Country Sections
LUXEMBOURG

Handbook Update CLR II

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

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Submitted by: Ricardo

In collaboration with: Eworx, Goparity, Steinbeis, Th!nk E, Th!nk Europe, VITO

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Introduction

The European Union's **Renovation Wave** is the EU strategy to accelerate building renovation, improve energy performance, cut energy bills, tackle energy poverty, and support climate objectives. Its core policy reference is the European Commission Communication **COM(2020) 662 final - "A Renovation Wave for Europe"**.

Citizen-led renovation supports this agenda by helping households, housing communities, cooperatives and local actors organise renovation projects, access technical and financial support, and adopt collective approaches (particularly in multi-apartment buildings). In practice, citizen-led approaches often combine renovation measures with rooftop renewables and forms of self-consumption and sharing where allowed.

In Luxembourg, households and groups can draw on a relatively clear set of national pathways for energy renovation and renewable self-consumption. The main public-facing umbrella for grants and advice is **Klimabonus** (via **Klima-Agence**), which covers support for energy-efficient renovation and sustainable housing choices, alongside renewables-related measures.

For citizen groups looking to produce, self-consume and share electricity, practical guidance is available via the regulator information portal **myILR - "Produce, self-consume and share electricity"** and dedicated step-by-step explanations on **collective self-consumption** from **Klima-Agence**.

Luxembourg's overall climate and energy policy direction is set out in its integrated national energy and climate plan **PNEC (Luxembourg Government dossier)**. In parallel, Luxembourg is developing its **Social Climate Plan** in the context of the EU **Social Climate Fund**; the national process has included a public consultation on a draft plan.

This handbook chapter provides a practical overview for citizens, cooperatives, municipalities and local intermediaries who want to understand the Luxembourg context for citizen-led renovation and energy communities. It helps readers:

1. Understand the national context (building stock, renovation landscape, and the status of energy communities);
2. Navigate the most relevant rules, institutions and procedures (with direct links to official sources);
3. Identify funding options and practical tools to move from interest to implementation (including key administrative touchpoints such as **Energiepass / energy performance certificate processes on Guichet.lu**).

Current Outlook

Overview of Building Stock

Luxembourg's housing stock is comparatively "spacious" by EU standards. According to **STATEC (RP2021 - "Housing in 2021: change within continuity")**, **54.4% of dwellings are larger than 120 m²**, and **houses represent 45.9% of dwellings**, although the long-term trend shows a gradual shift away from houses.

The context is also shaped by sustained development pressure. **STATEC's Luxembourg in figures 2024** reports continued construction activity, including **4,458 dwellings authorised in 2023**. This means that the renovation agenda runs in parallel with an active new-build pipeline, a dynamic also highlighted in Luxembourg's **Long-Term Renovation Strategy (LTRS)**, which frames the need to accelerate renovation while total floor area continues to grow.

1 Aerial view of Luxembourg City, Luxembourg

Energy Efficiency of the Existing Stock

Energy performance in Luxembourg is assessed through the **Energiepass - energy performance certificate (EPC)** on **Guichet.lu**, which classifies buildings from **A+ (best) to I (worst)** and reports performance across primary energy demand, space-heating demand (thermal insulation) and CO_2 emissions.

For new residential buildings, **Klima-Agence's EPC guidance** explains that Nearly Zero-Energy Building (NZEB) requirements have applied since **2017**, typically corresponding to high EPC classes (often **AAA**, with some location-related exceptions).

Stock-level metrics for the existing building stock (e.g., the distribution of dwellings by **Energiepass** class, or breakdowns by building type/age) are not always published as a single public headline figure. Instead, the **Ministry of the Economy - access to building energy performance data** notes that aggregated and anonymised Energiepass data can be requested (currently for residential buildings), which enables evidence-based targeting by municipalities and intermediaries.

