

REPORT ON COLLECTIVE PURCHASE CAMPAIGNS DEVELOPED IN NORTH MACEDONIA, THE SUCCESSES AND THE LEARNINGS

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ABOUT CLEAR-X

Consumers Leading the EU's Energy Ambition Response, Expansion (CLEAR-X) is an ambitious extension of a tried-and-tested methodology, designed and developed to address consumers' needs thus **enabling consumers to lead the energy transition by investing in renewable energy sources (RES) and energy efficient (EE) technologies**.

The project covers some of the [countries](#) where financial, administrative/regulatory and technical barriers were most often perceived by the consumers during their journey to RES technologies.

These countries, Bulgaria, Cyprus, Lithuania, North Macedonia, Slovakia & Slovenia, were therefore selected for the potential impact of introducing collective purchase schemes, geographic diversity compared with similar past projects, and the presence of suitable consumer organisations.



There are four specific objectives:

- Reliable information on RES and EE technologies suitable for consumer's homes is available
- Consumers collectively invest in suitable RES technologies through trusted schemes
- Consumers receive relevant information and advice on RES and EE technologies
- Regulatory frameworks facilitate consumers' adoption of RES and EE technologies, and relevant market offers

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CAMPAIGN SPECIFICATION

Product	Air Conditioners
Campaign Calendar	Registration: 22 February to 10 April 2023 Offer: 11 April to 31 July 2023
Campaign Landing Page Link	https://www.kolektivnokupuvanje.mk/klimatizeri2023/zatvoreno

MARKET RESEARCH ANALYSIS

OPM conducted a thorough market research analysis for air conditioners in North Macedonia, drawing upon a comprehensive set of documents, data, and activities. The key sources and methods included:

- **Market Research of Air Conditioners and Heat Pumps in the Macedonian Economy**, Iskra Stanceva-Gigov, Klimentina Poposka, Economic Development No. 1-2/2020 p. (19-37)
- **Assessment of potential climate-friendly solutions for cooling, D-3:** "Environmental Cooling" Policy Paper, 15/01/2021, UNDP
- **Business Entities-News Release:** MAKSTAT - Release Date: 25.03.2022, Reference Number: 6.1.22.14
- **Official Data Sources:** Data retrieved from State Statistical Office, Custom Administration, Chamber of Commerce, Ministry of Economy of RNM.
- **Desk Research:** in-depth exploration in physical shops and online platforms (websites, social networks, etc.).
- **Consumer Engagement:** direct contact with consumers both in person and online, leveraging personal experiences as consumers.
- **Industry Interviews:** interviews conducted with leading companies in the sales of air conditioners.

This multi-faceted approach ensured a comprehensive and well-rounded understanding of the air conditioner market in North Macedonia, combining official statistics, expert analysis, firsthand consumer interactions, and insights from industry actors.

Main highlights:

From the consumer perspective:

- North Macedonian are becoming more aware of the benefits of these devices, a fact that was confirmed by the analysis of the supply of air conditioners and heat pumps in the market, which demand in the last seven years has grown steadily. What is particularly important is that subsidizing eco-friendly products has a major impact on consumers' decision to buy heating and cooling devices, clearly demonstrating that policy measures in this area have a beneficial impact on energy efficiency and energy savings effects. However, it's essential to note that during the year of conducting the CPC, subsidies for air conditioners



were not in place. This lack of state support, coupled with an increase in prices of basic products and the lower purchasing power due to economic and energy crises significantly influenced consumers' decisions, making the offered units of air conditioners prohibitively expensive.

