DISCOVER

D.4.3 Report on OSS Business Model

Co-funded by the European Union

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Deliverable Information Sheet

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AISFOR AGENA Agence Parisienne du Climat PIXEL energy BEZ GRANICA WITHOUT BORDERS RIJEKA IESDI

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List of Abbreviation and Acronym

Abbreviation	Meaning
CEP	Community Energy Projects
OSS	One-Stop-Shops
DSO	Distribution System Operator
PV	Photovoltaic
EC	Energy Community
REC	Renewable Energy Community
SW	Software
RLM	Real Life Modelling
CEP – RLM	Community Energy Projects Real Life Modelling
DSO	Distribution System Operator
ECASS	Energy Community Analysis and Simulation Services

Introduction

The European Commission has actively promoted the development of One-Stop Shops (OSS) through initiatives such as *Smart Financing for Smart Buildings* and the revised Energy Performance of Buildings Directive (Directive (EU) 2018/844). The revised Directive requires Member States to ensure access to effective, transparent, and user-friendly advisory mechanisms, including One-Stop Shops and energy advisory centres to support energy efficiency renovations and related financing opportunities.

Directive (EU) 2018/844, which amends Directive 2010/31/EU on the energy performance of buildings (EPBD) and Directive 2012/27/EU on energy efficiency (EED), explicitly advocates the use of One-Stop Shops as advisory and assistance tools. Recital 16 of the Directive highlights the need to improve access to financing for building renovations and identifies One-Stop Shops as a key mechanism to support this objective. Furthermore, the EPBD introduces a new Article 2a requiring Member States to establish a long-term renovation strategy, within which they are expected to facilitate access to mechanisms such as One-Stop Shops to inform and assist consumers on energy efficiency renovations and available financing instruments. In addition, Article 20(2) of the revised EPBD states that "*Member States shall provide the information through accessible and transparent advisory tools such as renovation advice and one-stop shops.*"

Since 2016, the European Commission has encouraged Member States to establish dedicated local or regional One-Stop Shops for project developers and homeowners, offering comprehensive support across the entire renovation journey. These services typically cover information provision, technical assistance, structuring and delivery of financial support, and the monitoring of energy savings. As a result, the number of integrated home renovation services has increased significantly, with the Commission identifying 61 One-Stop Shop providers in 2021. However, most existing initiatives focus primarily on improving the energy performance of building envelopes; only around 8% of the One-Stop Shops identified by the Commission also support the adoption of clean heating technologies or rooftop solar solutions.

One-Stop Shops are now a global phenomenon and developing fast, driven by digitalisation and growing customer demand. They are increasingly branching out beyond building renovation to other customer use cases such as community solar photovoltaics and battery storage, efficient electrified heating and cooling, and smart system optimisation. They have found niches in markets at different stages of policy development and with different levels of solar generation potential.

1. Overview

DISCOVER is an innovative LIFE project with the strategic aim of supporting the transition to a renewable energy-driven society. By fostering Community Energy Projects (CEPs), DISCOVER will empower stakeholders and citizens and mobilize significant investments in renewable energy generation in pilot regions across Europe. DISCOVER will catalyse the launch of CEPs in 5 diverse European regions respectively: in Austria, Bulgaria, Croatia, France and Italy. Local hubs will be set up to pilot innovative support mechanisms for CEPs. The hubs will deliver guidance and practical services on the technical, economic, financial and legal aspects and will help connect CEPs to local service and technology providers. The services will cover all developmental stages of CEPs, accompanying them throughout their entire lifecycle.

Considering the diverse socio-geographical-legislative and market maturity levels across these 5 pilot regions, DISCOVER follows a regionally specific approach with four local service hubs. On top of that, an interactive online tool will be designed to provide extensive support to local communities embarking on Renewable Energy Projects.

DISCOVER aims to simplify decision-making processes and reduce operational barriers by connecting projects with local service/technology providers and relevant authorities.

During the 3-year timeframe (2023 – 2026), DISCOVER is expected to reach more than 20,000 citizens, support 20 new initiatives (focusing on community PV installation), and trigger a total investment of more than 7.7 million of euros. The project will promote and facilitate the recreation of future service hubs in other regions to ensure replication across other European regions.

The DISCOVER consortium stands as a collaborative force spanning over five European countries, each committed to driving the vision of CEPs within their respective region. The consortium comprises active national / regional leaders in the CEP initiatives, well-connected to citizens, local authorities, and stakeholders.

1.1 WP4 “Implementation of community energy services in pilot hubs”

The goal of **WP4** is to establish four OSSs – one in each pilot region. Furthermore, piloting of the already selected new/advanced services will be done, followed by the implementation of the Interactive guidebook, a web version of the Specific guidebook developed under WP3 **(D3.4)** The activities are carried out in close cooperation with key stakeholders, following the methodology for stakeholder engagement **(D3.1)**. This guarantees that the services are developed according to the stakeholders' needs. There is one stakeholder selected as a development partner for each pilot region, who provides

consultations during all stages of the service development. Additional feedback is collected through questionnaires and organization of workshops. The stakeholder feedback is summarized in a stakeholder feedback report, **D4.1 "Summary of stakeholder feedback",** based on which the services are improved. The finalized services are described in detail and documented in **D4.2 "Documentation of final service".**

Once fully developed, the services will be integrated into the Interactive Guidebook – a web platform that makes the specific guidebooks accessible online. This requires representing the CEP lifecycle on an interactive homepage. The results are summarized in Extended Standardized Service Tool/Web-Platform **(D4.4).**

In implementing **Task 4.3**, relevant business models are assessed, and strategies for viable business cases are defined, using the results from EU projects such as INNOVATE and ECOEMPOWER. Furthermore, EU Guidelines for Community Energy OSS were considered, and the logical matrix of the Business Model Canvas was applied. Dedicated capacity is established, infrastructure and processes are set up, and networks and communication channels are consolidated. Personnel have undergone initial training on the DISCOVER CEP framework, and key stakeholders are informed to build familiarity and trust in the operations.

The table below illustrates the activities implemented in this Work package.

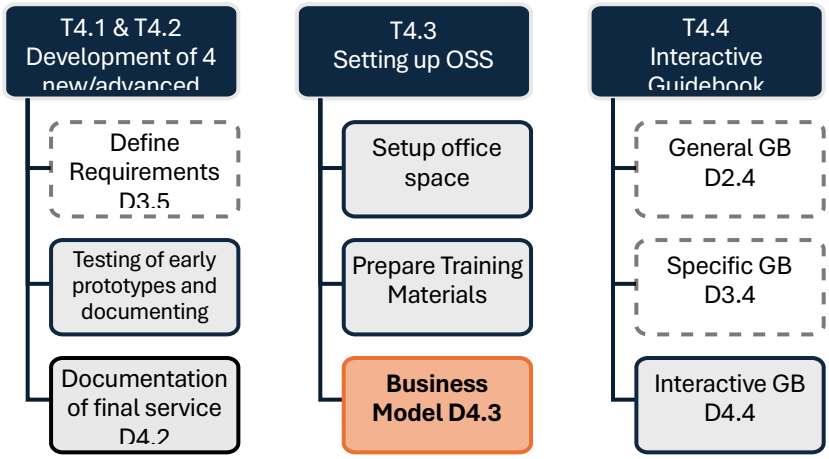

Figure 1: Overview of Activities and deliverables of WP4 (dashed boxes are precursors developed during previous WPs)

1.2 Overview of the document

This document constitutes Deliverable D4.3 "Report on OSS Business Model" produced under **Task 4.3 "Setting up OSS in pilot countries."** It presents a comprehensive overview of several studies and analysis on the typology and current developments of One-Stop Shops for energy efficiency and building retrofit, providing nowadays guidance for the establishment of OSS supporting energy communities in Europe.

The main part of the document covers the structure, operational design, and organizational arrangements of the four advisory hubs - One-Stop Shops (OSS) established by the project partners **APC, AGENA, Without Borders, and IESDI** in respective territorial context. The report outlines the key components, governance mechanisms, and advanced services adopted by each OSS, highlighting both common principles and context-specific adaptations.

The development of the OSS business models draws upon **the framewor**k established by the **INNOVATE project** and following t**he strategic approach of the ECOEMPOWER project.**

Building on **Energy Communities Repository Guidance**, the current report adapts this concept to DISCOVER specific objectives, target markets, and operational environments ensuring continuity with proven best practices while introducing innovations tailored to local needs and conditions.

1.3 Structure of the document

This document is organized into the following main chapters:

SECTION 2 - DESK RESEARCH ON OSS BUSINESS MODELS

This section provides an overview of key studies and resources related to One-Stop Shops for energy initiatives, covering their citizen-related aspects, business models, implementation guidelines, and best practices observed across different countries.

SECTION 3 **– GUIDANCE AND METHODOLOGY**

This section describes the methodological approach adopted by the project partners for the design and development of the OSS in the pilot countries.

SECTION 4 - DESCRIPTION OF THE DISCOVER OSS BUSINESS MODELS

This section outlines the **business models adopted across the four pilot One-Stop Shops**, describing their key operational features, revenue and funding structures, stakeholder roles, and how each model is adapted to its local context while supporting Community Energy Projects and Renewable Energy Communities.

SECTION 5 - OPERATIONAL ASPECTS OF THE OSS

This section describes the **operational setup of the DISCOVER One-Stop Shops**, outlining how the four OSSs in Bulgaria, France, Croatia, and Italy are embedded in their local institutional contexts, adapted to regional needs, and collectively deliver technical, administrative, and informational support to Community Energy Projects and Renewable Energy Communities.

1 Desk research on OSS in Europe

This report examines existing One-Stop Shops in several EU countries, based on a comprehensive review of relevant literature and the outcomes of projects addressing this area. It aims to provide inspiration and information for the set-up of energy community One-Stop Shops in pilot countries based on existing examples and previous work carried out on the subject.

2.1 Customer-Focused Dimensions of the OSS

Customers are becoming central actors in modern energy systems. As new technologies become more affordable, they can now generate, consume, store, and share renewable energy themselves. Supporting customers to adopt these solutions benefits everyone: it accelerates climate action, lowers energy bills, and strengthens the reliability of power grids. These benefits are even greater when technologies are combined across homes, vehicles, and the wider grid, into an integrated renewable energy system.

To make this transition, customers need meaningful support. They require clear, trustworthy information about available options, reliable providers, and potential benefits. They also need help purchasing and installing technologies such as solar panels, batteries, smart meters, heat pumps, and electric vehicles. In addition, customers need guidance on using digital tools that connect and optimise these systems, as well as access to the best tariffs and market offers to save—or even earn—money.

In response, One-Stop Shop initiatives have emerged to simplify the process. These services typically offer a comprehensive package, including information, technical and financial advice, access to financing, coordination of installation, and ongoing support for maintenance, monitoring, and consumer protection.

One-Stop Shops are being developed by a wide range of actors, including public authorities, consumer advocacy organisations, and private companies - from utilities and software providers to microfinance institutions. Despite their diversity, all One-Stop Shops share a common feature: they support customers across multiple stages of their journey and across a range of technologies and services. They can be divided into two main categories:

- **Independent advisory One-Stop Shops** hosted by governments or customer organisations. They play a key role in raising customer awareness, orienting them towards the best solutions, and building confidence in the marketplace.
- **Commercial One-Stop-Shops**, transforming a complex and burdensome set of decisions and actions by non-expert customers into a streamlined, single-entry proposition.

Five main types of OSS are recognised in Europe and worldwide:

1. **Advisory One-Stop Shops** whose primary function is to raise customer awareness and provide tailored advice.
2. **Coordination One-Stop Shops** that organise existing market actors, for example through an online marketplace, a software platform, or a collective purchasing scheme.
3. **Pay-install-own One-Stop Shops**, which offer a holistic commercial package to households that want to purchase and install technologies. The customer signs a contract with the one-stop-shop, which bears responsibility for the results of the installation.
4. **As-a-Service One-Stop-Shops** which offer a holistic commercial package to households that want install and use technologies without the need for an up-front purchase. The one-stop-shop bears responsibility for monitoring, maintenance, and repair as well as installation.
5. **Integrated energy supply One-Stop-Shops.** Established by Energy utility, independent aggregator or electricity market trader they bear responsibility for the household's grid-connected electricity supply, or for the payment of the electricity bill.

ONE-STOP-SHOP MODEL	ROLES AND RESPONSIBILITIES	TYPICAL PROVIDER	IDEAL CONSUMER TYPE
1. ADVISORY	Raise consumer awareness. Provide tailored advice. Recommend products and suppliers.	Government agency Civil society organisation Energy utility	Consumers at orientation stage who seek information. Motivated consumers who intend to organise purchases on their own.

2. COORDINATION	Organise existing market actors, for example via an online marketplace, software platform, or collective purchasing scheme. Limited responsibility for the result of the installation.	Government agency Civil society organisation Energy utility	Consumers who seek some technical and financial support but want to retain ownership over their project.
3. PAY-INSTALL-OWN	Offer a holistic package to households to purchase and install technologies. Bear responsibility for the result of the installation. Typically facilitate access to financing. Limited responsibility for maintenance and repair	Installers. Microfinance institutions.	Consumers who seek assistance all along the installation journey. Consumers that can afford the up-front cost or can access financing.
4. 'As A Service'	Offer a holistic package to households to install and use technologies under a rental agreement Bear responsibility for ongoing operation, maintenance, and repair as well as installation.	Diversifying installer business. Specialist non-profit organisation.	Consumers who seek assistance all along their journey, including post-purchase. Consumers who cannot afford to make up-front payment or easily access financing.
5. INTEGRATED ENERGY SUPPLY	Bear responsibility for grid-connected energy supply or of the payment of the energy bill. Often make a time-limited guarantee of zero electricity bills. May offer some of the typical one-stop-shop installation services above.	Energy utility. Independent aggregator. Electricity market trader.	Consumers who want to have complete peace of mind are happy to give up a degree of control and data.

***Table 1**. Five types of One-Stop-Shop, their roles and responsibilities, and typical providers and customers,* [1]

Three unique features/capacities characterise the One-Stop-Shops:

- **Coordination.** One-Stop-Shops serve as central hubs within a fragmented stakeholder landscape, ensuring a steady project pipeline for suppliers and fostering collaboration among diverse market participants - from installers and financial institutions to grant-awarding bodies.
- **Accreditation.** One-Stop Shops build customer trust by conducting product testing, certifying installers, and enforcing strict contractual standards. Their accreditation of installation works can also play a key role in enabling customer access to financing.

[1] https://www.consumersinternational.org/media/499031/consumers-international-one-stop-shops-report-english.pdf

- **Aggregation.** By pooling customer demand, One-Stop Shops generate economies of scale and simplify access to financing, creating a more efficient and cost-effective market environment.

