# Country Sections

# Germany

## Handbook Update CLR II

Support service for citizens led renovation projects - ENER/2023/OP/0036

DIRECTORATE-GENERAL FOR ENERGY

Directorate B – Just Transition, Consumers, Energy Efficiency and Innovation Unit B1 - Consumers, Local Initiatives, Just Transition

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Date: 26/03/2026

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# Introduction

This practice-oriented handbook on citizen-led renovation was developed as a resource for actors involved in community-driven renovation projects across Europe. It provides a comprehensive overview of current developments and policies as well as guidelines relating to community-led renovations and energy communities in Germany.

The handbook summarises key information and offers general guidance on Germany's position with regard to citizen-led renovations and energy communities. It covers funding programmes, legal frameworks, and practical guidance for homeowners and energy communities. The objective is to provide clear and precise instructions to support the efficient and effective implementation of renovation projects, as well as the establishment and operation of energy communities.

The handbook emphasises that community-led renovations are not isolated projects, but a collaborative process that requires the involvement of various stakeholders. Citizens, local authorities, technical experts, financial institutions and policy-makers each contribute specific expertise, resources and decision-making powers to drive the renovation forward. Building on the results of Phase I, the approaches were further refined in the Phase II pilot projects – with a particular focus on four areas that are crucial for long-term success: managing expectations, establishing sustainable governance and support structures, community building and public relations, and ensuring accessible financial and legal support mechanisms.

Phase I of the CLR initiative introduced the fundamental concepts, initiated the first pilot activities, and developed practical approaches to mobilising citizens, establishing governance structures, and testing participation models. Phase II expanded and deepened this foundation by integrating new tools, practical insights from additional pilot projects, and advanced advisory frameworks. Together, the two phases form a comprehensive foundation for enabling, scaling up, and sustainably implementing CLR initiatives.

Community-led, citizen-driven renovations support the objectives of the Renovation Wave, a key initiative of the European Green Deal designed to fundamentally transform the buildings sector. Its aim is to double the renovation rate in the EU by 2030 and make millions of buildings more energy-efficient, climate-friendly and healthier. Buildings account for around 40% of energy consumption and over a third of greenhouse gas emissions – yet many people live in energy-inefficient homes and are affected by energy poverty. The Renovation Wave therefore relies on a combination of stricter energy efficiency standards, financial incentives, technical support and social justice. It promotes the use of renewable energy, smart building technologies and sustainable building materials, whilst actively involving local authorities, property owners and tradespeople. In doing so, it not only contributes to climate neutrality, but also creates new jobs and improves the quality of life in European cities and towns.

## Current Outlook

### Overview of the Building Stock

According to the findings of the 2025 dena Building Report, the German building stock in 2022 consisted of nearly 20 million residential buildings and approximately 3 million non-residential buildings.[1] [2] Of these, single-family homes made up by far the largest share, with around 13.2 million buildings, compared to about 3.5 million multi-family buildings and almost 2.7 million two-family homes.

Around 60% of residential buildings were constructed before 1978 and therefore before the first Thermal Insulation Ordinance came into force. Since then, only about 5% of the total building stock has been constructed, indicating that construction activity has significantly declined over the past 30 years. This means that roughly 90% of the existing residential buildings were built before 2010, meaning that two out of three buildings are over 40 years old.

Of the approximately 43 million housing units that existed in Germany in 2022, around 57.8% were privately owned, while 21.5% belonged to homeowners' associations and 5% to housing cooperatives. These roughly 26.5% of housing units therefore already operate within a framework that enables citizen-led renovation to be carried out in an organised manner.

In 2022, the largest share of newly built housing units was constructed by the public sector, with 15 housing units per residential building, closely followed by non-profit organisations.[3] Private developers accounted for the smallest share, with only 6 housing units per residential building.

The ownership and age structure present specific demands as well as challenges for climate protection strategies. Many private owners of older buildings face the task of improving the energy performance of their properties—often with limited financial resources. At the same time, the share of municipal or institutional owners, who could often modernise more efficiently, is relatively small.

| Overview Building Stock | Distribution[4] |
|---|---|
| **Total building stock** | Approx. 23 million |
| **– of which residential buildings (approx. 90%)** | Approx. 20 million (including single-family homes, two-family homes, and blocks of flats/ multi-family homes) |
| **– of which purely non-residential buildings** | Approx. 3 million |

[1] Zensus Datenbank: Gebäude: Baujahr (Jahrzehnte), Link
[2] KfW: Gebäude, die nicht zum Wohnen dienen, haben eigene Sanierungshemmnisse, Link
[3] Gebäudeforum Klimaneutral: DENA GEBÄUDEREPORT 2025, Link
[4] Gebäudeforum Klimaneutral: DENA GEBÄUDEREPORT 2025, Link

| | |
|---|---|
| **Total number of housing units** | Approx. 43,1 million residential units |
| **Ownership structure** | 58% private individuals; 21.5% owners' associations; 5% cooperatives; 16% companies/public sector |
| **Building age categories** | Approx. 61% of buildings constructed before 1978, approx. 8.5% constructed between 2010 and 2024, the remaining approx. 30%: 1979–2009 |

Table 1 Overview of the building stock in Germany

## Energy Efficiency of the Existing Stock

The energy performance of German buildings is mixed compared to other European countries: on the one hand, decades of building regulations and subsidy programmes have led to many improvements; on the other hand, the majority of the building stock is still far from modern efficiency standards. This is partly due to the already mentioned age structure of residential buildings. The insufficient energy efficiency is one of the main reasons why the building sector has been failing to meet the German government's $CO_2$-reduction targets for many years.

In Germany, the energy performance of buildings is classified from A+ to H. Currently, two-thirds of the residential building stock in Germany falls into the lower efficiency classes D to H, meaning these buildings consume more than 100 kWh/m² per year. Overall, classes G and H account for around 50% of the sector's total energy consumption.[5] Nevertheless, final energy consumption dropped in 2023 to its lowest level since 1990, from 2,366 TWh to 2,268 TWh.[6]

Across the EU, buildings account for about 40% of total energy consumption and more than half of gas consumption. [7] In Germany, buildings also make up around 35% of total energy demand. The federal government had set the goal to reduce final energy consumption for heating by 20% by 2020 compared to 2008, but this goal was not achieved—the actual reduction was only 10.4%.[8]

In contrast to the decarbonisation of electricity consumption, which increased through a rise of renewables from 17.2 % in 2010 to 54.4 % in 2024, little changed in the heating sector. The share of renewable energy in heating was 12.4% in 2010 and increased to only 18.1% by 2024.[9] Heating systems powered by gas, oil, or coal still dominate about 75% of all installations in Germany, while heat pumps currently account for only about 7%.

