



Guidebook to integrate Sun4All in Cities Sustainable Energy and Climate Action Plans

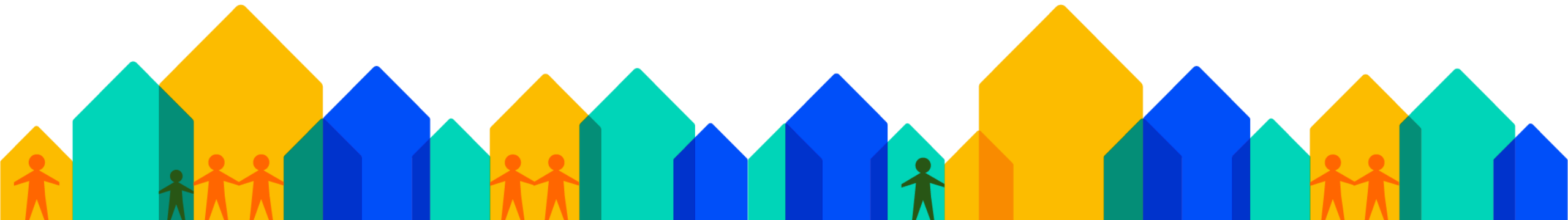
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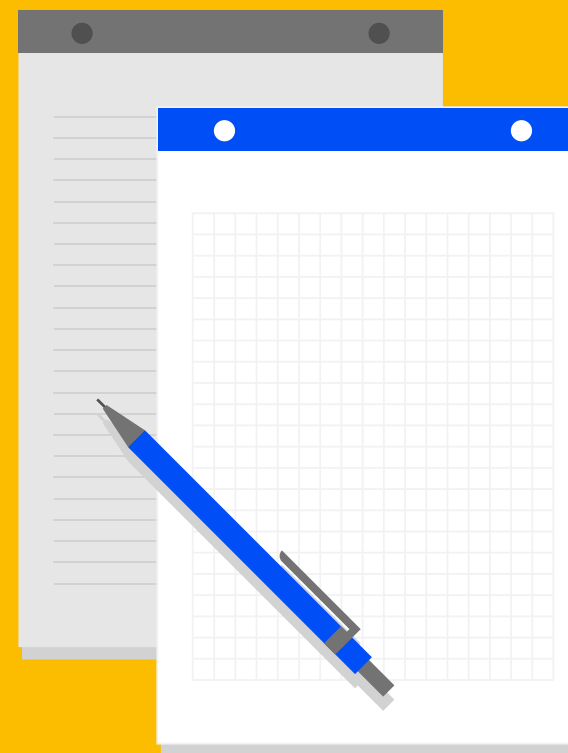
“We all depend on energy in our everyday lives. We need it to have sufficient levels of heating, cooling, and lighting in our homes to ensure a decent standard of living and help guarantee our health.”



European Commission. Directorate-General for Energy



Introduction





What is this Sun4All guidebook about?

This guidebook is a learning outcome of the implementation activities of the project “Sun4All – “Eurosolar for all: energy communities for a fair energy transition in Europe”” (Sun4All). This project is funded by the EU’s Horizon 2020 research and innovation programme. The Sun4All guidebook presents knowledge and experience gained by the:

- **Sun4All pilots** – [Almada](#) (Portugal), [Barcelona](#) (Spain), [Coeur de Savoie](#) (France) and [Rome](#) (Italy) through the process of setting up a financial support scheme for renewable energy access for vulnerable stakeholders in Europe.
- **Members of the Sun4All Community of Practice**, who are actively working on the adoption of the Sun4All financial support scheme for further implementation in other contexts.

The Sun4All guidebook aims to provide support to local and regional governments to mainstream and include the Sun4All financial model in their sustainable energy and climate action planning process.



What is the structure of this Sun4All guidebook?

This document compiles the key information relevant for the successful synchronization between the actions to address the energy poverty and the climate change mitigation and adaptation activities at the local level:

- **Section 1:** European Union policies and initiatives to tackle energy poverty with the particular focus on the energy poverty pillar of the Covenant of Mayors – Europe planning, implementation, monitoring, and evaluation framework.
- **Section 2:** Sun4All project approach to tackle energy poverty with the particular focus on the implementation and testing of the innovative financial support scheme, as well as on engaging and empowering vulnerable households.
- **Section 3:** Methodological recommendations for the practical integration of Sun4All approach to tackle energy poverty in the cities Sustainable Energy and Climate Action Plans.
- **Section 4:** An overview of the additional resources useful for the integration of Sun4All approach in the cities Sustainable Energy and Climate Action Plans with the particular focus on the European Union funded projects.



How can this Sun4All guidebook be helpful for your city?

The Sun4All guidebook provides multiple benefits to the local and regional governments, public and private utilities, energy agencies, and other stakeholders interested in searching for the solutions for promoting access to renewable energy and tackling energy poverty at the local level.

Information that you will find in the Sun4All guide can help you in the following ways:

- **Benefit 1:** To increase your understanding of the current European Union policies and initiatives to tackle energy poverty.
- **Benefit 2:** To help you to understand better the energy poverty pillar of the Covenant of Mayors - Europe planning, implementation, monitoring, and evaluation framework.
- **Benefit 3:** To learn more about the New York State initiative to tackle energy poverty “Solar for All” and how it can help European cities through the “Sun4All” project.



- **Benefit 4:** To support you with planning integration of the Sun4All financial scheme to support vulnerable households into the sustainable energy and climate action planning and implementation process at the local level.
- **Benefit 5:** To promote the implementation of the European Green Deal and the just energy transition in your city.

Part 1

Focus on the
European Union
action to tackle
energy poverty





What is the status of energy poverty in Europe?

Eurostat data reveals that approximately 42 million people across Europe – **9.3%** of European Union citizens – were unable to keep their homes adequately warm in 2022. That is a sharp increase since 2021 when energy poverty affected **6.9%** of the population in Europe. [[More information](#)]

What are the root causes of energy poverty in Europe?

The situation of energy poverty occurs when energy bills represent a high percentage of consumers' income, or when they must reduce their household's energy consumption to a degree that negatively impacts their health and well-being. It is mainly driven by 3 underlying root causes. [[More information](#)]



A high proportion of household expenditure spent on energy



Low income

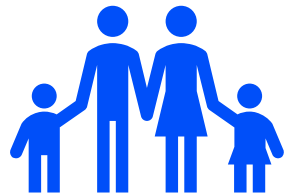


Low energy performance of buildings and appliances



What are the households in Europe that are more susceptible to energy poverty?

The situation of a household can be influenced by geographic and climate factors, household characteristics, gender, health, and specific household energy and transportation needs. As such, households with higher energy needs are also more susceptible to energy poverty and to its effects.



Families
with
children



Persons
with
disabilities



Older
persons



Women

Families with children, persons with disabilities and older persons, are more susceptible to energy poverty and to its effects. Women, and particularly those who are single parents and older women, are also particularly affected by energy poverty due to structural inequalities in income distribution, socioeconomic status, and the gender care gap. [[More information](#)]



What are the effects of energy poverty in Europe?

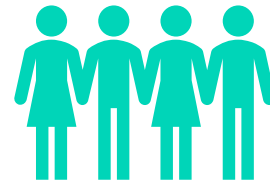
Energy poverty has negative impacts on Europeans health, wellbeing, social inclusion, and quality of life. People affected by energy poverty suffer from inadequate comfort and sanitary conditions, such as unsuitable indoor temperatures (too hot or too cold), deficient air quality, and exposure to harmful chemicals and materials, which may lead to lower productivity, health problems and higher mortality. The energy vulnerable people also experience significant psychological stress over unaffordable energy bills. [[More information](#)]



Health



Wellbeing



Social
inclusion



Quality
of life

Due to its private nature, as it mainly affects households, and its complexity, energy poverty remains a major challenge to be further addressed in the European Union. [[More information](#)]

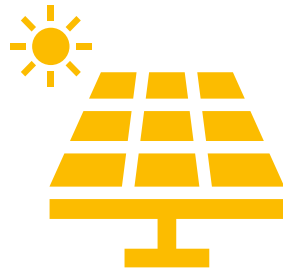


How does the European Green Deal address energy poverty?

In December 2019, the European Commission launched the European Green Deal – a package of policy initiatives, which aims to make Europe climate neutral by 2050. The European Green Deal supports the green transformation of the European Union into a fair and prosperous society with a more environmentally friendly production and consumption behaviour and lifestyle. The need to ensure renewable energy access for all members of the EU's society, leaving no one behind, is in the centre of attention.



Investments in
energy efficiency
and renovation
of buildings



Access to
renewable
energies



Direct income
support for
vulnerable
households

The European Green Deal stresses the need to tackle energy poverty and ensure a fair transition. Ensuring that vulnerable households have access to renewable energies is equitable, helps to cover energy needs, and can support multiple policy goals, such as affordable energy, job creation, and improved public health. [[More information](#)]

What are the
European Union
policies to
tackle energy
poverty?





What is the energy poverty political and regulatory framework in the European Union?

The European Union is committed that the green transition must be fair and just. Thus, availability of a clear, specific, relevant, and applicable political and regulatory framework is an essential precondition to tackle energy poverty and protect vulnerable consumers. The energy poverty related policies development path in the European Union has the following key milestones:

2009

Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC [[More information](#)]

2010

Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings [[More information](#)]

2012

Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency [[More information](#)]



2015

Energy Union Package. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank. A Framework Strategy for a Resilient Energy Union with a Forward – Looking Climate Change Policy [[More information](#)]

2017

The European Pillar of Social Rights Action Plan [[More information](#)]

2019

Directive 2019/944/EU of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity [[More information](#)]

2019

Clean energy for all Europeans package [[More information](#)]

2019

European Green Deal, the EU's overarching growth plan to reach climate neutrality by 2050 [[More information](#)]



2020

A Renovation Wave for Europe – greening our buildings, creating jobs, improving lives. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions [[More information](#)]

2020

Commission Recommendation 2020/1563/EU of 14 October 2020 on energy poverty [[More information](#)]

2021

Proposal for a Council Recommendations on ensuring a fair transition towards climate neutrality [[More information](#)]

2021

European Commission “Fit for 55” package [[More information](#)]

2021

Communication from the Commission to the European Parliament, the European Council, the Council, The European Economic and Social Committee and the Committee of the Regions “Tackling rising energy prices: a toolbox for action and support” [[More information](#)]



2022

Handbooks: a Guide to Understanding and Addressing Energy Poverty [[More information](#)]

2023

Regulation 2023/955/EU of the European Parliament and of the Council of 10 May 2023 establishing a Social Climate Fund and amending Regulation (EU) 2021/1060. [[More information](#)]

2023

Revised Directive 2023/1791/EU of the European Parliament and of the Council of 13 September 2023 on energy efficiency [[More information](#)]

2023

Commission Recommendation 2023/2407/EU of 20 October 2023 on energy poverty [[More information](#)]

What are the European Union initiatives to tackle energy poverty?