- In the current era, influenced by global and particularly national energy and environmental considerations, local governments provide backing for the use of air conditioners in households for both heating and cooling purposes. This is acknowledged as an environmentally conscious and energy-efficient solution. However, there is a lack of guidance regarding the desired specifications of air conditioning units to effectively meet primary objectives and secure long-term advantages.
- North Macedonia doesn't have its domestic production of air conditioners; in other words, all AC units are imported. The country witnesses the sale and installation of approximately 30,000 to 35,000 air conditioning units annually. About 30-40% of these units have a 3.5 kW capacity. The peak selling season traditionally spans from June to September, but there has been a shift in recent times due to a growing trend of purchasing units for heating purposes as well.
- Consumer reluctance or inability to pay for energy-efficient products, driven by purchasing power constraints.
- Inadequate public awareness: companies express the belief that promotional events, sales, and discounts have the potential to attract numerous customers inclined towards purchasing energy-efficient products during promotion periods. Nevertheless, OPM considers that it would be highly beneficial when assisting consumers, to provide a tabular and comparative overview of the energy consumption of such products, along with estimates of annual energy savings, and additional data like emission savings, product lifespan, and recycling. Integrating energy efficiency into school programs could also contribute to addressing this awareness gap. The public is also unaware of the connection between high electricity consumption, inefficient heating/cooling sources, and poor air quality, leading to a lack of motivation for energy-efficient choices;

From the market perspective:

- **Market sectors:** residential, commercial, public institutions, industry.
- **Products available:** Vivax, Gree, Fuego, LG, Samsung, Hisense, BEKO, Midea – ranging up to 500-700 €, falling under energy categories A and higher.
- **Marketing & Advertising:** since the Pandemic, online shopping is well developed and suppliers often use social networks and public media (Facebook, online news, own web page, radio and TV commercials, etc.).
- **Market structure:**
 - State Authorities involved in market regulation: Ministry of Economy of the Republic of North Macedonia (Energy Department), State inspection bodies, The State Environmental Inspectorate (SII) of the Republic of North Macedonia.
 - Market players: Approximately 85 companies engage in the import, distribution, and installation of HVAC equipment. According to MAKSTAT, there are 252 entities (electricity, gas, steam, and air conditioning supply) in North Macedonia dealing with energy-related issues.



- **Expensive financing options**, with high financing costs and unfavourable credit rates in commercial banks, posing a significant barrier to acquiring efficient household appliances (more than 5% for annual interest on denar-denominated loans, which is a high percentage compared to most EU countries);
- **Relatively low energy prices**: the current electricity price in North Macedonia stands at 4,859 MKD/kWh (EUR 0.79) without VAT for households, and a comparable rate applies to companies. This cost is 50% lower than the EU average of EUR 0.211 per kWh in the second half of 2015. Consequently, payback periods for energy-efficient products in North Macedonia would be nearly three times longer than those in the EU, assuming the product lifespan remains constant. Additionally, the procurement of wood for solid fuel heating devices is often done "illegally," diminishing the financial incentive for energy efficiency. It's crucial to note that from an economic standpoint, while low energy costs can be recuperated, there exists a concealed social cost—specifically, the adverse impact on health and comfort due to poor air quality resulting from polluting heating and cooling sources. This scenario leads to extended payback periods for energy-efficient products in comparison to their EU counterparts and diminishes the financial motivation for embracing energy efficiency.

From the legal perspective, there are some regulatory constraints for the market actors. Drawing insights from interviews and discussions with various market stakeholders, along with the expertise collected from similar markets, the following key barriers are identified that could potentially impede the successful implementation of eco-cooling programs:

- Underdeveloped regulatory environment for efficient household appliances;
- Absence of legal requirements for cooling efficiency at both facility and device levels, resulting in a lack of policy leverage to encourage efficient cooling equipment or building design. This also affects consumers' motivation to buy energy-efficient household appliance: based on most of the companies' feedback, there are not enough incentive/legal requirements for consumers to buy energy efficient household appliances. The recent government program to provide subsidies for replacing old heating furnaces with efficient air conditioners is motivating, but due to budget constraints, it is limited;
- Limited capacity for implementing energy labelling, requiring the development of market inspectors and capacity-building initiatives;
- Presence of a grey market for household appliances, requiring stricter enforcement of the legal framework to curb unregulated sales channels.

