

GUIDE FOR THE **CREATION OF OSS** TO **PROMOTE LOCAL** **ENERGY** **COMMUNITIES**



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List of acronyms

CCE	Citizen Energy Community
LEC	Local Energy Community
OSS	One Stop Shop
SME	Small and Medium Enterprises

1. Background

The arrival of energy communities

The **climate emergency** has become an urgent and ubiquitous concern. It is evident that we must move beyond setting distant CO₂ reduction targets without concrete action plans. Addressing climate change requires a shift in our collective thinking and a commitment to managing it collectively. The pivotal challenge lies in our energy model, where energy policies cannot be isolated from environmental or socio-economic considerations. Energy permeates nearly every aspect of our lives.

Citizens are increasingly aware that we must take collective and grassroots action, building networks that enable us to forge new relationships with Earth's resources and with each other. It's time for a paradigm shift toward a collaborative and sustainable future.

All over the world, local initiatives are emerging to change a key aspect of the climate emergency: the production, management and distribution of electricity with renewable systems and - here is the biggest novelty - in a **sovereign and collective** way, reducing dependence on large energy corporations. This is how the so-called *local energy communities* emerge.

Energy communities have gained prominence with the support of the European Union and are now a widely discussed concept. These initiatives are driven by citizens who come together to address and oversee their energy requirements, all while prioritizing environmental and social considerations. While the scope of these initiatives can be quite holistic, the most prevalent activity, and often a starting point for community projects, is the decentralization of energy production through shared photovoltaic self-consumption.

On the other hand, we find a political commitment to energy communities, including the definition of the different typologies, the creation of a new specific regulation and the economic impulse at different administrative levels: from the municipal to the European level.

Energy communities play a key role in the way we relate to our environment and aim to transform the energy model through citizen empowerment. This empowerment can take the form of citizen-led or participatory projects, in which the local administration is the leader, always being projects rooted in the territory, and with clear social and environmental objectives. In this sense, we want to highlight the idea that the importance of energy communities goes beyond the generation of energy from renewable sources: we are talking about the democratization of energy and the empowerment of citizens, to the point that people can finally take sides in the electricity market and become more sovereign and self-sufficient.

Energy communities, which are a key tool towards the Sustainable Development Goals, focus on SDG 7 (Clean and Affordable Energy), which not only aims to guarantee access to energy but also to make energy sourcing a key factor.

Climate change is advancing, the time to comply with international obligations is shortening and renewable energies must be produced locally, and not imported from abroad. The non-urban territory is subject to a demand for collaboration in the deployment of renewable production infrastructures that can only be demanded if the urban territory demonstrates a commitment. In this sense, the potential for deployment of energy communities is high, both in rural and urban areas.

However, the most present barriers to the deployment of LECs are not technical, but social, as they involve the organization of the citizenry. This is where One Stop Shops (OSS) can play a key

role in triggering the creation of energy communities and boosting their proliferation and offering support in different aspects.

In addition, the OSSs should be information points that allow citizens to become empowered and sensitized to make a more optimal self-management of their energy supplies, get to know their energy rights, as well as to learn about the possibilities offered both in terms of rehabilitation and renewable energy generation, and the existing aid and subsidies, if applicable.

Territorial competitiveness

Energy communities are also an element of territorial competitiveness for companies. For this reason, the OSS will also encourage public-private collaboration for the deployment of energy communities.

The availability of decarbonized energy, as inexpensive as possible, close and safe, can become a survival factor for many organizations. The research, development, production, installation and maintenance of renewable energy production and distribution devices will be a relevant economic sector that will depend on the quantity and sophistication of the demand for proximity.

Legal body

To create an energy community, it is convenient to create new forms of legal bodies of consumers/producers. The OSS will guide the interested groups in the definition of the most appropriate legal form.

Citizen empowerment

To promote energy communities, it is also important to empower citizens in the field of energy: as consumers, as potential producers, as energy managers in their own homes. Energy and the energy market can be complex for a large part of the citizenry, which limits the participation in energy communities of many profiles of the population that have no knowledge of energy. It is for this reason that we believe that in order to promote energy communities it is essential to carry out in parallel a task of dissemination about energy, as well as individual support and accompaniment, so that this task can lead to an increase in energy communities and also in the profiles of people who are involved in it.

2.Objectives

This aim of this document is to serve as a valuable resource to streamline the establishment of OSS (One Stop Shop) offices dedicated to energy services, offering comprehensive support in various facets of energy and supplies. These offices serve as accessible hubs where citizens can seek guidance and information pertaining to the management of their individual or collective energy needs, along with closely related areas.

Moreover, while the overarching goal is to promote energy communities, it is acknowledged that the path to fostering collective organization begins with empowering individuals in the realm of energy. Therefore, these OSS offices are designed not only to provide collective support but also individualized advice and guidance. Through these individual interactions, a network of connections within the community will be cultivated, encouraging citizens to come together and form energy communities.

In essence, the primary objectives of this document are as follows:

- Offer comprehensive guidance in shaping the internal operational structure, economic planning, and allocation of material and human resources for the OSS offices.
- Provide practical tools to facilitate the effective implementation of OSS.
- Establish protocols and standardize the operational procedures of the OSS offices.