The novel typology for classifying One-Stop-Shop initiatives is primarily based on two dimensions: **the extent of support provided throughout the customer journey** and **the degree of responsibility** assumed by the One-Stop Shop for system installation and operation. One-Stop-Shops deliver integrated, end-to-end services that facilitate the adoption of renewable energy and energy efficiency solutions, including awareness-raising, tailored advice, access to products and technologies, coordination of installation, financing support, performance monitoring, and ongoing maintenance.

The first two types - **Advisory and Coordination** do not require customers to enter into a commercial contract with the One-Stop Shop. These services are typically delivered by independent, non-commercial organizations, such as government agencies or consumer associations. In some cases, energy utilities also operate Advisory or Coordination One-Stop-Shops. Although their involvement is not primarily profit-driven, they may provide these services to strengthen customer relationships or to comply with regulatory obligations, for example by supporting customers in the purchase of energy-efficient appliances from third-party suppliers.

In contrast, One-Stop Shops of types three to five **are commercial in natu**re and offer comprehensive, all-inclusive service packages. These models enable customers to assign full responsibility for the project to a single provider, covering all stages from initial planning through installation and operation. By consolidating what is typically a fragmented and complex process, these all-in-one solutions reduce technical and administrative burdens and transform the customer's journey into a streamlined, user-friendly experience.

This approach replaces the traditional “atomised model,” in which property owners must independently manage multiple stages of a complex value chain and coordinate with numerous stakeholders. A commercial One-Stop Shop instead assumes responsibility for the full process, often in collaboration with partners, and acts as the customer’s single point of contact.

As illustrated in ***Figure 2***, this model can significantly streamline the customer's journey by coordinating all stakeholders and delivering both information and project management through one channel.

A healthy market should include a mix of **independent** and **commercial** One-Stop-Shops. Customers need trustworthy, impartial advice free from commercial bias, as well as access to commercial providers offering efficient, affordable, and integrated solutions.

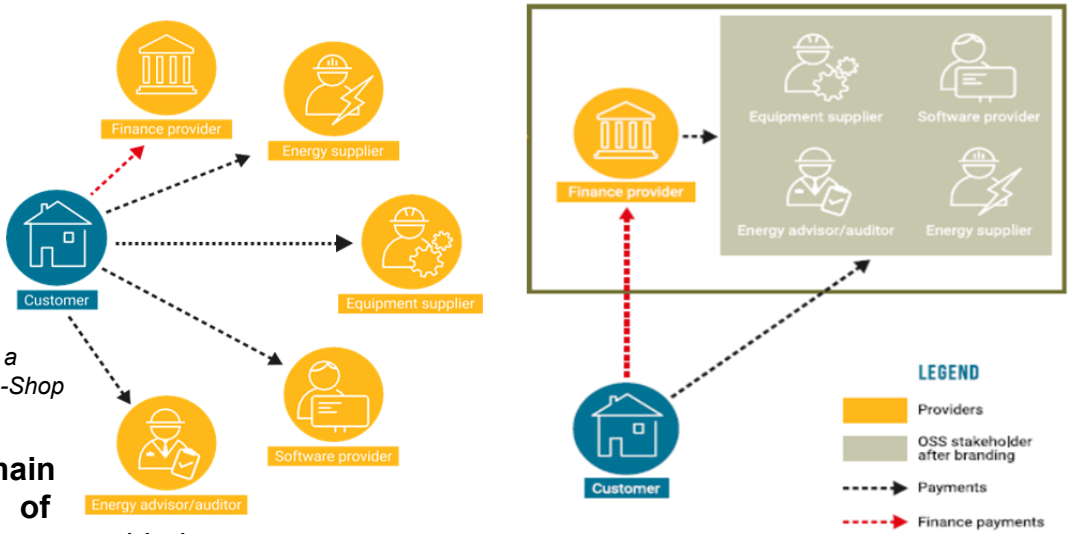

Figure 2. *Moving from the atomised market to a One-Stop-Shop solution*

The main types of activities provided by the OSS are classified in six main categories as shown below:

Awareness and understanding	Awareness-raising of the benefits of customer renewable systems. Customized recommendations for relevant measures and technologies. Provision of online calculators to estimate potential future financial or emissions savings. Preliminary analysis, such as home energy audits. Development of a roadmap aimed at deep renovation. Recommend certified suppliers and installers.
Availability of affordable and attractive solutions	Bundling of different goods and services into an off-the-shelf product. Solicit competitive bids from qualified contractors and suppliers on behalf of the customer. Product testing to ensure the solutions offered are of high quality and competitively priced. Collaboration with original equipment manufacturers to ensure products are interoperable and can be controlled using smart technology.
Investment	General advice on existing financing options for which the homeowner is eligible (subsidies, tax credits, energy efficiency certificates, etc.). Application for rebates, grants, and incentives on behalf of the customer. Provide custom project documents, guarantees, or financial plans that a bank can use to evaluate the project quickly. Provision of own financial product or one negotiated partner financial institutions that consider achieving energy savings or from energy efficiency or zero marginal cost generation. Set-up of a local incentive scheme if one-stop-shop supported by local authorities e.g. a local revolving fund.
Installation	Coordination of different stages and actors involved in installation and quality control. Training local suppliers to ensure the quality of installation.

	Accreditation of 'quality' suppliers and installers. Verification that the works have been carried out to the expected standard.
Use	Post-installation monitoring of system operation and efficiency. Interface to understand savings and consumption patterns, e.g. a mobile app. Aggregate and trade flexibility products in electricity markets on behalf of customers.
Maintenance, repair, and redress	Guarantee of results, savings, or quality. Follow-up on manufacturer warranties on behalf of customers. Coordinate redress or complaints process on behalf of customers. Take full responsibility for maintenance and repair, in the case of an as a service model

Table 2. *Activities, performed by OSS*

The six categories - awareness and understanding, availability of solutions, investment, installation, use, and maintenance - illustrate **a holistic approach designed to simplify and accelerate the energy transition for households and communities.**

OSSs not only raise awareness and provide tailored advice but also ensure access to high-quality, affordable, and interoperable solutions. They facilitate financing by assisting with applications for incentives and by offering or negotiating dedicated financial products. Furthermore, they coordinate installation and quality assurance processes, train and accredit local suppliers, and monitor system performance post-installation. Finally, OSSs ensure long-term customer satisfaction through maintenance, repair, and complaint management, often under performance guarantees or "as-a-service" models.

Overall, the **OSS framework integrates technical, financial, and customer support functions into a single, streamlined process.** This integrated approach significantly reduces complexity and perceived risk for end users, thereby enhancing trust, improving energy efficiency outcomes, and fostering large-scale adoption of renewable energy solutions.

2.2 Synergies and challenges of the OSS for Energy Communities within the EU

In April 2024, Sciences Po, the French Institute for Political Sciences published a study exploring the service design attributes, synergies, and challenges of the One-Stop Shops for energy communities within the European Union. The research demonstrates how these OSSs facilitate energy communities' establishment, operation, and growth through centralized, tailored services.

The document identifies **52 OSSs in total**. Eight of the 52 are EU-wide initiatives. The next largest represented geographic area is Spain, with six OSSs, followed by Italy and France,

with five each. Overall, **27** countries are identified as Western European, and **16** were Eastern European.

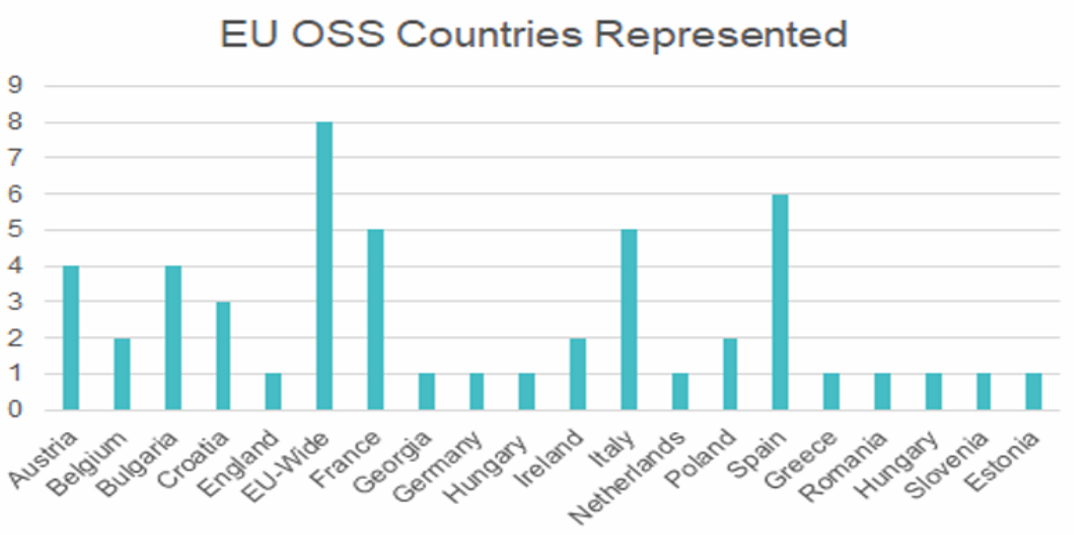

Figure 3: *EU countries represented in OSS repository,*[2]

The services offered by these One-Stop Shops are categorized as follows:

- providing **only information** to the customer looking to create an energy community,
- providing **information and customized advice** and recommendations,
- providing **direct technical assistance** as related to the implementation of the energy community, and finally, financial support in the creation of the OSS.

As illustrated in ***Figure 4***, there is significant variation in the scope of services provided. Slightly more than one-third of the OSSs offer **all four types of services**, while another third limits their role to providing **information only**. Of the remaining OSSs, about half combine **information and advisory support**, and the rest extend their services to include **technical assistance but not financial support**.

[2] *One-Stop Shops for Energy Communities*

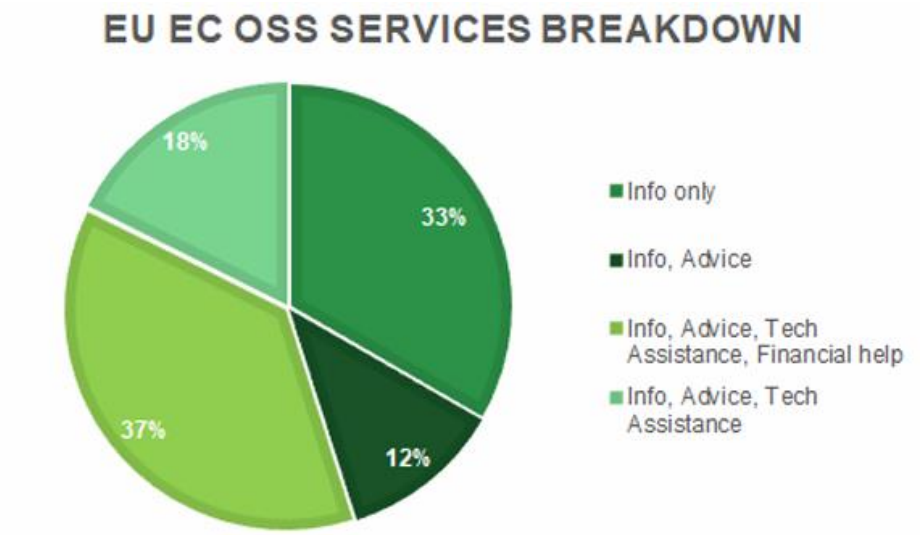

Figure 4: *Types of Services provided by the OSS*

The study groups the services offered by the OSS for energy communities into three categories – **advice, support, and implementation**

- **Advice:** This category involves providing information-based guidance. The advice may not always be explicitly tailored to individual needs; It offers a general diagnosis and supplies open-source tools.
- **Support:** In this category, OSSs offer personalized advice, often engaging in project design and closely supervising the energy communities they work with.
- **Implementation:** This category entails active involvement in both project design and execution. OSSs in this category provide direct technical assistance and tailored advice. Site visits and physical presence are more likely with the implementation model.

The table below presents the categories of services provided by the OSS. The DISCOVER project is also included in this analysis. Only 20% of the samples apply a support model; another 20% follow an advice model, while the majority adopt the implementation model.

Table 3: *Interviewed OSSs for Energy Communities by Operational Classification*

ADVICE	SUPPORT	IMPLEMENTATION
• UP-STAIRS (IRELAND) • COMANAGE	• ACCE • POWER-E-COM • FAEN	• DISCOVER • SCCALE 203050 • UP-STAIRS (SPAIN, AUSTRIA, BULGARIA) • RESCOOP • ENCOM HUB

In addition to the OSS, the mapping identifies study challenges several the affecting effectiveness and sustainability of One-Stop-Shops and energy communities:

- **Economic Model:** Stable subsidies and project pipelines are critical for OSS sustainability and the development of the sector.
- **Policy Consistency:** Frequent policy changes and subsidy cuts create uncertainty and hinder OSS continuity.
- **Political Conflicts:** Governance disputes and regional or political changes can disrupt OSS operations.
- **Overlapping OSSs:** The presence of multiple OSS initiatives leads to inefficiencies, delays, and coordination challenges, highlighting the need for streamlined cooperation.

The role of DSOs also presents a challenge, as the proliferation of their energy-sharing products positions them as competitors to CECs, which have less capacity to scale and are disadvantaged when negotiating grid access.

The study emphasizes that **ensuring OSS sustainability requires consistent political support and long-term subsidies,** alongside effective cooperation among OSS entities through resource sharing, standardized processes, and centralized tools to maximize efficiency, foster innovation, and support community-driven renewable energy initiatives.

2.2. Best practices from EU projects

1.1.1 ECOEMPOWER project

ECOEMPOWER is a project under LIFE-2022-CET-ENERCOM with a main goal to support regional authorities in facilitating the creation and development of energy communities by establishing One-Stop Shops.

The ECOEMPOWER project outlines a structured process for establishing and operating OSS to support energy communities, divided into two main phases: **Preparation and Operational.**

During the **Preparation Phase**, the process begins with the mobilisation of stakeholders, engaging local authorities, citizens, and experts through focus groups, bilateral meetings, and site visits to gather needs and ideas. This step also secures the commitment of key actors who will contribute to the OSS creation. Next, stakeholders collaboratively design a strategic plan, identifying the human, technical, and financial resources required, defining tasks and timelines, and jointly drafting the plan to ensure shared ownership and alignment with regional contexts.

In the **Operational Phase**, the OSS is formally launched following the adoption of the strategic plan. This includes setting up an online platform and implementing initial services that provide guidance, tools, and coordination for emerging energy communities. The OSS then delivers a broad service offering, combining physical support (e.g., in-person consultations and workshops) with online assistance and resources, guided by a service roadmap. Over time, the OSS evolves through continuous feedback, expanding its services and strengthening its role as a long-term enabler of citizen-led energy initiatives.