Air conditioning remains uncommon in German homes—91% of cooling energy is used in non-residential buildings (office cooling, cold storage, etc.). Unlike southern European countries,

[5] Bundesverband energieeffiziente Gebäudehülle e.V.: Sanierungsquote, Link
[6] Gebäudeforum Klimaneutral: DENA GEBÄUDEREPORT 2025, Link
[7] Europäische Kommission Vertretung Deutschland: Energieeffizienz von Gebäuden: Rat und Parlament einigen sich auf neue Vorgaben Link
[8] Umweltbundesamt: Indikator: Energieverbrauch für Gebäude, Link
[9] Bündnis Gebäudewende: Marktreport 2025 - Gebäudewende: Daten und Trends, Link

private households in Germany still use very little space cooling, keeping summer electricity consumption relatively moderate. However, more frequent heatwaves in the future may lead to greater adoption of cooling appliances unless structural cooling measures—such as shading—are implemented. [10]

Regional differences in energy consumption arise mainly due to the age and renovation status of buildings, as climate conditions vary only slightly across federal states. However, differences between eastern and western Germany are particularly notable. Generally, the temperature-adjusted heating demand in the East is around 15% lower than in the West, despite sometimes colder winters. This is primarily due to the wider use of district heating and the extensive refurbishment of East German residential buildings—especially of prefabricated housing blocks—after reunification. Further regional variations can be observed in the heating methods. While heating oil is more common in single-family homes in the South, gas heating systems and district heating networks dominate in northern cities**.** [11]

## Renovation Status of the Building Stock

Similar to the situation in Germany, the annual rate of energy-efficient renovations is also declining at the EU level and has fallen to just 1 % by 2023.[12] In 2024, the renovation rate in Germany dropped to an all-time low of 0.69%.[13] To transform the building stock to climate neutrality by 2045, however, around 1.7 to 1.9 % of residential buildings would need to undergo energy renovations each year. [14]

The reasons for the low renovation rate include rising construction costs, shortages of materials and skilled labour, high inflation rates, uncertain subsidy conditions, pandemic-related hesitation until 2021, and, from 2023 onwards, the energy crisis triggered by the war in Ukraine. The slump in new construction between 2022 and 2024 has further exacerbated the situation on the construction market, as fewer owners move into new buildings and therefore have fewer opportunities to renovate older properties. The cost of new residential construction increased by 19% between 2021 and 2024, mainly due to higher material prices driven by high inflation and increased financing costs. [15]

To increase the renovation rate, the federal government relies on a mixture of funding programmes, legal standards, and advisory services:

- **Federal Funding for Efficient Buildings (BEG)[16]:**

[10] Gebäudeforum Klimaneutral: DENA GEBÄUDEREPORT 2025, Link

[11] Einzelhandel Woche: Regionale Differenzen bei Heizenergiebedarf im Osten liegen bei fünfzehn Prozent, Link

[12] Europäische Kommission Vertretung Deutschland: Energieeffizienz von Gebäuden: Rat und Parlament einigen sich auf neue Vorgaben, Link

[13] Bündnis Gebäudewende: Marktreport 2025 - Gebäudewende: Daten und Trends, Link

[14] Bundesverband energieeffiziente Gebäudehülle e.V.: Sanierungsquote, Link

[15] Gebäudeforum Klimaneutral: DENA GEBÄUDEREPORT 2025, Link

[16] Bundesamt für Wirtschaft und Ausfuhrkontrolle: Bundesförderung für effiziente Gebäude, Link

Introduced in 2021, this core funding instrument bundles grants and loans for energy-efficient renovations. Through KfW and BAFA, individual measures (e.g. insulation, window replacement, heating system upgrades) or full renovations to an efficiency house standard can be funded. Grants typically cover 15–25% of investment costs (depending on the efficiency level), combined with low-interest loans. For heating system replacement (e.g. gas → heat pump) there have been increased grants (up to 40%) since 2022/2023. In 2023, an income bonus was introduced: owner-occupiers with <40,000 € annual income receive +30% grant when replacing the heating system to relieve lower-income households. The BEG encounters high demand here and ties up billions of euros each year. However, analyses show that a large part of the funding goes to households that already have strong investment capacity. [17]

- **Tax incentives:**
  In addition, homeowners can deduct certain renovation costs from their taxes (20% over three years, up to €40,000). This instrument mainly targets owner-occupiers of single-family homes and aims to encourage renovations without applying for a KfW loan.
- **Regulatory requirements:**
  Existing regulations in the Building Energy Act (GEG) require minimum measures: for example, insulation of top floor ceilings above heated rooms and the replacement of old boilers (>30 years) are mandatory unless the building is a listed monument or already meets efficiency standards. For unsanctioned single- and two-family homes, certain retrofitting measures (roof insulation, pipe insulation) must be completed within two years after a change of ownership.
- **Federal–state programmes:**
  Various programmes at the state level complement the BEG, such as additional funding for social housing renovation or urban district programmes (KfW-432) for energy-oriented urban re-development. KfW programmes for municipal buildings (schools, childcare centres, public buildings) also support renovations with repayment grants of 5–20%.[18]
- **Advisory services and campaigns:**
  On-site energy consultations (partly subsidised) and information campaigns (e.g. dena's "Saving Electricity at Home")[19] aim to motivate property owners. Several federal states provide grants for building renovation roadmaps in order to help homeowners plan step-by-step measures.

## Status of Citizen and Renewable Energy Communities

A complex framework of various laws governs the operation of energy cooperatives in Germany and addresses aspects relating to legal form, energy generation and financing procedures. The

[17] Deutscher Mieterbund: Energetische Sanierung & Heizungstausch - Förderung im Mietwohnbereich sozial ausrichten, Link

[18] Deutscher Mieterbund: Energetische Sanierung & Heizungstausch - Förderung im Mietwohnbereich sozial ausrichten, Link

[19] Deutsche Energie-Agentur: Strom sparen im Haushalt Anleitung für Verbraucher, Link

first Cooperatives Act (GenG) was enacted in 1889 and formed the legal basis for all cooperatives established at that time. In addition to the Cooperatives Act, financing laws and regulations such as the Energy Industry Act (EnWG), the Renewable Energy Sources Act (EEG) and the Combined Heat and Power Act (KWKG) are relevant to the legal organisation and financing options of energy communities.

The GenG sets out the requirements for the formation of any type of cooperative. A cooperative must serve the interests of its members (Section 1 GenG). This purpose must be described in the cooperative's articles of association, together with further details such as its location, shares, etc. Furthermore, all cooperatives must be members of an auditing association. For entry in the register of cooperatives, a certificate issued by such an association and a report on the cooperative's profitability are required.[20]

To make it easier to join cooperatives, the GenG was first updated in 2006, with the minimum number of members reduced to three to simplify the process of setting up new cooperatives. It should be noted, however, that only energy communities with at least 15 natural persons as members are eligible for state subsidies.[21] The Federal Government is continuously working on improvements to the GenG to make cooperatives a more attractive legal form. In 2022, the registration of cooperatives in the Cooperative Register was simplified by introducing the option of video communication for online notarial procedures. Furthermore, in 2024, the Federal Ministry of Justice and Consumer Protection published a draft bill aimed at strengthening the cooperative as a legal form[22]. The draft proposes opening up the GenG to equity investments in renewable energy generation facilities. The draft bill will simplify the establishment of an energy cooperative in Germany by abolishing the written form requirement, thereby opening up the possibility for further digitalisation of the procedure[23].

However, by August 2025, the law had not yet been passed. The new government republished the draft bill in June 2025 and invited the federal states and associations to submit their comments[24]. The draft provides for significant improvements for energy cooperatives, particularly as it clarifies legal issues regarding the purpose of funding and open capital participation in connection with renewable energy generation facilities. This leads to the authorisation of indirect funding. Consequently, energy communities may be established with the aim of jointly investing in renewable energy generation facilities, provided that a personal connection exists. The EEG

[20] Bundesministerium der Justiz und für Verbraucherschutz: Gesetz betreffend die Erwerbs- und Wirtschaftsgenossenschaften, Link

[21] Bundesministerium für Wirtschaft und Energie: Bürgerenergie: Die Energiewende aktiv mitgestalten, Link

[22] Bundesministerium für Justiz und Verbraucherschutz: Referentenentwurf des Bundesministeriums der Justiz und für Verbraucherschutz, Link

[23] Bundesministerium für Justiz und Verbraucherschutz: Digitalisierungsschub für Genossenschaften: Bundesministerium der Justiz veröffentlicht Gesetzesentwurf, Link

[24] Bundesministerium für Justiz und Verbraucherschutz: Modernisierungsschub für Genossenschaften: Gesetzentwurf veröffentlicht, Link

defines a personal connection, for example, on the basis of the geographical distance between members and facilities[25].