PRODUCT TEST RESULTS

The Market Research Analysis indicated that the air conditioner (AC) market in North Macedonia is very heterogeneous, with models and brands varying significantly from season to season. Due to this diversity, there isn't a model that could be considered representative of the market. Despite the popularity of the Midea model in recent sales, its overall score from ICRT testing did not meet the criteria for inclusion in the CPC.



Following the market research, OPM opted not to submit any model for testing in the lab as there was a substantial brand overlap with models sent for testing by the other CLEAR-X partners ZPS (Slovenia) and BNAAC (Bulgaria). All test results for AC models within the CLEAR-X project, as well as those available in the ICRT database that were also present in the Macedonian market, have been published. Unfortunately, most AC models fell short of meeting the criteria for CPC inclusion, and the ones that did were associated with higher costs. Moreover, these expensive AC units are imported in limited quantities, presenting a genuine challenge in finding interested companies willing to provide attractive offers for the CPC.

NEGOTIATION

OPM compiled a list of suppliers in North Macedonia based on a survey conducted in April 2022, and dispatched invitations via email to 11 companies on the mailing list, inviting them to attend an introductory meeting. The meetings with the companies that responded to the email were held at the OPM premises in June 2022. The project and CPC details were communicated through brochures, along with an explanation of group purchasing, essential criteria for participation, a presentation of the digital calculator, project tasks, and more.

OPM also devised a questionnaire for the meeting, covering key elements such as:

- Models of air conditioners the company intended to offer in the group purchase (2.5 kW and 3.5 kW).
- Minimum guaranteed quantity for each model, along with the final price (including VAT).
- The offered price should encompass complimentary delivery to the designated address in North Macedonia, specifically to the front door of the house or apartment (if the corridor has suitable dimensions without obstacles), with accessibility for a 3.5-ton capacity van (suppliers communicated to OPM that meeting these requirements would ensure free delivery; otherwise, an additional fee would be applicable).
- Price quote for the possibility of removing the old appliance from the delivery address, including specifications for preparing the appliance for removal.

The questionnaire also incorporated the following requirements:

- The offer must include a user manual for each model listed, identical to the one provided with the device upon purchase by the consumer.
- A declaration that, in the event of delivering a damaged product to the consumer, the consumer is entitled to request material compensation or correction from the seller.
- The installation of the air conditioner in the consumer's home will be carried out by a professional team. Following installation, the expert team will verify the functionality of the air conditioner and provide the consumer/user with instructions on its correct usage. The consumer will connect the appliance in accordance with the operating instructions.
- Suppliers must submit, along with their offer, a warranty card for all models in the offer and the general conditions applicable to the device purchase. OPM also provided an illustrative example of possible benefits that could improve the offers (optional), clarifying that this was not an exclusion factor but would affect the scoring during the supplier selection process.



- Extended warranty (provided free of charge and included in the price)
- Option for credit card purchase and deferred payment.

At the start of 2023, OPM once again communicated with the interested suppliers, notifying them about the upcoming campaign for the Collective Purchase of (inverter) air conditioners, scheduled to commence on 22 February 2023. OPM requested them to submit offers for:

- air conditioners, preferably two models with a power rating of 2.5 kW, and
- air conditioners, preferably two models with a power rating of 3.5 kW.

OPM also mentioned the evaluation criteria of the offers by sharing an Appendix to the letters sent to the potential suppliers. OPM received 5 offers for both required models from the following suppliers: ICS group, NEPTUN, SETEC, ENERGIJA and API Solution.

Moreover, to facilitate the consumer journey as much as possible throughout the collective purchase campaign (CPC), OPM reached out to three banks and the [Saving House - Moznosti](#) - and inquired about potential green loans tailored for energy-efficient products which ultimately would support consumers participating in the CPC to acquire air conditioners. Subsequently, OPM signed a memorandum of cooperation with Halk Banka to assist interested consumers in purchasing air conditioners, offering the option to obtain a green loan with a fixed interest rate starting from 5.8%.