This process is presented in the figure below:

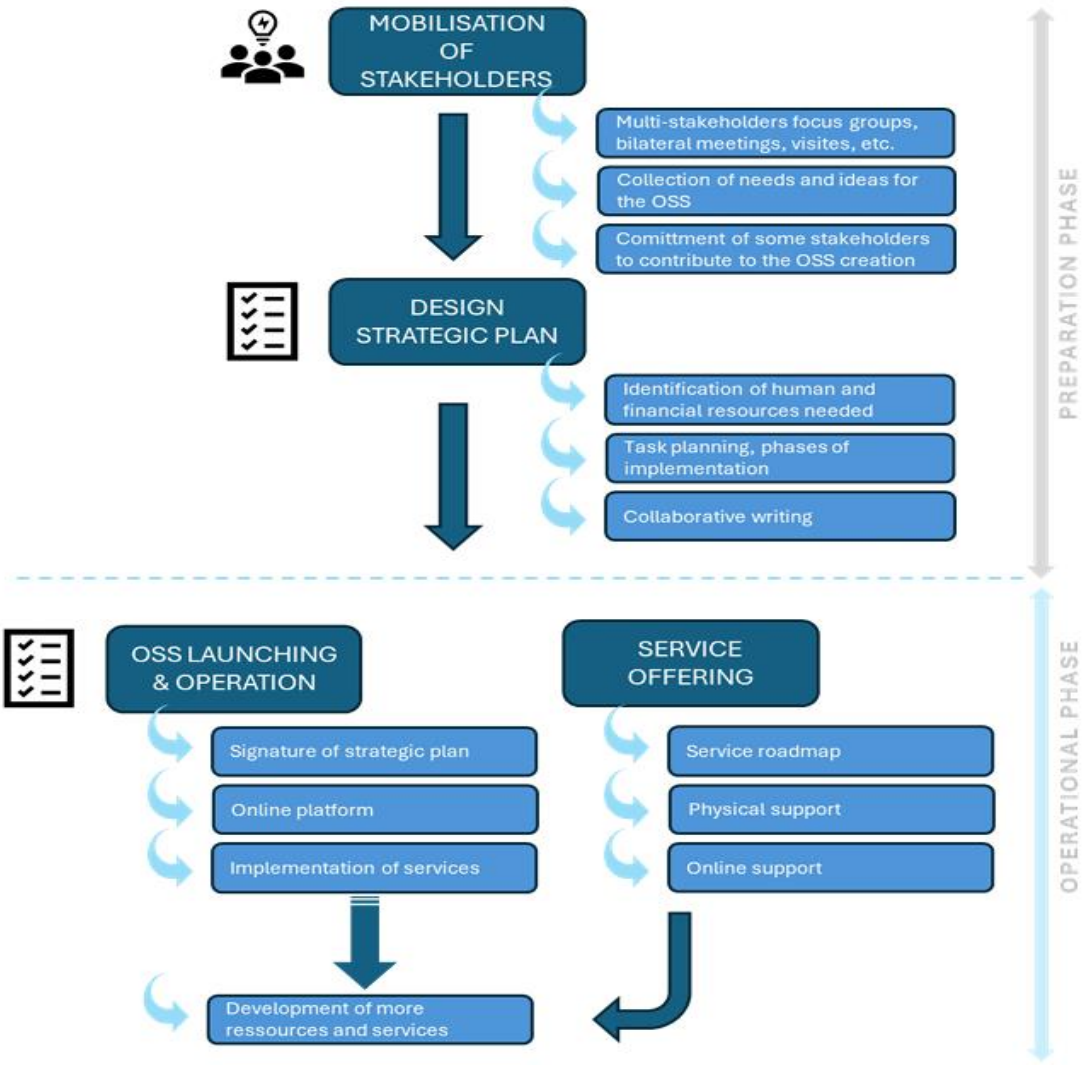

Figure 5: *Main step to create a One-Stop Shop for Energy communities, identified in ECOEMPOWER project, Source: https://ecoempower.eu/data/ECOEMPOWER_D5.3_Online_guidelines.pdf*

The key point in the methodology of ECOEMPOWER is the strategic plan as a roadmap describing the development and operation of the future OSS. It should:

- **Define the TARGET AUDIENCE:** citizens, energy communities, businesses, municipalities, and other relevant stakeholders.
- **Specify the SERVICES:** integration of existing tools, creation of dedicated tools or services, networking initiatives, training programs, and related activities.
- **Determine the FOCUS AREAS:** renewable energies, energy efficiency, sustainable mobility, as well as technical, legal, and financial support.
- **Estimate the BUDGET and REQUIRED RESOURCES:** human resources, subcontracting needs, initial deployment, and ongoing maintenance.

- **Establish GOVERNANCE STRUCTURES:** stakeholder associations, independent or internal entities, and management frameworks.
- **Develop a DEPLOYMENT PLAN:** define the timeline, key milestones, and implementation phases.

1.1.2 INNOVATE project

The INNOVATE project (H2020) developed and tested business models for One-Stop Shops that facilitate energy-efficient retrofits of private housing stock. The OSS is an integrated service platform, coordinating multiple market actors (contractors, financial institutions, suppliers, public authorities) to reduce complexity for end users and increase renovation uptake. INNOVATE project identifies four types of business models, as shown in ***Figure 3*** below. The main difference between them is the responsibility the OSS bears for the result of the renovation works and for the overall customer journey.

Business model	Roles & responsibilities	Practical example of what the one-stop-shop offers to homeowners
1 Facilitation model	• Raise awareness on energy renovation benefits • Provide general information on optimal renovation works • First advice at the 'orientation stage'	It advises on how to renovate your house and can provide you with the list of suppliers.
2 Coordination model	• Coordinate existing market actors (suppliers) • Make sure all one-stop-shop services are offered to homeowners • No responsibility for the result of renovation works (only overlooking the whole process) • No responsibility for the overall customer journey (just the first part)	It advises on how to renovate your house and will push suppliers to comply with their promises. Suppliers remain responsible for the final result.
3 All-inclusive model	• Offer a full renovation package to homeowners • Bear responsibility for the result of renovation works • Bear responsibility for the overall customer journey	The one-stop-shop is a contractor that sells you the whole service package and is your main contact point in case something goes wrong with suppliers.
4 ESCO-type model	• Offer a full renovation package with guaranteed energy savings to homeowners • Bear responsibility for the result of renovation works • Bear responsibility for the overall customer journey	The one-stop-shop sells you the renovation package and guarantees the energy savings for the contract duration. The one-stop-shop is paid through energy savings achieved.

Table 4: *Overview of INNOVATE business models, Source: INNOVATE_guide_web.pdf*

As shown before, the main difference between these models is **the level of support provided by the OSS provider in the overall customer journey** and the risk the OSS must take regarding the results of the renovation work.

The **Facilitation model** aims to raise house owners' awareness of the benefits of energy renovation, provide general information on the measures to be adopted, and suggest potential supply-side actors that could deliver the renovation work Hence, this model is suitable for self-motivated homeowners seeking information/advice from a trustworthy source. This model exists or being developed in various European municipalities, but its impact on the renovation of privately-owned buildings is limited.

In the **Coordination model,** the OSS provider provides relevant information to the homeowner and coordinates the different supply-side actors to deliver the renovation. The homeowner signs contracts with different supply-side actors, and therefore, the OSS provider does not take any risk towards the renovation work.

In the **All-inclusive model**, the OSS provider takes the full responsibility and risks of the complete renovation but does not sign any contractual agreement regarding the level of energy savings.

The **ESCO model** is similar to the all-inclusive model but includes guaranteed energy savings. This model has been in multi-family residential buildings it is still a model whose application parameters are still being investigated for the detached house segment.

1.2 Snapshot of existing One-Stop Shops in pilot countries

1.2.1 Bulgaria

The absence of a single, dedicated office where citizens can access competent and comprehensive information on opportunities for implementing energy-efficiency and renewable-energy projects remains a significant barrier to the development of such initiatives in Bulgaria. Individuals interested in pursuing these projects often abandon their efforts or spend an excessive amount of time searching for reliable information, understanding the regulatory landscape, and obtaining qualified advice.

Across Europe, many successful examples of “One-Stop Shops” provide centralized information, consultations, and services. Local authorities could greatly support citizens by taking the initiative to establish similar units in their municipalities. However, doing so requires not only securing funding but also addressing the even greater challenge of attracting qualified experts. Because the topic is multidisciplinary, it demands expertise across a wide range of fields.

In November (2025), the Parliamentary Energy Committee adopted amendments to the Energy Efficiency Act that provide for the creation of a National Decarbonization Fund under the National Recovery and Resilience Plan, with the support of the European Commission’s Directorate-General for Structural Reform Support and in cooperation with the European Investment Bank,

The new structure has two components: one, a financial instrument supporting the renovation of Bulgaria’s building stock, including both multi-family and single-family residential buildings and second – **supporting the establishment of energy communities** across the country.

A key objective is the establishment of a **national technical assistance hub operating under a "One-Stop Shop" model,** which will facilitate citizens', municipalities', and businesses' access to expert and administrative support. The Fund will have secured financing for the next five years, and its operations will follow the guidelines and best practices of the Organisation for Economic Co-operation and Development (OECD).

In Bulgaria, there are several technical assistance OSSs, created under different EU projects, predominantly both physical and virtual.

N	Name of the OSS	Funding instruments	Governance / Ownership	Scope	Customer Segment	Business Model	Technical Focus	Scale	Delivery Style	web-site
1	OSS for Supporting Energy Community **(LIFE-BECKON)**	LIFE porgramme	Private OSS (Company-run; paid services)	As-A-Service	Municipal sites, Industrial complexes, Commercial sites, Residential buildings, Other	Digital platfrom	Community Energy	National	Digital/Online	https://www.oss-energy-community.eu/
2	OSS for Energy Efficiency, Renewable Energy and Energy Communities for the **PLOVDIV Region**	Private funding	Private OSS (Company-run; paid services)	Advisory/Facilitation	Municipal sites, Residential buildings, Commercial sites, Other	Utility led, Digital platfrom	RES, Community Energy, Hybrid deep renovation	Regional	Walk in/ Physical office	https://www.eap-save.eu/?m=68&lng=EN
3	OSS **Rhodoshop (covering Rhodope region) - under UP-STAIRS project**	Horizon programme	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation	Residential buildings, Municipal sites	Digital platfrom, Other	RES, Hybrid deep renovation	Regional	Walk in/ Physical office, Digital/Online	https://www.h2020-upstairs.eu/pilot-regions

4	OSS **ASEN (covering Asenovgrad region) - under UP-STAIRS project**	Horizon programme	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation	Residential buildings, Municipal sites	Digital platfrom, Other	RES, Hybrid deep renovation	Local	Walk in/ Physical office, Digital/Online	https://www.h2020-upstairs.eu/pilot-regions
5	OSS DISCOVER Sofia (IESDI)	LIFE porgramme	Private OSS (Company-run; paid services)	Advisory/Facilitation, Coordination	Municipal sites	Utility led, Digital platfrom, Finance led, Installer led	Community Energy	National	Walk in/ Physical office, Digital/Online	https://institute-esdi.org/one-stop-shop

1.2.2 Croatia

Croatia's energy community landscape is in an emerging phase, with growing interest from citizens, municipalities, and civil society organizations in developing renewable energy communities. The country has transposed the EU directives on renewable energy communities (RED II) and citizen energy communities (IEMD) into national legislation, creating a legal framework for community-led energy initiatives. However, significant practical barriers remain, including limited awareness, complex administrative procedures, hostile DSO operator and a shortage of accessible support services and tools.

Prior to the DISCOVER project, Croatia lacked dedicated organisations and comprehensive support mechanisms for monitoring and facilitating energy community projects. Most existing support initiatives were limited to NGO led basic educational materials or rudimentary Excel-based tools. This gap in the market highlighted the need for an integrated, professional One-Stop-Shop that could provide end-to-end support throughout the energy community lifecycle.

In such a situation, until the opening of the Croatian OSS led by **Without Borders** through the **DISCOVER** project, there was **not a single OSS in Croatia that dealt with the subject of CEPs**.

In Croatia, through **three LIFE projects - CrossrenoHome, CROSS and ReHabita**, **five OSSs were organized**, which primarily deal with the topic of energy renovation. One of them additionally address energy poverty and another OSS address the installation of photovoltaic power plants on buildings undergoing energy renovation. None of them deal with the topic of CEPs.

This Coordination model is particularly appropriate for Croatia's current stage of energy community development, where the primary need is to build awareness, develop capacity, and establish connections between interested citizens and the emerging ecosystem of service providers.

N	Name	Funding instruments	Governance / Ownership	Scope	Customer Segment	Business Model	Technical Focus	Scale	Delivery Style	web-site
1	Energy Restoration in One Place	LIFE programme	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation, Coordination	Residential buildings	Coordination	Hybrid deep renovation	Regional, Local	Walk in/ Physical office	https://crossreno.door.hr/en/
2	OSS Križevci	LIFE programme	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation, Coordination	Residential buildings	Coordination	Hybrid deep renovation	Regional, Local	Walk in/ Physical office	https://crossreno.door.hr/en/
3	ZEC - Zagreb Energy Center	LIFE programme	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation, Coordination	Residential buildings	Coordination	Hybrid deep renovation	Local, Regional	Walk in/ Physical office	https://crossreno.door.hr/en/
4	CROSS OSS	LIFE programme	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation, Coordination	Municipal sites	Coordination	Hybrid deep renovation	Regional, Local	Walk in/ Physical office	https://cross.regea.org/
5	ReHABITA Office	LIFE programme	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation, Coordination	Residential buildings	Coordination	Hybrid deep renovation	Local, Regional	Walk in/ Physical office	https://www.door.hr/project/life-rehabita/

6	Citizen Energy Projects DISCOVER One Stop Shop Rijeka	LIFE porgramme	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation, Coordination	Residential buildings, Municipal sites, Commercial sites	Coordination	Community Energy	Regional, Local	Walk in/ Physical office	https://energija.bezgranica.hr/u-rijeci-je-otvoren-prvi-centar-za-potporu-energetskim-projektima-gradana/

1.2.3 Italy

In Italy, the One-Stop Shop (OSS) model for energy efficiency has developed over recent years as a concrete response to the need to simplify energy renovation processes. Among the most established experiences are Easier, the Energy Desk of the Municipality of Padua, and the Energy Desk of the Piedmont Region—initiatives created and strengthened thanks to Horizon European projects. The Padua Energy Desk, active since 2013, is an emblematic example: it has progressively expanded its services through successive EU initiatives, becoming a key reference point capable of offering guidance, technical–economic assessment of interventions, support in identifying financing opportunities, and administrative assistance throughout all phases of the renovation process. This integrated approach facilitates the matching between supply and demand, ensures high-quality interventions, and contributes to the growth of local economies, in line with national and European energy goals.