By achieving these objectives, we aim to create a seamless framework for the successful deployment and operation of OSS offices, enhancing their capacity to support and empower citizens in matters related to energy management and community building.

3.Implementation of a One-Stop-Shop

Benefits

The benefits of having an OSS that promotes energy awareness and citizen empowerment are several, and its positive impact will reverberate in various sectors of society:

Table 1 Benefits among the different target groups

People living in the territory	Home energy improvements: • Increases physical and mental health and quality of life • Increased comfort and safety • Reducing the cost of utility bills • Reducing the risk of energy poverty • Increasing the income of the cohabitation nucleus • Extends the life of the dwelling in habitable conditions • Increasing the value (and price) of housing • Reduce maintenance costs
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	Decrease energy demand The OSS will also provide support in individual and collective processes related to a subject that is socially perceived as complex: energy.
Energy professionals sector	The OSS increases the demand for energy products and services, resulting in a boost to the local economy, hiring and job specialization.
Public sector	Investment in energy improvements and the creation of a local OSS drives: - A reduction in social investment and fuel poverty - A more resilient local economy in the face of crises and pandemics - Compliance with environmental obligations - Decarbonization of the municipality - Increased capacity for public-private collaboration - A reduction in illnesses associated with poor air quality, lack of sanitation, lack of thermal and acoustic comfort, etc. - A reduction in the number of visits to health care centers - A reduction in mortality and illnesses related to cases of energy poverty.

4. Structure and typology

Structure

First of all, it should be noted that given the multiple casuistry, both in terms of the type of municipality and the availability of economic resources, it is necessary not only to assess what type of OSS we can offer, but also which one we believe can have the greatest impact on the municipality. Often a combination can be an effective way to address the different cases. The different typologies are outlined below:



- On-site service

Face-to-face service involves designating a space for public attention, and different materials to hand out to citizens in the event that it is convenient to give them information in hand that they can retain, as well as a computer to process cases, doubts and relevant requests. Although it usually implies more time of attention per person, the citizens who come to the office usually value very positively this type of closer attention, which also allows them to see together the concepts that are explained and reinforces

citizen empowerment. It should be taken into account that it will most likely involve more management hours in terms of scheduling visits.

Face-to-face service usually has a good impact when the population density is high and there is a large number of citizens living relatively close to where the service point is planned to be located, or when it requires traveling short distances for the rest of the citizens (it is convenient to take into account the availability of public transportation when deciding the location of the face-to-face service point).



- Virtual attention (by e-mail and telephone)

This type of service can be interesting because it does not require its own space for customer service, especially in municipalities where the population is widely dispersed throughout the territory, so that setting up a point of face-to-face service involves considerable travel by citizens. The service to be provided is usually faster and is often convenient for resolving specific doubts. On the other hand, in the cases of accompaniment in which procedures are carried out, experience shows us that often, when it is necessary to request documentation from the users, the procedures are usually lengthened by establishing contact only in a telematic way. However, it can be an agile service for cases in which information or advice on household supplies, for example, is required.

In these cases, we also recommend establishing a defined opening hours for the public. These hours can be more or less extensive (days per week and hours of operation) depending on the municipality's available resources and the expected volume of queries.



- Itinerant

For municipalities with few economic resources, it could be considered whether a supra-municipal entity could provide an itinerant OSS that travels to different localities following a specific schedule. This would be an advantageous option for small municipalities because it does not imply the hiring of personnel by the local administration.

However, it is necessary to ensure that the public is aware of the existence of this itinerant OSS and the days on which they can make use of this service.

Scope of the service

When we think about the attention we want to offer to citizens from the OSS, there are different types of intervention, depending on the level of personalization of the service and the degree of involvement of the OSS staff in the desired hours. We define three typologies: information, personalized advice and accompaniment, which are described below.



Information

We define information assistance as the resolution of doubts or the search for knowledge about energy supplies, self-consumption, rehabilitation, grants and subsidies for efficiency and/or renewable energy projects. This service is considered generic and does not go into the details of each particular case, although it may have the ability to function as a first filter and refer interested persons to professionals who offer the

services or advice they need. It can be done by e-mail, through a telephone hotline or in person at a point of attention to citizens.



Personalized advice

We understand advice as the attention in which the interested person can go to the information point with documents that refer to their supplies (invoices) or self-consumption or rehabilitation projects, among others, so that the technician can assess the state of these and make the corresponding recommendations. In these cases, it is necessary that the person in charge of the advice has technical training to be able to assess the supply contracts and recommend users to make contractual modifications according to their needs, as well as to be able to assess the projects and budgets that third parties may have offered to citizens for self-consumption or rehabilitation projects (or refer them to local companies that can do them, if this is the reason for the visit), or guide them towards one type of solutions or others according to their case.



Accompaniment

We understand accompaniment to be the final step (having made a previous assessment), which would involve providing support in the management and procedures that arise once the assessment has been made. In the case that accompaniment is not provided, it is understood that the informant will guide the user so that he/she can carry out the procedures and formalities autonomously (empowerment), while accompaniment implies the involvement of the technician in the required procedures, thus extending the personalized attention but ensuring that the procedures are carried out effectively. This would be, for example, to carry out tariff modifications in supplies, or to help in the processing of subsidies that the interested party wants to apply for self-consumption or rehabilitation projects, etc.

