



# How to Citizen-led renovation

**You wonder what is Citizen-led renovation? You ask yourself why you should get involved in energy renovations, and how you can do it? Then this guide is for you. The guide focuses on renovations of multi-family dwellings with multiple homeowners. The insights are based on learnings from the Citizen-led renovation initiative and conversations with experts and homeowners in Bulgaria.**

## What is Citizen-led renovation?

The overall idea behind Citizen-led renovation is to position citizens, like you, not just as passive consumers, but as active participants in shaping the course of Europe's energy future. Citizen-led renovation refers to voluntary activities led by energy community initiatives that empower citizens to engage in energy renovations and implement on-site renewable energy installations. This will enable you to take charge of your own energy needs.

## Why should I care about renovation?

Renovation activities can provide you with multiple benefits:

- **More comfort at home:** Improved insulation and energy-efficient windows help maintain a consistent indoor temperature, reducing the need for excessive heating in winter and cooling in summer.<sup>1</sup>
- **Better indoor air quality:** Energy-efficient renovations can lead to healthier living conditions by reducing dampness and mold growth, common in poorly insulated and ventilated homes.<sup>2</sup>
- **Lower heating and cooling bills:** By enhancing your home's energy efficiency, renovations can lead to substantial savings on utility bills, potentially reducing your energy consumption by up to 60%.<sup>3</sup>
- **Protection against heat waves:** Energy-efficient buildings are better equipped to withstand extreme weather conditions, including heat and cold waves, providing a safer and more comfortable environment.<sup>4</sup>

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<sup>1</sup> [Renovation of near 20% of existing building stock to zero-carbon-ready by 2030 is ambitious but necessary – Analysis - IEA](#)

<sup>2</sup> [Energy Efficiency Retrofits Can Cut Mold, But Ventilation Is Also Key | Energy Technologies Area \(lbl.gov\)](#)

<sup>3</sup> [Homepage | BUILD UP \(europa.eu\)](#)

<sup>4</sup> [Research Topic 8: Building Envelopes for Enhanced Energy Efficiency and Resilience Against Heat-Related Extreme Events – Research Experiences for Undergraduates \(tamu.edu\)](#)



- **Higher property value:** Energy-efficient renovations can enhance the market value of properties. Homes with higher energy performance certificates (EPCs) often sell at a premium, as buyers increasingly value long-term cost savings and comfort.<sup>5</sup>
- **Contribution to mitigating climate change:** By promoting sustainable energy practices, you can help reduce your carbon footprint and contribute to a cooler planet.<sup>6</sup>

### What are the benefits of collective renovations?

If you're living in a multi-family building, there are some strong reasons to consider getting together with your neighbors for a collective renovation rather than tackling projects on your own. Here's why going the collective route often works out better:

- **Superior Energy-Efficiency Outcomes:** When everyone in the building renovates together, like upgrading insulation or windows across the board, the building as a whole becomes much more energy-efficient. This approach leads to greater savings on energy bills because everything works better together, rather than having some parts of the building lagging behind.
- **Lower Costs for Everyone:** By combining forces, you can significantly reduce the cost of renovations per person. Group deals on things like insulation, windows, and even solar panels can bring down prices. Plus, when you buy in bulk, you can negotiate better rates and get higher-quality work done. Energy community initiatives can also help by checking offers and recommending reliable contractors, making sure you get good value for your money.
- **Shared Knowledge and Support:** Homeowner associations that have already embarked on renovation projects become valuable resources for others considering similar improvements. These associations can share practical advice, lessons learned, and recommendations for installers. This peer advice can be really helpful, from choosing the right contractor to figuring out the best materials. It's like having a built-in support system to guide you through the process.
- **Long-Term Building Health:** Collective renovations contribute to the overall health and longevity of the building. When the entire structure is renovated cohesively, rather than in bits and pieces, the integrity of the building is preserved. This reduces the risk

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<sup>5</sup> [Has Energy Efficiency Emerged as a Driver of Real Estate Returns? - MSCI](#)

<sup>6</sup> [IEECP - IEECP](#)



of issues such as thermal bridging, which can occur when only part of a building is insulated, leading to energy inefficiencies and potential structural problems in the long run.