Renovation Status of the Building Stock

A useful snapshot of renovation needs and action comes from the same **STATEC RP2021 housing survey**: in **2021**, **24.0%** of occupants considered their dwelling **in need of renovation**, and **29.2%** of homeowners reported having carried out **energy-related renovation work**.

On the policy side, Luxembourg frames the renovation pathway through its **Long-Term Renovation Strategy (LTRS)** and the wider national energy and climate planning process. In parallel, the continued scale of construction activity reported in **STATEC's Luxembourg in figures 2024** (including **4,458 dwellings authorised in 2023**) reinforces that scaling renovation remains a priority even while the stock expands LUXEMBOURG IN FIGURES

Status of Citizen and Renewable Energy Communities

Luxembourg has progressed on both the legal and practical foundations for energy communities and collective self-consumption. The **CEER Luxembourg regulatory report (2023)** highlights key national transposition steps, including the **Law of 9 June 2023** (also published on **LEGILUX**), which amends the electricity (and gas) market framework and is central to today's rules on active customers, self-consumption and electricity sharing.

From a citizen-facing point of view, Luxembourg's strength is that it offers a clear "how-to" ecosystem for producing, self-consuming and sharing renewable electricity. The regulator's portal **myILR ("Produce, self-consume and share electricity")** explains the main options and steps, while **Klima-Agence's "Energy community for photovoltaic electricity"** and **Klima-Agence's guidance on collective self-consumption** translate the concepts into practical actions for households and groups.

On implementation, the distribution system operator **Creos ("I share my energy")** describes how locally produced renewable electricity can be allocated within a building or nearby area, often the first "collective" model citizens encounter in practice. Complementary enabling tools and initiatives aimed at making sharing workable, for example those described in the **LIST note on electricity sharing (ILR & LIST)**. A concise overview of the enabling framework is also summarised in the **REScoop transposition tracker for Luxembourg**.

Energy Communities in Luxembourg

Overview of Luxembourg's Progress and Current Trends

Luxembourg's energy community landscape has moved from "framework-building" to visible roll-out, with a growing number of **formally notified initiatives** and increasing diversity in organisational forms (e.g., associations, cooperatives, companies, and municipal administrations) as reflected in the **ILR list of energy communities (2 Feb 2026)**.

At the practical level, Luxembourg also benefits from a relatively mature "how-to" environment. The regulator's portal **myILR - "Produce, self-consume and share electricity"** provides a reader-friendly entry point on the available pathways and key steps, while **Klima-Agence - "Energy community for photovoltaic electricity"** and **Klima-Agence - Collective self-consumption** translate the framework into concrete, citizen-oriented guidance.

Energy Community Case Studies

Active Energy Communities

Energy Community / Project	Location	Project Type	Key Facts	Public Link
E-Community	Beckerich	Energy community (cooperative)	Listed by ILR as a **cooperative society**, notified **15/05/2024**.	ILR - List of Energy Communities (2 Feb 2026)
International School of Luxembourg	Luxembourg City	Energy community (non-profit association - asbl)	Listed by ILR as a **non-profit association**, notified **28/05/2025**.	ILR - List of Energy Communities (2 Feb 2026)
Administration Communale de Schuttrange	Schuttrange	Energy community (municipality-led)	Listed by ILR as a **municipal administration**, notified **27/05/2025**.	ILR - List of Energy Communities (2 Feb 2026)

Planned / Pipeline Initiatives

Initiative	Scope	Relevance	Public Link

WeShareEnergy	Public information hub on electricity sharing (national-level)	Consolidates guidance and reduces entry barriers for groups exploring electricity sharing and community set-ups.	**WeShareEnergy** (ILR)
Creos - "I share my energy"	DSO implementation pathway for electricity sharing	Explains the operational set-up behind sharing arrangements (useful reference for real-world implementation).	**Creos - I share my energy** (ILR)
Enovos - Energy Sharing Service	Supplier-supported service offer for managing energy sharing groups	Illustrates an "implementation support" route that can help groups manage set-up and ongoing operation.	**Enovos - Energy Sharing Service** (Enovos Luxembourg - Good energy)

