Country Sections

PORTUGAL

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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Contents

Introduction 3

Current Outlook 4

- Overview of Building Stock 4
- Energy Efficiency of the Existing Stock 5
- Renovation Status of the Building Stock 5
- Status of Citizen and Renewable Energy Communities 6

Energy Communities in Portugal 7

- Overview of Portugal's Progress and Current Trends 7
- Energy Community Case Studies 7
  - Active Energy Communities 7
  - Planned / Pipeline Initiatives 8

Challenges and Opportunities for Energy Communities in Portugal 9

- Challenges and Gaps 9
- Opportunities and Enabling Factors 9
- Further Action 9

Relevant Legislation 11

- EU Directives Transposition in Portugal 11
- Renovation-Related Legislation 11
- Legislation on Engagement of Neighbours and Volunteers in the Renovation 12

Funding Bodies and Schemes 13

- Funding Bodies in Portugal 13
- Funding Schemes in Portugal 13
- Special Grants for Vulnerable Households 14

Useful Tools 15

- Solar Potential and Technical Feasibility Tools 15
- Renovation Planning and Roadmaps 15
- Administrative and Licensing Platforms 15
- Citizen Advisory and Support Services 16

Introduction

The European Union's **Renovation Wave** sets out a strategy to accelerate building renovation across Europe, aiming to improve energy performance, reduce energy bills, and tackle energy poverty, while supporting EU climate objectives. See the European Commission overview of the EU Renovation Wave and the policy communication COM(2020) 662.

Citizen-led renovation is central to this effort because it helps households, housing communities, cooperatives, and local actors organise renovation projects, access support schemes, and adopt collective approaches, especially in multi-apartment buildings and neighbourhoods, often combining renovation measures with rooftop renewables and (where feasible) energy sharing.

Portugal has established a clear legal basis for collective self-consumption (Autoconsumo Coletivo, ACC) and renewable energy communities (Comunidades de Energia Renovável, CER), supported by national authorities and dedicated guidance. The main official entry point for practical information and procedures is the DGEG (Direção-Geral de Energia e Geologia).

Public policy in Portugal increasingly links building renovation, renewable energy deployment, and social objectives such as the reduction of energy poverty. A key reference point is the Plano Social para o Clima, which frames how measures should support vulnerable households and ensure a fair transition.

This handbook's purpose is to provide a practical overview for citizens, cooperatives, municipalities and local intermediaries who want to understand the Portuguese context for citizen-led renovation and energy communities. It helps readers:

1. Understand the current national context (building stock, renovation and energy community landscape).
2. Navigate the most relevant rules and institutions (with direct links), and
3. Identify funding options and practical tools to move from interest to implementation.

Current Outlook

Overview of Building Stock

Portugal's housing stock is large and predominantly residential. **In 2021, Portugal had 3,573,416 buildings and 5,970,677 conventional family dwellings**, and **49.8% of buildings were constructed after 1980**, which implies that **just over half of the stock predates 1980**, typically meaning weaker thermal envelopes and a higher need for insulation, window upgrades and more efficient systems. These headline figures are reported in the official **(INE - Census 2021 (Destaque, 8 May 2024)**.

From a practical renovation and "citizen-led" perspective, Portugal's stock is also structurally fragmented: **86.7% of buildings contain only one dwelling**, and the **national average is 1.7 dwellings per building**, meaning a very large share of projects are either **single-owner decisions** (simpler governance) or **small multi-dwelling contexts**, while dense urban areas (especially **Lisbon Metropolitan Area**) concentrate more multi-apartment buildings where condominium decision-making becomes the main bottleneck. These metrics are summarised in **INE - Construction and Housing Statistics (2022 edition, based on Census 2021)** and in the **INE - Census preliminary release (average dwellings per building)**.

Tenure patterns matter because they shape who can decide and who pays. **Around 70% of dwellings are owner-occupied**, while the share of rented housing has been increasing compared with earlier decades, this affects "split incentives" (owners invest, tenants benefit) and can slow down renovation in parts of the rental market. This is documented in **INE - Census 2021 provisional results (Housing)**.

1 Aerial view of Lisbon, Portugal

Energy Efficiency of the Existing Stock

Portugal's residential energy performance is strongly shaped by older buildings with weak thermal envelopes (insulation/windows) and by affordability constraints that lead many households to **under-**

heat in winter and **under-cool** in summer, so low energy consumption may reflect thermal discomfort and energy deprivation rather than high building performance.