The amendments to the Renewable Energy Sources Act (EEG) in 2017 changed the situation for energy communities in Germany. Previously, cooperatives could rely on fixed feed-in tariffs. However, following the introduction of tendering procedures under the EEG, they faced planning uncertainties, which had a negative impact on the establishment of new cooperatives. From then on, only small installations (<10/15 kW) received fixed feed-in tariffs, whilst those involved in larger installations had to participate in tendering procedures. Energy communities relied on these fixed feed-in tariffs to offer returns to their members or to repay loans. Further amendments to the EEG in 2023 aimed to make energy communities more attractive again[26]. However, the EEG does not recognise energy cooperatives as such, but instead defines the term 'citizen energy companies' and sets out several criteria. This definition provides clarity, as it now explicitly includes cooperatives within the definition of citizen energy companies.

Several sections of the amendment are specifically relevant to energy cooperatives and how they operate. The changes are designed to make it easier for citizens to participate in the energy transition. Cooperatives are considered energy communities if their membership comprises at least 50 natural persons; prior to the amendment, the figure was 10. No single member may hold more than 10% of the votes in the community. Furthermore, 75% of the members entitled to vote must live within a 50 km radius of the projects. If an energy community meets all the criteria of this definition, it is regarded as a citizen energy company under the EEG and can benefit from all the advantages of the amendment[27]. The 2023 amendment secures a privileged position for energy communities, enabling them to produce energy locally and receive remuneration without having to participate in tendering procedures under the EEG[28]. For example, citizen energy communities can submit bids for onshore wind farms without having to demonstrate that they have an approved plant, and are also granted more time to implement such projects.

Another instrument relevant to energy communities, which is enshrined in the EEG, is the subsidy for the use of solar power generated in residential buildings (tenant electricity surcharge). When energy communities supply electricity directly to tenants, they receive a feed-in tariff that is slightly lower than for direct feed-in to the grid.[29] This model can be used in collaboration with housing associations. It may be attractive for newly established energy communities, as they do not have to switch to the open market immediately.

Furthermore, amendments to the EEG have removed bureaucratic hurdles for energy cooperatives acting as small-scale renewable energy producers. Measures such as simplified grid connection procedures and reduced reporting requirements make it easier for citizens' initiatives

[25] BBH: Referentenentwurf zur Reform des Genossenschaftsgesetzes: Stärkung der Energiegenossenschaften, Link
[26] Umweltbundesamt: Erneuerbare-Energien-Gesetz, Link
[27] Bundesverband WindEnergie: Bürgerenergiegesellschaften im EEG 2023, Link
[28] Bundesministerium für Wirtschaft und Energie: Bürgerenergie: Die Energiewende aktiv mitgestalten, Link
[29] Bundesministerium für Wirtschaft und Energie: Gesetz zur Förderung von Mieterstrom und zur Änderung weiterer Vorschriften des Erneuerbare-Energien-Gesetzes, Link

to launch and operate solar and wind projects[30]. Nevertheless, energy communities must bear in mind that their installations must be registered with the Federal Network Agency (Market Master Data Register). Citizens' energy communities must regularly demonstrate that they continue to meet the criteria published in the EEG in order to retain their privileges[31].

For energy communities investing in renewable energy projects and heating projects, it is important to note that installations cannot receive double funding. They must decide whether their projects fall under the EEG (renewable energy projects) or the KWKG (combined projects). The KWKG provides for a fixed bonus granted per kWh of electricity generated from CHP plants.

Energy cooperatives in Germany benefit from a continuously improving legal framework that takes their specific characteristics into account. The Cooperatives Act safeguards their establishment and internal organisation, and recent reforms have further streamlined these processes.

## Energy Communities in Germany

### Overview of Progress and Current Trends

Energy communities in Germany are characterised by a long history that dates back to the late 19th century. A boom in the early 20th century led to around 6,000 energy communities, which were mainly operating in rural areas. However, this development was almost entirely reversed from the 1930s onwards, when the centralisation of the electricity grid began. Energy communities were confronted with forced liquidations, financing problems and later also with municipalisation during the GDR period [32]. The turning point came in the 1990s, when the German government began financing the energy transition, followed in the 2000s by the adoption of the Renewable Energy Sources Act (EEG). [33]

Since the beginning of the 21st century, various changes in German renewable-energy and cooperative legislation have led to uncertainty for energy communities. The first version of the EEG was adopted in 2000 with the aim of advancing the German energy transition, replacing the Electricity Supply Act. Since then, the law has been amended twice, whereby the amendments of 2014 had significant effects on energy communities. The feed-in tariffs were replaced by a tendering procedure from which larger companies benefited. This created several challenges for energy communities, such as a lack of funds to finance studies, planning, and permits for projects, since they do not have diversified portfolios for risk mitigation.[34]

Following an amendment to the Capital Investment Code (KAGB) in 2013, this situation led to the decline in the establishment of new energy communities described above, primarily due to a

[30] Deutscher Bundestag: Neuregelung der Förderung besonderer Photovoltaik-anlagen beschlossen, Link
[31] Bundesministerium der Justiz und für Verbraucherschutz: Gesetz für den Ausbau erneuerbarer Energien (Erneuerbare-Energien-Gesetz - EEG 2023) § 22b Bürgerenergiegesellschaften, Link
[32] Leuphana Universität Lüneburg: Zum Stand von Energiegenossenschaften in Deutschland, Link

[33] Tatsachen über Deutschland: Generationenprojekt Energiewende, Link

[34] Energie- und Klimapolitik Beratung: ÜBERWINDBARE HEMMNISSE FÜR BÜRGERENERGIE? Eine wissenschaftliche Expertise von EnKliP, Link

change made in 2014. The amendments aimed to regulate alternative investment funds (AIFs) that pool money from members to invest collectively. Energy communities are generally not considered AIFs because they operate renewable-energy installations and sell electricity on the market. However, because the KAGB definition was very broad, it was not entirely clear whether energy communities might fall under the AIF category or not. If so, they would have been required to comply with obligations such as registering as an AIF management company, fulfilling reporting and organisational duties, and implementing risk-management processes. Volunteer-run cooperatives would not be able to meet these requirements. In 2015, the Federal Financial Supervisory Authority clarified that energy communities are not considered AIFs, as they do not pursue a defined investment strategy like AIFs. This decision provided legal certainty for energy communities[35]. Nevertheless, the period of uncertainty led not only to a 50% drop in new community formations in 2014, but also to an investment backlog of around €290 million intended for investments in renewable-energy projects.[36]

Despite their turbulent history, the concept of energy communities in Germany has gained popularity over the past decade. According to the German Cooperative and Raiffeisen Confederation, 1,038 new communities with around 220,000 citizens were founded between 2006 and 2023[37].