What are the European Union initiatives to support local and regional governments to tackle energy poverty?

Capacity building and knowledge development is a key for better understanding the complex nature of the energy poverty phenomenon and selecting more appropriate solutions to address it on the local level. Thus, in addition to policy and regulatory support, the European Union is implementing different learning, knowledge sharing, and research initiatives to support local and regional governments in addressing the energy poverty:

2021

Energy Poverty Advisory Hub

2022

Energy Communities Repository

2022

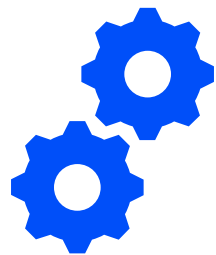
Covenant of Mayors for Climate & Energy – Europe: Energy poverty pillar



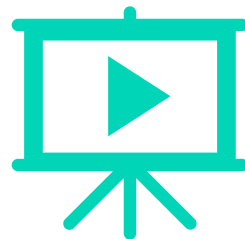
How can the Energy Poverty Hub support your city in the process of tackling energy poverty?

The Energy Poverty Advisory Hub is the leading European Union initiative aiming to eradicate energy poverty and accelerate the just energy transition of European local governments. It was launched by the Commission in 2021, at the request of the European Parliament, and builds on the “European Union Energy Poverty Observatory” project (2016-2020).

The Energy Poverty Advisory Hub offers a space for collaboration and exchange between local and regional authorities to tackle energy poverty, while accelerating the just energy transition. [[More information](#)]



Technical
assistance



Video
learning
material



Online
courses



Helpdesk



How can the Energy Communities Repository be helpful for your city in the process of tackling energy poverty?

The Energy Communities Repository is an initiative on behalf of the European Commission to assist local actors (including citizens, local authorities, and businesses) with setting up and advancing clean energy projects driven by energy communities in urban areas across Europe. The initiative contributed to a just transition to climate neutrality, enabling citizens to take ownership of energy consumption and production.

The Energy Communities Repository has collected data from the European Union Member States on their existing policies and regulations for energy communities. The information is published in an openly accessible database. [[More information](#)]



Toolbox



One-stop-
shop



Database
of EU
projects
and
initiatives



EU Policy
map



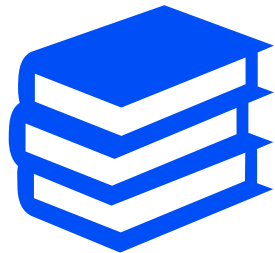
How can the Covenant of Mayors – Europe support your city in the process of tackling energy poverty?

The European Union Covenant of Mayors for Climate & Energy is an initiative supported by the European Commission bringing together thousands of local governments that want to secure a better future for their citizens. By joining the initiative, they voluntarily commit to implementing EU climate and energy objectives.

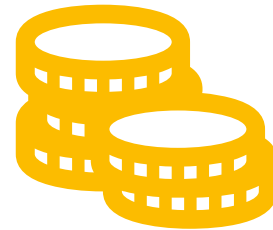
From the beginning, the Covenant of Mayors - Europe initiative has been designed to provide local governments, in highly diversified national contexts, with a framework for their local energy and climate action. [[More information](#)]



Practice-
sharing



Knowledge
resources



Funding
opportunities



Events

What is the
energy poverty
pillar of the
Covenant of
Mayors – Europe?





What is the energy poverty pillar of the Covenant of Mayors - Europe about?

The commitment of the Covenant of Mayors - Europe signatories defines the vision that by 2050, we will all be living in decarbonised and resilient cities with access to affordable, secure and sustainable energy. As part of the Covenant of Mayors - Europe movement, signatories commit to tackling energy poverty as one key action to ensure a just transition.

Mitigation pillar

Reducing GHG emissions
by 55% by 2030

Adaptation pillar

Strengthening resilience

Energy poverty pillar

Alleviating energy poverty

Energy poverty is one of the three pillars of the Covenant of Mayors - Europe, alongside mitigation and adaptation. Thus, energy poverty is an integral part of the planning and monitoring efforts of Covenant signatories. The energy poverty section of the Covenant's reporting and monitoring framework was launched in May 2022. [[More information](#)]



What is the available support to signatories of the Covenant of Mayors – Europe on energy poverty?

To support signatories in their planning and implementation efforts on energy poverty, the Covenant of Mayors - Europe Office, in cooperation with the European Commission's Joint Research Centre and the Energy Poverty Advisory Hub, and through engagement of a wide pool of practitioners, developed the energy poverty pillar of the Covenant of Mayors - Europe reporting and monitoring framework. The framework has been consulted with a group of city practitioners working on energy poverty. The pillar is also aligned with the recommendations of the Global Covenant of Mayors. [[More information](#)]

1

The energy poverty pillar of the Covenant of Mayors – Europe reporting and monitoring framework [[More information](#)]

2

Webinar – Presentation of the Covenant of Mayors’ pillar on energy poverty and related presentations [[More information](#)]

3

Covenant of Mayors for Climate & Energy – Europe Reporting Guidelines on Energy Poverty [[More information](#)]



What is the available support to signatories of the Covenant of Mayors – Europe on energy poverty?

The Covenant of Mayors Europe Office is closely collaborating with the Energy Poverty Advisory Hub. Covenant signatories are encouraged to consult the knowledge materials developed by the Energy Poverty Advisory Hub and approach their [Helpdesk](#) (E-mail: info@energypoverty.eu) in parallel to using the Covenant of Mayors - Europe framework on energy poverty. [[More information](#)]

4

Tackling energy poverty through local actions – Inspiring cases from across Europe [[More information](#)]

5

The online Energy Poverty Advisory Hub ATLAS with many case studies and local measures to tackle energy poverty [[More information](#)]

6

The online Energy Poverty Advisory Hub training courses enable participants to enhance skills and competences [[More information](#)]

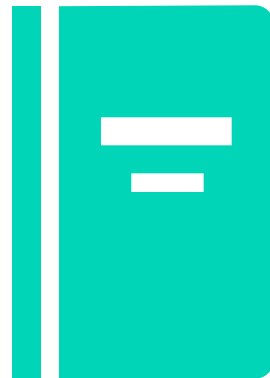


What is the available support to signatories of the Covenant of Mayors – Europe on energy poverty?

Several publications by the Energy Poverty Advisory Hub can guide you to take concrete actions. Among these, three handbooks, each dedicated to one of the main phases to develop energy poverty actions (diagnosis, planning, implementing), are available as a practical methodology specifically for local governments with intentions on taking actions on energy poverty such as the Covenant Community.



Introduction to the Energy Poverty Advisory Hub Handbooks: A Guide to Understanding and Addressing Energy Poverty [[More information](#)]



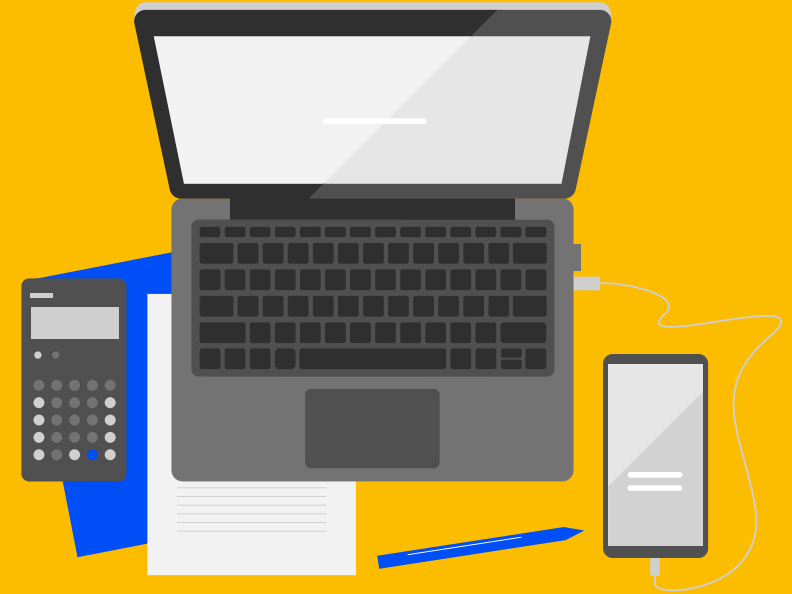
Energy Poverty Advisory Hub Handbook 1: A Guidebook to Energy Poverty Diagnosis [[More information](#)]



7 Practical steps to energy poverty diagnosis – Energy Poverty Advisory Hub learning guide [[More information](#)]

Part 2

Focus on the Sun4All
action to tackle
energy poverty





What is the Sun4All project about?

The full name of the project is “Eurosolar for all: energy communities for a fair energy transition in Europe”. The project acronym is “**Sun4All**”.

Sun4All is a project funded by the European Union's Horizon 2020 research and innovation programme under grant agreement no. 101032239.

The key words of the project are energy poverty, just energy transition, renewable energy sources, and financial support scheme. Duration of the project: October 2021 – September 2024.

Sun4All project aims at **facilitating access to renewable energy generation** (and its economic and environmental benefits) for vulnerable households, which suffer from energy poverty, and which otherwise would not have the capacity of investing in solar installations. [[More information](#)]





Who are the Sun4All project partners?

The Sun4All project is driven by **11 European organizations**. Sun4All involves energy agencies at the pilot locations, which are using their expertise to ensure efficient energy management within the project. Public administrations and municipalities at the pilot locations are involved to ensure the establishment of the support scheme and to manage coordination between social services, residents or participants and the project partners. The association Ecoserveis is leading the project management, whereas the organization ICLEI European Secretariat, the universities of Rome and Stavanger, INES and the Jacques Delors Institute are supporting the Sun4All programme implementation. [[More information](#)]



AGÈNCIA D'ENERGIA
DE BARCELONA



AGENEAL
Agência Municipal
de Energia de Almada

CMA
CÂMARA
MUNICIPAL
DE ALMADA



ecoserveis



ROMA



SAPIENZA
UNIVERSITÀ DI ROMA



Universitetet
i Stavanger

What are the Sun4All project pilot locations?

