

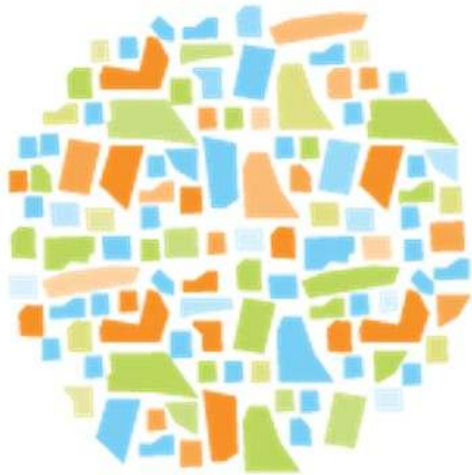


European
Commission

Energy Communities Repository

Telheiras Renewable Energy Community

Lisbon, Portugal



ASSOCIAÇÃO
VIVER TELHEIRAS

Telheiras Renewable Energy Community

Energy community data

State: 30/05/2024

Overall information

Country:	Portugal
City:	Lisbon
Energy community type:	Renewable energy community
Founding date:	2023-06-21
Types of membership:	Natural persons / citizens, Local authorities, NGOs and associations, SMEs
Number of members:	18
Citizens/Individual:	16
SMEs:	N/A

Municipalities:	1
Associations:	1
Other:	N/A
Website:	http://vivertelheiras.pt/certelheiras/
Status:	Legal structure with one ongoing activity / project

Activities

Activities:	Self-consumption, Electricity generation, Energy efficiency, Energy sharing, Awareness campaigns
Services:	Energy cafes / workshops, Financial advice (i.e. on available subsidies & tax measures), Advice on switching energy supplier, Education & training
Challenges in establishing the energy community:	Administrative (e.g. complicated application procedures), Financial (e.g. challenges to raise funds for projects)
Challenges in the last year:	Administrative (e.g. complicated application procedures)

Governance

Ownership structure:	Not-for-profit association
Share of female members:	25 - 50%
Share of vulnerable members:	10 - 25%
Share of members under 35:	10 - 25%
How do you engage your members in decision-making?:	General assembly, Working committees / working groups, Regular updates through e-mail
Board members:	Natural persons / citizens, Local authorities
Voting system:	One vote per member
Participation in last year's General Assembly:	56-75%

Energy

Technologies:	Solar PV
Capacity electricity in MW:	N/A
Capacity heat in MW:	N/A
Capacity cold in MW:	N/A
Capacity gas in MW:	N/A

Output electricity in MWh:	N/A
Output heat in MWh:	N/A
Output cold in MWh:	N/A
Output gas in MWh:	N/A
Price for Electricity (EUR/kWh):	N/A
Price for Heating (EUR/kWh):	N/A
Price for cooling (EUR/kWh):	N/A
Price for gas (EUR/kWh):	N/A
Energy storage: Value in MW:	N/A
Energy charging: Value in MWh:	N/A

Economy

Business model:	Collective self-consumption (residential), Collective investment in a community project (collective action - collective purchase / installation of technology, collective refurbishment of buildings in the community)
Staff: Number of employees/consultants (in FTEs):	N/A
Staff: Number of volunteers (in FTEs):	10
Approximate amount of volunteer hours last year:	350
Turnover in last year:	N/A
Financial support since foundation:	Other Other value: Technical support from the Energy Poverty Advisory Hub of the European Commission, where the financial support was provided to an expert that supported the development of the energy community
Financial support in last year:	N/A
Origin of financial support:	European Union
Total funding since starting the energy community in €:	N/A
Total funding in last year in €:	N/A
What was the (average) dividend allocated to your members in the last year?:	N/A

Total investment in last year in €: N/A

Total investments since starting the energy community in €: N/A

Social impact

Environmental benefits: No specific measures

Environmental impact: No Impact

Social benefits: Increased social cohesion / community feeling, Inclusion of vulnerable households / individuals, Reduced energy poverty, Increase in citizen actions in the community, Increased energy literacy in the local community

Support or inclusion of vulnerable households or minority groups in your energy community's activities in the last year: Discounts for vulnerable groups, Energy sharing

Number of social or educational activities: 2-5

People reached by these activities: 101

Social Impact: Internal assessment, Data collection

To what extent are renewable energy sources accepted in the broader community: High acceptance

Surplus investments into projects beyond your immediate membership: None

Local investments: N/A

Meet the community

How did it all start?