It is important to be clear about the scope of the OSS and the degree of involvement we can have as workers in each of the cases attended and, if appropriate, to explain to the people attended what the limitations of the service are.

Portfolio of services

Technical

The technical consultancy service has a strategic component for the operation of the OSS. The different projects or initiatives will receive support in technical aspects (e.g., assessing the potential of RES, sizing of facilities, management software, training for budget analysis, or matching the project with technical regulations). The objective of the consultancy is to answer the doubts that hinder the development of projects and initiatives and to connect the citizens with the actors of the territory that can carry out the technical tasks in local projects.



Administrative



The administrative consultancy will be focused on training and the development of tools so that the initiatives can be carried out with efficient structures. The services will focus on finding *ad hoc* solutions related to data management and processing, as well as the centralization and simplification of administrative processes with external actors, such as energy distributors and/or marketers. The objective is to provide tools and support in processes that are often a barrier to project implementation, such as interaction with other actors, including the electricity distributor or marketer, providing the initiatives with model documents and channels that facilitate the administrative management of the projects.

Legal

The legal consultancy will assist in the definition and legal constitution of the different initiatives, as well as in their subsequent operation. In a second level, it will accompany in the elaboration of legal documents of different nature, such as the definition of regulatory bases or processes of subcontracting of services. The service will advise each project according to its particularities in the constitution of its legal figure, and will accompany it in the constitution process, through the experiences learned in previous projects and creating common materials such as statutes or internal regulations. The service can also address the legal side of technical aspects or transpositions of European directives concerning LECs. The legal consultancy will also provide support to ensure that projects using the service comply with and are aware of the relevant data protection regulations, and have efficient and secure mechanisms for managing confidential information.



Economic and social consulting

The economic and social consultancy will accompany the projects in the development of a business plan and economic viability, and will guarantee not only their successful implementation, but also their long-term sustainability, taking into account numerous factors, such as financing, citizen participation and regulatory changes, among others. In the social field, the service will first focus on supporting the dynamization of groups and collectives so that they can develop into self-organized groups. Support will be given in conflict resolution, in favor of diversity and through access to facilitation professionals and specific training resources. The service can also provide governance tools to strengthen the internal functioning of energy communities.



Guidance on the financing of LECs

As funding is one of the main barriers for incipient LECs, it is interesting to offer guidance on available grants and support in the submission of applications. The objective is to facilitate the attraction of external resources for local projects and to accompany the municipalities in the presentation of the above-mentioned applications. This service can also provide support to citizens involved in energy community projects to overcome the economic and administrative barriers they may face.

Support in the elaboration of ordinances to promote LECs

Finally, with the aim of encouraging collective self-consumption due to the transformation potential that energy communities have, advice on the drafting of ordinances promoted by the OSSs can also be considered. The ordinances could then subsidize self-consumption installations, creating or improving tax incentives to promote the use of renewable energies through individual and shared self-consumption systems. Model documents can be provided to facilitate the process, as well as developing proprietary tools to facilitate the calculation of the costs that the rebates will entail on the part of the municipality. The activity would be carried out on an ad hoc basis and could be reviewed on an annual basis along with the ordinances.

Human resources and associated materials

Categorization according to municipality

This section is dedicated to the correct sizing of the human resources of the OSS offices. For this purpose, a support tool has been developed in Excel that takes into account different categories of municipality. The variables to be considered are population, population density, surface area of the municipality, and the type of attention and service to be offered. Based on these variables, the tool makes an estimate of the number of services that could be provided annually, the work hours involved, and recommends the number of people to hire.

In order for the tool to provide us with the results, we only need to enter some data of the municipality we want to evaluate. The calculations have been developed based on real data and estimates taken from the implementation of OSS in the Barcelona Metropolitan Area.

Sizing of resources

First, we find the tab **Basic_data**. It is here that we must indicate our municipality, the number of inhabitants and the area (in km²). The density and the indicators below are calculated automatically. Next, we must indicate on the right the type of office and attention we want to offer:

O. S. S.

Funded by: **UP-STAIRS** Uplifting Energy Communities

Author: **ecoserveis**

ECONOMIC SIZING TOOL FOR THE IMPLEMENTATION OF ONE-STOP-SHOP OFFICES

This tool serves two primary purposes. Firstly, it simplifies the estimation of human resources and the necessary hours for implementing an OSS (One Stop Shop) based on user-selected criteria. Secondly, it provides a means to visualize the anticipated impact, specifically in terms of the number of people served and the steps involved. To utilize this tool effectively, please navigate to the 'Basic_data' tab where you can specify the type of office, the desired services for your municipality, and the services to be included. Once you've inputted the required data, you can view the results on the 'Estimate' tab.

choose your municipality	Municipality
Inhabitants	9000 hab
Surface	8,0 km2
Density	1125,0 hab/km2
Type size	
Typology density	

Type of care	% of attention
On-site	Yes 70%
Virtual	Yes 30%

Type of service	
Information	Yes
Consulting	Yes
Accompaniment	Yes

Fill in if both types of care are checked, specifying the percentage of each one.