Four European cities and regions are acting as early adopters of the Sun4All project financial support scheme for renewable energy access.



Almada (PT)



Barcelona (ES)



Coeur de Savoie (FR)



Rome (IT)

The Sun4All project financial support scheme has been adapted to the contextual characteristics of each of the pilot locations, ensuring that all implemented activities are local needs oriented. [More information: [Almada](#), [Barcelona](#), [Coeur de Savoie](#), [Rome](#)]

What is the Sun4All Community of Practice observers' group about?

Sun4All tackles energy poverty and facilitates vulnerable consumers' participation in a fair energy transition in Europe. One of the objectives of the project is to be sustainable and replicable throughout Europe. To ensure this goal, a **Community of Practice of the European cities** was established to follow the project and plan a **replication of the Sun4All schemes** in their regions. The Community of Practice observes the pilots' implementation to get some first-hand experience and work more effectively on their own specific energy poverty eradication plans and local business models. [[More information](#)]



What is the Sun4All approach to tackle energy poverty?



What is the Sun4All project methodological basis?

The Sun4All project sets-up a **financial support scheme** that is already running with success in the United States of America. The existing New York State initiative – utility bill assistance programme named “Solar for All” is now adopted into the European context. [[More information](#)]

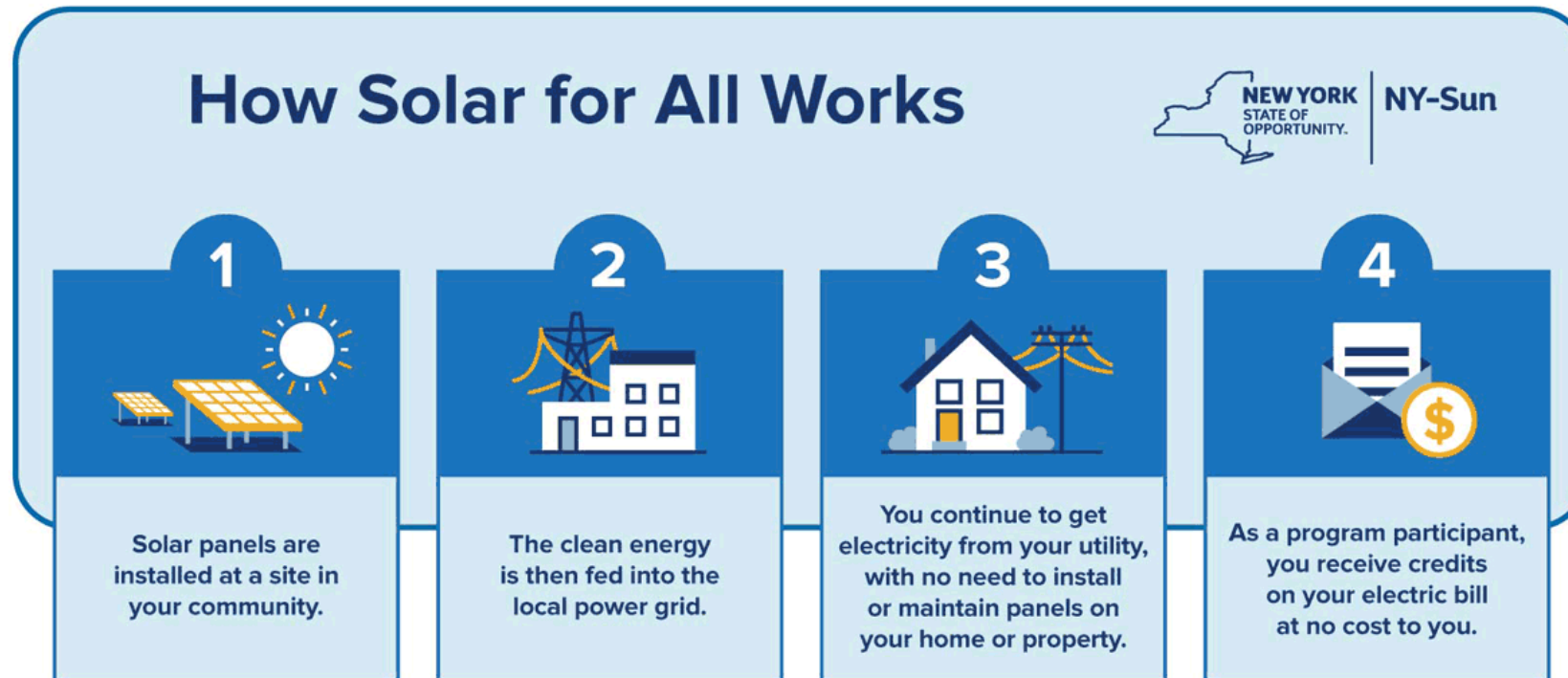
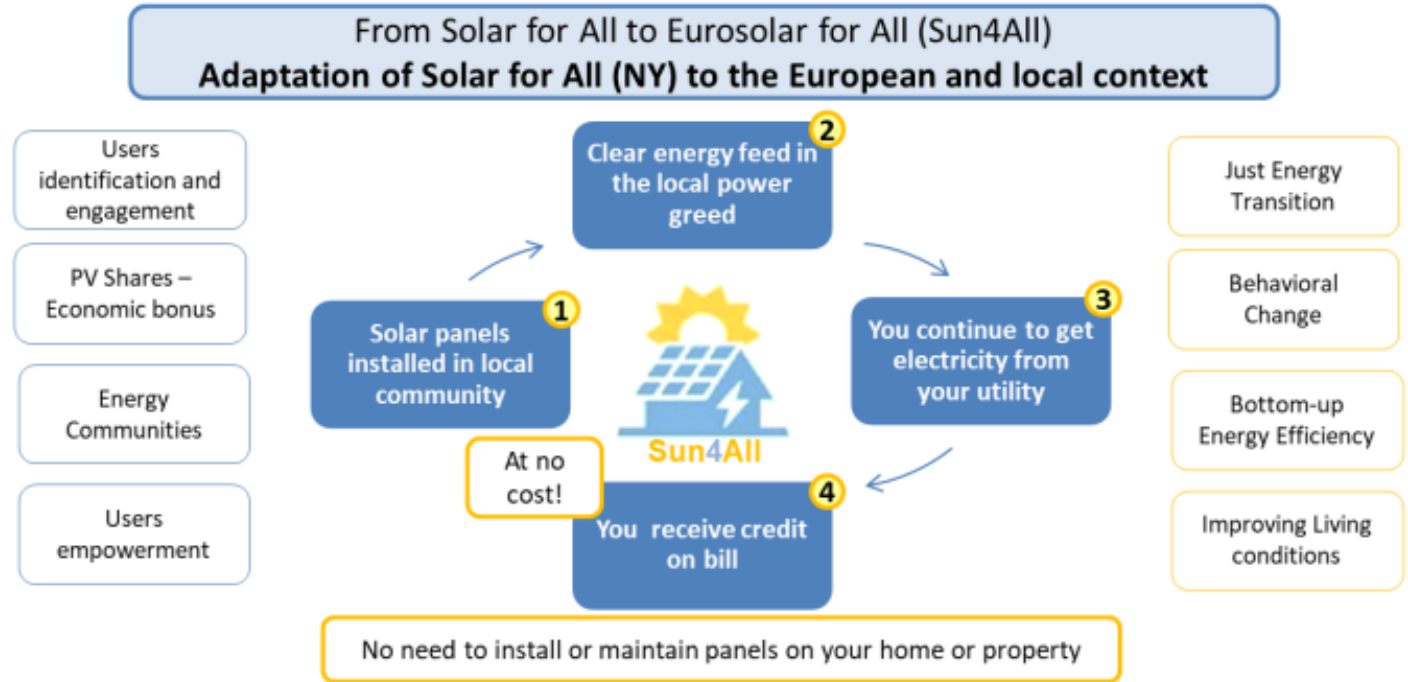


Figure: Solar for All programme functioning scheme (adapted from NYSERDA Sun4All workshop presentation)

What is the fundamental part of the Sun4All project?

A fundamental part of the Sun4All project is the adaptation of the “Solar for All” scheme to the local context of the pilots and the European framework, as depicted in the next figure.

The adaptation process lies primarily on a direct liaison and peer learning process with NYSERDA. [[More information](#)]



Community Approach

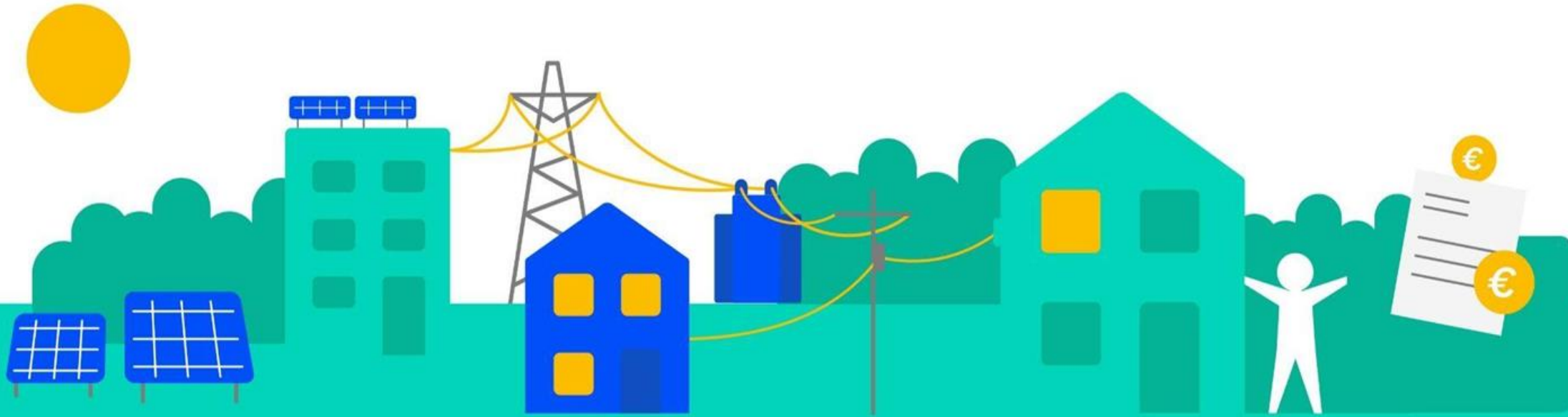
Transferability and Replication

Monitoring and Evaluation



Figure: General concept for the adaptation of the Solar for All programme to the European Sun4All Solar Power to the People

Get to know the Sun4All support scheme



Solar energy is generated by local photovoltaic installations, owned by the municipality and located near to where eligible participants live

Depending on the pilot use case, the renewable solar energy is either provided for direct consumption by Sun4All beneficiaries or fed into the local power grid

Sun4All beneficiaries continue to get electricity as usual, with no need to install or maintain solar panels

Through the financial support scheme and its redistribution mechanism, Sun4All participants financially benefit from the renewable energy produced and its value



What are the main principles of the Sun4All support scheme?