In short, collective renovations are a smarter, more efficient, and often cheaper way to improve your home. By working together, you and your neighbors can enjoy a more comfortable living space, save on costs, and increase the value of your property.

## The role of energy communities in renovations

Izgrei is a pioneering energy community-based in Plovdiv, which drives now actions to accelerate Citizen-led renovations in Sofia. Here's how Izgrei and other energy communities are making an impact:

### 1. Community engagement and empowerment:

- Izgrei operates democratically, inviting local residents to participate in decision-making and invest in renewable energy projects. This inclusive approach ensures community interests are prioritised and fosters a sense of ownership and responsibility.

### 2. Implementation of Renewable Energy Projects:

- Izgrei started with nine solar panels that supply electricity to a two-story house, with surplus energy sold back to the grid. This project demonstrates the feasibility and benefits of small-scale renewable energy installations.

### 3. Collaboration and support:

- By collaborating with world-known organisations and institutions, Izgrei gains insights and support from other successful energy cooperatives across Europe, which is crucial for sustainability and growth.

### 4. Group renovation and joint purchasing

- Energent facilitates the collective purchase of solar panels. The cooperative checks offers, makes recommendations and ensures the selection of reliable contractors at market prices for the installation of solar panels.

### 5. Joint funding application

- In Portugal, a call for renovations supported by the Recovery and Resilience Plan recognised individual and joint applications for external insulation, allowing apartment buildings to apply as a single entity and receive a higher eligible amount.

### 6. Crowd-lending

- At European level, any energy community or organisation with certified accounting can apply to a Goparity loan for investments in sustainable energy, whether renewable energy production or home renovation. These loans can enable collective energy investments.



Picture 1: Solar panels belonging to Izgrei, the first energy community in Bulgaria<sup>7</sup>

## How to set-up Citizen-led renovation

**Step 1:** Define the building(s) to be renovated

**Step 2:** Engage with other homeowners and address concerns. It might be useful to engage renovation experts or one-stop shops in the debate to have someone answer questions by the people sufficiently.

**Step 3:** Create a homeowner's association (HOA), if it does not already exist. This will be the main body responsible for decision-making throughout the renovation process. The HOA can also serve as a point of contact for all homeowners, making communication more streamlined.

**Step 4:** Hire a company to perform an energy audit. An energy audit will assess the current state of the building and identify the most impactful renovation measures. Consider obtaining a technical building passport, which provides detailed information about the building's structure, energy use, and renovation history.

**Step 5:** Identify renovation scenarios with concrete renovation measures. You can make use of other examples to show the differences before and after. If possible, you can also visit a renovation building with other homeowners to experience the differences at hand.

Measures can include:

- Thermal insulation of external walls, roof, basement;
- Replacement of windows;
- Solar thermal or solar PV installations.

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<sup>7</sup> Image taken by Mihail Georgiev



**Step 6:** Make an investment plan and agree on renovation measures. This should include cost estimates, timelines, and funding sources. Ensure that the plan is flexible enough to accommodate any unexpected expenses or changes in scope.

**Step 7:** Secure the financing: funding applications, crowd-funding, self-financing. Please note that collective projects often have better access to public funding and subsidies, so take advantage of any available grants or incentives aimed at energy-efficient renovations.

**Step 8:** Find the right installer/ renovation company

**Step 9:** Observe the renovation. Monitor the renovation process closely to ensure that the work is completed on time and within budget. Regular updates from the contractor and site visits can help keep the project on track. The HOA should take an active role in managing the day-to-day progress.