Figure 1 OSS sizing tool. Source: Ecoserveis

It is necessary to indicate whether we want to provide face-to-face care, virtual care or both, selecting "Yes" or "No" in each care format. In the case of wanting to provide both types of care,

we are asked to specify in the right-hand column what percentage of this care will be face-to-face and what percentage will be virtual (the sum of the two percentages must be 100%).

Finally, further to the right, we are asked to specify which types of care we are interested in providing. We can select as many options as we wish, indicating "Yes" or "No" in the corresponding box.

Once the data has been filled in, we can visualize the results in the **Sizing** tab. It allows us to see a table with the results obtained, as well as graphs showing the number of hours dedicated to each type of service, and the hours of management/coordination of the office. We can also see the number of people attended, the number of services/visits, and the staff that would be necessary to hire according to the hours involved in the deployment of the service (adapted to the casuistry of each municipality according to its population and density).

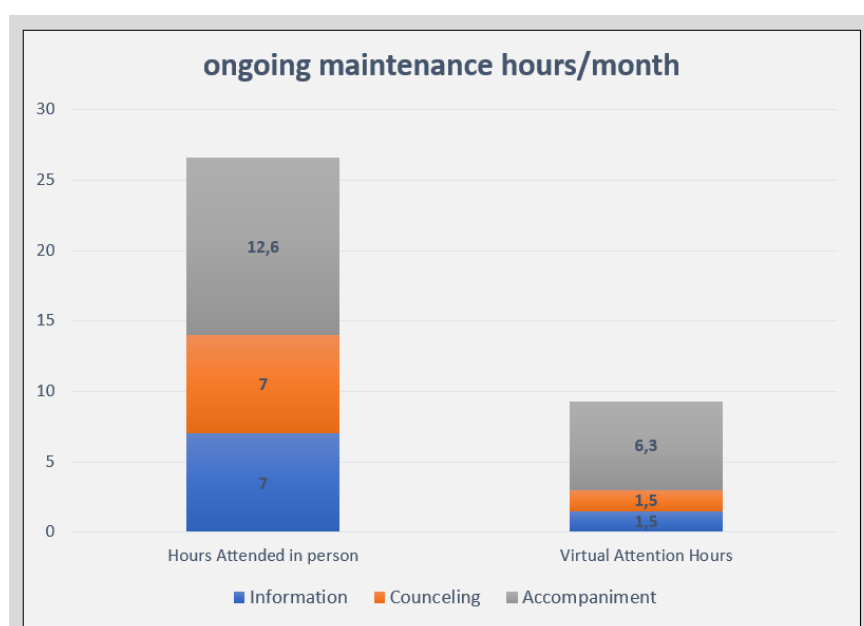


Figure 2 Example of effort for the sizing of an OSS. Source: Ecoserveis

After seeing the results, we always have the option of going back and modifying some variables, if we are interested in modifying the service and adapting it, and see again what changes are involved, until we are convinced by the result obtained.

Internal structure. Human resources profile

The office, following the One Stop Shop model, should offer technical, administrative and financial assistance. For this reason, it is recommended that the office staff should have a set of competencies and skills to be able to offer the highest quality service to the inhabitants of the municipality. The following is a set of proposals on staff profiles to be contracted, with the aim of serving as an inspiration and/or model when drawing up public procurement specifications. Each municipality will have to adapt the personnel and profiles to its casuistry. The following are indicative proposals.

Thus, the competencies, without being a closed list, consist of:

- Technical knowledge of energy supplies, energy efficiency and renewable energies
- Design of and implementation of governance structures.
- Knowledge of processing and management of subsidies
- Knowledge of marketing, communication and design

- Knowledge of financial solutions
- Administrative and customer service knowledge
- Knowledge in the management of people in situations of energy poverty, vulnerability, etc.

In accordance with the above considerations, the market and impact study proposes different profiles that can define the structure of the office (depending on its size according to the dimensioning). The configuration of the team may vary over time, adapting at all times to the needs and requirements of the municipality. However, we define five professional profiles, complementary to each other.

- **Program Manager.** A person with a managerial profile who is responsible for coordinating the team's tasks and daily operations, resolving incidents, supporting and participating in the organization of dissemination and communication actions (information sessions and webinars), as well as being in charge of the dynamization and promotion of the conception phase of energy communities.

- **Energy expert.** Personnel specialized in energy efficiency and renewable energies who will be responsible for accompanying and advising citizens, and accompanying them in the creation of energy communities. They will be responsible for evaluating the rehabilitation measures that apply in each case and drafting a report with the costs, energy savings and amortization of each project, if it is suitable for the services to be offered.

- **Community agent.** This person will be in charge of mediation tasks in homeowners' communities and of providing advice to citizens on the creation of energy communities and on energy in general. His/her tasks will be complemented with those of the energy expert, and this community agent will set up a previous phase that will allow the social barriers to be overcome, so that later the rest of the team can develop the technical part.

- **Back Office.** He/she will be primarily responsible for the first customer service, either in the office, by email or by phone, scheduling visits, managing the digital platform and carrying out administrative procedures. On the other hand, this profile will also be in charge of the comprehensive management and processing of municipal, regional, state and European subsidy files. In addition, he/she will manage the corresponding administrative files that allow the processing of public funds in application of the legal framework, the bases and the corresponding calls and, on the other hand, he/she will carry out the technical verification of the subsidized actions that will result in the obtaining of public funds.