The [Local Partnership of Telheiras](#) was set-up in 2013 and consists of a network of over 20 local not-for-profit stakeholders active in Telheiras, a neighbourhood in the [Lumiar Civil Parish](#), a local government one level below the municipality, in the North of Lisbon Municipality. It includes local authorities, social support organizations, NGO's working with and for people with disabilities, residents and parents' associations, as well as religious groups. Their objective is to achieve a more sustainable neighbourhood.



PARCERIA LOCAL
TELHEIRAS



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The concept for the [Telheiras Renewable Energy Community](#) emerged in a citizen outreach event, an activity that was organised by the Local Partnership during a local festival back in 2020. Citizens were asked to provide input and write down suggestions for a more sustainable neighbourhood. Up to 70 ideas were gathered on that day, with popular suggestions including renewable energy, energy sharing and reducing CO₂ emissions.



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After the festival, the Local Partnership of Telheiras worked upon the suggested ideas and set-up working groups for their co-creation in 2021. The Partnership concluded in 2021 that, for the energy-related ideas, it made sense to set up an energy community. The concept of energy communities had first appeared in Portuguese law in 2019, the moment the concept started to translate into reality was after the publication of Decree-Law 15/2022. The Telheiras Renewable Energy Community started with a small group of around 15 volunteers, all of them were local residents from a variety of backgrounds – mechanic and electrical engineers, financial environmental experts and other professions – age groups and genders.



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Things took a turn in 2022, when the Local Partnership of Telheiras, in collaboration with the working group and the Lumiar Civil Parish, applied for the technical assistance of the European Union [Energy Poverty Advisory Hub](#) (EPAH). Their goal was to get support for the development of a first pilot, a project which would become the first citizen-led renewable energy communities in Telheiras, and one of the first Portugal. The idea was to provide support to energy poor households and find ways to lower their bills by giving them direct access to clean and locally produced energy. The assistance by the Advisory Hub from October 2022 to July 2023 allowed the group to establish the Telheiras Renewable Energy Community, and to develop a business plan with support from [Coopérnico](#) and the Center for Environmental and Sustainability Research of the NOVA School of Science and Technology of [NOVA University Lisbon](#) (CENSE FCT-NOVA), which is currently being implemented.



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The project

The Telheiras Renewable Energy Community is a community energy project promoted by Local Partnership of Telheiras and the Lumiar Civil Parish, but entirely run by volunteers from the community.

The community's pilot project is currently in the planning phase of developing solar PV installation of 7-8 kWp on the roof of a community center managed by the Lumiar Civil Parish for the purpose of collective self-consumption. The project gathers 17 members, of which 13 regular households, 3 vulnerable households, and the Lumiar Civil Parish. The total investment for the project is around 10 000 EUR.

The community submitted two license applications to the national authority in June 2023, for which at the time of writing they were still awaiting confirmation:

- One with the national authority regarding energy sharing.
- One with the local municipality regarding the PV rooftop installation.

Business model

Energy community

A stable financial model was established in February 2023, benefiting from the technical support of Coopérnico. It encompasses two phases: Installation and operation. During installation phase, the Local Partnership of Telheiras

collects the needed funds from the future energy community members to install the solar panels. Energy-poor participants have their entrance fee covered by donations from the local government and from other energy community members.