Beneficiaries of the Sun4All project will receive financial, as well as non-financial support. Financial support will be provided to the vulnerable households in a more proactive manner, **helping them to break the energy poverty cycle**. The solar energy produced by the photovoltaic installations that are part of the project, will be evenly credited on the participants' energy bills and lead to a reduction of their actual energy costs.

Following the concept of “**energy communities**”, participants of the project will receive advice on efficient energy management at home, as well as the possibility to participate in workshops related to the topics of energy rights and efficiency. Through knowledge transfer and an essential community programme, empowerment of participants will be promoted.

In that way, the Sun4All project supports **an inclusive energy transition process** towards sustainable energy production in Europe. Building on the results of the testing phase, the Sun4All support scheme will be scaled up across Europe. [[More information](#)]

How is Sun4All
implementing the
financial support
scheme?



What is the process of implementation of the Sun4All financial support scheme?

Designing the Implementation Plan of the Sun4All financial support scheme for the city includes the process of setting all the parameters and path to be followed to start running Sun4All.

The parameters to be defined by the city include operational aspects of the billing and communication process with beneficiaries and preparation of the installations, legal and administrative aspects, and involvement with various stakeholders.

The process of designing the Implementation Plan of Sun4All financial support scheme covers the following topics:

- Generation of solar energy.
- Financial scheme of users' benefits.
- Stakeholder involvement.
- Data management and protection.
- Recruitment and communication actions with beneficiaries. [[More information](#)]



How were the typical Sun4All financial support scheme use cases defined?

To set up each pilot use case and develop a first approach to data and financial flows and stakeholders' roles, typical use cases were developed and are described below. These can be used as an inspiration to build your own use cases adapted to your context.

1

Use case 1 Simple model

2

Use case 2 Energy community

3

Use case 3 Utility company

4

Use case 4 Third party

5

Use case 5 Social money



What are the Sun4All financial support scheme use cases?

Use case 1: “Simple model”

- Sun4All partners act as “intermediaries” between the PV installation production and the end users/beneficiaries. Sun4All partners will be responsible for collecting and managing the data and the financial flows to provide the adequate benefits (municipal discounts, tax benefits etc.) to the end users of the project, the vulnerable consumers. [[More information](#)]

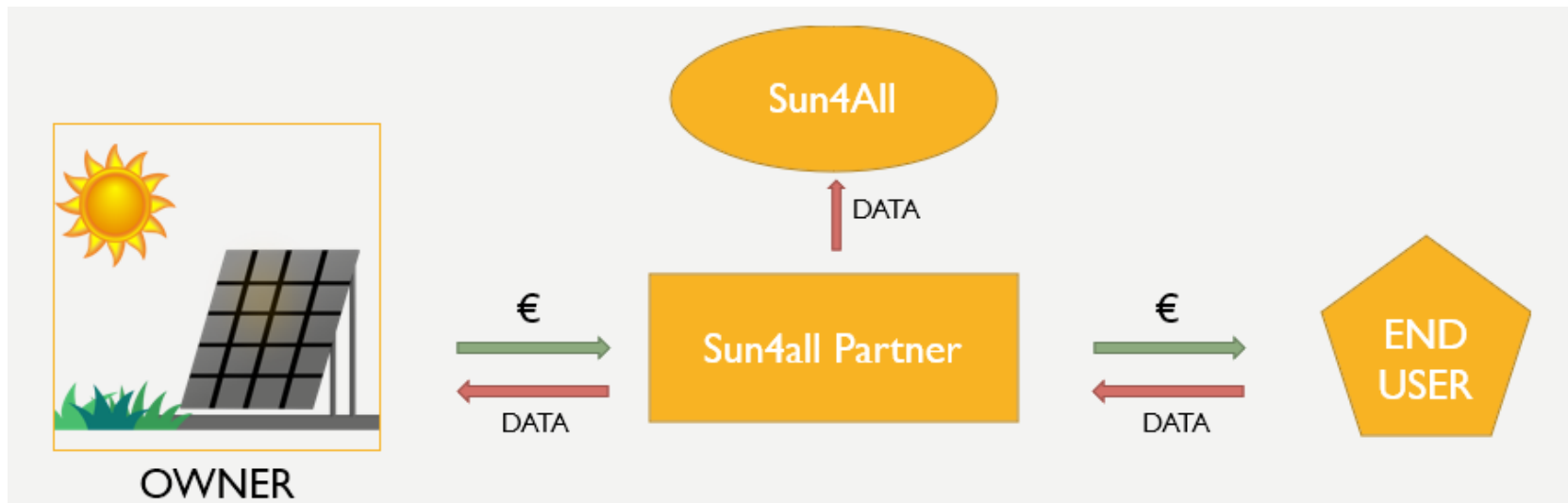


Figure: Use Case 1 – Simple module structure



Use case 2: “Energy community”

- A development of Use Case 1, where Renewable Energy Communities are established between the vulnerable consumers, local/regional authorities and technical Sun4All partners. In the case of some pilots, due to the legislative framework there will be the need to create a legal entity responsible for the operational management of the self-consumption activities and the communication with the respective operator/distributor. [[More information](#)]

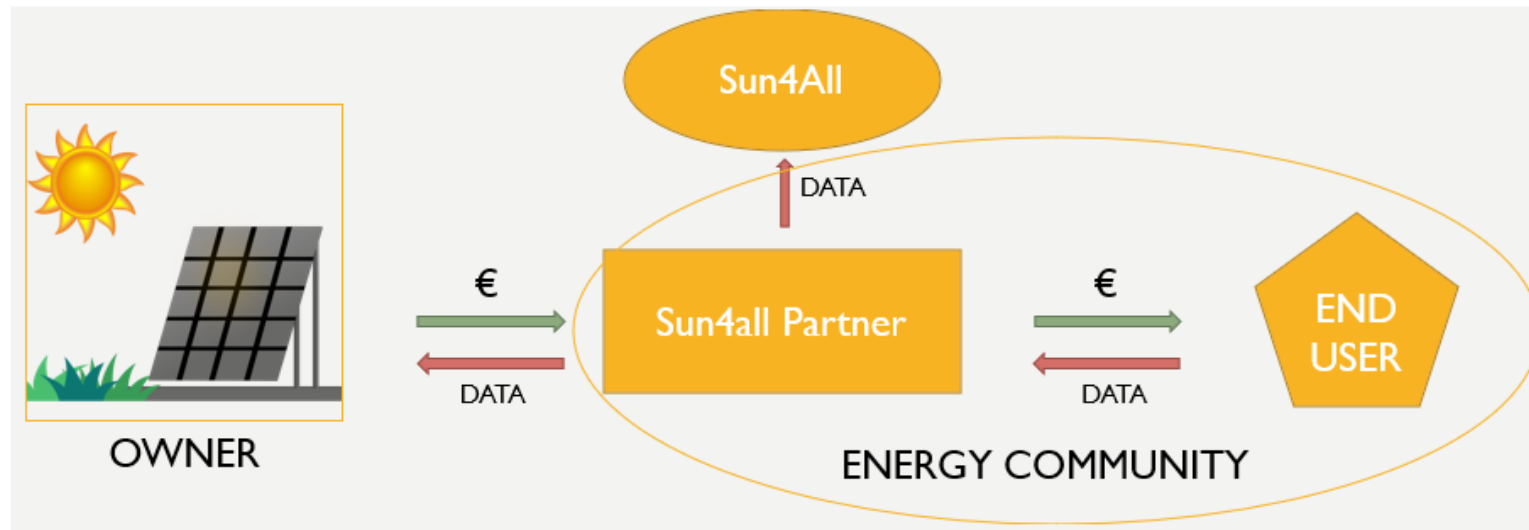


Figure: Use Case 2 – Energy Community structure



Use case 3: “Utility company”

- As in Use Case 1, Sun4All partners act as “intermediaries” between the PV installation production and the end users/beneficiaries, but there will also be the involvement of the distribution/Utility companies in the collection/management of the data and financial flows. Sun4All partners will collaborate and liaise with the Distribution/Utility companies to calculate and distribute the financial benefits to the end users of the project, for example discounts in the energy bill. [[More information](#)]

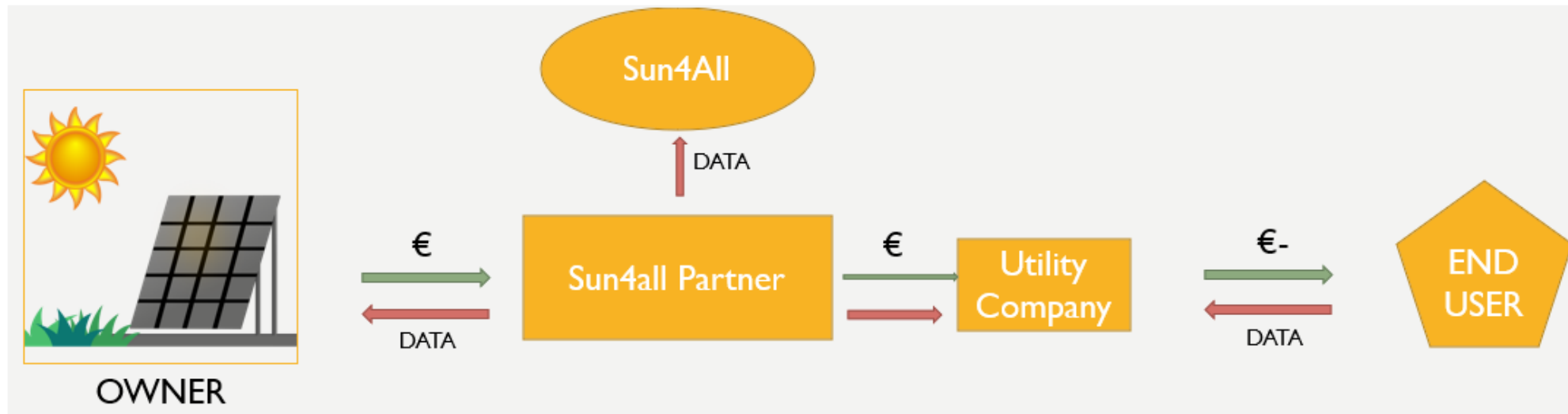


Figure: Use Case 3 – Utility Company structure



Use case 4: “Third party”