- **Communication, marketing and design.** He/she will be in charge of designing and implementing the communication and dissemination plan, including social and digital marketing actions, management of social networks and design of graphic and audiovisual material, with the aim of raising awareness of the office and attracting more neighbors with the intention of developing projects to improve their homes.

5. Tools for working with energy communities

What is an energy community?

Let us review the definitions provided by current European directives:

Renewable Energy Communities (RECs), *EU Directive 2018/2001*

They promote proximity renewable energy installations.

Shared characteristics: open legal entity, voluntary and autonomous participation; partners or members can be individuals, SMEs, entities or local authorities; the main objective is to offer environmental and social benefits and economic savings to members or partners in the environment. They are organized to transform their neighborhood, village, town, city, county, or country towards a 100% renewable, inclusive, democratic and collectively owned energy model.

It is important to note that a REC is not limited to electricity from photovoltaic installations, although in many cases it is a starting point for starting up the community.

These communities deploy a series of actions in various fields, such as the promotion of new community-owned renewable energy generation plants, energy exchange and management, training and mobilization of citizens, sustainable mobility and air conditioning, and energy efficiency.

Citizens' Energy Communities (CEC), *EU Directive 2019/944*

Unlike RECs, this type of community is involved in the distribution, supply, aggregation and storage of energy, and can also provide demand aggregation services, etc., always linked to the electricity market. They also differ from the first typology in that they can obtain financial returns from their activity.

Steps to start an energy community

First of all, it is necessary to form what we call the **motor group** or **driving group**, which will be the first partners motivated by the project who will be in charge of recruiting other members to the energy community. It will depend on the context, it can come from a group of motivated **individuals**, driven from a **social entity** or **association**, the **city council** itself, a **group of companies**.

To broaden the number of people interested in participating in the community and expand the driving group, we recommend doing the following:

1. **Search for references and success stories:** this can help us to better understand the scope of the possibilities offered by an energy community and how existing communities work. It is essential to be clear about the project in order to be able to explain it. It is important to be able to identify who participates, with what legal forms, what economic resources are necessary, what management tools we will use, what challenges and barriers we will have to face.
2. **Identify possible allies:** they can be citizens, local entities, companies or the local public administration.

3. **Disseminate and create a network:** through the development of awareness-raising activities that also serve to attract interested persons. In addition, it is recommended to plan a dissemination campaign that includes communication tasks.

Having said this, the driving group must work out which community model is proposed according to different variables, which must be communicated to the interested persons who could potentially form part of the community:

- **Objectives:** remember that the objectives of a CEL are to move towards the energy transition, that is, to obtain environmental benefits while increasing energy sovereignty, better self-management of energy resources and economic savings, always promoting the local economy.
- **Participants and roles:** be clear about what type of participants there will be in the community and in what percentage. It may be a totally citizen initiative or it may be, for example, an initiative led by the local administration, in which the citizens participate, etc. Also, what will be the requirements to be part of the community.
- **Contributions and fees:** define whether the members will contribute an initial fee, or an annual fee, or if they will be fees subject to specific projects each time they are proposed, etc. The capital contributed will be used to cover management expenses and the projects developed by the community.
- **Financing model:** in relation to the previous point, it will also be necessary to analyze whether the financing can be supported by grants and external financing or whether the projects will be directly financed by the contributions of the partners, etc.

In order to generate community, it is necessary to work on different axes:



Governance: Do we want decision-making to be done collectively, transparently and through direct democracy? This would be the case where 1 person = 1 vote.

The governance model will determine in part the legal form we want to adopt, and vice versa. If we opt for the case described above, we recommend creating a cooperative or an association.

In the event that the public administration is the driving force and main manager, and the citizenry has a passive role, it may be that another legal form is chosen, since governance at the internal level will be different.



Participation: Members must have the information, knowledge, tools and channels to understand the decisions being made and be able to participate in them. This is key to maintaining a sense of community. Participation must be **direct, binding, structured, diverse and respectful**.



Training: We can divide it into two typologies:

Internal: for community members to acquire knowledge. This is a key factor to ensure that they can later participate and vote with the certainty of understanding what is being decided. Training can be done through talks, courses, round tables, etc. that can be developed internally or by contacting an expert local entity that can organize a training session.

External: the community can decide to raise awareness in society by being proactive and organizing citizen-oriented training sessions, which also offer the possibility to participate in the community and also be used as a recruitment tool (or not).



Dissemination: It can focus on getting new participants for the community, through informative talks, publications in the media or social networks, posters, activist actions, etc.



Social action: It is important for the community to consider being as inclusive as possible, and to contribute to the reduction of energy poverty and the discrimination or exclusion of certain groups, and to consider orienting recruitment to ensure the participation of these groups whenever possible.

Conflict mediation and settlement

Given that OSS staff may be exposed to various situations in which mediation is necessary to seek consensus, especially when we are preparing to promote an energy community, the following are some tips for effective conflict resolution.

As a mediator, we will find that when presenting ideas or making proposals in communities, the social fabric that exists at the outset may be complex, and there may also be tensions created on the basis of previous problems. Conflicts arise in all organizations, and are the result of the diversity of opinions and interpersonal relationships. Failing to address them or pretending they are not there can have serious consequences for the well-being of the community. All organizations have their conflicts, but community management differs in the way and willingness to deal with them.