Every offer submitted by the suppliers underwent thorough consideration and evaluation. OPM staff engaged in discussions with all companies and suppliers, addressing aspects such as the required and offered models (which needed to be part of the list of tested products available in North Macedonia with high energy efficiency results, scoring above 60 on the ICRT test), quantities, benefits for consumers, pricing and discounts, installation, warranty terms, and other options related to warranties as per the provisions of the new Consumer Protection Law adopted in November 2022.

Following the evaluation criteria, OPM created a shortlist of suppliers. The models of Daikin presented by the ICS group were initially deemed the most favourable, and a contract was almost prepared based on their offer, ready for signing. However, they abruptly notified OPM of a change in the offered air conditioner models, asserting that there was no difference in quality, only a modification in one letter. However, during an ICRT meeting on 7-9 March 2023, OPM held discussions with experts involved in product testing, who clarified that there was a significant difference between the tested model and the newly offered one by Daikin. Consequently, the decision was made not to include them in the CPC.

Consequently, OPM selected two other companies, each proposing two models of 2.5 kW and 3.5 kW. These models had been previously tested, yielding high test results, and were available in the market of North Macedonia. The suppliers assured OPM of sufficient quantities of each offered model in their inventory and provided a 10% discount. Despite attempts to negotiate a higher discount, the companies were restricted by their contracts with



the producers. Consequently, OPM signed contracts with *API Solution* and *Energija* for the provision of these models:

- API Solution:
 - Mitsubishi Heavy Industries SRK25ZS-W/SRC25ZS-W2, 2.5, A+++/A++ (total score test result 67)
 - Mitsubishi Heavy Industries SRK35ZS-W/SRC35ZS-W2, 3.5, A++/A++ (total score test result 69)
 - Mitsubishi Heavy Industries SRK35ZSX-W/SRC35ZSX-W, 3.5, A+++, A+++ (total score test result 75)
- Energija:
 - TOSHIBA RAS-10PKVPG-E/ RAS-10PAVPG-E 2.5 (total score test result 77)
 - TOSHIBA RAS-13PKVPG-E/ RAS-13PAVPG-E 3.5 (total score test result 68)

In parallel with the negotiations with AC suppliers, OPM also launched a Call for offers to find a reliable Call Center that would help with consumers' inquiries during the CPC campaign. As a result, OPM concluded a contract with the R3 INFOMEDIA. OPM conducted a training with the employees of the Call Center on the CPC, the platform, the FAQs for consumers, Terms and conditions for participation in the CPC, the privacy policy, the digital calculator, etc.

CAMPAIGN CONTENT & PROMOTION

OPM developed five brochures covering various aspects, including Collective Purchasing of Air Conditioners, Testing of Air Conditioners (including the list of tested air conditioners), Comparison of Heating Space with Air Conditioners and Other Heating Devices – Savings, Air Conditioners' Effectiveness, and Energy Labelling. These informative brochures were then published on the CPC platform.

Moreover, to ensure a continuous and expert communication of the campaign as well as the benefits of adoption energy-efficient air conditioners, OPM contracted the marketing agency TROIKA STUDIO, selected among other agencies answering OPM's request for service. The contract included a proposal for a media and marketing plan to start ahead of the CPC and continue during its implementation. The agency assisted OPM in creating short teasers, organizing promotional events and meetings, and conducting campaigns on TV, radio, Facebook, and other communication channels.

OPM kicked off the CPC with a press release on the 22nd of February 2023, where ten journalists attended, posed questions, and publicly announced the project and campaign on various channels, including TV and radio. OPM continued the communication campaign with a promotional event at City Mall-Skopje on 25 February 2023, to establish direct contact with consumers and introduce the CPC platform www.kolektivnokupuvanje.mk. Through face-to-face communication, OPM highlighted the benefits of energy-efficient products offered during the campaign, guided consumers on how to register on the platform, and addressed their queries. Brochures containing air conditioner test results were distributed directly to consumers. Two banners and a promotional video screen were used for enhanced visibility of the OPM CPC. The event at City Mall drew approximately 800 visitors, and it garnered attention from City Mall's Facebook fans (around 273,000 followers).