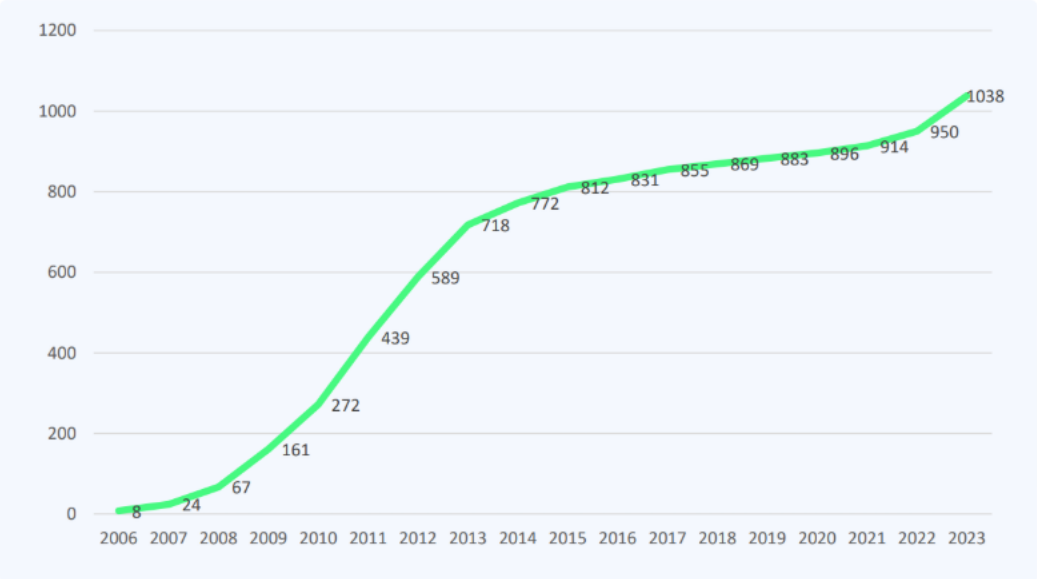


Table 2, Number of energy communities in Germany from 2006 to 2023, Link

[35] Osborne Clarke: Rettung der Energiegenossenschaften durch Änderung der BaFin-Verwaltungspraxis – und auch ansonsten wird die Genossenschaft interessant, Link
[36] Solarify: Energiegenossenschaften: Einbruch bei Gründungszahlen, Link

[37] DGRV: Energiegenossenschaften 2024, Link

The graph shows a stagnation of the strong growth in the establishment of energy communities seen in the first decade of the 21st century, most likely due to increasing bureaucratic barriers. In addition, in 2013 the grand coalition decided to abolish the so-called green electricity privilege for self-generated electricity, which then remained in force until August 2014. After that, the full amount of the surcharge on electricity bills financing the expansion of renewable energies (EEG levy) had to be paid[38]. The drop in the formation of new energy communities is clearly visible, as numbers stagnated from 2013 onwards. A decade later, however, in 2023, a sharp increase is visible, with 88 new energy communities founded. This may be linked to the full abolition of the EEG levy in January 2023.[39]

The Institute for Ecological Economic Research estimates that the number of energy communities in Germany will reach between 2,500 and 3,000 by 2024[40]. According to Statista, 95% of energy communities in Germany were owned by private individuals in 2023, while the remaining 5% were distributed among companies, farmers, municipalities, and churches. This underlines the importance of energy communities for the involvement of citizens in the energy transition at the local level[41].

These communities can initiate various projects such as solar and wind parks, heating systems, biogas plants, or investments in electromobility to improve local infrastructure and support rural development. To promote decentralised energy production, the federal government provides up to €300,000 funding per project for onshore wind parks[42].

At the municipal, state, and federal levels, various funding opportunities exist for energy communities, including grants or low-interest loans. Since 2006, energy communities in Germany have invested more than €3.6 billion in renewable-energy projects[43].

[38] Bund der Energieverbraucher: Energiegenossenschaften, Link

[39] Bundesnetzagentur: Über-schuss aus dem För-der-sys-tem des EEG im Jahr 2023, Link

[40] Institut für ökologische Wirtschaftsforschung: Bürgerenergie fördern: Gemeinschaftlich die Energiewende beschleunigen, Link

[41] Statista: Mitgliederstruktur von Energiegenossenschaften in Deutschland im Jahr 2023, Link

[42] Bundesministerium für Wirtschaft und Energie: Bürgerenergie: Die Energiewende aktiv mitgestalten, Link

[43] DGRV: Energiegenossenschaften 2024, Link

# Challenges and Opportunities for Energy Communities in Germany

## Challenges & Gaps

Due to the low renovation rate, many buildings in Germany continue to have a high energy consumption level, and $CO_2$ emissions in the existing building stock are decreasing only slowly. In 2020 and 2021, the building sector exceeded the emission limits set by the Climate Protection Act, triggering immediate action programmes. These foresee, among other things, increased funding, regulatory measures and $CO_2$ prices. Nevertheless, the climate-adjusted heat consumption in residential buildings has not decreased significantly since 2016[44].

A particular challenge in promoting renovation measures is the fair distribution of the renovation burden, both socially and structurally. So far, energy-efficient modernisations have primarily been implemented by owners with sufficient capital and in economically strong regions. Low-income households, however, disproportionately often live in unrenovated, inefficient apartments and are unable to afford high investment costs. While owner-occupiers directly benefit from subsidies, tenants are often affected only indirectly. Although heating costs decrease after renovations, rent increases triggered by the modernisation levy may exceed these savings. This creates the risk that energy renovations immediately lead to higher rents, disproportionately affecting financially vulnerable households.

A study by the Öko-Institut found that 45% of renovation grants go to households with a net monthly income of more than 5,000 € net income per month, i.e., to rather wealthy owners who could manage renovations even without large subsidies. Low-income households, however, rarely make use of funding[45]. So far, comprehensive social policy measures are missing. To address this, the German Tenants' Association has called for greater support for landlords who guarantee affordable rents. This would be achieved by offering a 15% bonus if landlords commit to keeping rents at least 10% below the local reference rent for ten years following an energy renovation.

Furthermore, the Tenants' Association calls for bonuses for "worst-first" renovations, in which the worst buildings are renovated first, and for serial renovations, which involve industrial renovation procedures. At the same time, windfall effects should be reduced, for example, by giving higher earners slightly less funding and rewarding socially oriented landlords. The $CO_2$ price on heating fuels (€45/t $CO_2$ in 2024) and its planned increase create further economic pressure to upgrade inefficient buildings. So far, however, the federal government has not responded to the Tenants' Association's proposals[46].

Ownership structures such as homeowners' associations (WEGs) pose structural challenges for energy renovations. Here, many parties must agree on and jointly finance renovation measures, which often delays decision-making. In fact, the renovation rate for WEG-owned buildings is in

[44] Gebäudeforum Klimaneutral: Gebäudereport 2025 – Kapitel 5: Energieverbrauch, Link

[45] Öko-Institut: Sozialgerechte Förderung für energetische Sanierungen im Mietwohnbereich, Link

[46] Deutscher Mieterbund: Förderung im Mietwohnbereich sozial ausrichten: Extremer Sanierungsrückstand: Vorschlag für politische Maßnahmen, Link

some cases below 0.3%, significantly lower than the general renovation rate of 0.83% in 2023. Barriers include complex decision-making processes, insufficient reserves, and individual owners' fears of over-indebtedness. To counteract this, WEGs can reorganise processes—e.g. by introducing digital owners' meetings. Further simplifications could be achieved through the legal facilitation of renovation decisions. Additionally, one-stop shops, which oversee the entire renovation process and provide WEGs with all relevant information on measures and funding opportunities, could be promoted[47].

## Opportunities & Enabling Factors

In Germany, energy communities have been clearly defined and strengthened legally for the first time in recent years, which opens up a new scope for action. With the amendment of the EnWG coming into effect in June 2026, Germany has for the first time incorporated the concept of energy sharing into national law. The new provision of § 42c EnWG allows energy communities to share jointly generated green electricity via the public grid with their members.

Until now, tenant electricity and district models were strictly limited to a single property or building; this limitation now no longer applies. From 2026 onwards, for example, neighbours in a district can operate a joint solar park and use the electricity proportionally themselves. It is important that the community operates within a balancing area and only supplements each member's regular electricity supply. Eligible participants are private individuals, SMEs, municipalities, and citizens' associations, thereby guaranteeing a citizen-oriented participant base[48].

With this innovation, a central component of the EU Internal Market Directive (Art. 15a)[49] is finally implemented. Energy communities thus receive an explicit usage right to the electricity grid, which did not exist before. Although some questions remain open—for example, whether in the future financial relief such as reduced grid fees for energy sharing will come (the legislator has left this to the Federal Network Agency)—the breakthrough has been achieved: energy communities are legally recognised and operational [50].