"The goal is not to have no conflicts, but to show interest in conflicts and the potential they can bring to the organization."

A cultural change is necessary, adopting a commitment to the creation of spaces and the provision of tools and resources to be able to deal with conflicts in the daily life of the group. Key aspects in conflict management:

- Create spaces for conflict management at least three or four times a year, where everyone feels the opportunity to express their opinion and all are valued in the same way.
- Contrast the conflict itself with the personal and communal vision of all members of the community.

- Design a good governance system to prevent conflicts and promote transparency in the organization.
- Emphasize knowing our roles and the power dynamics in the community, and act where appropriate to reduce inequalities.
- Recognize that there are several axes of privilege-oppression (machismo, racism, classism, LGBTIphobia) that have direct consequences on the management of conflicts.

Participatory processes

Another process that can be useful to us in addressing these casuistries is participatory processes. It is important to build a joint ideology to focus on commonalities rather than differences. Here we should talk about what our objectives are as a community.

We can propose to solve the following questions:

Where do we want to go?
What principles and values drive us?
How do we make everyone feel integrated and welcome?
What are our objectives for this year?

We must state why we do participatory processes and remember the objectives that unite us as a community. If we really want the community to manage its activities democratically, we must emphasize the following pillars: transparency, inclusion and accessibility, dialogue and active listening.

Objectives of participatory processes:

- Represent the different realities of citizenship.
- Building on the diversity of opinions and identities.
- To create spaces for reflection and meeting.
- Involve citizens in decision making.
- Combating social exclusion.
- Empowering citizens.

In order for the communities to multiply, we must show ourselves as referents and guides for nearby communities that are still in the gestation phase. We must build a network: we must actively collaborate with social economy entities that want to get involved. Let us participate in the creation of a cooperative of communities, to strengthen the local community fabric and deploy the communities in the territory.

Challenges and risks of LECs

The objective of this section is to identify, describe and summarize the most common barriers faced by energy communities during the different phases of their life cycle: creation, implementation and continuity.

The main barriers identified are presented in the following table:

Table 2 Barriers and challenges of LECs. Source: COMANAGE project, Ecoserveis.

Category	Barrier
Administrative	The support programs for renewable energies do not have the right form, they are too complex, they also change often.
	Licensing procedures are cumbersome and/or time-consuming and have uncertain outcomes.
	Networking is complicated in terms of time, cost and complexity of procedures.
	Registration of the legal form is a long and complicated process, with many bureaucratic barriers and administrative requirements.
	Barriers and problems posed by the distributor: network capacity not available or refusal to disclose available capacities in general (no sharing of data on connection points).
Economic financial /	Uncertainties related to the ownership of the facilities.
	High membership fee.
	Few dominant players in the market.
	Difficulty in accessing financial capital due to the lack of definition of LECs.
	Banks and other financial institutions do not lend to LECs or only on unfavorable and/or insufficient terms.
	Lack of financial incentives due to energy prices that do not reflect costs.
Governance	Subsidies with complicated and slow processing, insufficient remuneration in tariffs (energy supply bills).
	Complex decision making and market power in the hands of incumbents.
Knowledge skills /	Long procedures and internal conflicts of high quorum (heterogeneity).
	Lack of knowledge, experience and awareness to organize and build an initiative and implement projects.
	Lack of intermediaries: lack of organizations or individuals to promote the exchange of best practices and information, and to cooperate with local authorities and have access to extensive networks.
	Members lack the knowledge and experience to develop more complex community energy projects.
	Lack of skills, assets and/or capabilities.
Policies	Lack of knowledge (about technology, regulation, subsidies).
	Energy prices set by the market mechanism, without correction for externalities.
	Time-consuming application for funding (especially due to lack of staff and lack of qualification).
	Fear of change or rejection of new things (risk aversion) in local politics and/or local administration.
	Lack of access to politicians and policy makers.
	Heavy bureaucracy, administration and permits.
	Lack of national strategies for the deployment of LECs, and lack of institutional political support.
	Lack of clear policies and measures for LECs in national legislation.
	Lack of incentives for distributors to connect small operators to the grid, or to do the job well and in an agile manner.
	The legal forms available make it difficult for municipalities to participate in the CELs.

Regulatory / legal	Unclear or problematic legal framework.
	Lack of a clear definition of "LEC". Currently has no legal form.
	Lack of time.
Social	Limited available land in more remote areas (e.g., islands) and land use conflicts (e.g., agriculture and tourism).
	Low disposable income.
	Resistance or opposition to renewables in the territory.
	Saturation effects: behavioral factors of certain individuals or groups could slow down and impede the development of renewable energies and/or LECs. Lack of expert knowledge, together with saturation effects, can be decisive factors.
	Lack of understanding of the potential roles of energy communities.
	Lack of knowledge and confidence.
	Lack of experience in collective / cooperative action.
	LECs predominate mainly in higher income countries/regions.
	Low environmental awareness, conflict between biodiversity protection and renewable energy development.
	Lack of confidence in the actors/processes.
	Access to data.
Technological	Lack of intelligent monitoring and data management systems

6. Communication and protocols with stakeholders

This chapter aims to respond to different aspects related to the coordination of the OSSs with other local entities, a key point when defining procedures and thus streamlining the attention to people and the effectiveness of the procedures; and, on the other hand, the external communication that will have to be made from the OSSs oriented to recruitment, so that the population knows about them and uses them.