Additionally, seven communication campaigns were organized using ad sets—varied posts and teasers with concise messages continuously promoted on social media platforms such as Facebook and Instagram. These campaigns reached a total of 702,124 people, and the posts received a combined total of 43,824 clicks.

The Marketing Agency and OPM collaborated to distribute a promotional video in Macedonian and Albanian languages, informing consumers about Collective Purchasing on local TVs in the City of Tetovo (10 broadcasts per day in Macedonian and 3 broadcasts per day in Albanian). Additionally, the promotional video in Macedonian language was aired on one of the most popular national TV channels, Sitel, with 38 broadcasts per month in prime time. OPM's expert participated in a TV show broadcasted on three local TV channels, discussing topics related to collective purchasing, benefits for consumers, energy efficiency, and test results. Furthermore, the promotional video in Macedonian language was featured during these TV shows.

To enhance the campaign and encourage more registrations on the platform, OPM entered into a contract with City Radio - Radio Skopje, featuring three short audio recordings broadcasted six times a day in May 2023.

Following the success of the first calculator on OPM's CPC platform, which reached a total of 4,405 people, a second calculator, the ECO Calculator, was developed. This new calculator focused on the economic and environmental characteristics of air conditioners, allowing consumers to calculate average annual electricity consumption, average annual electricity costs, and average annual CO2 emissions. The ECO Calculator reached a total of 2,750 people.

OPM actively participated in morning shows on the most popular national TV stations, including TV Sitel, TV TELMA, and MRTV. During these appearances, OPM discussed the benefits of collective purchasing, introduced the platform, highlighted the Call Center's role, and emphasized the importance of energy efficiency and the high quality of inverter air conditioners.

CONCLUSION

The table below presents the goals (KPIs) versus the results achieved.

	Goal	Achievement
Engagement	2000	901
Sales/Installations	250	3
Average cost per installation	750€ ¹	1,032€
Page Visits	-	22,481

¹ This average cost was determined based on national data available at the time of writing the project proposal in 2020.



Despite OPM's extensive efforts to underscore the advantages of installing energy-efficient air conditioners in comparison to traditional heating systems and the attempts to comprehend consumer motivations for leveraging them in the communication campaign promoting the CPC, the campaign did not achieve the anticipated results. Below, we explain the barriers encountered and the lessons learned from this experience.

Barriers

OPM included high-energy-efficient air conditioners in its offer, which come with a higher price tag (62,000-96,000 MKD or 1,000-1,600€). This pricing contrasts with other air conditioners in the market, which, being less energy-efficient and falling into the low or average scoring sections according to the ICRT testing program, are available at lower prices. This was the case for example of the Midea model which claimed having sold no less than 300 units. The subtleties in rankings, may not be apparent to buyers, especially when considering that this particular model was priced at 25,000 MKD or 400€ for a 3.5 kW Air Conditioner. Considering the average monthly net income of citizens in North Macedonia at 36,286 MKD² (approximately 600 Euros), coupled with the energy crisis prompting a new electricity tariff model, inflation, escalating prices of essential goods, and the reduction of state subsidies for air conditioner purchases, consumers faced constraints that limited their ability to opt for a higher-quality product due to the substantial cost difference and an extended return on investment period.

Indeed, given the remarkably low acceptance of OPM's offer, the organization dedicated substantial efforts to understand the underlying reasons. Leveraging the services of the Call Center, OPM reached out to all individuals who had registered for the campaign, which on itself would indicate a clear interest in acquiring a more energy-efficient appliance. Through personal interviews with the registered consumers (791 answers out of 1,051), feedback revealed that 30% found the offers too expensive, while 66% registered for information purposes only. Moreover, a mere 4% expressed genuine interest in purchasing the air conditioners.

The perception of the offered product as excessively expensive, combined with the absence of air conditioner coverage in the state subsidy scheme initiated in May 2023 (during our campaign), and the limited subsidies provided by a few municipalities without criteria related to energy efficiency (EE) and quality, contributed to the low number of contracts signed through the CPC.