In addition, existing laws have been made more citizen-friendly. The Condominium Act (WEG) has allowed renovation and modernisation resolutions by simple majority since 2020, which, for example, significantly facilitates the joint installation of thermal insulation or PV systems. Every condominium owner even has a legal claim to certain modernisations (charging station, accessibility, energy renovation)—these are considered privileged and can be implemented at one's own expense if necessary. Obstacles in tenancy law have also been reduced: since 2020,

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[47] haustec.de: Extremer Sanierungsrückstand: Vorschlag für politische Maßnahmen, Link

[48] Taylor Wessing: Energy Sharing § 42 EnWG, Link

[49] EUR-Lex: Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU, Link

[50] Taylor Wessing: Energy Sharing § 42 EnWG, Link

tenants in the same building can join together in a "communal building supply" to use PV electricity in the building without being considered an energy supplier [51].

One of Germany's greatest strengths in the climate sector is the extensive public funding, from which communal renovation projects and energy projects particularly benefit. Financing is often considered the decisive factor as to whether an idea can be realised (detailed information in the chapter **Funding Providers and Programmes)**. For citizen-led projects, this means that money is less often the limiting factor. High grants and low-interest KfW loans ensure that ambitious projects can also be financed. Many energy cooperatives report that it is more a lack of project opportunities than capital—the members are willing to invest because the state covers a large part and secure framework conditions exist (EEG remuneration, feed-in priority). Funding is designed socially so that broader population groups can participate. For example, low-income owners benefit from the 30% income bonus for owner-occupiers with up to €40,000 taxable annual household income. Municipalities can provide financial incentives to their citizens via district programmes. In summary, financial barriers have been significantly reduced by the current instruments [52].

However, municipalities can not only provide financial incentives, but also create platforms for exchange among citizens. They are often the next level of support above the citizens themselves, as they know the local conditions, bundle interests, and can facilitate projects. An example is the small town of Wolfhagen in Hessen. There, politics and the municipal utilities already decided in 2003 to recommunalise the electricity sector and aim for a 100% renewable electricity supply. In 2013, 264 citizens, together with the city, founded the BürgerEnergieGenossenschaft Wolfhagen, which acquired 25% of the municipal utility shares.

The capital contributed flowed into wind turbines and PV systems—and indeed, since 2015 Wolfhagen has been fully supplied with green electricity on a balance sheet basis. The citizen cooperative sends two members to the supervisory board of the municipal utility and receives annual dividends; the municipal utility makes profits and was even able to build a kindergarten. This success—citizens and city jointly owners and beneficiaries—has a signalling effect: nationwide, more than 280 municipalities have since recommunalised their electricity grids and partially involved citizens. Elsewhere, cities also establish cooperative cooperatives. In Schleswig-Holstein, for example, municipalities operate wind farms together with local residents to share value creation and ensure acceptance. In short: municipalities can act as anchor investors, provide start-up capital (or lease land cheaply), and thereby make citizen energy possible[53].

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[51] Bundesministerium für Justiz und Verbraucherschutz: Wohnungseigentumsrecht, Link

[52] Bundesministerium für Wirtschaft und Energie: Neue Förderung für Heizungstausch und Gebäude-Effizienzmaßnahmen startet, Link

[53] Renewables Networking Platform: Active citizenship for renewable energy, Link

Municipalities can bring the many actors relevant to the establishment of energy communities together and thus enable the citizen-led energy transition.

## Relevant Legislations

At the beginning of 2024, there were around 9,000 energy communities in the EU involving more than 1.5 million citizens.[54] A complex framework of various laws governs the operation of energy cooperatives in Germany and addresses aspects such as legal form, energy production, and financing procedures. The first Cooperative Societies Act (GenG) was adopted in 1889 and formed the legal basis for all cooperatives established at that time. In addition to the GenG, financing laws and regulations such as the Energy Industry Act (EnWG), the Renewable Energy Sources Act (EEG), and the Combined Heat and Power Act (KWKG) are relevant for the legal organisation and financing options of energy communities.

With regard to renovations, the most important legislation is the Building Energy Act (GEG), as well as the Income Tax Act (EStG), which regulates the tax deduction of energy-related renovation costs. At the European level, EU directives such as the EPBD have an impacz on the GEG.

### EU Directives Transposition

Germany is working intensively to implement the new EU requirements set out in the "Fit for 55" package. Key changes relate to building energy efficiency (EPBD), energy savings (EED), and renewable energy (RED).

In April 2024, the revision of the EU Energy Performance of Buildings Directive (EPBD) was adopted by the European Commission. It requires Member States to move the building sector step by step towards the 2050 net-zero emissions target. For residential buildings, energy consumption is to be reduced by 16% by 2030 and by around 20% by 2035 compared to 2020. Furthermore, fossil fuels should no longer be used for heating by 2040. The plans originally discussed for a Europe-wide mandatory renovation requirement for the most energy-inefficient buildings (raising energy efficiency ratings from class G to E by 2030, etc.) have been scaled back. Instead, Member States are permitted to choose their own approaches to renovate the least energy-efficient part of the building stock – e.g. through funding schemes, minimum standards or obligations upon a change of ownership[55].

The lead ministries (BMWK – Federal Ministry for Economic Affairs and Climate Action, and BMWSB – Federal Ministry for Housing, Urban Development and Construction) regard the amendment to the EPBD as an important step and are currently preparing implementation plans. The German Bundestag reported on progress in July 2024. Germany has already implemented several measures aligned with EPBD goals, including two revisions of the GEG during this legislative period: firstly, the raising of the standard for new buildings to EH55 (Energy Efficiency House 55 based on primary energy) in December 2025; and secondly, the 2024 GEG amendment requiring new heating systems from 2024 onwards to be powered by renewable energy sources to the extent possible, up to 65%. In addition, the Heat Planning Act and the restructuring of the

[54] Interreg Danube Region: Recent Survey Highlights Potential of Energy Communities in the EU, Link

[55] GEG Infoportal: EU-Gebäuderichtlinie (EPBD), Link

BEG have shifted the focus more strongly to renovation and heating replacement rather than new construction. These steps already cover certain aspects of the EPBD.

However, further adjustments are needed for full EPBD implementation. The federal government refers to a "broad and diverse programme," which includes revising the GEG requirement system, considering embodied emissions, further developing energy performance certificates, creating a digital building registry, expanding smart building infrastructure, and introducing obligations for photovoltaic and charging infrastructure. Many of these measures require substantial technical groundwork [56].

Germany successfully advocated in Brussels to ensure that the EPBD does not impose mandatory renovations on individual residential buildings. Work on the "national building renovation plan" for late 2025 is ongoing. A public consultation is planned for 2025, after which the plan will be submitted to the European Commission. The detailed national strategy will therefore be specified in 2025[57].

The revised EU Energy Efficiency Directive (EED) requires Member States to adopt ambitious energy-saving targets until 2030 and implement annual savings measures. As part of the "Fit for 55," the EED was strengthened in 2023 (Directive (EU) 2023/1791). The EU is to reduce its final energy consumption by 11.7% below the projected level by 2030 (corresponding to a maximum of approximately 763 million tonnes of oil equivalent) – a target to be allocated to Member States on a binding basis [58].

Germany transposed the new EED rules into national law in late 2023 through the Energy Efficiency Act (EnEfG). With its target of reducing energy consumption by 500 TWh by 2030, Germany meets its national share under the EED revision. The EnEfG obliges the government to regularly report on progress and to adopt additional measures if necessary. For the first time, Germany now has a clear regulatory framework for efficiency, replacing previous reliance on funding programmes and EU-mandated energy audits for large companies. The targets are now legally binding, with specific obligations assigned to relevant actors. This allows Germany to demonstrate compliance with the EED at EU level[59].