Internal communication

It is recommended that the service offered by the OSSs be coordinated with other local agents for more effective and agile case management. For this, internal communication protocols must be put in place. Some examples are presented below:

- **Coordination with Social Services:** OSS can offer technical support to local social services for the management of users' energy supplies or look for ways to include the most vulnerable profiles in collective initiatives, as these are profiles that are often underrepresented.
- **With entities of the territory:** social, cultural, educational and community **entities**, both to make the OSS known and to access the local associative and cooperative fabric and take advantage of its capacity to bring together the local population. On the other hand, synergies or joint projects can be explored with the entities.
- **Commercialization and/or distribution companies:** establish communication channels or protocols to facilitate and expedite the management of projects promoted by the LECs.
- **Housing Department:** for the management of housing and rehabilitation aid, and social mediation in cases where necessary. Also to explore the potential for cooperation between social rental housing, facilities and other public buildings towards citizens for the creation of energy communities. Jointly promote actions and measures to ensure the sustainability and eco-efficiency of the housing stock (built and newly built).

External communication

The general public's perspective and participation in the energy sector is poor in perspective and non-existent in participation. The OSS has critical role in satisfying the demand for outreach initiatives aimed at empowering citizens and encouraging their active participation in energy communities. Because it is so basic, we have broken it down into the key factors to consider to win this challenge:

1. **Awareness and Education:** It is critical to provide accessible and simple-to-understand information on energy and its numerous features to combat the perception of complexity. Outreach initiatives should focus on educating the public about energy sources, consumption habits, and the environmental and financial consequences of their choices. Workshops, internet resources, and community activities can all help with this.
2. **Participation with varied Communities:** Energy outreach activities should be inclusive and consider the needs and interests of varied communities, such as migrants and women with dependents. Customizing communication and engagement techniques for specific areas can help bridge the gap and increase access to energy-related information and opportunities.
3. **Partnerships and Collaborations:** Work with local organizations, community leaders, and advocacy groups with ties to different populations. These collaborations can aid in reaching a larger audience and establishing trust.
4. **Incentives and Advantages:** Highlight the advantages of being a member of an energy community, such as cost savings, environmental impact, and community resilience. Explain how individuals and communities can profit from active participation in the energy sector.
5. **Simplify involvement:** Make involvement in energy communities simple and not unduly burdensome. Simplify the process of joining and participating to these groups, and offer guidance and support as needed.
6. **Language and Cultural Factors:** Recognize that linguistic and cultural differences can be impediments to understanding and participation. Provide products and information in linguistically and culturally appropriate formats.
7. **Encourage Gender Equality:** Encourage women to take active roles in energy communities and in leadership positions. Create mentorship programs and efforts that encourage women to participate actively in defining energy policies and practices.
8. **Policy Assistance:** In the energy community, advocate for policies that promote inclusivity and diversity. Incentives for initiatives that emphasize underrepresented populations or quotas for representation in decision-making bodies could be examples of this.
9. **Response Mechanisms:** Create feedback channels and discussion with the community to better understand their individual wants and concerns. This can aid in tailoring communication efforts and increasing the inclusiveness of energy projects.

10. Measuring Impact (see section 9 Assessment): Evaluate the impact of outreach initiatives on a regular basis to verify they are meeting their objectives and making a difference in boosting involvement and diversity in energy communities.

By applying these techniques, the service may work to make energy communities more inclusive and ensure that a greater range of people are actively involved in the energy sector, so contributing to a more sustainable and equitable energy future.

7. Local Network, systems and procedures

Before starting up the OSS, it is important to define the network and procedures it will use. For example, the service can coordinate with other services of the municipality to refer users from services that also provide direct attention to citizens. Or with engineering or customer service departments to resolve queries from OSS staff. The aim is to coordinate the OSS with existing services to reinforce each other and create synergies between them.

In addition, service and service implementation procedures must be created to optimize the management of the office. For example, it will be necessary to define the procedures to carry out the administrative procedures that the OSS offers to the citizens, such as support in the preparation of the energy community statutes, procedures for technical, legal and financial support, etc.

These networks and services will be specific in each case, and may vary greatly from one country to another and from one municipality to another depending on the specific services that may be offered.

8. Training of OSS personnel

For the implementation of the OSS, it is also necessary to provide training with basic information so that workers have a solid knowledge base in the field of energy in general. Ideally, it is best to conduct classroom training and at the same time have a reference manual that can be consulted when needed. We recommend that training should include content in the following areas:

- Energy market
- Energy habits in the home
- Management of domestic energy supplies
- Rehabilitation
- Renewable generation and self-consumption
- Energy communities

Here it will be necessary to adapt the training to each local or state context and its legal framework. Regarding the part of energy communities in particular, it is important to provide knowledge on business models, financing strategies and possible legal forms in each context, as well as knowledge of the technical regulations for rehabilitation and generation projects in order to be able to accompany the projects that arise.