- Like Use Case 3 but involving a third party which can be a private company (e.g., a supermarket), that will provide a link between the PV production and the financial benefits for the end users (which could be discounts, for example). Due to the sensitive nature of the information, data from end users will only be collected and managed by Sun4All partners. [[More information](#)]

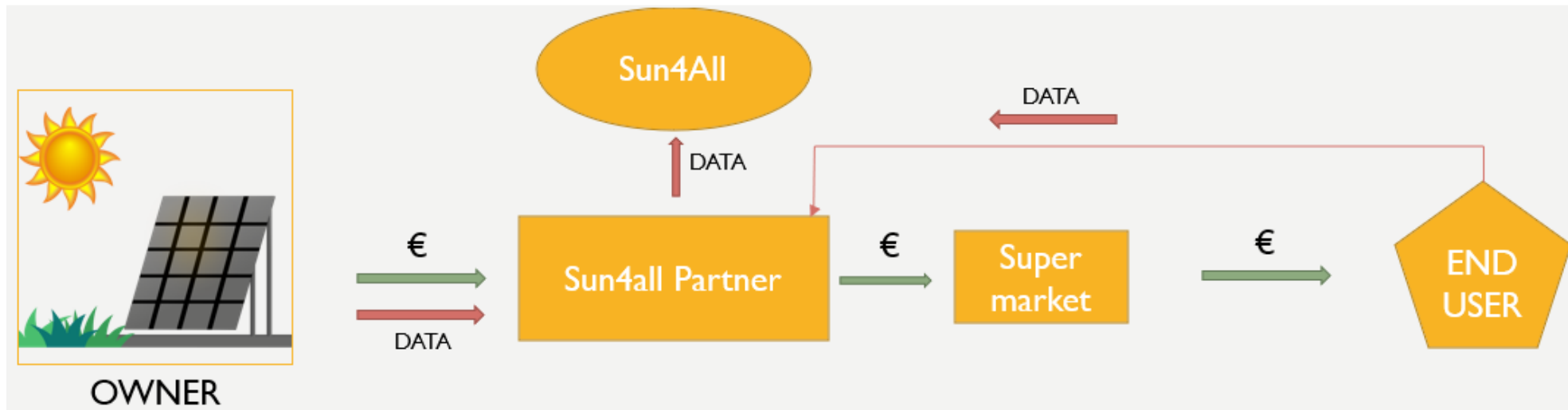


Figure: Use Case 4 – Third Party structure



Use case 5: “Social money”

- In this Use Case, the benefits from the PV energy production will be channelled to the end users through a Social Institution (Municipal Social Departments, grassroots organizations etc.). The beneficiaries will not receive financial benefits but instead this financial flow will be managed by the Sun4All partners directly to the Social Institution, which will in turn provide the non-monetary benefits to the vulnerable consumers. Collection and management of the data from end users will be done by Sun4All partners to inform the Social Institution which are part of the pilot. [[More information](#)]

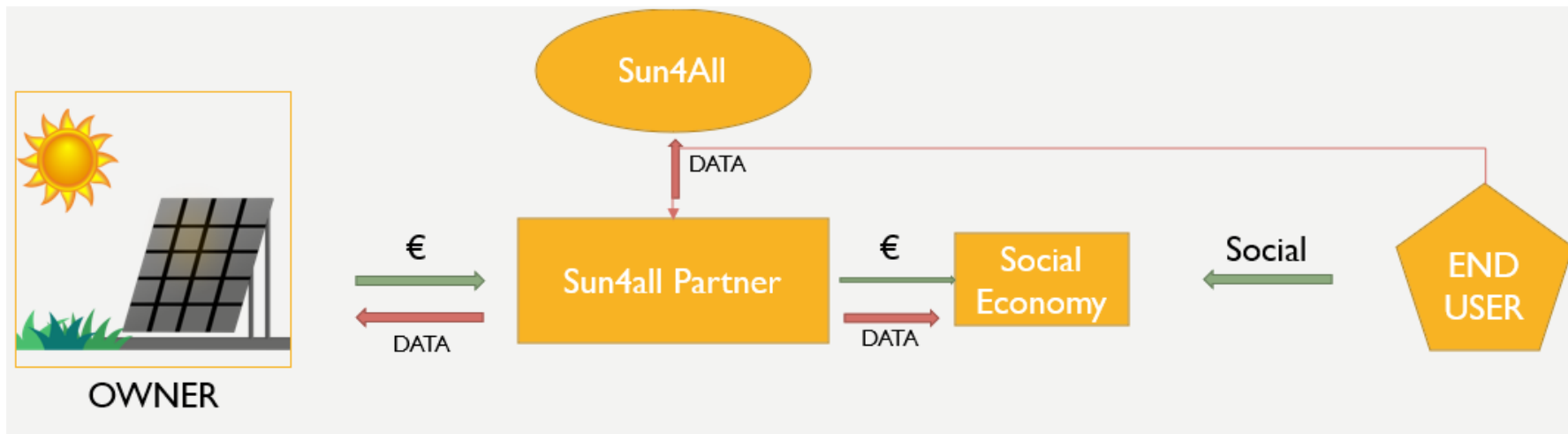


Figure: Use Case 5 – Social Money Structure



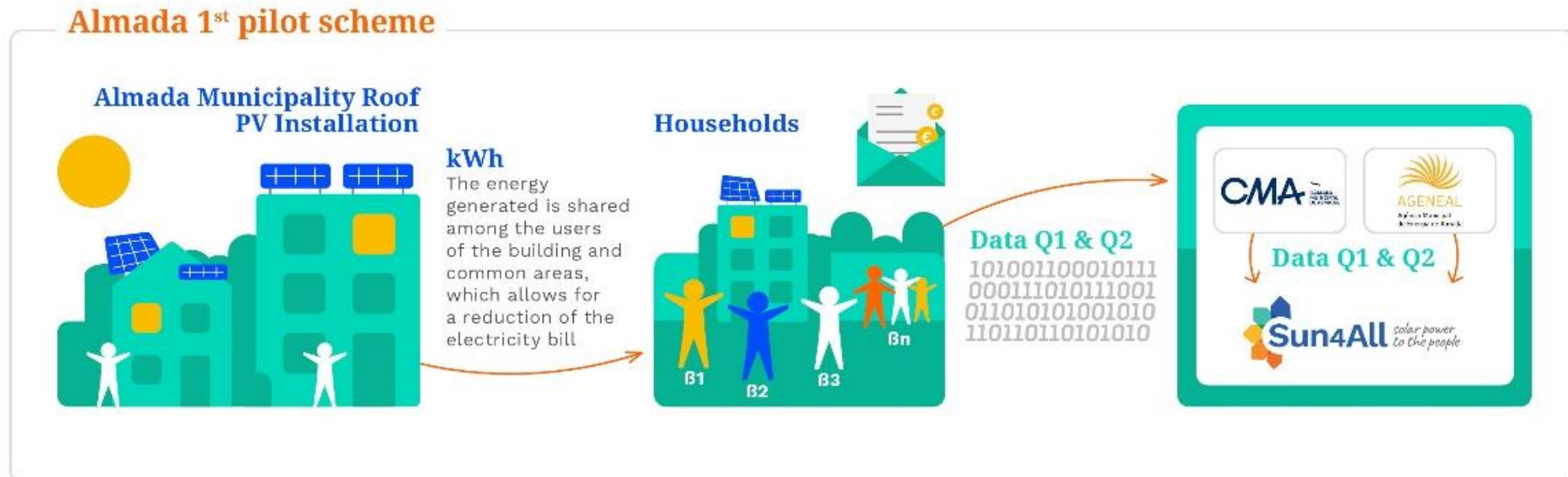
How was the Sun4All financial support scheme localised by the pilots?

During the project lifetime, the Sun4All partners have adapted the use cases that best fit their needs and framework, as well as adapted them to tailor made solutions that respond to each region's context, to maximise the success and the positive impact of the pilots.

It is worth noting that not all mentioned use cases are being tested along the Sun4All project, however, they are presented as potential schemes that can be followed. Moreover, the final use cases will be updated including the actual process followed by each pilot. [[More information](#)]