A practical proxy for national performance levels is the energy class distribution in the Portuguese **Sistema de Certificação Energética (SCE)**. Based on the official SCE/ADENE dataset for **Energy Performance Certificates issued for existing residential buildings in mainland Portugal (4th quarter of 2025)**, the largest shares of certificates fall in the **mid-to-low classes**, with **Class C (29.9%)** and **Class D (27.9%)** dominating; **Classes E (18.1%)** and **F (10.9%)** also represent a significant portion. In this same dataset, **86.8% of certificates for existing dwellings are Class C or below**, which points to substantial potential for envelope upgrades, better HVAC/water heating systems, and controls. (If you want to explore the data yourself by region, district or typology, you can download the same official dataset directly from **SCE/ADENE - "Download de informação estatística" (4º trimestre 2025)**.)

To benchmark Portugal against EU patterns (what households typically use energy for), the EU-level reference is Eurostat's overview of **energy consumption in households**, which helps frame why improving thermal performance matters most where space-heating dominates bills and comfort outcomes.

Renovation Status of the Building Stock

Portugal has a clear policy direction to accelerate renovation, but delivery still needs to scale to match climate and social objectives, especially for older homes where comfort problems and high bills overlap.

A good national anchor for "where Portugal wants to go" is the long-term renovation strategy, **ELPRE - Estratégia de Longo Prazo para a Renovação dos Edifícios**. One practical takeaway from the latest monitoring is that **buildings account for around 33% of final energy consumption**, which is why renovation remains central to Portugal's energy transition and household affordability agenda (see the **6th ELPRE Progress Report, May 2024**).

On programmes and delivery, Portugal's current approach relies heavily on a combination of (i) public support schemes and (ii) EU-linked investment frameworks. The most practical "entry point" for citizens is the **Fundo Ambiental** (where many renovation-related notices and instruments are published), while the social targeting logic is increasingly framed under the **Plano Social para o Clima (PSC)**, which is explicitly designed to support vulnerable households and avoid leaving low-income groups behind in the renovation wave.

What this means in practice is that **policy ambition is clear**, but key gaps remain on the ground: deep renovation is still complex to organise (especially in condominiums), project preparation capacity is limited, and uptake tends to be easier for households that already have liquidity and technical support. This is why the PSC focus on vulnerability and the ELPRE emphasis on monitoring/scale are relevant for citizen-led models: they point to the need for aggregation, facilitation and "one-stop" support, not just isolated grants.

Status of Citizen and Renewable Energy Communities

Portugal has an active legal framework for self-consumption and energy communities, and uptake has been growing quickly, especially for individual self-consumers, while collective models (ACC/CER) are still earlier-stage due to higher organisational complexity.

The most recent consolidated snapshot is provided by **ERSE's Relatório sobre o Autoconsumo (2024)**. By the end of 2024 (mainland Portugal), ERSE reports **around 237,000 self-consumers (autoconsumidores)** and **around 1.8 GW of installed UPAC capacity**, showing that decentralised generation is already significant at system level. For collective arrangements specifically, ERSE reports **331 collective self-consumption arrangements (ACC) in operation** in mainland Portugal, and notes that the **first registered ACC cases only started to appear in 2023**, which is a useful "reality check" for readers: collective models are feasible, but they have a longer runway.

For a handbook, the most "reader-friendly" visual is ERSE's one-page summary **Autoconsumo - Infografia 2024**, which you can insert as a quick snapshot.

From a citizen perspective, the recurring barriers are very consistent:

1. **Coordination in multi-apartment buildings** (getting neighbours aligned, agreeing on cost-sharing, timelines, rooftop access).
2. **Administrative and operational complexity** (setting governance rules, appointing an EGAC/manager, dealing with registrations and data flows).
3. **Economics of sharing via the public grid**, where regulated network access tariffs and charges can reduce the net savings compared to "behind-the-meter" sharing inside a single building; a good technical reference point for how tariffs are structured is ERSE's **Estrutura Tarifária (example: 2025)**.

Energy Communities in Portugal

Overview of Portugal's Progress and Current Trends

Portugal enables citizen participation in local renewable generation and sharing mainly through **collective self-consumption (Autoconsumo Coletivo, ACC)** and **Renewable Energy Communities (Comunidades de Energia Renovável, CER)**. In practical terms, **ACC is often the easier "first step"** for a single building or a small group because it can be organised around a shared installation and allocation rules, while **CERs are typically used for broader neighbourhood-scale initiatives** where a dedicated community structure and longer-term governance are needed (this framing is also used in the CLR Portugal country draft and national guidance).

Recent experience shows a clear pattern: **individual self-consumption has scaled faster than collective models**, while ACC/CER uptake is still limited by the added coordination and governance requirements. This is consistent with the kinds of barriers repeatedly described in Portuguese practical guides for communities (coordination, governance rules, and operational roles).