Challenges and Opportunities for Energy Communities in Luxembourg

Challenges and Gaps

- **Administrative and contractual complexity:** implementing electricity sharing typically involves a formal set-up (roles, agreements and contractual documentation) as reflected in the ILR/LIST electricity-sharing ecosystem described by **LIST - Electricity sharing (ILR & LIST)** and the supporting documentation/tools on **WeShareEnergy**.
- **Technical and operational requirements for sharing:** collective self-consumption depends on defined allocation rules and clear participant roles; **Klima-Agence - Collective self-consumption** explicitly sets out the steps (decide allocation, then sign an agreement with the grid operator).
- **Geographic and grid constraints in some configurations:** guidance notes that collective self-consumption is limited to the low-voltage network of a single operator, and some cases are subject to a **100m** distance condition, as described by **Klimapakt fir Betriber - self-consumption and electricity sharing** and **Klima-Agence - modes of collective self-consumption**.
- **Need for practical templates and facilitation:** the existence of standardised contractual documents and step-by-step explanations in **myILR - Produce, self-consume and share electricity** and **WeShareEnergy** indicates that "translation" from legal possibility to workable governance and operating arrangements is a key implementation step.
- **Coordination in multi-apartment buildings and mixed groups:** participation models can require coordinated decision-making and ongoing management, which can be more demanding in condominiums and mixed actor groups; Luxembourg's guidance ecosystem (e.g., **Klima-Agence - Energy community for PV electricity**) focuses on breaking these processes into practical steps.

Opportunities and Enabling Factors

- **Growing uptake and visibility:** public reporting notes that, by the end of October 2025, Luxembourg had **68 energy communities**, suggesting fast-growing awareness and early market formation (see **Luxembourg Journal - Energy sharing rethinks power**).
- **Broader scope enabled by updated rules:** regulatory reporting describes transposition steps and the enabling framework for consumer participation and sharing (see **CEER Luxembourg Regulatory Report (2023)**).
- **Strong "how-to" ecosystem:** Luxembourg combines regulator-facing guidance (**myILR**) with implementation walkthroughs (**Klima-Agence - Collective self-consumption**; **Klima-Agence - Energy community for PV electricity**).
- **Tooling and simulation support:** **Klima-Agence - Collective self-consumption** points to a simulator on WeShareEnergy that allows testing allocation rules early, reducing trial-and-error.
- **Policy alignment and momentum:** Luxembourg's energy-climate planning references collective self-consumption and energy communities (see the European Commission-hosted **Draft Updated NECP (EN)**).

Further Action

To help energy communities scale in Luxembourg, a few key areas still need to be strengthened:

- **Standardise and simplify set-up:** expand use of model documents and "ready-to-use" governance/contract templates, building on the documentation approach reflected in **LIST - Electricity sharing (ILR & LIST)** and **WeShareEnergy**.
- **Improve transparency on real-world performance:** publish anonymised periodic snapshots on typical project configurations and uptake; Luxembourg's system planning already includes regular public reporting such as **Creos - Scenario Report 2040** (as an example of reporting practice, not community performance).
- **Target multi-apartment buildings and vulnerable households:** pair the existing guidance ecosystem with targeted facilitation for condominium decision-making and up-front cost barriers, leveraging entry points like **Klima-Agence - Collective self-consumption**.
- **Strengthen municipal replication pathways:** support municipalities in packaging replicable approaches (PV on public roofs + local sharing options + citizen participation), consistent with the increasing municipal involvement noted by **Luxembourg Journal - Energy sharing rethinks power**.
- **Clarify consumer protection and interoperability as scaling continues:** address participation rules, data handling and fair allocation as models scale, aligning with issues discussed in **FSR - mapping legal frameworks for scaling energy communities and energy sharing**.