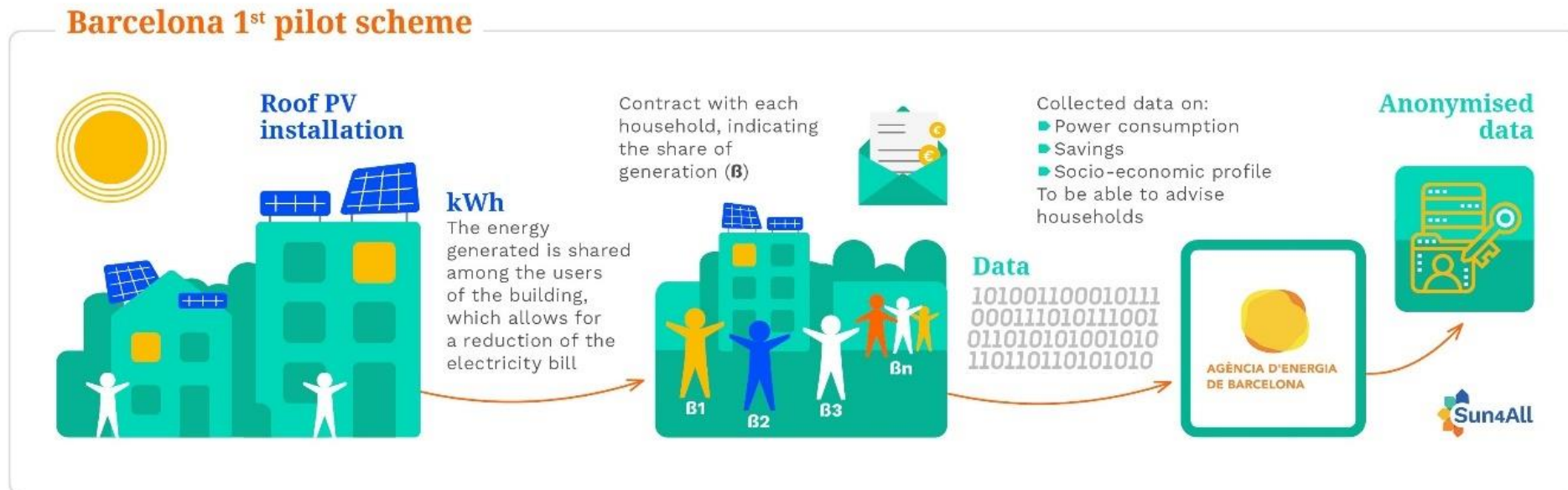
Sun4All pilot's localisation approach

In Almada, photovoltaic panels are **installed on roofs owned by the municipality**. The energy generated is shared among the users of the buildings and common areas, which allows for a **reduction of the electricity bills of the households**. The localised Sun4All financial support scheme model used in Almada is summarised in figure below. More information [[here](#)] and [[here](#)]



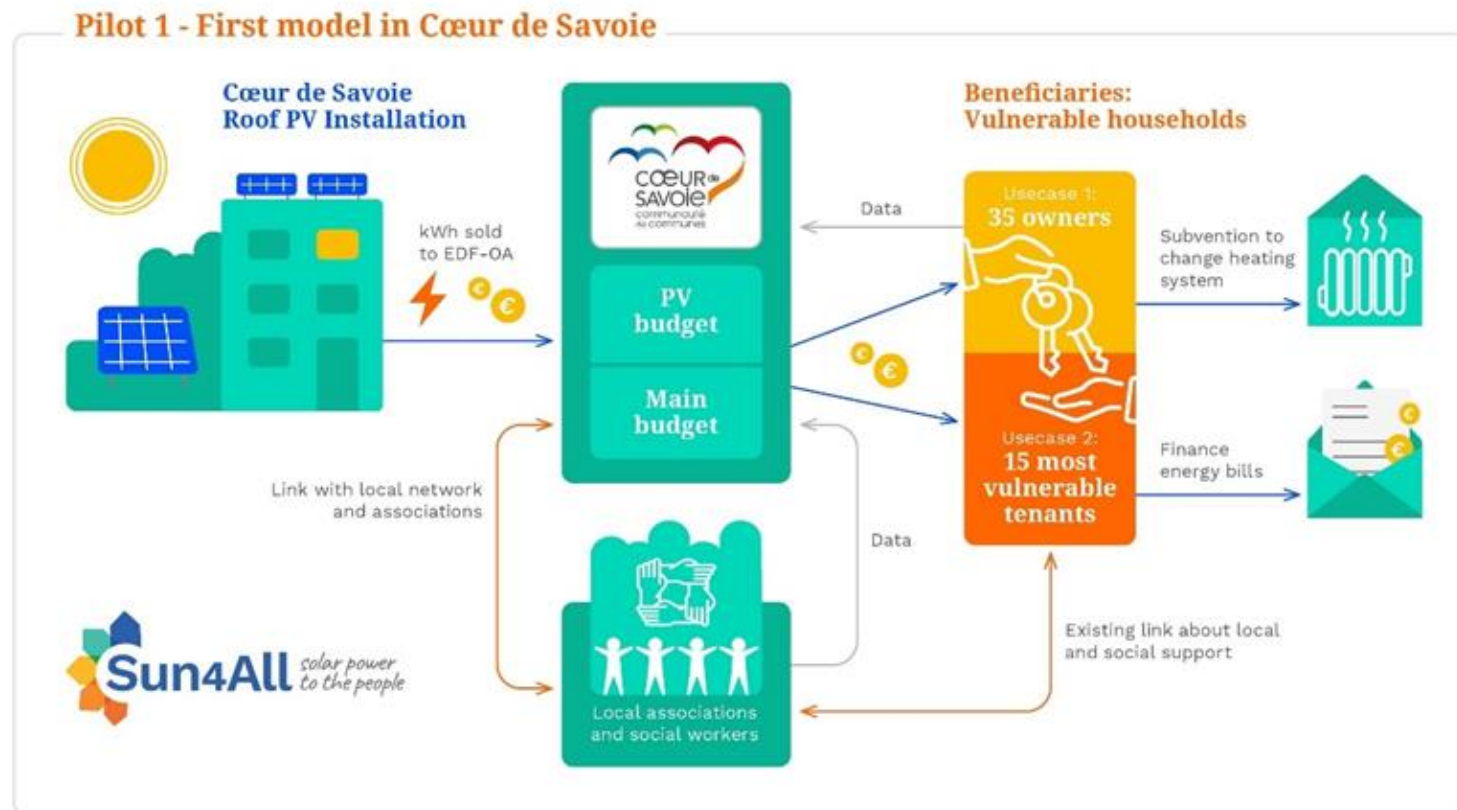
Sun4All pilot's localisation approach

In Barcelona, the energy generated by the roof photovoltaic installation on the apartment building is shared among its users, which allows for a reduction of the electricity bill. **Each household has a contract indicating the share of generation.** The localised Sun4All financial support scheme model used in Barcelona is summarised in figure below. More information [[here](#)] and [[here](#)]



Sun4All pilot's localisation approach

In Cœur de Savoie, two different Sun4All financial support scheme localised models were used. In the first one (please see figure below), the energy generated by the roof photovoltaic installation owned by the Communauté de Communes Cœur de Savoie was sold to EDF-OA.

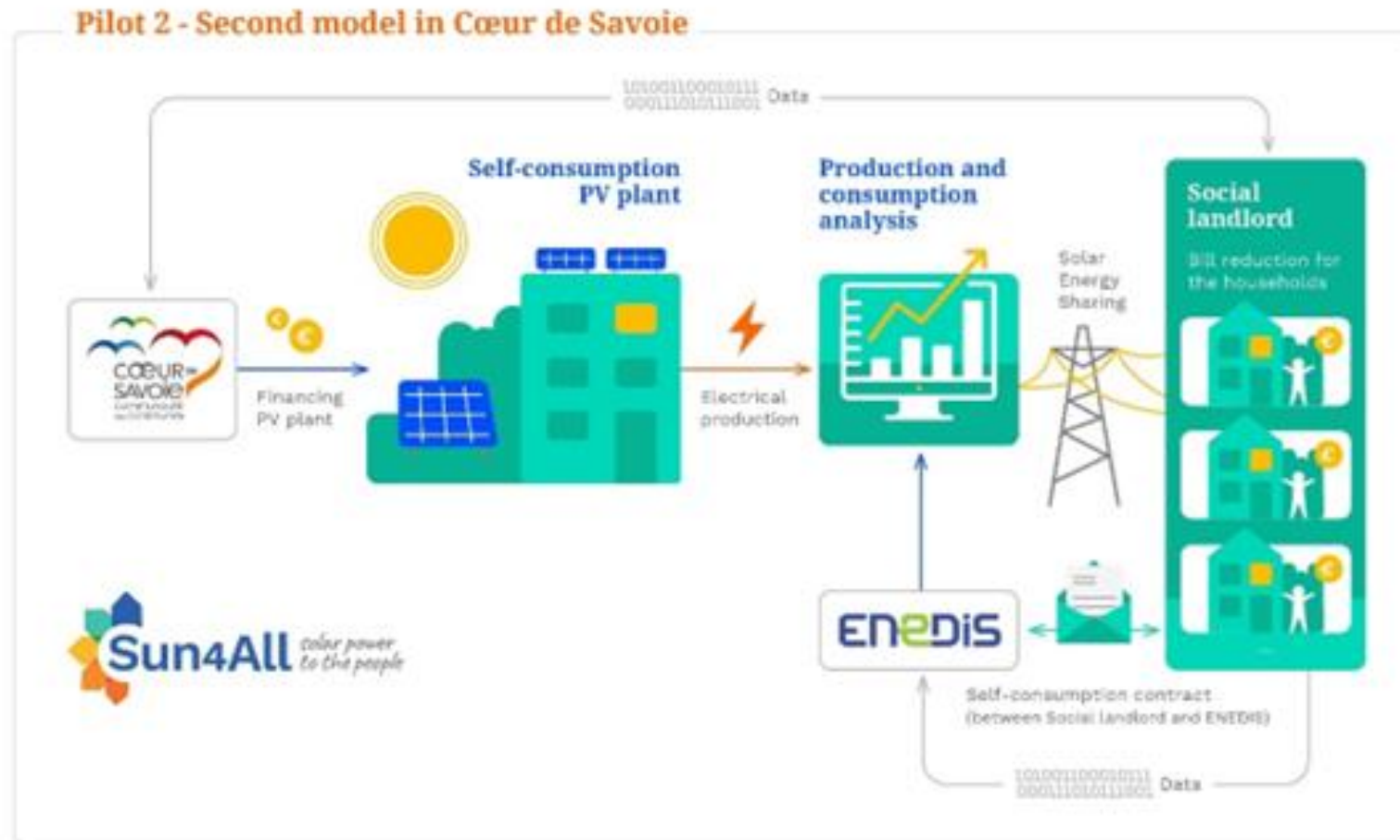


Sun4All pilot's localisation approach

35 owners benefited from a subvention to change their heating system, and fifteen vulnerable tenants received support to finance their energy bills. Local associations and social workers made the link between the vulnerable households and the Sun4All pilot partners.

In the second model, the Communauté de Communes Cœur de Savoie financed a PV plant for self-consumption. **The produced energy was shared with households in the form of bill reduction via a social landlord.** A self-consumption contract was concluded between the social landlord and ENEDIS (please see figure below).