At the same time, Italy has also seen the emergence of dedicated desks for Renewable Energy Communities, a development accelerated by the 2021 transposition of EU directives on Renewable Energy Communities (RECs) and Citizen Energy Communities (CECs). The regulatory pathway—marked by a long experimental phase and significant administrative complexity—led only in July 2025 to the establishment of an almost final implementation framework. Uncertainty, combined with the need to make use of available incentives (i.e. NRPP capital grant), has driven the creation of specialized OSS capable of providing technical, administrative, training support for the establishment and development of energy community projects. The role of these one-stop shops is further reinforced by the EU Solar Energy Strategy, which highlights the need for them to provide clear and integrated information on energy efficiency and solar projects, thereby improving transparency and building trust among citizens, SMEs, and investors.

The strengthening of OSS also stems from the new European regulatory framework. The Energy Efficiency Directive (EED 2023/1791) requires Member States to activate local one-stop shops to promote efficient energy use among businesses and citizens, offering streamlined advisory services to support the energy transition. The Energy Performance of Buildings Directive (EPBD 2024/1275) builds on and expands this mandate, making services dedicated to building renovation mandatory and defining specific requirements to ensure their effectiveness. In this perspective, OSS become essential tools for achieving the European objective of a fully decarbonized building stock by 2050, supporting communities, professionals, and public authorities throughout a sustainable and inclusive transformation process.

N	Name of the OSS	Funding instruments	Governance / Ownership	Scope	Customer Segment	Business Model	Technical Focus	Scale	Delivery Style	web-site
1	Renewable Energy Communities Help Desk	National funding	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation	Residential buildings, Commercial sites, Municipal sites, Industrial complexes	Other, Facilitation	Community Energy	Regional	Walk in/ Physical office, Digital/ Online	https://energia.regione.emilia-romagna.it/comunita-energetiche
2	RECROSSES project	Other, Interreg	Public OSS (National/Municipal operation; free advisory)	Coordination	Residential buildings, Industrial complexes, Municipal sites	Other, Coordination, Digital platfrom	Community Energy	Regional	Walk in/ Physical office, Digital/ Online	https://www.sportelloenergia.envipark.com/recrosses/

3	RENOSS	National funding	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation	Residential buildings, Commercial sites, Industrial complexes, Municipal sites	Digital platfrom, Other, Facilitation	Community Energy	National, Local	Walk in/ Physical office, Digital/ Online	https://www.renoss.it/r
4	EASIER	LIFE porgramme, Other	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation	Residential buildings	Utility Led	Hybrid deep renovation	Local	Walk in/ Physical office	https://www.sportelloenergiaparma.eu/il-progetto-easier/
5	Energy Desk Padova	Other , National funding , Horizon programme	PPP (Shared public–private governance)	Coordination	Residential buildings	Other, Coordination	Hybrid deep renovation	Local	Mobile/ Outreach	https://www.sportelloenergiapadova.it/
6	Energy Desk	Horizon Programme	Public OSS (National/Municipal operation; free advisory)	Coordination	Residential buildings	Other, Coordination	Hybrid deep renovation	Regional	Walk in/ Physical office, Digital/ Online	https://www.sportelloenergia.envipark.com/

1.2.4 France

The development of energy communities in France, although still in its early stages, has seen a significant acceleration in recent years. Since 2018, French law has transposed European directives through legislation known as *collective energy self-consumption*. Initially driven by particularly proactive citizen groups throughout the country, there are now 1,200 projects of this type, which are beginning to become more professional. This momentum looks set to strengthen in the coming years, particularly due to the state's disengagement from the development of renewable energies. The sector is now turning to energy community models, which have been chosen to ensure the viability of projects,

including their economic viability. However, the legal, financial, and operational complexity of this recent model is still preventing projects from becoming widespread.

To this end, the French landscape of OSSs, initially built around expertise in building renovation, is now seeking to include support for the deployment of renewable energy installations among new stakeholders such as municipalities and condominiums. At the same time, it is undertaking a collective effort, supported by both public and private professional stakeholders, to develop tailor-made technical, legal and financial solutions within the legislative framework to create communities around these new installations.

These stakeholders include public institutions such as the national network of ALECs (local energy and climate agencies), of which the APC is a member, and regional metropolitan authorities, which provide initial advice and project framework within their localities. In this sense, they cover the initial costs of assessing opportunities to remove any obstacles to initiatives. In addition, the citizen association network continues to support the most advanced project collectives. Finally, professional OSSs work on proposals for project development when these enter their operational phase, as well as on tools useful for the life of these energy communities.

In this emerging context, project development in dense urban areas is a blind spot, particularly due to a lack of collective awareness and significant architectural constraints in cities. The city of Paris is one of these crucial locations due to its significant energy potential (particularly photovoltaic) but also because of its national visibility, which allows demonstration projects to be highlighted. Through DISCOVER, the APC has taken on the challenge of responding to this issue. The association benefits from a first-rate local presence, enabling it to reach this target audience. Its OSS, already active for 10 years in renovation under architectural constraints, is now adapting with a new service developed as part of DISCOVER. Through this service, it aims to promote energy communities in Paris and support their implementation.

N	OSS' Name	Funding instruments	Governance	Scope	Customer Segment	Business Model	Technical Focus	Scale	Delivery Style	web-site
1	Alec POLD	National funding	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation, Coordination	Residential buildings, Municipal sites	Digital platfrom	RES, Hybrid deep renovation, Community Energy	Local	Walk in/Physical office, Digital/Online	ALEC POLD - agence locale de l'énergie et du climat de Paris Ouest La Défense - Agence locale de l'énergie et du climat de Paris Ouest La Défense

2	Energie partagée	National funding , Other	Other	Advisory/Facilitation, Coordination	Residential buildings, Commercial sites, Municipal sites, Other	Digital platfrom, Finance led	RES, Community Energy	National, Regional, Local	Digital/Online, Mobile/Outreach	https://energie-partagee.org/
3	Centrales villageoises	National funding, Other	Citizen owned	Advisory/Facilitation, Coordination	Residential buildings, Commercial sites, Industrial complexes, Municipal sites, Other	Digital platfrom	RES, Community Energy	National, Local	Walk in/ Physical office, Digital/Online	L'Association des Centrales Villageoises | Site Centrales Villageoises
4	DDT Vaucluse	National funding	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation, Coordination	Residential buildings, Commercial sites, Industrial complexes, Municipal sites, Other	Digital platfrom	RES, Hybrid deep renovation, Community Energy, Other	Regional	Walk in/ Physical office, Digital/Online	Le photovoltaïque en Vaucluse - Transition énergétique, énergies renouvelables - Transition écologique et prévention des risques - Actions de l'État - Les services de l'État en Vaucluse
5	Lille Métropole	National funding	Public OSS (National/Municipal operation; free advisory)	Advisory/Facilitation, Coordination	Residential buildings, Commercial sites, Municipal sites, Industrial complexes, Other	Digital platfrom	RES, Hybrid deep renovation, Community Energy, Other	Local	Walk in/ Physical office, Digital/Online	MEL : Participer à une démarche groupée - Solaire en Nord

6	Enogrid	Private funding	Private OSS (Company-run; paid services)	Advisory/Facilitation, Coordination, As-A-Service	Residential buildings, Commercial sites, Industrial complexes, Municipal sites	Digital platform, Finance led, Other, Installer led	Community Energy	National	Walk in/Physical office, Mobile/Outreach, Digital/Online	Enogrid | Projet en autoconsommation collective
7	Sereny SUN	Private funding	Private OSS (Company-run; paid services)	Advisory/Facilitation, Coordination, Pay-Install-Own, As-A-Service	Residential buildings, Commercial sites, Industrial complexes, Municipal sites	Installer led, Digital platform, Finance led, Other	Community Energy	National	Walk in/Physical office, Digital/Online	https://serenysun.fr/

2 Guidance and Methodology

The pilot partners applied the guidance **"Setting up Community Energy One-Stop-Shops"** [3] as a reference framework for designing and implementing their own One-Stop-Shop models to support energy communities. The guidance helped them address the practical challenges faced by citizens and local actors when establishing and operating Renewable Energy Communities and Citizen Energy Communities.

Building on the document's core principles, the pilot partners recognised that energy communities often encounter **complex regulatory procedures, administrative burdens, limited technical capacity, and difficulties in accessing finance.** In response, they structured their OSSs as accessible and reliable points of contact, capable of accompanying communities throughout the entire project lifecycle, from early idea development to implementation and operation.

Following the guidance, the pilot partners first analysed their specific national and regional contexts, including legal frameworks, market conditions, and existing support structures. This contextual assessment enabled them to define the appropriate scale, scope, and

[3] https://www.qualenergia.it/wp-content/uploads/2023/11/Energy-Communities-Repository-Guidance.pdf)

focus of their OSS activities, ensuring alignment with local needs and institutional capacities rather than adopting a one-size-fits-all approach.

In line with the guidance, the services developed by the pilot partners typically combined regulatory and administrative support with technical advice, financial guidance, and capacity-building activities. These included assistance with legal compliance, project design, funding opportunities, training sessions, and networking with relevant stakeholders such as municipalities, technical experts, and financial institutions.

The pilot partners' experiences reflected the guidance's emphasis on flexibility and adaptability. While the organisational models and service portfolios differed across partners, all pilots shared the objective of **simplifying processes, reducing barriers, and empowering communities** to take an active role in the energy transition. The One-Stop Shops thus are set up not only as service providers but also as enablers of collaboration, trust, and long-term engagement at local level.

Overall, by following the guidance, the pilot partners are demonstrating how One-Stop Shops can be tailored to diverse territorial and regulatory contexts while still fulfilling a common purpose: making energy community development more accessible, efficient, and inclusive, and translating policy objectives into concrete, community-led energy projects.

The methodology for developing the four OSS business models, grounded in the widely recognized **Business Model Canvas (BMC) framework**, comprises **nine essential building blocks that collectively illustrate how a business operates.** These components include Customer Segments, Value Propositions, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships, and Cost Structure. Each block plays a crucial role in defining the overall business strategy and helps to clarify the interconnections between different aspects of the organisation.

For instance, **Customer Segments** identify the specific groups of people or organisations that a business aims to serve, while **Value Propositions** articulate the unique value that the business offers to these customers. Moreover, **Channels** refer to the various means through which a company delivers its products or services to its customers, encompassing both direct and indirect methods. **Customer Relationships** describe the type of relationship a business establishes with its customers, which can range from personal assistance to automated services.

Revenue Streams highlights the ways in which a business generates income from its customers, while **Key Resources** outlines the critical assets required to deliver the value proposition. **Key Activities** detail the essential actions that must be performed to operate successfully, and **Key Partnerships** identify external organisations or entities that can help

enhance the business model. Finally, **Cost Structure** encompasses all costs incurred in operating the business.

Building on this foundation, DISCOVER adopted methodological steps from the INNOVATE project, incorporated the guidelines for creating One-Stop Shops for energy communities developed by ECOEMPOWER, and drew insights from best practices across Europe. The primary aim of this approach was to leverage the existing OSS framework while tailoring it to the specific characteristics of the pilot services. This involved adapting the model to the unique socio-economic, technical, and regulatory conditions of the local environment, addressing the needs of different stakeholders, and ensuring that the resulting OSS business models are both practical and sustainable.

The methodology takes into consideration the fact, that **two of the consortium partners constitute active One-Stop-Shops (APC and AGENA)** considering to upgrade, expand and/or adapt their operational structure to the new/integrated services identified, addressing, at the same time the recent development of the EU legislative framework.

The methodology demonstrates the approach of **the newly established One-Stop-Shops in the other two pilots (IESDI and WB),** where the objectives are to catch up with the existing and untapped opportunities of becoming leading advisory hubs to CEPs initiators in their countries.

Business Model Canvas

Key Partners *Who are our Key Partners?* *Who are our key suppliers? Which Key Resources are we acquiring from partners?* *Which Key Activities do partners perform?* **MOTIVATIONS FOR PARTNERSHIPS:**	**Key Activities** *What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams?* ***CATEGORIES**: Production, Problem Solving, Platform/Network*	**Value Propositions** *What value do we deliver to the customer?* *Which one of our customer's problems are we helping to solve?* *What bundles of products and services are we offering to each Customer Segment?* *Which customer needs are we satisfying?*	**Customer Relationships** *What type of relationship does each of our Customer Segments expect us to establish and maintain with them?* *Which ones have we established?* *How are they integrated with the rest of our business model?* *How costly are they?*	**Customer Segments** *For whom are we creating value?* *Who are our most important customers?* *Is our customer base a Mass Market, Niche Market, Segmented, Diversified, Multi-sided Platform?*

<table>
<tr>
<td>Optimization and economy, Reduction of risk and uncertainty, Acquisition of particular resources and activities</td>
<td>Key Resources

What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships Revenue Streams?

TYPES OF RESOURCES:
Physical, Intellectual (brand patents, copyrights, data), Human, Financial</td>
<td>CHARACTERISTICS:
Newness, Performance, Customization, “Getting the Job Done”, Design, Brand/ Status, Price, Cost Reduction, Risk Reduction, Accessibility, Convenience/Usability</td>
<td>Channels

Through which Channels do our Customer Segments want to be reached? How are we reaching them now? How are our Channels integrated? Which ones work best? Which ones are most cost-efficient? How are we integrating them with customer routines?</td>
<td></td>
</tr>
<tr>
<td colspan="3">Cost Structure

What are the most important costs inherent in our business model?
Which Key Resources are most expensive?
Which Key Activities are most expensive?
For what value are our customers really willing to pay?
For what do they currently pay? How are they currently paying?
How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues?

IS YOUR BUSINESS MORE:
Cost Driven (leanest cost structure, low price value proposition, maximum automation, extensive outsourcing),
Value Driven (focused on value creation, premium value proposition).

SAMPLE CHARACTERISTICS: Fixed Costs (salaries, rents, utilities), Variable costs, Economies of scale, Economies of scope</td>
<td colspan="2">Revenue Streams

For what value are our customers really willing to pay?
For what do they currently pay?
How are they currently paying?
How would they prefer to pay?
How much does each Revenue Stream contribute to overall revenues?

