available by the stakeholders.</p>
<p>Scope and development</p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> ● Activities included ● Planned developments, phases, repetitions or other ● Project continuation in the future 	<p>The aim of the programme is to ensure a primary energy savings of over 30% for each beneficiary/property. This is accomplished through energy upgrades that improve the property's performance in at least three energy categories (A+, A, B+, B, Γ, Δ, E, Z, H). To be eligible, properties must currently be rated at least in category C (Γ).</p> <p>Eligible interventions:</p> <ul style="list-style-type: none"> - replacement of windows and window frames - installation/upgrade of thermal insulation - upgrading of the heating - cooling system - hot water supply systems using renewable energy sources - smart management systems (smarthome) <p>The programme finances these interventions with a subsidy which covers at maximum the 75% of the total costs. Subsidy rates vary based on the applicant's income, ranging from 40% to 75%. Due to limited funds, a scoring algorithm is used to prioritize applications. For Exoikonomo 2023 priority is given to:</p>

- Lower-income households
- Vulnerable groups, including people with disabilities, single-parent families, and families with multiple children
- Energy-consuming properties
- Degree-days, which account for the four climate zones in Greece, from warm to cold (colder areas are prioritized): A: Southern Greece, including most islands and Crete, B: Central Greece, Attica, and Sterea Ellada, C: Northern Greece, D: Northern Greece's peripheral areas with the coldest temperatures
- Age of the property, with older properties receiving priority

Apart from this main subsidy, beneficiaries are also eligible for a loan to finance their own part of the renovation's costs. The programme offers an additional subsidy for the beneficiaries who apply for a loan by financing the 100% of the interest rates of the loan.

The 'Exoikonomo 2023' programme began its implementation with the submission of applications in June 2023. In the first cycle of 'Exoikonomo 2023', 31,549 applications were submitted as eligible in principle, with a total budget of €422.1 million. No reviews of previous rounds of the action were publicly available or made available by the stakeholders.

The second cycle of "Exoikonomo 2023" was announced on 5.2.2024 with a budget of €110

	<p>million, exclusively directed to vulnerable households</p> <p>As outlined in the programme Guide, vulnerable households are defined as those with an individual annual income not exceeding €5,000 or a family annual income not exceeding €10,000.</p> <p>Despite the official announcements targeting low-income households, input from interviewees indicates that these households ultimately do not gain access to interest-free loans due to the strict policies enforced by banks. As a result, low-income households, lacking the necessary loans to finance their share of the action, are effectively excluded from participation.</p>
<p>Internal governance</p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> ● Legal basis ● Bodies/units responsible for management, implementation, monitoring ● Organigram (please attach if available) ● Persons working on the action 	<p>The legal basis of the programme is the joint decision ΥΠΕΝ/ΥΔΕΝ/55246/807/18.05.2023 of the Ministers of Finance, Development and Investments and Environment and Energy "Announcement of the "Exoikonomo 2023" programme" (B' 3323) and the amendment of the programme published in the Government Gazette on 02.02.2024. The action is implemented by the Technical Chamber of Commerce of Greece (TEE). The financial management body is the Hellenic Development Bank S.A. (EAT SA). The Sector Sub-Directorate 2 of the Ministry of Environment and Energy, as the body responsible for the planning and coordination of the implementation of the programme, coordinates the main stakeholders to ensure the smooth implementation of the</p>

	<p>programme. In this context, it monitors the progress of the programme, plans and issues the necessary instructions - guidelines to the stakeholders.</p> <p>The implementing partner is the Technical Chamber of Commerce of Greece (TEE) which is the Greek professional organization that serves as the official Technical Consultants of the Greek state and is responsible for awarding professional licences to all practicing engineers in Greece. It is a public legal entity with elected administration, supervised by the Hellenic Ministry of Infrastructure and Transport. The rights and obligations of the Implementing partner derive from the law. 4821/2021 (Government Gazette 134 A' /31.07.2021), as well as from the ΥΠΕΝ/ΕΣΠΑΕΝ/102735/2348/02.11.2021 (B' 5124) Joint Decision of the Ministers of Finance, Development and Investments and Environment and Energy. The Implementing partner shall be aware of and comply with the Recovery and Resilience Fund Control Management System. In the context of the reception, management, control and evaluation of funding applications, the Implementing partner shall have an Evaluation Team and shall appoint Objection Review Committees, with mandatory different members between the two bodies, and in any case a specific framework of Conflict of Interest clauses shall be respected. In the context of cooperation with competent bodies, the Implementing Agency shall cooperate with the competent services of the Ministry of Environment and Energy for the cross-checking of data in the framework of necessary audits, as well as for the general improvement of the programme parameters.</p> <p>The Financial Management partner of the programme is the Hellenic Development Bank SA (Hellenic Development Bank SA). The rights and obligations of the Financial Management partner derive from Law 4821/2021 and in particular</p>
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	<p>Article 102, as well as from the ΥΠΕΝ/ΕΣΠΑΕΝ/102735/2348/02.11.2021, as applicable. The Hellenic Development Bank cooperates with the TEE and provides information, where required, on the movements of the programme's accounts and on issues related to payments and reimbursements during the implementation of the actions, as well as in case of audits carried out by National and European authorities at any stage of the implementation of the actions and after their completion.</p> <p>No organigram is published.</p>
<p>External governance</p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> ● Reporting obligations ● Accountability ● Partnerships ● Collaborations 	<p>The obligations of the partners implementing the programme are defined in the Management and Control System of the actions and projects funded by the Recovery and Resilience Fund which is developed in accordance with the EU Regulation 2021/241. Partnerships and collaborations include, but are not limited to, the Technical Chamber of Commerce of Greece (TEE) implementing partner and the Hellenic Development Bank (EAT) as financial management partner.</p>
<p>Funds</p> <p><i>Please include:</i></p> <ul style="list-style-type: none"> ● Budget available for the action ● Funding sources, (including administrative level) ● Information on fundamental rights conditionalities if any 	<p>The budget of the programme, for the two application cycles (A' and B') amounts to 532,105,075.00€ and is co-financed by the Recovery and Resilience Fund as well as a percentage of national resources. From the budget, an amount of 178,367,078.00€ is allocated for addressing energy poverty. For the first circle, the resources amount to 422,105,075.00€ of which 68,367,078.00€ is allocated to the fight against energy poverty. For the second circle, the resources amount to 110,000,000.00€, which is allocated to the fight against energy poverty.</p>
<p>Other aspects to be considered</p>	