Another factor impacted the success of OPM's campaign. The loans offered by the majority of banks (5 out of 12) were not particularly consumer-friendly in terms of the provided interest rates. To facilitate the consumer journey when adopting EE appliances, OPM proposed consumers a green loan through Halk Bank in the CPC, offering favourable conditions. To enhance the promotion of the CPC and encourage more consumers to accept OPM's offer, the campaign was extended until July 2023. Efforts were intensified to educate consumers about new financing options for purchasing the offered air conditioners. This included providing detailed information on loans and presenting comparisons of savings with good and very good (inverter) air conditioners.

² Based on the Statistical Office.



Lessons learnt

Communication with potential suppliers and companies should be approached with caution, considering that promises made during initial discussions did not align during the negotiations, particularly in terms of discount prices, available units of air conditioners, and additional benefits for consumers. The limited and heterogeneous nature of the market poses challenges in securing deals for quantities, especially for energy-efficient products.

The influence of current state and municipal subsidies on consumer decisions is substantial, emphasizing the importance of government engagement when promoting green economy awareness and providing support and education on energy-efficient products and their environmental and economic impact.

This project provided an opportunity for surveys, material preparation, and tools for communicating and educating consumers. The experience of organizing a CPC was a first for OPM: the organisation learned a lot in terms of the market and consumer behaviour. This experience also highlighted the how the available state subsidies, eco-loans, and adequate education to achieve market maturity can highly affect this type of activity.

Recommendations

Opportunities to boost the market sales of air conditioners and heat pumps include:

- **Reduction of Import Tariffs:** Potential for lowering the import tariff rate, currently at 15%, to encourage more competitive pricing.
- **VAT Rate Reduction:** Consideration of reducing the Value Added Tax (VAT) rate from 18% to 5% to make these products more affordable.
- **Streamlined Import Procedures:** Shortening the procedures and time required for obtaining import permits by the Ministry of Environment and Physical Planning to expedite the import process.
- **Public Education and Information:** Raising the level of education and awareness among citizens about the energy efficiency and ecological benefits of using air conditioners and heat pumps.
- **Increased Subsidies:** Enhancement of subsidies for inverter air conditioners (currently at 50% of the device value, capped at 15,000 denars) and the introduction of subsidies for heat pumps to incentivize purchases.
- **Review of Pellet Stove Subsidies:** Consideration of abolishing or reducing subsidies for pellet stoves to prevent environmental pollution (currently at 70% of the stove value, capped at 30,000 denars).
- **Digitalization and Smart Meters:** Leveraging digitalization, particularly the introduction of "smart" meters, to address decentralization, flexibility, and efficient energy use. The link between energy, heat, and mobility sectors will be crucial for optimizing energy and mobility systems. "Smart" meters are expected to enhance the demand for heat pumps and inverters, especially as heat pumps are considered a key element in the future of heating.

Recommendations for companies involved in selling these products include:



- **Targeting Specific Consumer Groups:** Identify an appropriate target consumer group to boost sales. Besides homeowners, consider focusing on business entities, particularly given the potential for increased sales with the liberalization of the electricity market and reduced industrial electricity prices.
- **Establishing Partnerships:** Explore partnerships with construction companies, contractors, or architects to indirectly sell products for a mutually agreed percentage. This collaborative approach can enhance sales, especially in areas where central heating is less prevalent. The growing trend in building permits supports the justification for this proposal.
- **Digitization and Online Presence:** Embrace digitisation by strengthening the digital presence of businesses through online channels for promotion and sales. Leveraging digital platforms provides new opportunities for effectively promoting and selling these products.
- **Expansion to Rural Areas:** Develop a strategic approach to extend sales to rural areas. Implement a targeted strategy to replace the prevalent use of solid fuel stoves in these regions.

By implementing these recommendations, companies can position themselves for increased market penetration and capitalize on emerging opportunities in the sector.