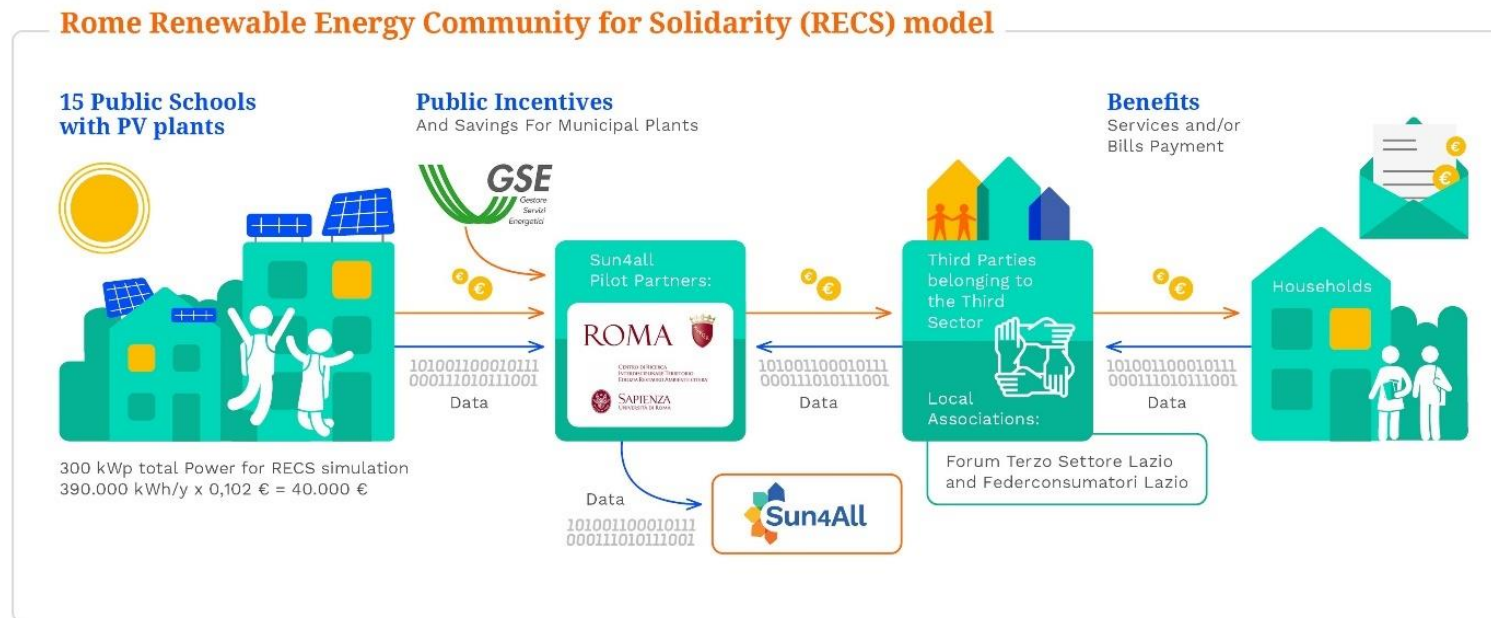
Sun4All pilot's localisation approach



More information [[here](#)] and [[here](#)]

Sun4All pilot's localisation approach

In Rome, Sun4All's financial scheme follows the model of a Renewable Energy Community for Solidarity. **Fifteen public schools were equipped with photovoltaic plants**, generating public incentives and savings for municipal plants. The localised Sun4All financial support scheme model used in Rome is summarised in figure below. More information [[here](#)] and [[here](#)]



How is Sun4All
engaging
vulnerable
stakeholders?



What are the main stages of stakeholder engagement in the Sun4All?

Studies on residential engagement into programmes that concern energy generation and consumption are frequently described as including **three main stages** that are key to achieving sustained user engagement throughout a project:

- Recruitment.
- Consumer response or behavioural change.
- Persistence. [[More information](#)]

The division of engagement into three stages corresponds to temporal periods in which the user experience and required actions differ. As such, addressing each of them thoroughly and on their own grounds is especially useful to adapt engagement to the changing necessities of users along the whole duration of a programme. In this manner, it prevents the risk of insufficient initial recruitment, of engaging highly homogeneous social groups, hence excluding or missing out on others, and of drop-out over-time. [[More information](#)]



1

The Recruitment Stage

The recruitment stage concerns all the actions and circumstances through which a potential beneficiary is exposed to, or can access, information related to the project and the problems it seeks to tackle, to the process of registration. Recruitment thus encompasses issues as diverse as becoming aware of the project, learning whether one qualifies for participation, talking about responsibilities and benefits, and filling in the necessary paperwork. [[More information](#)]

2

The Consumer Response and Behavioural Change Stage

In the Consumer Response and Behavioural Change stage, strategies will be directed at initiating and maintaining the beneficiary's interest, participation and response to the various activities and tasks established by the programme. [[More information](#)]



3

The Persistence Phase

In the Persistence phase, engagement strategies are aimed at consolidating user interest over time. That is, engagement will seek to keep the user attentive and in interaction with the programme, until it becomes a well-established element in the day-to-day activities, and considerations of beneficiaries. The goal of persistence would be to develop a user interest in the topic of the programme that outlives the project itself. [[More information](#)]

Sun4All pilots' advice: After the completion of the recruitment stage, and the registration of the stipulated number of beneficiaries, it is important to devise and implement the further engagement strategies to ensure that participants stay active in the programme, and to consolidate interest in the energy community.



What is the main goal of the Sun4All Community Work Plan development?

The goal of the community work plan is to ensure that participants to the project do not merely benefit from a discount in their electricity bills, but that they are facilitated the tools to become empowered citizens, capable of making sense of, and participating in the advancement of a fair energy transition. For this purpose, many of these activities seek to promote simultaneously the sustained interaction between beneficiaries and between beneficiaries and Sun4All officers, as well as to offer them training and learning sessions to better understand how to be more energy-efficient, prevent energy poverty, and to generate and manage renewable energy sources as a collective resource.

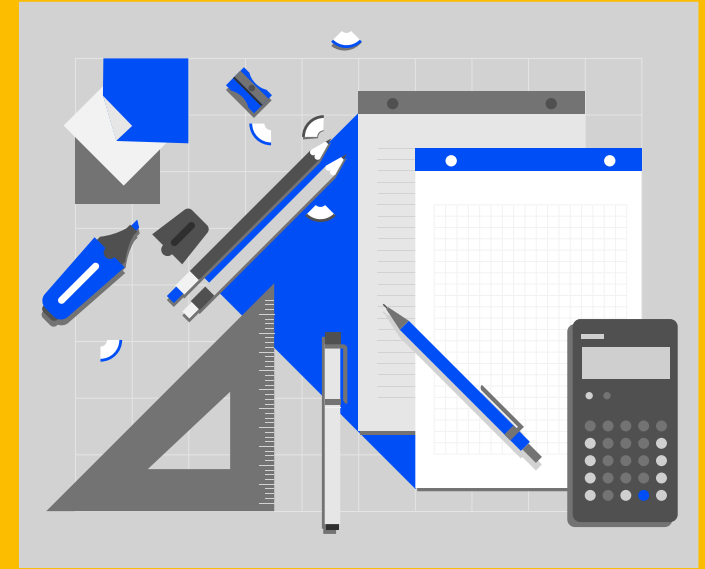
Local work plan stands for the variegated resources, personnel, approaches to participation, activities and training material developed to sustain engagement and to promote community-building during the Sun4All implementation. [[More information](#)]

Key elements of the Sun4All pilots' Strategies of Engagement and Community Work Plan

Strategies of Engagement		Community Work Plan		
Information Campaign throughout the Programme	Recruitment Actions	Communication		
		Communication with Beneficiaries	Communication with the Broader Community	Community Strategy Activities
<ul style="list-style-type: none"> To use digital communication media, e.g., Facebook, LinkedIn, Twitter, Instagram. To publish in the local newspapers and newsletters. To develop a comic, a flyer. 	<ul style="list-style-type: none"> To organise the informative sessions. To implement a door-to-door information campaign. To engage a person trusted by the beneficiaries. To support the socialization. 	<ul style="list-style-type: none"> To implement direct in-person interactions. To set up a specific email address as well as a phone line. To create a WhatsApp list channel. To print and hung on the wall informative posters. 	<ul style="list-style-type: none"> To develop collaboration with other municipal departments. To cooperate with the local associations, schools, community centres, etc. To use the social media platforms and the webpage of the municipality. 	<ul style="list-style-type: none"> To organise workshops To organise visits to the PV installations To organise individual energy advice sessions To support mentoring programme

Part 3

Focus on the integration of Sun4All's financial scheme in the cities' SECAPs



What is the framework for the integration of Sun4All's financial scheme in the cities' SECAPs?

The Covenant of Mayors for Climate and Energy - Europe is the mainstream European voluntary movement involving local authorities in the development and implementation of sustainable energy and climate policies.

The formal commitment of signatories is translated into concrete measures and projects by the implementation of a Sustainable Energy and Climate Action Plan. The Sustainable Energy and Climate Action Plan includes the key actions local authorities intend to undertake. The Sustainable Energy and Climate Action Plan is based on the outcomes of the Baseline Emission Inventory and the Risks and Vulnerabilities Assessment on the territory. Signatory cities accept to report and monitor their implementation of the Sustainable Energy and Climate Action Plan through the reporting and monitoring platform – [MyCovenant](#).

Cities also commit to allocating sufficient human resources to the tasks, mobilising society in their geographical areas to take part in implementation of the action plan, including organisation of local energy days, and networking with other cities. [[More information](#)]

What are the main tasks for the integration of Sun4All's financial scheme in cities' SECAPs?

For the integration of Sun4All's financial scheme in cities Sustainable Energy and Climate Action Plans, it is important to note that the energy poverty pillar in the Covenant of Mayors – Europe reporting and monitoring framework serves as an instrument for planning and implementation of energy poverty measures. It is flexible to allow catering to the different needs and local circumstances of signatories. The Covenant of Mayors – Europe energy poverty pillar consists of three key elements. [\[More information\]](#)



In the context of Sustainable Energy and Climate Action Plan development, cities and regions are called (1) to determine whether energy poverty exists and (2) to design a strategy to address the problem, by identifying who is affected, i.e., vulnerable stakeholders and which actions will be taken to assist them. [\[More information\]](#)

What are the main cases for the integration of Sun4All's financial scheme in cities' SECAPs?

Depending on the local governments experience with sustainable energy and climate action planning and incorporating the aspects of tackling energy poverty, there are four main cases for planning the integration of Sun4All's financial scheme in cities' Sustainable Energy and Climate Action Plans.