Another visible trend is the **increasing linkage between energy communities and energy-poverty objectives**. In the Telheiras/Lumiar case (below), public project pages explicitly describe targeting vulnerable households and include energy-poverty references alongside community engagement and local sharing design.

Energy Community Case Studies

Active Energy Communities

Energy Community / Project	Location	Project Type	Key Facts	Public Link
CER Telheiras/Lumiar - Pilot	Lisbon (Lumiar)	CER - rooftop PV + local sharing	13 panels (7.15 kWp); supplies parish building + 16 families (3 in energy poverty); pilot vacancies filled in 13 minutes	Viver Telheiras - Pilot / ODS Local project page
CER Telheiras/Lumiar - 2nd Unit	Lisbon (Lumiar)	CER - expanded PV installation	44 panels; 25.74 kWp; expected to serve ~80 consumers	JF Lumiar announcement
ACC Ílhavo COMSOLVE (Coopérnico)	Ílhavo (Aveiro)	Collective self-consumption (ACC)	117.3 kWp; ~170,729 kWh/year; €80,000 investment; community investor model	Coopérnico - Project page
Cleanwatts Living Lab (Pilot)	Coimbra region	CER pilot (dynamic sharing)	ERSE-approved pilot; multi-site sharing incl. storage & EV integration	ERSE approval note

Planned / Pipeline Initiatives

Initiative	Scope	Relevance	Public Link
CER Telheiras - Expansion Phase	Second PV system + broader enrolment	Example of pilot → scale-up pathway	Viver Telheiras - 2º Projeto
Cleanwatts "100 Aldeias"	Programme supporting community energy in rural areas	Facilitated model targeting energy poverty	Cleanwatts - 100 Aldeias
ENERCOM Facility (EU-level)	Funding + technical support for emerging communities	Practical funding route for Portuguese applicants	Energy Communities Facility

Challenges and Opportunities for Energy Communities in Portugal

Challenges and Gaps

- **Administrative complexity and learning curve**: projects require coordinated processes (registrations, updates) and interaction with the DGEG platform, plus day-to-day operational management (especially for ACC via the EGAC).
- **Mandatory internal governance rules**: ACC requires an **Internal Regulation** covering membership entry/exit, energy sharing, tariff payments, surplus handling, and commercial arrangements, with defined submission timelines.
- **Licensing and procedural delays**: real cases report long timelines and administrative bottlenecks that can slow deployment and reduce momentum.
- **Access to rooftops and permissions**: securing suitable surfaces and approvals is often a gating factor, particularly in multi-owner contexts.
- **Financing and inclusion barriers**: up-front investment needs can exclude vulnerable households unless specific inclusion mechanisms are designed.
- **Distribution grid constraints**: limited hosting capacity can restrict system sizing and, in some cases, require network reinforcement.
- **Recurring operational costs and uncertainty**: communities need to plan for ongoing O&M, insurance, and network access costs, and manage tariff/price uncertainty over time.

Opportunities and Enabling Factors

- **Clearer legal and operational framework**: definitions for ACC/CER, roles (e.g., EGAC), proximity rules, and licensing pathways provide a structured basis for implementation.
- **Digital metering and allocation**: smart metering and standardized time-based allocation improve transparency and enable scalable energy sharing.
- **Replicable local practice**: case studies show workable "step-by-step" pathways (partnerships, governance setup, community outreach) that can be adapted elsewhere.
- **Bill savings and social co-benefits**: shared renewable generation can reduce energy bills and support social inclusion when vulnerable households are actively integrated.
- **Targeted public support via the Plano Social para o Clima (2026-2032)**: Portugal's PSC includes a dedicated measure for CER and ACC aimed at vulnerable households and micro-enterprises, with a focus on low-density territories.
- **Local advisory support ("Energy Spaces")**: proximity structures can boost energy literacy and help households and local actors access programmes and implement measures.

Further Action

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

- **Streamline and standardize implementation**: provide clearer step-by-step guidance, templates (e.g., internal regulation), and practical checklists to reduce friction for new projects.
- **Reduce licensing bottlenecks**: introduce clearer processing timelines and faster handling of key steps (e.g., updates/endorsements), so projects can move from design to operation predictably.

- **Unlock rooftops through local agreements**: facilitate access to public/community buildings and establish ready-to-use agreements to speed up permissions and deployment.
- **Design robust inclusion mechanisms**: combine community models with targeted public support so vulnerable households can participate without prohibitive up-front costs.
- **Strengthen local capacity and outreach**: use local advisory structures and trusted community networks to support engagement, enrollment, and long-term governance.
- **Coordinate early with the DSO/ORD**: anticipate grid constraints, optimize sizing, and prepare reinforcement requests where needed.