Relevant Legislation

EU Directives Transposition in Luxembourg

Luxembourg's legal basis for energy communities, collective self-consumption and electricity sharing is anchored in the EU "Clean Energy Package", notably the **Internal Electricity Market Directive (EU) 2019/944** (Citizen Energy Communities) and the **Renewable Energy Directive (EU) 2018/2001** (Renewable Energy Communities). These provisions are implemented mainly through amendments to national market laws, in particular the **Law of 9 June 2023 (LEGILUX)**, which amends the **Law of 1 August 2007 on the organisation of the electricity market (LEGILUX)** (and related gas-market provisions). This transposition pathway is reflected in regulator reporting such as the **CEER Luxembourg Regulatory Report (2023)**.

Two complementary "implementation enablers" are also relevant for community models and consumer-facing market participation:

- **Data and market-operation layer:** supported by measures such as the **Grand-Ducal Regulation of 24 October 2024 on the energy data platform (LEGILUX)**.
- **Incoming EU updates shaping national frameworks:** including the **Energy Performance of Buildings Directive (EU) 2024/1275** and the **Energy Efficiency Directive (EU) 2023/1791**.

Renovation-Related Legislation

- Energy performance rules for residential + "major renovation": the Grand-Ducal Regulation of 9 June 2021 on the energy performance of buildings (LEGILUX) sets the calculation method, minimum performance requirements (new build and renovation context), and the operational basis for energy performance assessment.
- Energy performance rules for functional/non-residential buildings: the Grand-Ducal Regulation of 31 August 2010 on the energy performance of functional buildings (LEGILUX) establishes the framework for assessing and improving performance in non-residential buildings.
- Public financial aid regime for sustainable housing and energy renovation: the Law of 23 December 2016 establishing an aid scheme for sustainable housing and energy renovation (LEGILUX) provides the legal basis for state grants supporting energy renovation and related measures in the housing sector.
- Detailed eligibility rules and implementation measures for housing renovation grants: the Grand-Ducal Regulation of 7 April 2022 implementing the aid scheme (LEGILUX) sets practical execution rules.
- Subsidised "climate loans" supporting renovation investments: the Law of 8 June 2022 on financial aid for climate loans (LEGILUX) establishes support for loans linked to eligible climate/energy measures (commonly used alongside grant schemes in renovation projects).
- Planning and building permit framework: the Law of 19 July 2004 on communal planning and urban development (LEGILUX) governs the planning system and key conditions for authorisations, which can be relevant where renovations trigger permitting requirements (extensions, facade changes, certain technical works, etc.).

Legislation on Engagement of Neighbours and Volunteers in the Renovation

- Condominium (multi-apartment) decision-making and voting rules: the Law of 16 May 1975 on co-ownership of built property (LEGILUX) sets the governance of co-owned buildings (general assembly, voting, mandates, cost-sharing), which is central for neighbour engagement in common-area renovation decisions.
- Practical rules for running the co-owners' association (syndicat) and assemblies: the Grand-Ducal Regulation of 13 June 1975 implementing the 1975 co-ownership law (LEGILUX) specifies execution measures (including assembly functioning), supporting the formal process through which neighbours decide renovation works.
- Legal basis for neighbour groups organising as non-profit associations: the Law of 21 April 1928 on non-profit associations and foundations (LEGILUX) provides the foundational framework for setting up an association (common in citizen initiatives and neighbourhood groups).
- Updated framework for associations and foundations (current reference for new entities): the Law of 7 August 2023 on non-profit associations and foundations (LEGILUX) modernises governance and compliance obligations for the association/foundation sector (relevant where renovation initiatives are organised through formal volunteer/citizen structures).
- Structured volunteering schemes (youth voluntary service): the Law of 28 January 1999 on voluntary service (LEGILUX) and the Law of 31 October 2007 on voluntary service (LEGILUX) define regulated voluntary service frameworks that can apply where renovation-related community actions are organised through formal volunteering programmes.