During the operation phase, members have the right to use a fixed amount of free energy from the solar photovoltaic system, but an annual fee is collected for the payment of maintenance, insurance, and taxes for the upcoming year. Decisions on the energy community follow the principles defined in its internal regulations, where all members have the right to a single vote.

The energy community decided to cover its overall management needs via an annual fee. The amount of the fee depends on the grid access tariffs, which can vary widely each year. The community estimates that the annual fee per member will vary between 8 and 30 EUR, depending on the grid access tariffs of each year. With 8 EUR per year, the community can cover its basic maintenance and insurance needs. The higher fee of 30 EUR is the estimated worst-case scenario, based on the highest possible tariff.

For vulnerable families, the community decided that the annual fee would always be 8 EUR, regardless of the grid tariffs. The difference will be covered by the other households (or other partners) participating in a particular project.

The community expects annual savings of 130 EUR per family per year. This means that the net savings per family would be at least 100 EUR per year.

Pilot project

Each family participating in the pilot project will pay around 600 EUR, covering its own costs and contributing for the participation of one vulnerable family (one share split between 13 households). The Lumiar Civil Parish will cover 2 000 EUR, covering its own share as well as that of two vulnerable families.



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The Parish selects the vulnerable families that will be included in the project. It already supports a lot of families in the neighbourhood, for instance by delivering food baskets to approx. 80 families, as well as other support mechanisms, and is reaching out to vulnerable families to let them know about the project through the social assistants that they already trust.

The energy community is working with the [Lumiar Civil Parish](#) to define the selection criteria, looking at families most exposed to potential long-term vulnerability to energy poverty. Some of the criteria currently under discussion include

number of children, income and long-term unemployment. Families are asked to sign up to the project through a form; social assistants can help if necessary.

Right now, the community offers one equal share in the pilot project for each participant. This model may become more differentiated over time – for instance, an energy intensive building may be able to acquire a larger share of the project than a small well insulated household, which would affect investment levels per participant – but the community is dedicated to maintaining the ‘one member, one vote’ principle.

Internal governance

The Telheiras Renewable Energy Community is being set up within the Association “[Viver Telheiras](#)”, a not-for-profit association that also takes part in the coordination of the Local Partnership of Telheiras. The internal regulations of the association are currently being changed to make them more suitable to managing an energy community. This includes:

- adding the goal of production and sharing of renewable energy with local environmental, social and economic benefits in its statutes;
- registering a secondary economic activity related to renewable energy generation;
- create an energy community group within the overall association, with specific rules for this group;
- approving the new statutes and internal regulations of the energy community in the next General Assembly.

The community organizes a General Assembly once or twice per year. It will manage its own funds, have its own bank account, and operate independently from the other departments within Viver Telheiras Association. Vulnerable families have the same voting rights as members who invested in the community.



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Participation is completely open and voluntary, but members must be located within two kilometres of the production facility as required by the Portuguese law for low-voltage projects. Members must be local families, public entities or small and medium enterprises who are in the possession of a smart meter. Members who do not yet have a smart meter installed can request the Portuguese Demand Side Operator to install one without costs. Members get equal voting rights and are actively involved in the activities conducted by the energy community.

The primary purpose of the Telheiras Renewable Energy Community is to generate environmental, social, and economic benefits for the local community. Although the energy community keeps a close connection to the local government, it remains a grassroots initiative that is owned and controlled by its members; the majority of which are citizens.

Around 15 volunteers have been working directly on the pilot project, through monthly meetings to establish goals and distribute tasks. These meetings are fully open for members' inputs and the decisions are published and shared in editable meeting minutes. Once a month, the Local Partnership of Telheiras further convenes to discuss the various projects and activities ongoing in the neighbourhood. In these meetings, updates from the Telheiras Renewable Energy Community are shared with the wider local community, and the community can share their feedback. Decision-making in the Local Partnership of Telheiras follows the [Sociocracy](#) principles. Finally, bi-monthly meetings are conducted with the Lumiar Civil Parish and the other partners involved, which also provide invaluable inputs to the community for the development of the project.