Relevant Legislation

EU Directives Transposition in Portugal

- **EPBD (buildings):** The EU renovation framework is set by the **Energy Performance of Buildings Directive (Directive (EU) 2024/1275)**, which drives national building-renovation requirements and implementation instruments in Portugal.
- **EED (energy efficiency):** The **Energy Efficiency Directive (Directive (EU) 2023/1791)** strengthens energy-efficiency obligations and reinforces the focus on consumer protection and energy poverty, shaping national targets and measures.
- **RED (energy communities and renewables):** Renewable energy communities are anchored in **RED II (Directive (EU) 2018/2001)** and updated through **RED III (Directive (EU) 2023/2413)**; Portugal's operational framework for **CER** and collective self-consumption has been consolidated through **Decreto-Lei n.º 15/2022** (building on earlier self-consumption rules such as **Decreto-Lei n.º 162/2019**).
- **Electricity market rules (CECs):** Citizen Energy Communities and consumer-market participation principles are defined at EU level in the **Electricity Market Directive (Directive (EU) 2019/944)** and are reflected in Portugal's electricity market framework, including **Decreto-Lei n.º 15/2022** (which explicitly transposes Directive 2019/944).
- **Governance Regulation (NECP and long-term strategies):** National planning and reporting obligations are set by the **Governance Regulation (Regulation (EU) 2018/1999)**, which underpins instruments such as Portugal's NECP and long-term renovation planning.
- **Social Climate Fund (support for vulnerable households):** The EU mechanism is established by the **Social Climate Fund Regulation (Regulation (EU) 2023/955)**, which requires Member States to submit Social Climate Plans and enables targeted measures for vulnerable households and micro-enterprises.
- **EU ETS revision (Fit for 55):** The key legislative revision is **Directive (EU) 2023/959** (amending the EU ETS Directive 2003/87/EC).

Renovation-Related Legislation

- **Energy performance requirements and energy certification (SCE):** Renovations that affect building systems/envelope may trigger requirements under the national energy performance framework and the **Sistema de Certificação Energética (SCE)**, set out in **Decreto-Lei n.º 101-D/2020**.
- **Permitting and municipal procedures for works (RJUE):** The permitting pathway (e.g., prior communication vs. licensing, and the documentation required) is governed by the **Regime Jurídico da Urbanização e da Edificação (RJUE)** in **Decreto-Lei n.º 555/99**, which is applied through municipal regulations and procedures.
- **Urban planning / territorial management instruments (RJIGT):** Feasibility and constraints for renovation (especially where specific planning rules apply) can depend on the planning instruments framework, set in **Decreto-Lei n.º 80/2015**.
- **General building and habitability standards (RGEU):** Baseline rules on building conditions, safety and habitability are anchored in the **Regulamento Geral das Edificações Urbanas (RGEU)** approved by **Decreto-Lei n.º 38 382/1951**.

- **Official guidance entry point:** For a practical "where to start" reference on building energy certification legislation and updates, the SCE portal maintains a dedicated page: **SCE - Legislação.**

Legislation on Engagement of Neighbours and Volunteers in the Renovation

- Co-ownership and collective decision-making (condominiums): In multi-apartment buildings, renovation and shared installations (including rooftop PV) often depend on condominium decision rules under the Portuguese Civil Code - "Propriedade Horizontal" (arts. 1414.º to 1438.º-A), and related condominium management provisions such as Decreto-Lei n.º 268/94 and subsequent updates (including Lei n.º 8/2022).
- Volunteering (general framework): Neighbourhood initiatives that mobilise volunteers for outreach, coordination, or non-technical support typically rely on the national volunteering framework set by Lei n.º 71/98.
- Data protection (engagement and member management): When engagement involves collecting or managing personal data (e.g., vulnerable household identification, membership, contact lists), compliance is framed by GDPR (Regulation (EU) 2016/679).

Funding Bodies and Schemes

Funding Bodies in Portugal

Funding Body	Role & Target Groups
Fundo Ambiental	Main national vehicle that **launches and pays** many household-facing renovation/efficiency calls (often PRR-backed). Targets vary by call, but frequently **homeowners and households**, and sometimes **local entities/communities** depending on programme design.
IHRU - Instituto da Habitação e da Reabilitação Urbana	National housing authority that **funds and manages housing/rehabilitation programmes**, typically through **municipalities and housing actors**, focusing on **housing vulnerability, social/affordable housing and urban rehabilitation**.
Portugal 2030 - Managing Authorities (programmes)	EU Cohesion Policy programmes that **open calls and award grants** (ERDF/ESF+), often targeting **companies, municipalities, public bodies and other organisations** (households are usually not the primary direct beneficiary under these calls). Includes thematic and regional programmes.
COMPETE 2030	Thematic Portugal 2030 programme that **finances competitiveness + transition investments**, including calls that can cover **energy efficiency/decarbonisation**, typically for **companies and organisations** (call-dependent).
Municipalities (local funding / co-funding)	Can co-fund or channel programmes locally (often via housing/rehabilitation instruments), typically targeting **local building stock, neighbourhood interventions**, and **households in vulnerability** under municipal-led schemes.