Funding Bodies and Schemes

Funding Bodies in Luxembourg

Funding body	Role & Target Groups
Administration de l'environnement (AEV)	**Granting authority** for Klimabonus subsidies supporting (i) energy-efficiency renovation of existing residential buildings and (ii) technical installations using renewables (PV, heat pumps, etc.). Target groups include natural persons, private-law legal persons and public legal
Ministry of Housing and Spatial Planning	Runs **individual housing aids** relevant to renovation and financing (e.g., improvement subsidy / Topup Klimabonus, interest subsidy and State guarantee for climate loans, Topup social Klimabonus). Targeted primarily at homeowners; some aids are income-tested
Single point of contact for housing assistance	Main **application gateway** for several housing aids (incl. Klimabonus workflows and Ministry of Housing capital aids), used by households/co-owners/legal entities depending on the scheme.
Klima-Agence	Public "how-to" support: **independent advice**, certified advisors, and the national **aid simulator** (state aid, municipal aid, energy supplier programmes, and nova naturstroum fund).
Ministry of the Economy	Pays the **advance payment to installers** under the PV pre-financing mechanism (so the Klimabonus amount can be deducted directly from the final invoice).
Municipalities (communes)	Many municipalities provide **top-up grants** for sustainable housing/renovation actions; these can be explored via the national aid simulator. (klima-agence.lu)
Energy suppliers (e.g., Enovos / SUDenergie)	Provide additional **energy-efficiency support programmes** (e.g., enoprimes; Sudstroum) linked to suppliers' energy-saving obligations; subsidies can be accessible even to non-customers depending on programme rules. (klima-agence.lu)
Administration de l'enregistrement, des domaines et de la TVA (AED)	Administers procedures for **super-reduced 3% VAT** on eligible housing construction/renovation works (direct application or reimbursement route).

Funding Schemes in Luxembourg

Funding scheme	What it supports (and who it's typically for)
Klimabonus Wunnen - energy-efficiency renovation of existing residential buildings	Grants for **building envelope measures** (e.g., roof/wall/floor insulation, window replacement) and ventilation, typically for residential **buildings older than 10 years**, using an "agreement in principle" step before works.

Klimabonus Wunnen - technical installations using renewables (RGD 2022)	Grants for **renewable heat and electricity systems** (incl. photovoltaic, domestic batteries, heat pumps and other eligible installations), for households and eligible building owners/co-owners; conditions depend on system type and operating model.
Pre-financing for solar photovoltaic systems	Allows the **Klimabonus PV subsidy to be deducted directly from the installer's final invoice** (installer files the application; must use an installer in the eligible register). Applies to residential buildings and can be used by owners/co-owners (commonhold).
Improvement subsidy for old housing + "Topup Klimabonus"	Ministry of Housing capital aids for (i) **habitability/safety renovation works** and (ii) **Topup Klimabonus** (an energy-efficiency top-up linked to Klimabonus amounts). Targeted at owner-occupiers; Topup is **income-dependent** and subject to specific conditions (e.g., occupancy and "no other home" condition).
Interest subsidy for "prêt climatique"	Reduces **monthly interest charges** on a climate loan financing eligible energy-renovation works; requires Klimabonus for the financed works and applies up to defined caps/conditions.
Super-reduced VAT rate (3%) for eligible housing renovation works	**Tax relief** for qualifying construction/renovation works on housing used as principal residence (and, for renovation, may also apply when made available to third parties); overall fiscal advantage capped per dwelling and administered through AED procedures.
Energy supplier programmes (e.g., enoprimes; Sudstroum)	Additional **premiums/services** offered by electricity and natural gas suppliers to support energy-efficiency measures (linked to suppliers' energy-saving obligations); practical entry points and simulation via the national aid simulator.