TYPES: Asset sale, Usage fee, Subscription Fees, Lending/Renting/Leasing, Licensing, Brokerage fees, Advertising

FIXED PRICING: List Price, Product feature dependent, Customer segment dependent, Volume dependent

DYNAMIC PRICING: Negotiation (bargaining), Yield Management, Real-time-Market</td>
</tr>
</table>

Table 5: *Business model canvas, adapted from Business Model Canvas Template in Adobe (PDF) - Neos Chronos*

3 Description of the DISCOVER OSS business models

4.1 Bulgaria

OSS NAME:	**DISCOVER OSS SOFIA**
TYPE OF OSS	**Advisory (Facilitation) and Coordination**
Name of Service	**CEP Real Life Modelling (CEP – RLM)**
Slogan:	***We support your community energy project every step of the way***
Mission:	To empower and guide energy community initiators producing green energy for the benefit of the society

Key partners	The OSS established relationships with external stakeholders to ensure successful project execution. Key partners are the Chamber of Energy Communities in Bulgaria (CECB) and the Sustainable Energy Development Agency (SEDA).
Key activities	**1.Define the overall CEP concept** **2.Select the most appropriate legal structure** **3.Define the technical and business model** and **4.Assist the initiators in all stages of the CEP development** Primary activity is to **raise consumer awareness and provide tailored advice.** The OSS will coordinate the collaboration with existing market actors, through an online marketplace, and a software platform. It will provide integrated CEP RLM service in all phases of the CEP development. The key milestone in the planning CEP phase **is the creation of the business concept.** This is the service the IESDI OSS is developing - **techno-economic modelling for decision making and implementation.** This process involves thorough research into the regulatory landscape of energy systems, energy technology setup, and financial systems or potential funders for the project.
Key resources	**Human resources** – well trained staff (three people) External experts on demand (legal, technical) **Physical office** and communication infrastructure – available **Project funding** enabled Use of **national platform** for information and guidance
Value proposition	**Develop a CEP model** to fit the financial, material, and human resources of the initiators. **Provide support** through the OSS to develop a viable, profitable, and predictable project (this includes completing the application forms). **Engage with the DSO** to secure a connection point.

	Commission a pre-feasibility study and project design covering electrical, architectural, geodesic, and structural parts. Equipe initiators to prepare **the full document package** required for a PV building permit application.
Customer relationships	**Main customers are:** Small municipalities in Sofia region; Small municipalities in Bulgaria and citizens seeking support in developing a (CEP) concept **Potential Customers are:** Any organisation or individual looking for expert guidance in establishing E.C.
Channels	**1.Communication** ▪ Disseminating information about renewable energy and energy efficiency opportunities ▪ Explaining the energy community's mission, governance structure, and membership conditions ▪ Promoting ongoing and upcoming projects, events, and results ▪ Facilitating two-way communication through meetings, newsletters, digital platforms, and social media ▪ Strengthening community identity and visibility at the local and regional level **2. Consulting** ▪ Offering personalized advice on renewable energy installations, energy efficiency measures, and storage solutions ▪ Supporting feasibility assessments and technology selection ▪ Advising on regulatory frameworks, incentives, and permitting procedures

	▪ Assisting members with financial planning, funding applications, and business models ▪ Supporting informed decision-making by translating complex technical and legal information into practical recommendations **3. Networking** ▪ Linking energy communities with municipalities, utilities, technology providers, and financial institutions ▪ Facilitating partnerships for project development and implementation ▪ Sharing best practices, lessons learned, and innovative solutions across comm
Cost structure	**Fixed revenues** will come from subsidies from the JTF or other national/EU financing instruments. **Variable revenues are:** ▪ Fees charged to clients: a fixed or variable advisory fee (e.g. depending on number of hours spent) a fee calculated as a % of total cost of the CEP ▪ Fees charged to suppliers of equipment ▪ Economies of scale negotiated with suppliers ▪ Energy Efficiency Certificates ▪ Bank loans (Bulgarian Development Bank, other banks)
Revenue streams	**IESDI has identified the following main revenue streams**: ▪ **Advisory Fees from Clients:** Consultation fees for expert guidance throughout the CEP development process. These may be calculated as fixed rates, hourly rates, or tailored packages depending on the scope of support required. ▪ **Fixed Fees for Documentation Preparation:** Fixed prices for the preparation of key documents, including

	pre-feasibility studies, technical and legal documentation, application packages necessary for project submission. ▪ **Success / Performance-Based Fees:** IESDI may charge a success fee, calculated as a percentage of the project value or tied to the achievement of specific milestones such as official project approval, financing secured, or successful project implementation.

4.2 Croatia

Name of OSS:	
Name of Service	**Energy Community Analysis and Simulation Services - ECASS**
Slogan:	***From Preparation to Operation: Empowering Energy Communities at Every Stage***
Mission:	Provide in one physical location to all interested parties our collected knowledge about the legal, administrative and financial requirements for the successful launch and operation of solar power plants and CEPs in Croatia.
Key partners	University of Rijeka - Center for smart and sustainable cities Local governments: **City of Rijeka**, City of Opatija, City of Kastav, City of Delnice Regional Development Agency of the Primorje-Gorski Kotar County
Key activities	**1. Awareness and Understanding** • Public awareness campaigns about the benefits of energy communities in cooperation with regional development agencies • Workshops and educational sessions for interested citizens in cooperation with University of Rijeka • Customized information sessions for municipalities and stakeholders coordinated on Couty level • Development of educational videos and materials in Croatian • Preliminary feasibility assessments for potential energy communities using own ECASS toolkit

	2. Technical Analysis and Planning Support The cornerstone of the Croatian OSS in Rijeka is the Energy Community Analysis and Simulation Services (ECASS) platform. This sophisticated tool addresses a significant gap in the Croatian market by providing: • **Data collection platform**: Enables gathering and analysis of energy consumption and production data from potential and actual community members by data export from DSO • **Energy flow simulation**: Models energy flows within the community, calculating surpluses and deficits • **Investment planning**: Supports the planning of joint investments by the community • **Lifecycle monitoring**: Tracks projects throughout all phases of establishment and operation • **Financial modelling**: Projects potential savings and revenue streams for community members **3. Coordination and Matchmaking** • Connection to qualified technology providers and installers – OSS catalogue • Facilitation of partnerships between communities and technical experts • Networking opportunities with other energy communities and peer organizations • Engagement with municipalities, DSOs, and regulatory authorities **4. Financial and Funding Support** • Information on available grants and subsidies for energy communities in cooperation with PRIGODA • Assistance with funding applications and proposal development • Guidance on business model development and financial sustainability • Connection to financial institutions and innovative financing mechanisms

	5. Legal and Administrative Support • Guidance on legal structures for energy communities • Assistance with regulatory compliance and permitting processes • Sample contracts and governance documents • Navigation of grid connection procedures and agreements with DSOs **6. Ongoing Support and Knowledge Sharing** • Regular consultation hours (both in-person and telephone) • Access to online resource library and best practice examples – AI Avatar "Strujka" • Facilitation of peer-to-peer learning among energy communities • Updates on policy developments and new opportunities
Key resources	**Human resources** – well trained staff (two people) External experts on demand (legal, technical) **Physical office** and communication infrastructure – available
Value proposition	ECASS will offer a set of integrated services features for user data acquisition, transformation and import into a relational database. The data will then be used for the creation of various statistical reports, and for the creation of what-if analyses in an energy or economic context. The platform service will have simple user interfaces that allow for simple integration into the interactive guidebook and will enable proactive communication and notification of community members.
Customer relationships	Local government representatives, citizens, small business owners, NGO-s
Channels	On Site Consulting, WEB

Customer segments	Municipalities, NGO, Citizens
Cost structure	- City of Rijeka owns the space, does not charge rent to the Association Without Borders, - City of Rijeka pays the overhead costs of the space: electricity, water and internet - subsidies from national/EU financial instruments for employee cost
Revenue streams	European City Facility grants European projects Regional funds

4.3 Italy

Name of OSS:	**Sportello Comunità Energetiche Rinnovabili – OSS for Renewable Energy Communities**
Name of Service	**SHARE – Simulator for Holistic energy- economic Assessment for Renewable Energy communities**
Slogan:	***Shared energy for empowered communities. AGENA, your partner in the transition.***
Mission:	AGENA supports initiators throughout the entire lifecycle of community energy projects — providing analysis, technical consulting, local stakeholder engagement, and assistance in using operational tools

Key partners	GSE - The Italian Manager of Energy Services Province of Teramo University of Teramo - Research Centre for green transition, sustainability, and global challenges The European Point Consortium (COPE)

	RENAEL (Network of local energy agencies)
Key activities	• General advice (financing, regulatory, legal aspects) • Analysis of electrical consumption profiles • Assessment of local electrical infrastructures and primary substations • Identification of suitable sites for new PV systems • Estimation of installable capacity, expected generation, and energy flow balance of the configuration • Mapping and scouting of local stakeholders and their possible role within the Energy Community • Support in defining the strategic objectives of the Energy Community • Preliminary economic and financial feasibility (advanced new service) • Organization of public meetings for information sharing and stakeholder engagement • Providing ready-to-use templates and standard documents (administrative and legal) (i.e. deed of incorporation and statute for different legal forms) • create networks with other Italian OSS to mutualize resources • communication (i.e. funding programs/subsidies) and consulting (i.e. technical and financial advise/tools, application for connection to the grid.)

	• aggregating and matchmaking service (i.e. municipalities - citizens and SMEs) • No activities: Legal specifics and taxation
Key resources	Human resources – well trained internal staff (3 people) + 1 external expert for communication activities/ organisation of events Physical office and communication infrastructure- available Integrated platform Use of national platform for information and guidance https://www.gse.it/servizi-per-te/autoconsumo/gruppi-di-autoconsumatori-e-comunita-di-energia-rinnovabile/comunit%C3%A0-energetiche-rinnovabili
Value proposition	AGENA will serve as a single point of contact, providing commercial independence and neutrality. We will offer tailored consulting services free of charge to municipalities, religious entities, and citizens interested in CEP development
Customer relationships	Municipalities, citizens, SMEs, and religious entities.
Channels	• Private Citizens and Local Authorities/ Municipalities: Website, physical hub, virtual platform, social media, printed materials, workshops, interviews • Building Administrators: Website, mail, invitation to community initiatives. Contact through ANACI • Enterprises: Website, mail, invitation to community initiatives through CNA Teramo (LOS)and Chamber of Commerce Gran Sasso D'Italia
Cost structure	Internal/ external Staff Communication campaign + Printed informative materials + Events organisation Long term capacity building of the staff Management of the online platform

Revenue streams	Revenue streams include: • European City Facility grants • European projects • Regional funds • Fees charged to customers (citizens, SMEs, religious entities) for tailored and specialised services • Annual membership fees paid by municipalities joining the shareholder structure of AGENA. Currently, the organisation is fully owned by the Province; municipalities would be invited to become shareholders. The annual fee would be fixed and calculated based on the number of inhabitants, covering a package of core services, with additional variable fees applied for extra services.

4.4 France

Name of OSS:	**Coach Copro (APC)**
Name of Service	**Analysis of opportunity for PV projects – technical, economic, and legal dimensions.**
Slogan:	***Together, let's accelerate energetic transition in Paris***
Mission:	APC's OSS looks to **demonstrate the relevance of photovoltaic projects for any condominium** and to promote its practical implementation. **Providing techno-economic analysis, legal or collective decision support**. It's included in **APC's global mission to promote the comprehensive energy renovation of Parisian condominiums**, extending this effort to local photovoltaic production and broader community energy initiatives.

Key partners	**City of Paris and its departments responsible** for housing, energy and ecology **Flame Network** regrouping all local energy and climate agencies at national level. **Hespul** working group specialising in photovoltaic & condominiums **The network of professionals operating in the Paris market** **ENEDIS**: DSO
Key activities	**Independent, neutral, free and holistic support for photovoltaic project**s, integrating technical, architectural, legal, and social dimensions. Building on strong expertise in energy renovation, solar expertise is linked with insulation, energy sufficiency, and living comfort, ensuring support for informed decisions free from commercial pressure.
Key resources	**-Human resources** – Photovoltaic Specialized team (3 persons). Global team of energetic support of condominium (30 persons) **-Physical office** **-Online OSS platform** *Coach Copro* **-External experts** on demand (legal, technical) -**Multiple public sources of funds**
Value proposition	**APC will deliver a free service, neutral and independent, as a non-profit association.** The solution offered follow a regular pattern and address at least four issues:

	1) Production, 2) Self-consumption, 3) Economy, 4) Urbanism and legal aspects. Each analysis of opportunity will be **tailored** to the need of each condominium, and the service should start by an online introductory meeting. The analysis will be delivered in successive steps, with necessary explanations and exchange of information for each issue at each step. **The service ensure that the user gets the right comprehension** of the complex matter and can act as an ambassador to their fellow co-owners within the condominium and, potentially, their neighbors. **A final synthesis will be sent to the user.**
Customer relationships	**Main customers:** Paris Condominiums and their respective representatives. **Potential customers:** Regional OSS of the Flame network using *Coach Copro.*
Channels	**Main Channel:** Our Condominiums data based **Second Channel:** Public meetings **Third Channel:** Specific projects from our professional network.
Customer segments	Our main clients are condominiums, which represent almost all of our clients. **This is a mass market in Paris, which has 47,000 such properties** whom around 33% are already registered on our OSS.
Cost structure	**Human resources** – Photovoltaic Specialized team (3 persons) **-Communication tools and software for PV analysis** **-Online OSS platform** *Coach Copro* **-External experts** on demand (legal, technical)
Revenue streams	- **Public fundings ECFR** (Espace Conseil France Rénov) - European projects

	- Other funds from public development missions **No Fees charged to customers - Non Profit** NGO

4 Operational Aspects of the OSS

From an operational perspective, the DISCOVER project has established four One-Stop Shops in Bulgaria, France, Croatia, and Italy. Each OSS operates within its respective local institutional framework and is functionally adapted to regional conditions and stakeholder needs. While the OSSs differ in their organizational and governance models, they share a common operational mandate: to support Community Energy Projects (CEPs) and Renewable Energy Communities (RECs) through the provision of coordinated technical assistance, administrative support, and access to relevant information throughout the project lifecycle.

5.1 OSS Operational Framework

Location and address

OSS locations were selected for accessibility and institutional relevance:

- **Bulgaria:** central Sofia
- **France:** Paris, 12th district
- **Croatia:** Drenova Community Centre in Rijeka
- **Italy:** municipal building in Teramo

Launch processes varied across countries. France and Croatia organized public opening events, Bulgaria adopted a gradual rollout with a formal launch planned, and Italy announced its opening through newsletters and online communication channels.

Opening Hours and Access

Operational models differ by pilot region:

- **Croatia and Italy** offer fixed walk-in hours complemented by scheduled appointments.
- **Bulgaria and France** rely primarily on appointment-based visits.

All OSSs encourage advance scheduling to ensure efficient management of service demand.

Customers and Outreach

Each OSS serves a diverse range of stakeholders:

- **Bulgaria:** municipalities, citizens, service companies, national authorities
- **France:** condominium associations and their representatives (reached through direct email and APC's established networks)
- **Croatia:** local governments, citizens, small businesses and NGOs
- **Italy:** municipalities, citizens, SMEs, and religious entities

Customer acquisition strategies combine proactive outreach: newsletters, social media, workshops with existing institutional networks. France, for instance, leverages APC's long-established renovation OSS and its CoachCopro database of 15,000 condominiums.