The EU Renewable Energy Directive (RED II, 2018/2001/EU) and the Internal Electricity Market Directive (2019/944/EU) define new organisational models for the energy transition: Renewable Energy Communities (RECs) and Citizen Energy Communities (CECs). These communities allow citizens, municipalities, and small companies to jointly generate, use, store, and sell renewable electricity. Member States must remove barriers to such models and provide a framework for their promotion and participation. Article 22 RED II requires that RECs must be allowed to

[56] Zentralverband Sanitär Heizung Klima: EH-55 - Förderung am 16. Dezember 2025 gestartet, Link

[57] Deutscher Bundestag: Drucksache 20/12261, Link

[58] Bundesministerium für Wirtschaft und Energie: Bundestag beschließt Energieeffizienzgesetz, Link

[59] Bundesministerium für Wirtschaft und Energie: Bundestag beschließt Energieeffizienzgesetz, Link

consume jointly produced electricity ("energy sharing") and feed surplus electricity into the grid without discriminatory charges. Similar rights apply to CECs under the Electricity Directive[60].

As previously mentioned, Germany has a long tradition of citizen-led energy initiatives—such as cooperatives operating PV or wind installations. However, the legal treatment in Germany has not yet fully aligned with EU definitions. Germany has since taken some regulatory steps to enable RECs/CECs, but full, explicit implementation is still pending[61].

The Renewable Energy Sources Act (EEG 2023) introduced the term "citizen energy company," intended to promote diversity among stakeholders in the expansion of renewable energy. A citizen energy company, as defined by the EEG, must have at least 50 natural persons as members. These organisations enjoy certain privileges: since January 1, 2023, they have been exempt from auction requirements when selling electricity from renewable energy installations. They can market wind or solar parks of certain sizes directly via fixed tariffs or market premiums, without having to participate in the bidding process. This lowers barriers for local initiatives[62].

Furthermore, the EEG enables certain citizen energy projects to participate in auctions under simplified conditions (e.g. special quotas for community wind parks). These provisions implement the EU's goal of promoting community energy in the expansion of renewable energy, even though the term "community energy company" in the EEG does not correspond exactly to the EU definitions of "CEC" or "REC"[63] [64].

In 2021, several amendments were made to the Energy Industry Act (EnWG) to facilitate collective self-consumption. Section 5 of the EnWG introduced the concept of "collective building supply," allowing tenants or condo owners in the same building to jointly operate PV systems and use the electricity internally—commonly known as tenant electricity models. To this end, the EEG surcharge, which was previously applied in full, was reduced for self-consumption and has since been eliminated entirely, making such models more economical. However, supplying electricity across property boundaries remains difficult[65].

Energy sharing via the public grid—in which, for example, an energy cooperative operates a solar power plant on the town hall and local members can use the electricity at lower grid fees—has not been possible in Germany to date, despite the requirements of RED II. Starting in June 2026, energy sharing will now be possible in Germany under Section 42c of the Energy Economy Act (EnWG). The model can then be implemented within a balancing area, and starting in June 2028, this should also be possible in neighbouring balancing areas[66].

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[60] Joint Research Centre: Renewable Energy – Recast to 2030 (RED II), Link

[61] Hoffmann Liebs: Energy Sharing in Deutschland: Vertragsverletzungsverfahren oder Rettung in letzter Minute?, Link

[62] Bundesministerium der Justiz und für Verbraucherschutz: Gesetz für den Ausbau erneuerbarer Energien, Link

[63] Bundesverband Windenergie: Bürgerenergiegesellschaften im EEG 2023, Link

[64] Erneuerbare Energien: Bürgerenergie: Privileg ohne Nutznießer, Link

[65] Bundesministerium der Justiz und für Verbraucherschutz: Gesetz über die Elektrizitäts- und Gasversorgung (Energiewirtschaftsgesetz - EnWG), Link

[66] Bündnis Bürgerenergie e.V.: Factsheet Energy Sharing in Deutschland, Link

Germany has not yet adopted the terms REC/CEC verbatim into its legislation. Instead, it uses its own terms in some cases (citizen energy company, joint self-supplier). The European Commission therefore initiated infringement proceedings against Germany in 2023, as full implementation (particularly of Article 22 of RED II) was delayed.[67] In the meantime, however, the electricity market design has been reformed again at the EU level (Directive EU 2024/1711), which is intended to facilitate energy sharing across the EU in the future. As part of this process, Germany was permitted to update its national regulations.

The Governance Regulation (EU) 2018/1999 obliges each EU Member State to submit integrated National Energy and Climate Plans (NECPs) for 2021–2030 (first in 2019, updated in 2023/24) and a long-term strategy with a 30+ year perspective. These plans are intended to ensure a coordinated national action towards EU goals, such as reducing greenhouse gas emissions by 55% by 2030 and achieving climate neutrality by 2050. The NECP covers the five dimensions of the Energy Union: decarbonisation, energy efficiency, energy security, the internal market, and research/innovation[68].

Germany submitted its first NECP on time at the end of 2019. This outlined, among other things, the national 2030 target (-55% greenhouse gases, since tightened to -65%) and planned measures (EEG expansion pathways, coal phase-out by 2038, building renovation drive, etc.). In light of the Fit for 55 revisions, Germany prepared an updated NECP in 2023[69]. Germany meets the Governance Regulation requirements by submitting and updating integrated climate and energy plans. The NECP 2021–2030 (2024 update) outlines Germany's contributions to EU targets and reflects its increased ambition (higher renewable share, earlier climate neutrality). The long-term strategy began with the Climate Action Plan 2050 and was further strengthened through the Climate Protection Act's 2045 target. The focus now is on closing the short-term gap by 2030 – here, the European Commission will assess the German NECP to determine whether the planned measures are sufficient to close the gap of approximately 2 percentage points (-63% instead of -65% according to the forecast). Overall, Germany is at the forefront in terms of strategy and planning, but must significantly step up its efforts in practical implementation (e.g. building renovations, traffic reduction) in order to stay on track with its own and the EU-wide pathway[70].

As a compensatory mechanism for the introduction of the new EU Emissions Trading System for buildings and transport (ETS 2), the EU established the Social Climate Fund under the 'Fit for 55' package (Regulation (EU) 2023/955). This Climate Social Fund (CSF) will provide EU funding from 2026 to 2032 to support low-income households, vulnerable micro-enterprises and transport users in coping with rising $CO_2$ costs. The total fund across the EU amounts to around €65 billion, with Germany entitled to approximately 8% of this. Specifically, Germany can expect €5.31 billion in EU funding, provided it co-finances €1.77 billion nationally (25% share). This would make a total

[67] Hoffmann Liebs: Energy Sharing in Deutschland: Vertragsverletzungsverfahren oder Rettung in letzter Minute?, Link
[68] Amtsblatt der Europäischen Union, L328/1: VERORDNUNG (EU) 2018/1999 DES EUROPÄISCHEN PARLAMENTS UND DES RATES , Link
[69] Umweltbundesamt: Treibhausgasminderungsziele Deutschlands, Link

[70] Umweltbundesamt: Treibhausgasminderungsziele Deutschlands, Link

of approximately €7.1 billion available for social climate protection measures. To access these funds, each federal state must draw up a 'Social Climate Plan' setting out the planned relief measures[71].

Germany was required to submit its Social Climate Plan by 30 June 2025 but missed the deadline. As of 2026, the federal government is still working on the implementation of the Climate and Social Fund. The final plan is expected to include a wide range of measures, from financial transfers and investment support to affordable transport options (e.g. the Deutschlandticket)[72].