**Step 10:** Reflect on the renovation process and plan further steps

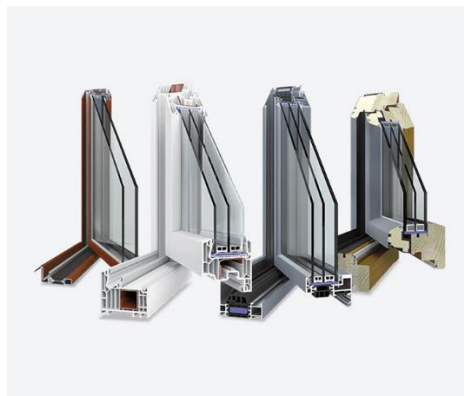
## Good practice renovation examples

The adoption of certain benevolent practices during the renovation phase, will allow you to render your community's dwellings energy efficient, and potentially produce energy for its daily needs. These practices entail interventions, both on the buildings' shell, and on the surroundings. The implementation methods for the required transformations and installations must follow certain principles, in order to secure the sustainable character of your project, as well as to benefit the local economy and community.

### 1. Interventions and installations on the buildings' shell.

The renovation requires a number of installations and interventions on the shell of the building. Such examples include:

- Replacement of old windows with energy efficient ones.



Picture 2: Window profiles with energy efficient technology (source: [aluser.com](http://aluser.com))



- Photovoltaic (PV) panel installations for the production of electric power.



Picture 3: Installation of PV panels on the rooftop of a house in Makotsevo, Bulgaria (source: [es3.bg](https://es3.bg))

- Solar thermal installations for water heating.



Picture 4: Installation of solar thermal panels on the rooftop in Italy (source: [idealimpianti.it](https://idealimpianti.it))



- Prefabricated facade elements for thermal insulation.



Picture : Installation of prefabricated facade elements in apartment building in Estonia (source: [Nigumann et.al, 2024](#))

- Insulation of roof with prefabricated panels.



Picture 6: Installation of prefabricated panels on an apartment building's roof in Estonia (source: [Kodi et al., 2024](#))

- Installation of green roofs for thermal improvement and energy saving.



Picture 7: Green roof on apartment in Vienna, Austria (source: [plantika.at](https://plantika.at))

## 2. Optimal implementation methods.

The transformation practices employed during your dwellings' renovations can follow certain sustainable paths that can secure eco-friendly outcomes and enhance simultaneously the prosperity of your region in multiple ways.

- Employ technical workforce from your area, or even your own community:
  - In this way you empower the region's economy, while strengthening the bonds of your community with the locals.
  - Through your project, the local workforce can expand their knowledge and skills on similar projects, rendering your project an "educative process", and an example for similar initiatives in the future.
- Chose materials and products from regional producers and suppliers:
  - Choosing local services will allow you to reduce expanses on logistics or importing.
  - Once more, your community's project adds to the regional economy.
- Regarding the choice of materials:
  - Choose eco-friendly materials and avoid products based on raw resources.
  - Reduce waste during construction as much as possible with a good initial planning of the interventions.
  - Reuse materials, and old parts of the renovated houses in auxiliary constructions.





## Learnings for a Citizen-led renovation approach in Bulgaria

In 2023-2024, the energy community Izgrei received support from the support service for Citizen-led renovation. The following learnings came about of the process of renovating a multi-family apartment building in Bulgaria:

- Identify trusted people in the building. Often people that live longer in the building have the trust by other homeowners. Thus, if they are on your side, it will be easier to convince other people about the usefulness of renovations.
- Take small renovation steps. It can be better to plan for partial building renovations, instead of no renovation at all.
- Make an investment plan (for 5 years e.g.). An investment plan can help homeowners to plan ahead and to ensure that renovations are affordable for everyone and can be implemented, one step at the time.
- Consider other funding opportunities instead of governmental funding. This can include options self-financing, or crowd-financing.
- Include experts in the debate, such as one-stop shops or energy efficiency centres, as they can make a big difference in convincing people about renovations.
- Citizen and energy initiatives can function as drivers for actions. It is crucial to bring people together and to motivate collective actions.
- Citizens and energy communities can provide advice. Throughout the renovation process, customers of the Energent energy community, for example, receive guidance from the energy cooperative, which checks offers, provides advice and recommends reliable contractors at market prices. The energy community Coopernico has developed a pool of construction companies (which people trust).

This guide has been developed in the framework on the Support service for Citizen-led renovation. Further information can be found here: [https://citizen-led-renovation.ec.europa.eu/index\\_en](https://citizen-led-renovation.ec.europa.eu/index_en)