9. Impact assessment

The evaluation of the OSS's impact is a key instrument to ensure its proper functioning, as well as to detect the points where it is necessary to make proposals for improvement and also to identify the concerns of the public and be able to act on the results obtained.

To evaluate the impact of the service, it is proposed to divide the annual impact indicators of the program into three areas:

- **Social impact**
- **Economic impact**
- **Environmental impact**

Below, we list a series of indicators as a proposal, which may be relevant to measure the effectiveness and report the service provided to citizens. These indicators should be collected by each of the people working in the service and then a detailed analysis should be made in an annual report (at least) that serves to assess possible measures to be applied in the following year.

Based on these suggestions, each OSS can generate its own tools to collect data and indicators to evaluate the impact of the service offered.

Social impact indicators

To estimate the annual social impact of the program's deployment in the municipalities, the following indicators are proposed, which will have to be adapted according to the specific services offered by the OSS:

Number of households served by the program

Number of homes in the municipality that have made use of the program.

Number of visits

If visits are made to the home to assess its energy status or potential for action, home visits can be counted and segregated by type of home.

Number of media appearances (Diffusion, optional)

Appearances in different media (written, visual and/or audio) will be counted, such as magazines, newspapers, blogs, news, radio programs and podcasts, face-to-face events, neighborhood associations, social media posts, etc.

Number of homes advised

This indicator shows how many of the homes contacted receive personalized counseling.

Number of contractual actions carried out

In cases in which the OSS can also carry out procedures on behalf of the citizens, the procedures carried out for the electricity, gas and/or water supply of the neighbors will be counted (for

example, power changes, social bonus procedures, or elimination of extra maintenance services).

Number of efficiency or renewable projects

Number of energy improvement projects carried out with the support of the service. This indicator will include energy rehabilitation projects and new renewable energy installations.

Number of inhabitants impacted by counseling

Total number of citizens who have benefited from the advice offered by the program using this service. This is calculated by multiplying the number of households counseled by the average number of persons per household, or by asking each person counseled the number of persons living in the household, to obtain a more precise indicator.

Number of inhabitants impacted by project

Total number of citizens impacted by the projects. To calculate it, the number of households where a project has been carried out is multiplied by the number of people in each household.

In addition to these indicators, it can be very interesting to develop socioeconomic profiles of the people who use the services of the OSS. In this way, the communication and dissemination of the office can be focused to reinforce the use of existing groups or to encourage other groups to use it. Users could be segregated by gender, age, income bracket, whether they have a disability or physical or mental limitation, nationality, etc.

Economic impact indicators

The following indicators are proposed to calculate the annual economic impact (savings and benefits) reflected by the families advised/informed:

Annual amount of investment mobilized (€€€)

This indicator shows the expected investment mobilized in energy efficiency actions and/or renewable energy installations through the program in the municipality.

Expected savings through invoice optimization

Estimate of the annual savings in the utility bills of the residents advised as a result of the tariff modifications.

Number of grants awarded

The number of projects to which a subsidy has been granted when the OSS has participated in their processing or has advised users in their processing, as well as the amount granted to each one, will be recorded.

Environmental impact indicators

The following indicators are proposed to calculate the annual environmental impact:

Energy savings from energy efficiency projects (MWh/year)

Reduction of energy demand/consumption due to the reforms and projects carried out with the support of the service.

CO emissions reduction₂ (tons CO₂ /year)

Reduction of CO emissions₂ as a result of the projects and the advice given to families through the service. To make the calculation, it is only necessary to convert the previous indicator to CO₂ with a coefficient. Emissions data for the electricity mix are usually available from the Transmission System Operator (TSO) in each country.

Conclusion

Energy communities play a crucial role in the transition towards a more sustainable and equitable energy future. One-Stop-Shop (OSS) offices can play a pivotal role in promoting and supporting the development of energy communities. By providing comprehensive guidance and support on various aspects of energy management, OSS offices can empower citizens to take control of their energy needs and build a more sustainable and resilient energy future.

Our document covered and detailed some key recommendations for the successful implementation of OSS offices:

Establish clear and concise objectives: It is important to clearly define the goals and objectives of the OSS office in order to ensure that its resources are allocated effectively. The primary objective of OSS offices should be to promote and support the development of energy communities. However, it is also important to acknowledge that the path to fostering collective organization begins with empowering individuals in the realm of energy. Therefore, OSS offices should also provide individualized advice and guidance.

Develop a comprehensive service catalog: The OSS office should offer a wide range of services to meet the needs of different stakeholders. This may include services such as energy audits, financial advice, and technical assistance.

Build partnerships and network: OSS offices should collaborate with other organizations, such as local governments, energy utilities, and community groups, to leverage their resources and expertise. This will help to ensure that OSS offices can provide comprehensive and effective support to the community.

Communicate and engage with the community: OSS offices should actively communicate and engage with the community to raise awareness of their services and build trust. This can be done through a variety of channels, such as public meetings, workshops, and social media.

Monitor and evaluate performance: OSS offices must regularly monitor and evaluate their performance to ensure that they are meeting their objectives and delivering value to the community. This may involve collecting feedback from stakeholders and conducting surveys.

By following these recommendations, OSS offices can play a vital role in promoting and supporting the development of energy communities.