## Renovation-Related Legislation

Several laws form the legal framework for building renovations in Germany. They set out technical requirements, energy-saving targets and procedural rules that apply to both private owners and institutional stakeholders. In the context of community-led renovation projects, the following legal provisions are particularly relevant:

| Legislation | Purpose and measures | Relevance for community-led renovations |
|---|---|---|
| **Building Energy Act (GEG)[73]** | • Standardisation of technical requirements since 2020<br>• Retrofitting requirements for roofs and floor slabs<br>• Ban on old oil/gas heating systems over 30 years old (except condensing/low-temperature systems)<br>• Requirement to use 65% renewable energy in new heating systems from 2024<br>• Energy performance certificate requirement for sales/renovations | • Sets binding minimum standards for renovations<br>• Promotes climate-friendly heating alternatives<br>• Increases pressure on owners' associations to plan ahead<br>• Makes collective solutions more attractive, as fossil fuel options are no longer viable |

[71] Bundesumweltministerium: Wieviel Geld steht Deutschland aus dem Fonds zu?, Link

[72] Deutscher Bundestag: Drucksache 21/1072, Link

[73] Verbraucherzentrale: GEG: Was steht im Gebäude-Energie-Gesetz?, Link

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|---|---|---|
| **Climate Protection Act (KSG) & Energy Efficiency Act (EnEfG)**[74] [75] | • $CO_2$ budgets for the building sector (108 Mt → 67 Mt by 2030)<br>• Energy efficiency target: -26.5% final energy consumption compared to 2008<br>• Federal and state governments to lead by example: 45 TWh (federal), 3 TWh (state) annual savings requirement | • Political pressure to act on refurbishment<br>• Funding landscape becomes more stringent due to missed targets<br>• Citizen-led projects can cite national targets • Legitimacy for ambitious local measures |
| **Heat Planning Act (WPG)**[76] | • Municipal heating planning to be mandatory by 2028<br>• Target: 50% climate-neutral heating by 2030<br>• 30% renewable energy share in existing heating networks by 2030<br>• Planning of supply areas (e.g. district heating, decentralised solutions) | • Guidance for investment decisions<br>• Reduces the risk of making the wrong decisions<br>• Encourages collaborative solutions<br>• May give rise to conflicts; requires cooperation with local authorities |
| **Condominium Act (WEG)**[77] | • Majority decisions for structural alterations<br>• Flexible cost allocation possible<br>• Joint borrowing permitted<br>• Introduction of certified property managers, online | • Facilitates renovation decisions in condominium associations<br>• Removes individual owners' veto rights |

[74] Bundesministerium der Justiz und für Verbraucherschutz: Bundes-Klimaschutzgesetz (KSG), Link

[75] Bundesministerium der Justiz und für Verbraucherschutz: Gesetz zur Steigerung der Energieeffizienz in Deutschland (Energieeffizienzgesetz - EnEfG), Link

[76] Bundesministerium für Wohnen, Stadtentwicklung und Bauwesen: Gesetz für die Wärmeplanung und zur Dekarbonisierung der Wärmenetze, Link

[77] Liebert & Röth Rechtsanwälte: WEG-Reform 2020, Link

| | | |
|---|---|---|
| | decisions, and maintenance reserve | • Financial hurdles can be overcome through joint loans<br>• Strengthens the collective capacity to act in apartment blocks |

Table 2 Overview of relevant legislation on renovations

## Legislation on Engagement of Neighbours and Volunteers

The concept of citizen-led renovation is not yet widespread in Germany. As a result, there is no single law or a set of interconnected laws that regulate citizen-led renovation. Instead, several general laws and funding opportunities apply to such initiatives.

Relevant laws include the Condominium Act (WEG) and the Building Energy Act (GEG). The WEG defines the rights and obligations when multiple homeowners renovate a building together, while the GEG sets out statutory energy requirements and renovation obligations.

### Renovations carried out by owners' associations

Around 21% of all dwellings in Germany are owned by a homeowners' association (Wohnungseigentümergemeinschaft, WEG)[78]. As a result, a large proportion of renovation work is initiated by WEGs, which can rely on the WEG Act to regulate the rights and obligations of all parties involved. Since the 2020 reform, structural alterations to communal property can be approved by a simple majority, provided they do not have unreasonable negative effects on individual owners or fundamentally alter the property. Previously, all members of a homeowners' association had to approve renovation work. This reform makes it significantly easier for homeowners to carry out energy-efficient renovations.

Furthermore, owners are entitled to install charging stations for electric vehicles, undertake renovations to meet the needs of people with disabilities, install burglary prevention measures, and install fibre-optic connections without requiring the consent of other homeowners. In such cases, the community is obliged to grant approval.[79]

Under the WEG, homeowners' associations are obliged to maintain and repair buildings, even if they are unprofitable older buildings. Necessary renovation work, required for example due to a building's poor condition, must not be postponed. In such cases, an individual owner can compel the community to carry out the renovation, even through legal action. Owners must also grant craftsmen access to their apartments if it is necessary for renovation work that affects all parties

[78] VDIV: Eigentumsbildung in Gefahr? Zensus 2022 belegt: Wenig Wachstum bei Wohnraum in WEG, Link

[79] Dr. Kroll & Partner: WEG-Reform 2020: Sanierungen und Modernisierungen können einfacher beschlossen werden, Link

involved. Once the renovation decision has been approved, the WEG instructs the property management company to implement the measures. The property manager is responsible for obtaining quotations, coordinating with contractors, and supervising the renovation work[80].

The WEG also provides guidance on cost allocation for renovation work. Previously, costs were not allowed to be distributed flexibly and had to be shared equally among all owners. Now, owners who agree to a voluntary renovation may share the costs among themselves without involving the others. Several court rulings have confirmed that homeowners' associations can take out loans for renovation projects. Owners' associations must approve the taking out of a loan by a simple majority. This significantly improves financing possibilities, as KfW-funded renovation loans can be paid directly to the association, eliminating the need for individual owners to apply for their own loans.[81]

Under the provisions of the GEG, homeowners' associations are required to carry out renovation work on the common property, such as partial insulation of unrenovated older buildings. In 2023, the law was tightened to require energy-efficient renovation in various areas[82]. It is therefore essential for homeowners' associations to keep track of new requirements and deadlines.

## Renovations among neighbours

There is no legal framework that regulates the joint renovation of neighbouring houses or apartments. However, there are several important points that homeowners should consider.

For homeowners who are not organised in a homeowners' association (WEG), there are no laws that prescribe or regulate renovation measures. If homeowners in a block or neighbourhood wish to renovate their houses together, the joint renovation would be based on agreements between the individual parties. Neighbours can form interest groups to develop a joint renovation concept for the entire district or jointly hire tradespeople to obtain discounts. Neighbours may choose to keep the collaboration informal or establish an association or even a cooperative in order to create a legal framework. If a renovation cooperative is founded, it would purchase materials, recruit new members, and provide a stable structure for collective investments.

Nevertheless, there are laws that restrict renovation work and define minimum distances and overhangs between buildings and property boundaries. These laws vary between federal states and must be checked before starting renovation works. In North Rhine- Westphalia, for example, according to a ruling by the Federal Court of Justice from 2022, insulation may protrude up to a few centimetres (e.g. 20–25 cm) onto the neighbouring property, provided this cannot be technically achieved otherwise.[83] Rules on renovations and property boundaries can be found in the neighbour rights acts of the federal states in conjunction with the German Civil Code (BGB). If

[80] Bundesministerium für Wirtschaft und Energie: Gemeinsam sanieren und gemeinsam sparen in der Wohnungseigentümergemeinschaft, Link

[81] Kanzlei Kotz: Wohnungseigentum – Beschluss über Darlehensaufnahme, Link

[82] Mein Köln Bonn: Energetische Sanierung: Diese Pflichten gelten für WEGs, Link

[83] Architektenkammer Nordrhein-Westfalen: BGH und energetische Sanierung: Duldungspflicht des Nachbarn, Link

neighbours wish to install shared infrastructure such as heating or solar systems that extend across several buildings and are used by them, legal requirements must be observed.