Teams and Organizational Setup

Each OSS is staffed by a small, specialized team:

- **Bulgaria**: three staff members covering management, coordination, and technical modelling
- **France**: three experts responsible for management, operational support, and technical analysis
- **Croatia**: a three-person team with management, technical, and financial expertise
- **Italy:** a multidisciplinary structure including front-desk support, communication, PV design, and advanced modelling

Most OSS can manage several consultations simultaneously, although capacity remains closely linked to team size.

Dual Purpose and Co-location

Several OSS operate within larger institutional structures:

- **France** integrates the DISCOVER OSS into APC's long-standing energy renovation service.
- **Croatia** operates within a community centre offering flexible space.

- **Italy** shares premises with a desk dedicated to Energy Performance Certificate quality checks.
- **Bulgaria** is hosted by IESDI, with discussions underway for relocation to a more prominent governmental venue.

Tools and Workflow

OSS teams use a mix of DISCOVER project materials (guidebook, roadmaps, decision trees) and region-specific digital tools:

- **Bulgaria:** Sunny Design, Opensolar, financial planning tools
- **France:** CoachCopro, Autocalsol
- **Croatia:** internally customized AI-supported tools
- **Italy:** the SHARE feasibility assessment tool and standardized administrative templates

Initial Assessment Process

Across all regions, user support begins with an intake phase in which operators verify the status of the CEP initiator, explain the energy community framework, and conduct initial feasibility assessments.

- **Bulgaria:** holds meetings with municipal leadership and collects consumption data for modelling.
- **France:** requests condominium consumption data, conducts online meetings, and trains initiators to become project leaders.
- **Croatia:** performs live assessments, explains current regulatory constraints, and assists with early community organization.
- **Italy:** checks for existing energy communities through substation mapping, explains incentive schemes, and applies the SHARE tool where relevant.

Customer Feedback

Early feedback has been consistently positive, with users highlighting the clarity of information provided and the expertise of OSS personnel. Several successes are already visible:

- **Croatia and Italy** report high levels of initial interest and successful matchmaking between supply (plant owners) and demand (potential REC members).

- **Italy** is developing a public register of existing RECs—a significant step for transparency and matchmaking.
- **France** notes strong satisfaction levels and continued engagement from condominium associations.
- **Bulgaria** reports strong stakeholder commitment, indicating a promising trajectory for future CEP and REC development.

The tables below showcase the details regarding the operations of each One-Stop Shop.

OPERATIONAL ASPECT	BULGARIA – DISCOVER OSS SOFIA
Location and address	Sofia 1142, Patriarh Evtimiy blvd. 16A,
OSS operational launch	The activities naturally ramp up and are evolving. We are planning a press conference for the opening in December as per Task 4.3. DDL Press conference for the official launch of the OSS – on 18 December 2025
Opening hours and access	n/a
Customers and outreach	Municipality officials, national authority representatives, service delivery companies, citizens (initiators)
Team and organizational setup	Currently in the OSS are working three people: • Cveta Dimitrova (management, introduction and closing the deal) • Denitsa Dimitrova (admin, coordination, C&D) • Dilyan Gavrailov (modeling and technical support) Business modeling experts are foreseen based on further development.
Dual purpose and collocation	The OSS is hosted by IESDI based on DISCOVER project objectives. The Minister of Energy is informed, and negotiations were held for a more representative office under their auspices.
Tools and workflow	Sunny Design, Open solar software and financial planning tools.

Initial assessment process	Following a proactive approach, the management of a given municipality is engaged in exploring opportunities for community energy project development. A meeting is therefore organized: eitherat the One-Stop Shop (OSS) orat the municipal area, to assess the available solar infrastructure. During the meeting, an introduction is provided to both the DISCOVER project and the ongoing developments related to the Energy Market Directive, particularly those concerning the establishment of energy communities aimed at promoting decentralization and democratization of energy. A general model is then presented, and data on local energy consumption is collected for use with the modeling tool. Based on the results, a framework proposal document is drafted and submitted to the municipal council for approval. Once the Mayor receives the mandate to initiate the process, the full documentation is prepared, and the energy model is finalized, approved, and designed.
Customer feedback	We haven't received it yet, but the commitment of our customers gives us hope to believe we are going to be successful.
OPERATIONAL ASPECT	**CROATIA**
Location and address	Drenovski put 138A, 51000 Rijeka Croatia
OSS Operational launch	Opening of Croatian OSS was on July 15, 2025. There was an opening ceremony with 37 people (Deputy Mayor of the City of Rijeka, representative of Primorje-Gorski Kotar County, representative of the Croatian Energy Regulatory Agency HERA, representatives of the City of Opatija and the City of Kastav, representatives of the University of Rijeka and several faculties from Rijeka and Zagreb, NGO-s, journalists, citizens and entrepreneurs
Opening hours and access	Tuesday, Thursday and Friday from 10-12, Monday and Wednesday 15-17, Appointments preferred
Customers and outreach	citizens, small business owners, local government representatives, NGO-s
Team and organizational setup	• Davorka Medved (management of organization of meetings, communication activities and reporting) • Damir Medved (technical expert for advanced services) • Damir Juričić (financial expert)
Dual purpose and collocation	Yes, this space is part of Drenova Community Centre, and if needed, purpose can be changed (for other activities)
Tools and workflow	We are using several AI based tools to facilitate our internal operations – mostly internally customized.

Initial assessment process	After the first contact (telephone or mail) appointment is organized in OSS. The assessment of needs is carried out through a live conversation, but also during first contact in telephone or mail conversation (announcement). In first contact, we also instruct visitors to take the necessary initial documents with them when they arrive at the OSS (on average consumption, address, and location of the facility, etc.). Through a live conversation, we explain to the OSS visitors what CEP is and what the advantages of joining a community are. However, since energy exchange between community members is not currently possible in the Republic of Croatia, we inform visitors about the current situation and the progress made. We explain to them that energy exchange will have to be enabled at some point and that it is good for them to already have organized communities by then. Regarding municipalities, until the establishment of the OSS we organized meetings with their representatives, citizens, and entrepreneurs locally. Now we have the opportunity to organize meetings and workshops in the OSS.
Customer feedback	We received customers' feedback at the end of meetings. Generally, visitors were satisfied with OSS, with services, and with staff and experts.
OPERATIONAL ASPECT	**ITALY**
Location and address	Piazza Garibaldi, 56 - 64100 Teramo, Italy
OSS operational launch	A newsletter was sent to municipalities to inform them about the OSS and its services. In addition, the opening was communicated through our website and social media (Facebook, LinkedIn, Instagram)
Opening hours and access	From Monday to Friday 10-12 - Appointments preferred
Customers and outreach	Municipalities, citizens, SMEs, and religious entities. They can contact the OSS by e-mail discover.cer@agenateramo.it, by phone +390861241208 int. 4, or come the physical desk
Team and organizational setup	• Claudia Magri is the first point of contact at the desk: she provides general information for the creation of an REC and about the available funding opportunities. She is responsible for the management of communication activities, the organisation of meetings, reporting, and the preparation of informational materials. For more technical matters: • Amico Varrato is expert in PV system design, including grid connection and permitting • Graziano D'Eustachio is expert for the advanced service (SHARE) development
Dual purpose and collocation	In the same office, there is another desk for information on Energy Performance Certificate Quality checks. The service is designed for energy certifiers.
Tools and workflow	Roadmaps, decision trees for user -specific pathways and templates for different legal entity types, based on previous projects.

Initial assessment process	AGENA first responds to the user's request. Then, based on the user's address, it identifies the primary substation involved and checks whether any existing Energy Communities (CERs) are already present in the area of interest. Next, the advantages of joining a CER are explained, followed by a description of the main steps required to establish one and an introduction to the available financial incentives. Depending on the development of the conversation, the advanced tool "SHARE" can be introduced to assess the energy and economic feasibility of an Energy Community. To use this tool effectively, it is essential to have prior knowledge of Energy Communities and, preferably, to be aware of one's own energy consumption. Alternatively, administrative templates can be provided, such as draft council resolutions for municipalities, expressions of interest for joining a REC, and sample statutes and regulations corresponding to the different legal forms a REC may take.
Customer feedback	The most requested activity during these first months has been to bring together supply and demand — that is, plant owners and potential members. Since in our area all Renewable Energy Communities (RECs) have not yet been officially mapped by the GSE, we have drafted an expression of interest to identify the existing RECs in our territory and to create a public register. This register will allow us to provide initiators with the contacts and information of the existing CERs. The register will be dynamic, regularly updated over time, and made available on our website. Successful cases include cooperation initiatives with these RECs, which have led to dedicated meetings and the potential for strong synergies
OPERATIONAL ASPECT	**FRANCE**
Location of the OSS	Paris, France, 3 rue François Truffaut, 75012
OSS operational launch	The OSS was launched in April 2025 at "Forum habiter Durable", the event runs by APC about the future of housing in Paris (1000 participants with conferences and stand)
Opening hours and access	n/a
Customers and outreach	Paris condominiums and their representatives. They can contact OSS by email at photovoltaique@apc-paris.fr
Dual purpose and collocation	The new OSS is a branch of a larger energy renovation OSS. This full service is one of the main APC's expertise.
Team an organizational setup	Currently in the OSS are working three people: • Charles Lemonnier (Global Management) , • Gaston Coquand (Technical and operational lead), • Marc Teillot (technical expert)
Dual purpose and collocation	The new OSS is a branch of a larger energy renovation OSS. This full service is one of the main APC's expertise.
Tools and workflow	*Coach Copro* (client relationship management tool – internally developed at APC) *AutocalSol* (PV sizing and financial planning tool – developed by a national agency) *Roadmaps and other classic tools*

Initial assessment process	After the first contact by mail, The OSS operator as the “CEP initiator” to compile electrical consumption of its condominium and bills. After starting to evaluate the opportunity of a PV installation on its housing, At this point, we ask for an online meeting to present initial conclusions and exchange around the needs of the condominium. Also, we explain the technical and financial stakes of PV installations to acculturate the initiator. Together we begin to prepare him to be the project leader for his housing. We invite him to start a collective consultation at his condominium. Finally, if the technical opportunity and motivation are clear, we ask the authorization to retrieve their load curve. It’s essential to study financial balance which we propose to show him in the next online meeting
Customer feedback	We received customers' feedback at the end of meetings. Generally, visitors were satisfied with OSS, with services, and with staff and experts. They globally want to continue being supported by APC.

5 Conclusion

The four One-Stop Shops established under the DISCOVER project represent a significant step toward strengthening community energy initiatives across Bulgaria, France, Croatia, and Italy. Their design is grounded in a comprehensive analysis of the European landscape, including existing OSS models, regulatory frameworks, and the specific needs of local stakeholders. As a result, each OSS has developed a tailored business model that reflects its regional context while maintaining a shared commitment to supporting Community Energy Projects and Renewable Energy Communities.

In Bulgaria, the IESDI OSS integrates advisory, modelling, and administrative support within a gradually evolving operational structure. Its business model emphasizes public-private collaboration, proactive municipal engagement, and flexible revenue streams that include advisory fees, documentation services, and performance-based remuneration.

Croatia’s OSS is rooted in community-centre operations and relies heavily on direct citizen engagement, transparent communication, and education. Its model focuses on accessibility, in-person consultation, and capacity building, preparing communities for future regulatory changes that will enable energy sharing.

Italy’s OSS, hosted by AGENA, blends front-desk accessibility with advanced technical modelling. Its business model leverages a combination of public institutional support, advanced feasibility tools (such as SHARE), and service packages tailored for diverse actors – municipalities, SMEs, and citizen groups.

France's OSS, embedded within APC's long-standing renovation services, benefits from strong institutional experience and a well-established client base. Its business model is centred on leveraging APC's recognized expertise, using mature digital tools (CoachCopro, Autocalsol), and providing structured, multi-step support to condominium associations.

Although each OSS operates with its own tools, workflows, and organizational structures, the cross-country collaboration enabled through the DISCOVER project has proven invaluable. The exchange of knowledge, methodologies, and practical experience ensures that all partners can continuously improve their services and respond effectively to emerging challenges. Early user feedback confirms the relevance and impact of the support provided, highlighting both the expertise of the OSS teams and the growing interest in community energy solutions.

Looking ahead, the development of the interactive guidebook will further harmonize practices, enhance accessibility to information, and strengthen the long-term sustainability of the OSS network. Together, these efforts contribute to a robust foundation for scaling community energy initiatives and empowering citizens, municipalities, and organizations to participate in the energy transition.

Annex 1 List of existing OSS in pilot countries

Bulgaria

Across Bulgaria, several One-Stop Shops (OSS) have emerged to support citizens, municipalities, and communities in their transition toward energy efficiency, renewable energy, and community-driven energy initiatives.

1. **OSS for Supporting Energy Community (LIFE-BECKON)**

The OSS for Supporting Energy Community, developed under the LIFE-BECKON project and operated by SOFENA (Sofia Energy Agency), functions as a virtual all-inclusive platform accessible to users across the country. Through its online portal, it offers guidance, best practices, and information on the development of various energy initiatives. Citizens and organisations can also benefit from interactive learning materials, matchmaking opportunities, and expert assistance tailored to the needs of emerging energy communities.

2. **OSS for Energy Efficiency, Renewable Energy and Energy Communities for the Plovdiv Region**

In the Plovdiv region, the Energy Agency of Plovdiv operates a physical OSS dedicated to energy efficiency, renewable energy, and the creation of local energy communities. Acting as an all-inclusive centre, it provides administrative, technical, legal, and financial consulting for the renovation of public and private buildings. The service also includes energy audits, technical studies, advice on replacing old heating systems with modern and efficient technologies, and guidance on adopting renewable energy and energy storage solutions. Information on available financing schemes helps citizens plan and implement their renovation projects more effectively.

3. **OSS Rhodoshop**

The Rhodoshop OSS is established through the H2020 UP-STAIRS project. It is operated by the Association of Rhodope Municipalities (ARM), which unites 11 municipalities across four districts. Serving the Rhodope region both physically and online, Rhodoshop supports private households with advice on energy refurbishment and the integration of renewable energy sources. The OSS provides citizens with organisational, administrative, legal, technical, and financial guidance to help them adopt energy-efficient measures in combination with solar PV or biomass heating solutions. Its business model is based on advisory and facilitation services, helping households navigate the entire process.