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If current members leave the energy community, the Local Partnership is not expected to return any previous payment and reserves the right of allowing the entrance of new members. Still, the exiting member can indicate a replacement to take up its share in the energy community. A safety margin is included in entrance and annual fees to account for unexpected events.

Collaboration with other stakeholders

The collaboration with the Lumiar Civil Parish is key to the success of the community's pilot project. The Lumiar Civil Parish was convinced by the numbers: Had they installed solar panels only for their own building, they would have paid 2 500 EUR for two solar panels. With the community energy model, the Parish can install not only the solar panels it needs for its own consumption, but for less than the price of an individual installation, it can support two vulnerable families and enable the participation of 14 more families. Both the Parish's president and staff saw the value in the energy community approach, including for reduced energy bills and increased participation in the local community, and decided to get on board. The technical and scientific support from Coopérnico and CENSE FCT-NOVA, obtained through the EU Energy Poverty Advisory Hub, was also instrumental to chart the unexplored territory of energy communities in Portugal.



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Overcoming challenges

It took quite some time for the energy community to get a clear sense of what they wanted to do and apply for their first license. Due to the complex and challenging process, the community sometimes struggled to keep people motivated. What really helped in this process was the ongoing support from the Lumiar Civil Parish, who played an important role in gaining trust and legitimacy for the concept amongst local citizens. In multiple occasions, the Parish's President has stood up in public meetings and presented himself as one of the energy community's biggest

fans, which helped create a feeling of legitimacy. The fact that the neighbourhood association has existed for more than 10 years, and the Parish for over 700 years, further increased trust in the possible success of the project.

The community encountered some contractual and administrative questions about the cession of the roof for the PV installation. The situation is slightly complex, but quite representative of partnerships between energy communities and local authorities: the building belongs to the Lisbon Municipality but all matters are managed by the Parish. Construction-related matters fall under the authority of the Parish. After having obtained permission from the [Lisbon Heritage Department](#), the Parish started the formalisation of the works. The project is currently in the final stages of licensing with the Licensing Department of the local municipality – an administrative process which can take some time.

Furthermore, grid access fees vary widely in Portugal and present a key risk for the energy community. These costs are revised annually and included in the annual fees.

One of the next steps to be solved will be the establishment of a protocol between the Parish and the neighbourhood association for the collaboration regarding the installation. This protocol is additional to the internal regulations of the energy community (approved by all members), and establishes a "contractual" relationship between the Parish and the association for the licensing of the project, the installation of the PV systems, the investment by each partner, the management and energy sharing, as well as the annual fees.

There are precedents in Telheiras for this: The Parish has implemented such protocols with other buildings regarding their utilization for sports and arts activities. The small size of the project also helped with this process; the amounts are manageable, making it easier for partners to sign up. The Parish was able to cover its contribution out of its own funds.

Gender balance & inclusion of vulnerable households

The Telheiras Renewable Energy Community has a specific focus on the support of energy-poor families. These are identified by the social services of the local government and by the local social support organizations and receive special conditions to join the energy community, such as reduced membership fees. This is a good practice from the Telheiras Renewable Energy Community on how to identify and involve energy poor families in its activities while sharing the benefits.

The pilot project comprises 13 regular families and 3 vulnerable households. The representatives of the regular families consist of eight men and five women. The members further represent various age groups in a balanced manner (approx. 2 members per age group of 25-34, 35-44, 45-54, 55-64 and over 70 years). Most of them have had access to higher education (engineering, management, medicine, biology, mathematics, marketing).

While gender balance is not actively pursued by the community at this stage, current distribution is around 60% men and 40% women.

A piece of advice...

"Dare to ask for help. The support we got through the Technical Assistance offered by the European Union Energy Poverty Advisory Hub turned out crucial to get our first pilot going and to pave the way for future projects."



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Documents/Useful links

- [Information flyer \(Portuguese\)](#)