To set up a shared heating system for several properties, neighbours can establish a civil law partnership (GbR) or enter into a heat supply contract. A private connection to building systems is permitted and does not require licences, such as those required by an energy supplier. However, if heat is not shared for free but provided under a heating supply contract, consumer protection law applies. This issue can be addressed by establishing a cooperative or appointing one person as the operator while the others pay a flat fee.

When it comes to photovoltaics, the legal situation is quite different, as shared use falls under German energy law. If electricity is used within a single building by multiple parties, such as tenants or owners, there are no special requirements. However, if electricity is transmitted across property boundaries (to third parties), the supply is considered an energy supply scenario, , provided that the public grid is not bypassed. In such cases, grid charges and levies apply. Because this framework limits neighbourhood-based PV projects, the federal government is currently working on an amendment to the Energy Act (EnWG). A new bill released in 2025 introduces Section 42c EnWG, which will allow shared energy use. This paragraph implements the requirements of Section 42b EnWG introduced in the 2023 Solar Package I [84]. With the implementation of Section 42c, energy cooperatives and neighbourhood collectives will be able to supply their members with locally generated electricity without incurring full grid charges.

Additional laws relevant to renovations include building regulations under civil law and heritage protection regulations for historic buildings. If several historic buildings are affected by a renovation, the work should be coordinated with the heritage protection authority. Neighbourhood initiatives do not receive any tax benefits related to renovations. In such cases, each owner may deduct renovation costs individually from their income tax if applicable.

Neighbours should also consider liability and warranty issues when renovating jointly. If a neighbourhood group jointly commissions an insulation contractor to renovate all their houses at the same time, the question arises: who is liable in the event of defects? Each owner has warranty claims for their own property, but groups often sign a joint contract in which all owners act collectively as the contracting party. In case of doubt, they are jointly liable to the contractor for payment. This means that if one owner does not pay their invoice, the contractor can demand payment from the others. The neighbours must then resolve the matter among themselves. Such legal issues should be clarified in advance, and a joint escrow account may be advisable, with each neighbour paying their share in advance.

In general, there is no legislation regulating renovation work in neighbourhood groups. Neighbours must consider several laws that apply to their specific situation. Establishing a renovation cooperative can provide a legal structure and clarify liability issues. It appears that the German government is focusing on legal improvements to create clearer guidance for these

[84] NOERR: EnWG-Novelle: Entwurf zum Energy Sharing, Link

scenarios. Therefore, it is worthwhile for neighbours to stay informed about upcoming legal changes.

## Funding Bodies and programmes

To cover the often high investment costs of energy-efficient renovations, Germany offers a broad spectrum of funding options. These range from direct grants to low-interest loans and tax incentives.

### Funding Bodies

The federal government and the federal states offer various funding programmes for renovation measures, which provide grants for different types of renovation or include low-interest loans. It should be noted that programmes at state and municipal level can vary significantly.

Through BAFA, the BEG and KfW, the federal government provides a wide range of funding programmes and loans for renovation work, which can be used not only by individuals but also by homeowners' associations.

### Funding Schemes

| Programme / Instrument | Purpose / Funding mechanism |
|---|---|
| **Federal Funding Programmes**[85] | |
| **Government funding for energy-efficient buildings (BEG)** | Grants or low-interest loans for individual measures or complete renovations (Energy Efficiency House standard); applications may be submitted by the owners' association or individual owners; iSFP bonus of +5% for implementing an individual renovation roadmap. |
| **BAFA – Energy consulting for residential buildings** | 80% grant for consultancy (up to €1,300), plus €250 for presentation at a WEG meeting; €500 subsidy for iSFP for detached houses. |
| **Tax relief under Section 35c of the Income Tax Act**<br>**(§ 35c EStG)** | 20% tax deduction over 3 years, max. €40,000 per owner-occupied property; pro-rata possible in WEGs; landlords can alternatively benefit via income-related expenses or apportionment (Section 559 BGB). |
| **Regional programmes**<br>All 16 federal states have their own funding programmes or supplementary schemes for energy-efficient renovations. These are usually administered by regional funding agencies | |

[85] Bundesministerium für Wirtschaft und Energie: Gemeinsam sanieren und gemeinsam sparen in der Wohnungseigentümergemeinschaft, Link

| | |
|---|---|
| (e.g. the states' investment banks). These programmes may offer either additional grants or low-interest loans and can often be combined with federal funding. | |
| **Bavaria – LfA Promotional Bank of Bavaria[86] (LfA Förderbank Bayern)** | Low-interest loans for energy-efficiency improvements to owner-occupied homes; applications accepted throughout the year; measures in line with the BEG. |
| **Local authority programmes[87]** | |
| **Local authority regeneration funding / urban development** | Local authorities can designate regeneration areas and provide grants for private refurbishment projects or consultancy services; they often support community-led regeneration projects by facilitating discussions and fostering connections. |

Table 3 Overview of funding bodies and programmes in Germany

## Special Grants for Vulnerable Households

The outbreak of the war in Ukraine in February 2022 accelerated the rise in energy prices. As a result, the proportion of households at risk of energy poverty rose from 14.5% in 2021 to 25.2% by May 2022. People on low incomes, as well as pensioners, single parents and the unemployed, are particularly at risk of energy poverty. However, there is no standard definition of energy poverty either in Germany or internationally. To define energy poverty, energy expenditure is often compared to net household income. A household is thus considered at risk of energy poverty if it has to spend more than 10% of its net household income on energy costs, which include, for example, heating, electricity or hot water. However, energy poverty should not be limited solely to expenditure on consumption, as low-income households often restrict their energy consumption themselves in order to reduce the financial burden. Both subjective and objective measures should therefore be used to understand the risk of energy poverty. Generally speaking, there is a correlation between low income and energy poverty[88].

To combat energy poverty and support low-income households with renovation work, the Kreditanstalt für Wiederaufbau (KfW) offers supplementary loans (358/59) specifically for lower-income households for individual measures such as window replacement or insulation. These loans of up to €120,000 offer favourable interest rates for those with an income of less than €90,000[89]. In

[86] Förderbank Bayern: Förderkonditionen, Link

[87] Bundesministerium für Wohnen, Stadtentwicklung und Bauwesen: Sozialer Zusammenhalt, Link

[88] Institut der Deutschen Wirtschaft: Gefahr der Energiearmut wächst, Link

[89] KfW: Förderkredite und Zuschüsse für eine energie-effiziente Sanierung, Link

addition, there are grants, such as Grant 458 for switching to heating systems that do not rely on fossil fuels. Here, there is the possibility of a grant of up to 70% of the eligible costs, provided that the household income does not exceed €40,000 per year[90].

In addition to these schemes, there are also funding programmes at regional level, which vary significantly from one federal state to another. For example, low-income households in North Rhine-Westphalia may be eligible for repayment grants. Anyone interested should check local options before starting any renovation work. It is also important to note that funding applications must generally be submitted and approved before renovation work begins in order to receive funding.

[90] Das Haus: KfW-Förderungen für Sanierung und Hauskauf, Link

## Useful Tools

Solar radiation map from the German Weather Service: https://www.dwd.de/DE/leistungen/solarenergie/strahlungskarten_sum.html?nn=16102&utm_source=Referral&utm_medium=TypeIn&page_title=Einstrahlungskarte

KfW Renovation Calculator: https://sanierungsrechner.kfw.de/

BAFA Overview: Federal Funding for Energy-Efficient Buildings: https://www.bafa.de/DE/Energie/Effiziente_Gebaeude/Foerderprogramm_im_Ueberblick/foerderprogramm_im_ueberblick_node.html

Overview of KfW funding
https://www.kfw.de/inlandsfoerderung/Privatpersonen/Bestandsimmobilien/