Funding Schemes in Portugal

Funding scheme	What it supports (and who it's typically for)
Programa de Apoio a Edifícios Mais Sustentáveis (PAE+S)	Home energy upgrades (e.g., insulation, windows, efficient systems; scope depends on each "Aviso"). Typically **private homeowners / households** (eligibility per call).
Portugal 2030 calls (open per programme): Portugal 2030 / COMPETE 2030	Call-based grants that can include **efficiency and decarbonisation** investments. Typically for **companies, municipalities, public bodies, organisations** (depends on each call).
1.º Direito (Programa de Apoio ao Acesso à Habitação)	Housing vulnerability programme that can include rehabilitation/upgrading actions. Typically delivered via **municipal routes**, targeting **households in inadequate housing conditions** (programme-defined).

Apoio à concretização de CER e ACC (historic PRR call reference)	PRR-era support for implementing **Renewable Energy Communities (CER)** and **Collective Self-Consumption (ACC)** (listed in Fundo Ambiental calls; availability depends on new openings). Typically for **community/project promoters** (call-dependent).

Special Grants for Vulnerable Households

Special grant / instrument	Why it is specifically relevant for vulnerable households
Vale Eficiência II	Explicitly designed to support **economically vulnerable households** and mitigate **energy poverty** via vouchers.
Programa E-LAR	Includes beneficiary groups that can cover **social-tariff households** and supports **replacing fossil gas equipment with efficient electric alternatives** (phase rules apply).
Social Climate Plan (PSC) 2026-2032 (Portugal)	Framework for future funding to mitigate **ETS2 impacts on vulnerable households/micro-enterprises**, including measures that can support **efficiency, electrification, and community energy (CER/ACC)**.

Useful Tools

A range of practical tools is already available in Portugal to support citizen-led renovation (CLR), collective self-consumption and renewable energy community initiatives. These tools operate at different stages of the process, from early feasibility assessment to renovation planning, administrative implementation and citizen advisory support.

Solar Potential and Technical Feasibility Tools

At an early exploratory stage, photovoltaic potential and solar yield estimation tools are commonly used to assess whether rooftops or building envelopes are suitable for solar installations. A widely used reference is the European Commission's **PVGIS tool**, which provides location-based estimates of solar irradiation and expected photovoltaic performance across Portugal. It allows users to simulate annual production, system losses and performance scenarios.

Such tools help building owners, condominium managers and neighbourhood groups develop an initial understanding of technical feasibility before commissioning detailed engineering studies.

Renovation Planning and Roadmaps

For renovation planning, Portugal has been progressively integrating roadmap approaches linked to the national energy certification system. The national **Sistema de Certificação Energética (SCE)** provides the regulatory backbone for building energy performance assessment. Through initiatives supported by **ADENE - Agência para a Energia**, including the European project **iBRoad2EPC**, the energy performance certificate is complemented by staged renovation roadmaps ("Building Renovation Passports").

These tools help households and building managers:

- Prioritise renovation measures over time
- Plan phased investments
- Align energy efficiency improvements with renewable energy integration

They are particularly relevant in multi-apartment buildings, where a shared and transparent planning basis can facilitate collective decision-making.

Administrative and Licensing Platforms

Administrative implementation of collective self-consumption (ACC) and renewable energy communities (CER) relies on national digital platforms managed by public authorities.

The **DGEG portal for Autoconsumo e CER** enables:

- Registration of self-consumption installations
- Formalisation of collective self-consumption arrangements
- Interaction with grid operators and competent authorities

While primarily administrative, these platforms are essential compliance tools that allow citizen-led projects to move from concept to legal operation.

Citizen Advisory and Support Services

Citizen-facing advisory tools play a key role in translating technical and regulatory requirements into accessible guidance.

The **Espaço Energia network** provides:

- Information on energy efficiency measures
- Guidance on comfort improvements
- Support in identifying and applying for available funding schemes

These local advisory desks help households, condominium managers and neighbourhood groups navigate renovation and energy decisions in a structured and informed way.