Special Grants for Vulnerable Households

Special grant / instrument	Why it is specifically relevant for vulnerable households

Topup social Klimabonus	Can **double Klimabonus subsidies** depending on household income; explicitly framed as support for households below the national median to **reduce energy-poverty risk** while enabling renovation/renewables uptake.
Topup Klimabonus (via "subsidy for the improvement of old housing")	Income-tested top-up linked to Klimabonus amounts, designed to make energy-efficiency investments more affordable for **lower-income owner-occupiers** (subject to eligibility rules and statutory income limits).
Interest subsidy for climate loans ("prêt climatique")	Lowers financing costs (interest burden), which can be decisive for households with tight monthly budgets when spreading renovation investment over time (and is tied to eligible Klimabonus works).
PV pre-financing mechanism	While not income-targeted, it **removes the "wait for reimbursement" barrier** by deducting the subsidy directly from the invoice—often important for cash-constrained households and co-owners.

Useful Tools

A range of practical tools is available in Luxembourg to support citizen-led renovation (CLR), collective self-consumption and energy community initiatives. These tools help at different stages of a project, from early technical feasibility checks (e.g., rooftop PV suitability), to renovation planning through the national energy performance certificate system, and finally to implementation support for electricity sharing.

Solar Potential and Technical Feasibility Tools

For early-stage PV screening, Luxembourg offers unusually strong public mapping and datasets. The national energy geoportal, **Geoportail - Énergie**, includes the **solar cadastre / "potentiel solaire"** layers, which help identify rooftop suitability and solar potential at building level.

For more data-driven analysis (e.g., municipal or portfolio-level work), the **Open Data portal dataset "Potentiel solaire au Luxembourg"** provides the underlying dataset referenced by the geoportal.

For a first-order yield estimate (common in many EU contexts), the European Commission/JRC **PVGIS tool** is often used alongside these Luxembourg-specific resources (useful when quickly comparing expected production across locations).

Renovation Planning and Certification Tools

For renovation planning and transactions, Luxembourg's core reference tool is the **Energiepass / certificat de performance énergétique (CPE)**. The official guidance on **Guichet.lu - "Faire établir un certificat de performance énergétique (Energiepass)"** sets out when an Energiepass is required (sale, rental, transformation/extension, construction) and the main indicators it covers (primary energy demand, heating demand/thermal insulation, CO_2 emissions).

In practice, the Energiepass provides a structured baseline that supports staged renovation decisions and helps align envelope upgrades with heating electrification and PV integration.

Electricity Sharing and Energy Community Implementation Tools

For collective self-consumption and sharing, Luxembourg has a clear "implementation toolkit" that combines guidance and simulation. The regulator-facing entry point **myILR - "Produce, self-consume and share electricity"** explains the main pathways and steps for citizens and groups.

A distinctive Luxembourg tool is **WeShareEnergy**, created in the ILR/LIST ecosystem, which includes a dedicated **simulation tool** to test electricity sharing rules and communicate the chosen rules to the grid operator.

For users who want a practical walkthrough of the collective model, **Klima-Agence - Collective self-consumption** provides step-by-step guidance and explicitly points to the WeShareEnergy simulator when defining allocation rules, before moving to the agreement stage with the grid operator.

Funding Navigation and Advisory Support

For identifying subsidies and understanding eligibility, the most “hands-on” tool is the **Klima-Agence subsidy simulator**, which helps households and project promoters explore state subsidies and, where relevant, municipal and energy-supplier support that may complement national schemes.

In parallel, Klima-Agence’s advisory services remain a key practical support layer for citizens who need help translating technical choices into compliant applications and project steps (including pointing to certified advisors where applicable).

Legal Reference

For verifying the current wording and status of national acts and regulations referenced in this handbook (e.g., building energy performance rules, Klimabonus legal bases, electricity market reforms), Luxembourg’s official publication portal **LEGILUX** remains the authoritative source.