4. **ASEN OSS - Advice on energy refurbishment and the use of renewables in private households**

Similarly to Rhodoshop, ASEN OSS, is also part of the UP-STAIRS project, hosted by the Municipality of Asenovgrad. It operates physically within the municipal administrative building and virtually through its online platform. The OSS assists residents in planning and implementing energy refurbishment measures and in adopting renewable technologies. It offers comprehensive support – administrative, legal, technical, and financial – to ensure that citizens can make informed decisions and access available support instruments. Like Rhodoshop, its business model focuses on advisory and facilitation services tailored to household needs

Croatia

1. **OSS - Energy Restoration in One Place**

This OSS is led by Society for Designing Sustainable Development - DOOR. It is funded by Cross renoHome (LIFE). Duration of project is 4 years, from October 2023. to September 2027. https://crossreno.door.hr/en/

Their topic is renovation and energy efficiency of buildings (private sector - citizens - multi-apartment and family houses).

Type for this OSS is physical. Adress is Slavka Batušića 7, 10090 Zagreb.

The area in which they operate is City of Zagreb, but they also helped citizens from other parts of the Republic of Croatia.

The services they provide are information, consulting, customized consulting, technical assistance and support in project implementation and when applying for FZOEU (Environmental Protection and Energy Efficiency Fund) financing.

Their business model is coordination model.

2. **OSS Križevci**

OSS Križevci is led by KLIK energy cooperative. It is also funded by Cross renoHome (LIFE). https://crossreno.door.hr/en/

Renovation and energy efficiency of buildings (private sector - citizens - multi-apartment and family houses) is their topic.

This (physical) OSS is located in Ivana Zakmardija Dijankovečkog 10, 48260, Križevci

They operate in area of City of Križevci and Koprivnica-Križevci County.

They provide information, advice, customized advice, technical assistance and support in project implementation and when applying for FZOEU (Environmental Protection and Energy Efficiency Fund) financing.

Business model is coordination model.

3. **ZEC - Zagreb Energy Center**

This OSS emerged from project Cross Reno Home (LIFE). It was replicated from first and second OSS and it's led by City of Zagreb. https://crossreno.door.hr/en/.

Zagreb is capital city of Croatia. The number of inhabitants in the areaof 641 km2 in year 2021. was 769,944 people. The number of private households was 299,792, and the number of housing units was 393.433. Topic for OSS is renovation and energy efficiency of buildings (private sector - citizens - multi-apartment and family houses).

Type of this OSS is also physical. Adress is Maksimirska ulica 51, 10000 Zagreb.

Area where they provide their services is City of Zagreb. Services are: information, consulting, customized consulting, technical assistance and support in project implementation and when applying for FZOEU (Environmental Protection and Energy Efficiency Fund) financing (both for renovation - energy efficiency and for **PV plants installation**), financing through the City of Zagreb calls for energy certificates and for the replacement of furnaces and chimneys.

Coordination model is their business model.

4. CROSS OSS

REGEA, regional energy agency for City of Zagreb, Karlovac County, Krapina-Zagorje County and Zagreb County. Through the project CROSS (LIFE) (duration 3 years from September 2023. to August 2026. https://cross.regea.org/) they established OSS for Building Management (Public Sector – Cities and Municipalities.

Type of OSS is physical. It is located at the agency's headquarters - Andrije Žaje 10 Zagreb.

OSS provides support for areas of Krapina-Zagorje County, Zagreb County, Karlovac County and City of Zagreb.

Renovation of public sector buildings through the establishment of expert support for local and regional self-government units, promotion of energy efficiency, renewable energy sources and sustainable construction principles, development of financial models and inclusion of a wider range of stakeholders in the processes of management and renovation of the building stock; Information, advice, tailored advice, technical assistance and support in project implementation and when applying for FZOEU (Environmental Protection and Energy Efficiency Fund) financing are their services.

Business model is coordination.

5. ReHABITA Office

Project LIFE ReHABITA has a duration of 4 years (from September 2023. to August 2027. https://www.door.hr/project/life-rehabita/). Through this project, the City of Gospić established OSS with the topic of alleviating **energy poverty** by promoting deep energy renovation.

Adress of this physical type of OSS is Budačka 55, 53 000 Gospić - City Administration Gospić.

Area for OSS is City of Gospić. It covers an area of 969.20 km2. There are 50 settlements in this area with a population of just 12,983 citizens.

Services of OSS are information, consulting, customized consulting, technical assistance, and support in project implementation and when applying for FZOEU (Environmental Protection and Energy Efficiency Fund) financing, co-financing of energy certificates through a public call (City of Gospić).

OSS has coordination business model.

6. Citizen Energy Projects One Stop Shop Rijeka

Funded by LIFE DISCOVER project (duration 3 years - from December 2023 to November 2026 https://energija.bezgranica.hr/u-rijeci-je-otvoren-prvi-centar-za-potporu-energetskim-projektima-gradana/) this OSS was launched on July 16, 2025. It is first one

in Croatia which deals with topic of Citizens Energy Projects and provides support to CEP initiators (local government units, citizens, small and medium-sized entrepreneurs).

OSS is led by Association Without Borders. It is physical type of OSS, and its address is in Društveni centar Drenova (DCD) – Drenovski put 138A, 51000 Rijeka.

OSS operates in area of Primorsko-goranska County.

Italy

Three main One-Stop Shops for Renewable Energy Communities (RECs) have emerged in Italy, each operating with different territorial scopes and service models:

1. **Emilia-Romagna REC Help Desk (ART-ER)**
   Scope: Regional (Emilia-Romagna).
   Activities: Provides online and in-person support to citizens, municipalities, and SMEs; offers guidance materials on REC models and legal structures; maps regional measures and projects; provides methodological guidelines for feasibility studies. The Region complements the OSS with dedicated legislation (Regional Law 5/2022) and ERDF-funded calls supporting feasibility studies, establishment of RECs, and installation of renewable generation and storage systems.
   Service format: Virtual and physical desk with direct phone and online contact.

2. **RECROSSES OSS (INTERREG Italy–France ALCOTRA)**
   Scope: Cross-border (Italy and France).
   Activities: Supports the creation and management of RECs through technical, legal, and economic assistance; offers training, awareness campaigns, and energy consulting; develops investment plans; facilitates access to incentives and crowdfunding; and creates networks of professionals and installers. The OSS aims to accelerate REC development by providing shared methodologies and tools for local renewable energy production.

3. **RENOSS – National Network of One-Stop Shops (MASE & RENAEL)**

   Scope: National (Italy-wide).

   Activities: Delivered by local energy agencies, RENOSS provides comprehensive support including information and awareness-raising, capacity-building, promoter identification, feasibility studies, legal assistance for REC setup, access to incentives (including NRRP grants), standardized procurement tools, project validation, networking among RECs, recruitment of new members, activation of CACER configurations, incentive management, administrative support, monitoring, and delivery of additional energy services.
   Service format: Integrated physical and digital OSS network.

France

1. ***ALEC POLD***
   Scope: Local (Western Paris area)
   Activities: Provides guidance and support for citizen-led renewable energy projects, including feasibility studies, legal structuring, and local mobilization. Offers educational resources and facilitates community energy initiatives.
   Service format: Local physical office combined with remote support and local events.

2. ***Énergie Partagée***
   Scope: National.
   Activities: Supports the creation and financing of citizen energy projects across France. Provides methodological guidance, access to crowdfunding and investment tools, and networking for project promoters and local communities. Focuses on facilitating collective ownership and long-term sustainability of renewable energy projects.
   Service format: National support via online resources, funding platforms, and advisory services.

3. ***Centrales Villageoises***
   Scope: Local to national (network of citizen energy projects).
   Activities: Supports the creation of citizen cooperatives for renewable energy. Offers turnkey methodology, legal and technical guidance, project development support, and peer learning among territories.
   Service format: Network with methodological support, online resources, and local assistance.

4. **DDT Vaucluse – Direction Départementale des Territoires (Departmental Directorate of Territories of Vaucluse)**
   Scope: Departmental (Vaucluse department, Provence-Alpes-Côte d'Azur, France).
   Activities: The DDT implements public policies related to land use planning, environment, water policy, natural risk management, housing and habitat, agriculture, and sustainable development, including support for renewable energy projects. It coordinates state services at the departmental level and assists project promoters with regulatory, environmental, and planning issues, including through a dedicated photovoltaic one-stop shop to streamline administrative procedures for solar energy projects.
   Service format: Institutional state service offering advisory and regulatory support; includes a specialized one-stop desk for photovoltaic project guidance and inter-service coordination.

5. ***Lille Métropole (MEL)***
   Scope: Metropolitan (Lille metropolitan area).
   Activities: Provides guidance and support for municipalities, residents, and businesses on renewable energy projects, collective self-consumption, and energy transition initiatives. Offers funding advice, technical assistance, and policy guidance to accelerate local renewable energy development.
   Service format: Institutional support integrated within metropolitan services, with in-person advisory services and online resources.

6. ***Enogrid***
   Scope: National.
   Activities: Digital OSS for collective self-consumption and community energy. Provides software tools for project design, management, and energy allocation, with methodological guidance for project developers.
   Service format: Online platform with remote technical and methodological support.

7. ***Sereny Sun***
   Scope: National.
   Activities: Provides turnkey solar project development services in a third-party investment model. Supports feasibility studies, financing, development, and operation for municipalities and businesses.
   Service format: Contract-based, full-service OSS approach.

Annex 2 - Operational Aspects of the OSS

This Annex provides more details about the operational aspects of each OSS, focusing on the new/advanced services delivered.

Bulgaria

Partner description

IESDI is a non-governmental organization promoting innovation, entrepreneurship and sustainable development across regional communities. Its mission is to support municipalities in navigating the transition to clean and renewable energy by providing hands-on guidance, technical expertise, and strategic advice for renewable energy projects and development of energy communities. Through its work, IESDI helps local authorities design, implement, and manage sustainable energy initiatives that foster both environmental and social benefits.

Within the DISCOVER project, IESDI is establishing a One-Stop Shop to equip municipalities and local stakeholders with tools, guidance, and resources needed to develop, operate, and optimize community-driven renewable energy projects.

Motivation behind developing the new service

The administrative procedure for obtaining all necessary permits to develop a PV project in Bulgaria is extremely complex, involving numerous steps, the preparation of nearly 30 documents, and typically taking eight months or more. This level of procedural burden significantly hinders the development of Citizen Energy Projects (CEPs).

At the earliest stage, CEP initiators face major uncertainty: they cannot easily map out a feasible action plan with clear milestones or predict the outcome among multiple procedural pathways. As a result, they rarely reach the point where they can evaluate and select the most appropriate legal form for their energy community.

This uncertainty discourages both initiators and potential members from engaging in a long administrative process with unpredictable results. Yet one of the most critical tasks at the beginning of any CEP is determining the correct technological concept and

Service Description

CEP Real Life Modelling (CEP - RLM)

Type of service:

All-inclusive type of service providing consultancy, technical modelling, and expert support across the legal, engineering and financial dimensions of CEP development.

Target group (Customers)

Main target of the OSS are small municipalities in Sofia region; other small municipalities in Bulgaria and citizens seeking support in developing a (CEP) concept. Potential target group is any organization or individual looking for expert guidance in establishing EC.

Objectives

- **Turn ideas into action**

Support emerging and existing energy communities in transforming their concepts into real, high-impact projects through integrated legal, technical, and financial guidance.

- **Deliver robust technical solutions**

Provide cutting edge modelling, engineering expertise, and technical assessments to ensure projects are efficient, feasible, and scalable.

- **Unlock financial pathways**

Facilitate access to funding and investment opportunities by offering tailored financial planning, business models, and support in navigating available financing schemes.

- **Empower local leaders and members**

Strengthen the capacity of community representatives through training, knowledge exchange, and tools that enable effective project management and long-term sustainability.

- **Advance sustainable and resilient energy systems**

Promote community-driven energy initiatives that enhance local energy independence, increase resilience, and contribute to climate-neutral and environmentally responsible urban development.

Challenges

- Limited knowledge, trust and capacity within the communities
- Complex and evolving legal and regulatory environment
- Limited access to high-quality technical expertise
- Difficulty in securing financing and investment
- Fragmented and uncoordinated support services

Service delivery

The service is offered both **in person (walk-in)** at the OSS office and **remotely** via phone or online consultations. Support is provided by a combination of **internal experts**, who deliver general guidance and preliminary modelling, and **external specialists**, who contribute in-depth technical expertise.

Technical modelling is currently performed using the **Sunny Design** online tool. The OSS is also considering adopting other advanced simulators to enhance modelling capabilities. In addition, the **interactive guidebook** and **DISCOVER platform** will further expand and support OSS services.

After the project term, the OSS may introduce **GridOne software tool (www.grid-one.eu)** for energy community modelling**,** based on the successful exploitation of the OSS.

Innovative elements of the service

The OSS introduces an innovative model in Bulgaria by bringing all essential support for energy communities – legal, technical, and financial – into a single, easily accessible hub. It combines in-person and remote services, integrates advanced digital modelling tools, and leverages both internal specialists and certified external engineers from the national ecosystem.

Use of new technologies

The OSS leverages advanced digital tools to perform accurate technical modelling, develop financial models, and scenario analysis for energy community projects. It envisages to upgrade the **DISCOVER web platform,** enabling remote access, data management, and decision support.

Added value

The OSS provides significant added value by **simplifying the complex process of developing CEPs and choosing the best operational and financially viable model.** It empowers community leaders to manage projects independently, while promoting sustainable, resilient, and economically enduring energy solutions.

Feedback and Results

DISCOVER OSS Sofia has 28 respondents so far from the following customers:

- municipalities of Dryanovo, Tryavna, Chavdar, Mezdra, Rakovski, Kostinbrod
- main stakeholder: the Chamber of Energy Communities in Bulgaria
- facilitators: The Energy Efficiency and Renewable Sources Fund, Sustainable Energy Development Agency

Summary of stakeholder feedback

The service is well accepted with both facilitators and customers. The facilitators' feedback was considered in the final design of the service - the Investment design (parts architectural, electrical, geodetic, and construction) was included as an element of the service in its final version. Additionally, a simulation tool for financial modelling and business planning will be considered, or an existing tool adapted, to support this function. Future stages of service development will pay particular attention to facilitating mixed-type community energy projects, enhancing applicability across diverse local contexts and ensuring alignment with the specific needs and resource potentials of municipalities. Opportunities to scale up the DISCOVER project by incorporating modeling for mixed-type energy community projects will also be explored.

Next Steps

- Adjustment of the investment documentation in accordance with the recent amendments to the Bulgarian legal framework, including the Spatial Planning Act, the Environmental Protection Act, and regulations governing grid infrastructure.

- Envisaging, or building upon an existing simulation tool for financial modelling and business planning
- Support of mixed-type community energy projects (PVP, waste-to-energy, biomass) for the further development of the service

Lessons learned or good practices that can be replicated

The business models of the first ECs in Bulgaria - Gabrovo and Burgas; the Guidance approach of the EcoEmpower project.

Croatia

Introduction

In July 2025, the **Association Without Borders** within **DISCOVER LIFE** project opened the first OSS in the Republic of Croatia, which helps and support citizens energy projects, in the Drenova Community Centre (DCD). The City of Rijeka owned the building, and the Association Without Borders has been a user of this space since 2012. The Drenova Community Centre is a gathering place for the local community, offering a wide range of cultural and social activities. Since 2020, these activities have been enriched with the theme of civic energy. The opening of the OSS expands the range of services that Without Borders provides to local community through the theme of Citizens Energy Projects (CEPs).

Service Description

- OSS Name: Citizen Energy Projects One Stop Shop (OSS)
- Adress: Drenovski put 138A, 51000 Rijeka, Croatia
- Working hours: Tuesday, Thursday and Friday from 10-12, Monday and Wednesday 15-17
- Type of Service: Coordination One-Stop-Shop for renewable energy communities
- Target Group: Citizens, municipalities, civil society organizations, as potential energy community members in Croatia, with a current focus on the Primorje-Gorski Kotar County

Objectives and Challenges Addressed:

- Raising public awareness on energy communities

- Providing technical, administrative, financial, and legal support to new initiatives
- Connecting diverse stakeholders and facilitating project development through every lifecycle stage

Service Delivery:

- Physical office in Rijeka with walk-in hours and a telephone line
- Online resources, educational materials, and customized consulting
- ECASS (Energy Community Analysis and Simulation Services) platform for technical analysis and data management
- Coordination with technology suppliers, municipalities, and national agencies

Innovative Elements

- Leverages a web-based analytical platform (ECASS) for data gathering, energy simulations, and lifecycle monitoring
- Uses a hybrid delivery model: both in-person and digital, to maximize reach and accessibility
- Functions as a non-commercial, independent intermediary that rigorously vets service providers and ensures transparent, unbiased facilitation
- Actively supports peer learning, stakeholder networking, and policy dialogue, drawing from EU best practices

ECASS provides a digital platform for gathering energy consumption and production data from community members, enabling comprehensive analysis of local energy needs and potential.

Its energy flow simulation functions allow future CEPs to model how energy will be generated, shared, and used within their group, measuring surplus and deficits to inform joint investment planning.

Lifecycle monitoring features track projects across all phases, and integrated financial modelling projects long-term savings and revenue, adding strategic value for community organizers.

Added Value and Impact

- ECASS empowers communities to make data-driven decisions about investments, planning, and energy flows, offering insights that previously required specialized consulting services.

- It democratizes access to sophisticated energy analysis tools, allowing local groups to benefit from expert-level planning without commercial bias or prohibitive costs.
- The platform is continuously enhanced and refined based on user feedback, supporting agile development and alignment with real community needs.

Through its innovative combination of simulation, financial planning, accessibility, and independent support, ECASS is helping Croatian energy communities overcome barriers and realize their clean energy goals.

Feedback and Results

Early respondents highlighted the OSS's practical support, the accessibility of the ECASS tool, and the value of having a trusted, non-commercial convener.

Feedback points to strengths such as tailored advice and broad accessibility, while suggesting ongoing expansion of educational resources and further simplification of regulatory guidance.

Recommendations and Next Steps

- Expand OSS presence with regional satellite hubs and develop mobile/virtual services to reach remote areas
- Systematically document project impacts (communities supported, investments) to inform funders and policy makers
- Invest in building a quality-assured network of technical partners and service providers
- Continue advocacy for supportive policy, actively participate in European networks, and plan for institutional sustainability by embedding OSS services in municipal/regional structures

The Croatian OSS stands as a model of how independent, targeted support can enable energy community growth and citizen participation in the green transition.

Italy

Introduction

AGENA is a local energy agency based in Teramo (Italy), actively supporting the development of Renewable Energy Communities (RECs) and Collective Self-Consumption (CSC) initiatives across the province. As part of its mission, AGENA provides technical and

strategic assistance to municipalities, SMEs, citizens, and other actors interested in establishing Community Energy Projects (CEPs).

One of the main challenges faced by CEP initiators—particularly municipalities—is the lack of financial and human resources, together with limited understanding of the economic, technical, and sustainability implications of investing in photovoltaic (PV) systems and shared energy schemes. These barriers frequently prevent promising projects from advancing beyond the initial concept phase.

To address this gap, AGENA has developed **SHARE – Simulator for Holistic Energy–Economic Assessment for Renewable Energy Communities**: a decision-support tool designed to help CEP initiators evaluate the feasibility, profitability, and environmental benefits of their proposed projects.

Service Description

Service name: SHARE – Simulator for Holistic Energy–Economic Assessment for Renewable Energy Communities

Type of service:

Decision-support and consultancy service for the preliminary energy–economic assessment of CEPs.

Target group:

Municipalities, citizens, SMEs, condominiums, religious institutions, and CEP initiators in general.

Main objectives:

- Evaluate the economic, financial, and environmental feasibility of Renewable Energy Communities.
- Identify the most suitable financing model for each project.
- Support stakeholders in making well-informed investment decisions.
- Provide CEP initiators with a preliminary cost–benefit assessment that quantifies energy flows, cash flows, environmental impacts, and the potential profitability of the project for both the community as a whole and individual members.
- Generate multi-scenario simulations that explore different technical and financial configurations.

Challenges addressed:

- Lack of technical and financial expertise among local actors.

- Insufficient resources for preliminary analyses.
- Uncertainty regarding long-term profitability and regulatory conditions for shared energy projects.

How the service is delivered:

The service is provided as tailored consultancy by AGENA's technical team (three staff members), available in person at AGENA's offices in Teramo or remotely via phone and email.

The assessment is conducted using a fully in-house Excel-based simulation tool that evaluates both technical parameters (energy flows, self-consumption, avoided emissions) and economic components (investment costs, revenues, incentives, and financing structures).

The simulator currently integrates four financing models:

1. PV plant fully funded by members
2. PV plant financed through a bank loan
3. PV plant financed by a third party (ESCO or utility)
4. PV plant funded through NRRP public incentives

The final output is a **customized assessment report**, that provides a clear, data-driven overview of expected benefits, costs, and environmental impacts across the entire CEP lifetime.

3. Innovative Elements

SHARE stands out for several reasons:

• Fully in-house development

The simulator has been entirely designed and built by AGENA. This ensures full transparency, neutrality, and independence: every calculation step is traceable, verifiable, and adaptable to the specific context of each user, without any external market influences.

• High customization and flexibility

Because AGENA manages the tool internally, it can be quickly updated to reflect new legislation, regulatory adjustments, or user needs—a critical advantage in the rapidly evolving energy sector.

• Integration of advanced data sources and simulation methods

SHARE incorporates:

- Hourly zonal energy prices from GSE datasets

- Standard load profiles provided by ARERA
- Dynamic simulation algorithms to model energy sharing and economic returns under real market conditions

This allows for an accurate assessment of CEP performance.

• Continuous improvement cycle

The simulator is continuously enhanced through ongoing testing and user feedback, ensuring progressive improvements in accuracy, usability, and decision-support capacity.

Feedback and Results

The service has been well received by early adopters, including municipalities, provincial authorities, and research institutions. Many participants declared their interest in using the tool to support the planning and activation of their own CEPs.

Stakeholders highlighted several strengths:

- Clarity and reliability of results
- Neutrality and independence of AGENA's support
- Transparency of assumptions and methodologies
- Practical usefulness for informed decision-making

The **Province of Teramo** recommended providing an option to download a PDF report summarizing inputs and simulation results—both at community level and, when possible, at the level of each individual participant.

The **University of Teramo – Research Center for Green Transition, Sustainability, and Global Challenges** suggested using standardized consumer categories (e.g., households, schools, offices) when detailed consumption data are unavailable, to improve the accuracy of technical and economic evaluations.

The **Punto Europa Consortium** proposed expanding the financial analysis by adding operational and financial leasing models to the existing funding options.

The first two recommendations have already been integrated into the tool; the additional financial models may be incorporated at a later stage depending on user needs.

These contributions have helped AGENA further refine the simulator, ensuring that it better reflects the diverse requirements of future energy community stakeholders.

Recommendations and Next Steps

Building on initial success, AGENA plans to:

- **Integrate the simulator into an online platform** as part of an interactive guidebook, making it accessible to a broader audience.
- Continue refining the tool through iterative testing and real-world feedback from CEP initiators.

Lessons learned:

- Transparency, neutrality, and adaptability are essential to building stakeholder trust.
- Combining rigorous technical modelling with human-centred consultancy results in greater impact than standalone digital tools.
- Continuous feedback loops are crucial to ensure that the service remains aligned with real user needs and evolving policy frameworks.

By continuously improving this innovative service, AGENA aims to strengthen local capacities for developing sustainable, data-driven Community Energy Projects, contributing to the broader transition toward a decarbonized, collaborative, and citizen-centered energy system.

France

Partner description

The Paris Climate Agency (Agence Parisienne du Climat), created in January 2011 at the initiative of the City of Paris, is an operational territorial actor. It supports the implementation of the Climate Plans of the City of Paris and the Greater Paris Metropolis. It informs, advises and supports residents in their actions against climate change and in favour of the energy and ecological transition. Its story first took shape in the field of building energy renovation, where it became the one-stop shop of the City of Paris for condominiums, through the CoachCopro platform, now used across France.

Motivation behind developing the new service

Building on this strong field experience, the Agency has gradually expanded its scope of action to other major challenges of the transition, including urban greening, waste management and, above all, the development of renewable energy. It quickly identified the central role that condominiums can play in producing local, low-carbon energy. Photovoltaics emerged as a key lever, opening the way to the development of energy communities at European level. For more than two years, the Agency has been involved in the European DISCOVER project to become the one-stop shop for renewable energies in Paris and is now developing an advanced opportunity analysis service for photovoltaic projects in condominiums.

Service Description

The service is delivered through a three-step process focusing on the five main aspects of a CEP PV project (technical, economic, architectural, legal, and social). The three stages are:

- **The characterization phase**, which focuses on the potential of a solar installation and the motivation of the condominium. This first stage concludes with the presentation of a preliminary study via a video conference with the project leaders.
- **The study phase**, which focuses on a technical and architectural solution specific to the client. It also shows the profitability of this solution and the method of financing it.
- **The support phase**, where the informed client is invited to contact certified professionals to begin a project management design. Here, the service focuses on reviewing quotes, assisting with voting within co-ownerships, and providing specific legal support in the case of a collective self-consumption operation.

Support is provided through email exchanges, document transfers, and, above all, videoconference meetings at key stages to show our results. In advanced cases, the service is provided in person through meetings within the condominium.

Target group (Customers)

Main Users: Condominium representatives in Paris who intend to launch a PV project in their building, during the development phase of the CEP

Objectives

The main aspect of this service is to demonstrate the relevance of PV project for a condominium and to promote its practical implementation.

In addition, it must provide all the information and support necessary for the deployment of a legal and technical structure for a collective consumption operation.

The service achieves satisfactory results when a client is supported up to the stage most relevant to their situation (e.g., for poor potential, a simple transfer of information; for very good potential, support until the installation is exploited). **In this sense, the service always seeks efficiency in carrying out projects with no useless work for both sides.**

Challenges

- **Lack of technical knowledge to evaluate rooftop PV potential for CEP** (electrical production capacity, self-consume rate, rentability of PV project in

comparison with its current energy contract, surplus' valorisation through a Collective Self-Consumption operation)

- **Lack of capacity and motivation to finance pre-study by professional stakeholders without the guaranty of real project feasibility** (need of a free of charge service to initiate project)
- **Lack of trust for professional stakeholders at the beginning of a CEP project** (need of a neutral and independent service to initiate the project)
- **Lack of support to convince other co-owners at the council board and to prepare for a majority vote at a future general assembly** (need for legitimate authority on the technic-economical-legal matter)

Service delivery

- **Online:**
  Support is provided through email exchanges, document transfers, and, above all, videoconference meetings at key stages. It is always necessary to submit a formal request for support online via email and by registering on our monitoring platform.
- **In person:**
  In advanced cases, the service is provided in person through meetings within the condominium (e.g. at general assemblies).

Innovative elements of the service

The innovation of the service does not rely on technological breakthroughs, but on a different way of mobilising expertise for non-professional actors. The Agency uses existing tools to calculate solar potential and economic balances but, integrates them into a broader approach that includes technical, architectural, legal and social dimensions. Its real added value lies in the quality of human support, the continuity of follow-up and its full independence from market players. This neutrality secures decisions and builds trust, especially in a sector where commercial pressure can be strong.

Added value

Thanks to its long experience in energy renovation, the service tends to support photovoltaic projects as part of a coherent whole. It connects electricity production with insulation strategies, energy sufficiency and improvements in living comfort. This systemic vision makes it possible to understand the building's past energy trajectory and to better shape its future.

Feedback and Results

Since its launch, the service has already supported more than 80 condominiums in Paris. The projects studied cover a wide range, from small installations of less than 10 kWp to shared systems of several hundred kWp. This diversity is also reflected in the strategies explored, with a priority given to individual and then collective self-consumption, and a growing focus on more local and citizen-driven energy management.

Condominiums highlight the usefulness of the preliminary study, in particular the visualisation of their building's solar potential and the concrete projection of possible installations. They also value the listening attitude and availability of the teams.

Feedback from partners has also shaped the evolution of the service. *Hespul*, a reference player in photovoltaics in France, has helped refine the methodology within the framework of the DISCOVER project. it has recalled the importance of prioritising energy sufficiency before production and has encouraged the development of several scenarios adapted to the very diverse profiles of condominiums. These exchanges have helped align the content with national practices and sector requirements.

Next Step

The service does not yet sufficiently cover the complex phases of project development and intentionally stops when condominiums select private contractors, in order to preserve the Agency's neutrality. This break can weaken project continuity and lengthen already demanding trajectories. A strategic choice lies ahead: remain an upstream facilitator, or move towards more comprehensive support, while preserving the independence that is the strength of the service.

In parallel, the Agency acts on structuring the local ecosystem by encouraging professionals to commit to the CoachCopro charter, contributing to the definition of quality standards and offering, on request, the analysis of early state projects.

Lessons learned or good practices that can be replicated

Field experience has highlighted several sensitive areas. Earlier integration of architectural and urban planning constraints appears essential, as does the need to deepen legal and financial arrangements, especially for collective self-consumption projects. The need to better support governance and collective dynamics is also confirmed, as well as the importance of providing simpler and more accessible formats, in particular summaries focused on economic balances.

Designed for the dense, heritage-sensitive context of Paris, this service naturally finds its relevance in other historic urban centres in France and across Europe, even if its focus on condominiums limits its transferability to less dense or predominantly rural territories.