Case 1

Beginner

- There is currently no Sustainable Energy and Climate Action Plan available

Case 2

Mid-level

- Sustainable Energy and Climate Action Plan is currently under development

Case 3

Advanced

- There is available Sustainable Energy and Climate Action Plan. Currently it does not include information on the energy poverty pillar

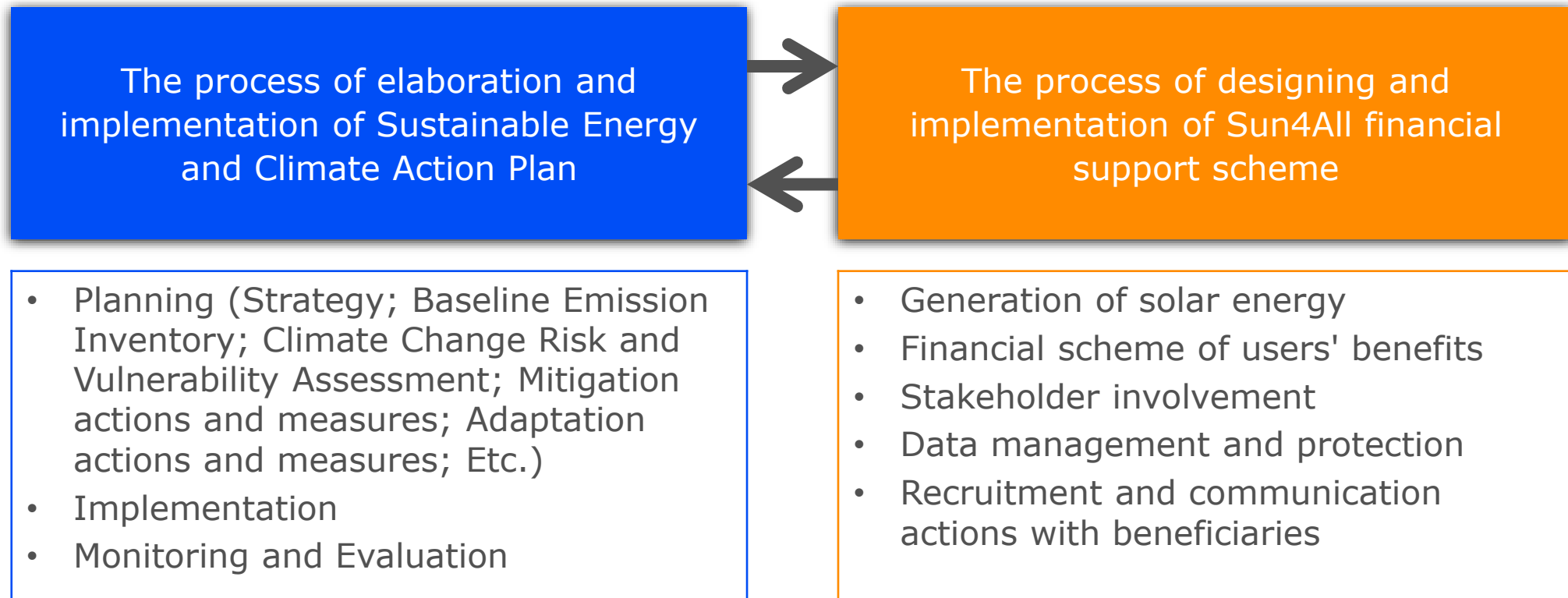
Case 4

Expert

- There is available Sustainable Energy and Climate Action Plan. It includes information on the energy poverty pillar

What are the main characteristics of the integration of Sun4All's financial scheme in cities' SECAPs?

The integration of Sun4All's financial scheme in cities' Sustainable Energy and Climate Action Plans foresees the synchronization of the following two processes:



What are the key activities for the integration of Sun4All's financial scheme in cities' SECAPs?

Planning Phase

Access energy poverty in the municipality

Identify energy vulnerable households

Analyse energy poverty actions framework

Design the energy poverty actions

Implementation Phase

Develop cross-sectoral collaboration

Engage energy vulnerable households

Develop energy poverty actions framework

Implement the energy poverty actions

Monitoring and Reporting Phase

Implement energy poverty actions impact assessment

Report on energy poverty

Communicate on energy poverty

Reconsider the energy poverty actions

How to integrate
Sun4All's financial
scheme in the
Planning Phase?





What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Planning Phase?

1. Thematic objective

- **To access energy poverty in the municipality**

2. Thematic questions

- Is your municipality affected by energy poverty?
- What is the current state of energy poverty in your municipality?

3. Thematic tasks

- To analyse the current state of energy poverty in your municipality (e.g., available data, indicators, supporting information, studies, etc.).
- To analyse the conditions of energy poverty in your municipality (e.g., causes, drivers, consequences, geographical distribution, etc.).
- To identify the key energy poverty stakeholders in your municipality and what are the relationships with each other (i.e., roles, functions, tasks, etc.).

4. Sun4All knowledge resources

1. Sun4All [Glossary](#).
2. Sun4All [Dissemination and Communication Strategy](#).
3. Sun4All Video Project Presentation: [Energy Communities for a fair Energy Transition in Europe](#).
4. Series of video interviews "[Sun4All in...](#)"



What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Planning Phase?

1. Thematic objective

- **To identify energy vulnerable households**

2. Thematic questions

- Who are the most energy vulnerable households in your municipality?
- Why these households are energy vulnerable?

3. Thematic tasks

- To define who will be the beneficiaries of the Sun4All financial support scheme in your municipality.
- To define which kind of socio-economic information the potential beneficiaries should provide.
- To define who among the many potential beneficiaries of the call should be selected. Which criteria for their evaluation should be followed?

4. Sun4All knowledge resources

1. Sun4All [Local requirements to benefit from Sun4All program.](#)
2. Sun4All [Capacity and Training Package.](#)
3. Sun4All Video Project Presentation: [Energy Communities for a fair Energy Transition in Europe.](#)
4. Series of video interviews "[Sun4All in...](#)"



What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Planning Phase?

1. Thematic objective

- **To analyse energy poverty actions framework**

2. Thematic questions

- What is the current (i) strategic, (ii) legal, and (iii) administrative framework on energy poverty actions in your municipality?

3. Thematic tasks

- To analyse the current strategic, legal, and administrative framework for the energy poverty actions (i.e., strategies, policies, actions, supporting metrics, etc.) for the Sun4All model adoption planning in your municipality.
- To identify and analyse the existing systemic barriers and opportunities (incl., financial preconditions and aspects) for the Sun4All model adoption planning in your municipality.

4. Sun4All knowledge resources

1. Sun4All [Comparative analysis of the regulatory framework in Sun4All pilot cities.](#)
2. Sun4All [The EU framework on energy communities.](#)
3. Sun4All Project Report ["Revised version of blueprint model for the Sun4All programme"](#)
4. Sun4All [Implementation Plan of Sun4All programme.](#)



What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Planning Phase?

1. Thematic objective

- To design the energy poverty actions

2. Thematic questions

- What specific energy poverty actions your municipality would like to include in the SECAP?

3. Thematic tasks

- To analyse how the existing climate change mitigation and adaptation actions in your municipality's SECAP contribute to tackling energy poverty.
- What is the relevance of the Sun4All financial support scheme typical use cases to the local context and needs of your city?
- What steps do you need to take to set up a use case and develop a first approach to data and financial flows and stakeholder's roles?

4. Sun4All knowledge resources

1. Sun4All Project Report ["Revised version of blueprint model for the Sun4All programme"](#)
2. Sun4All [Implementation Plan of Sun4All programme.](#)
3. Sun4All [Capacity and Training Package.](#)
4. Sun4All Video Project Presentation: [Energy Communities for a fair Energy Transition in Europe.](#)

How to integrate
Sun4All's financial
scheme in the
Implementation
Phase?





What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Implementation Phase?

1. Thematic objective

- **To develop cross-sectoral collaboration**

2. Thematic questions

- How would you describe the current level of collaboration to tackle energy poverty in your municipality?

3. Thematic tasks

- To support internal (inside the municipal administration) and external stakeholder (outside the municipal administration) collaboration to tackle energy poverty.
- To support cross-sectoral internal stakeholder collaboration to tackle energy poverty.
- To support creation of the local multi-stakeholder group for the Sun4All model adoption planning.

4. Sun4All knowledge resources

1. Sun4All Project Report ["Revised version of blueprint model for the Sun4All programme"](#)
2. Sun4All [Dissemination and Communication Strategy](#).
3. Sun4All [Capacity and Training Package](#).
4. Series of video interviews ["Sun4All in..."](#)



What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Implementation Phase?

1. Thematic objective

- **To engage energy vulnerable households**

2. Thematic questions

- How to engage the vulnerable households to participate in the energy poverty actions and build community?

3. Thematic tasks

- To implement a public information campaign about the energy poverty actions and the Sun4All financial support scheme.
- To implement recruitment actions to join the Sun4All financial support scheme.
- To communicate with Beneficiaries and with Broader Community about the energy poverty actions and the Sun4All financial support scheme.
- To develop and implement the Sun4All Community Strategy.

4. Sun4All knowledge resources

1. Sun4All [Local requirements to benefit from Sun4All program.](#)
2. Sun4All [Local work plans of community work.](#)
3. Sun4All Flyer
English – [link.](#)
Catalan – [link.](#)
Spanish – [link.](#)
Portuguese – [link.](#)
French – [link.](#)
Italian – [link.](#)
4. Sun4All [Visual Identity.](#)



What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Implementation Phase?

1. Thematic objective

- To develop energy poverty actions framework

2. Thematic questions

- How to improve the current (i) strategic, (ii) legal, and (iii) administrative framework on energy poverty actions in your municipality?

3. Thematic tasks

- To adopt/develop the strategic, legal, and administrative procedures and regulations necessary for the implementation of the energy poverty actions included into your SECAP (e.g., the Sun4All financial support scheme).
- To define criteria and conditions for participation in the Sun4All programme adoption: eligibility and evaluation criteria definition and selection, evaluation process. EU General Data Protection Regulation.

4. Sun4All knowledge resources

1. Sun4All [Local requirements to benefit from Sun4All program.](#)
2. Sun4All Project Report "[Revised version of blueprint model for the Sun4All programme](#)"
3. Sun4All [Implementation Plan of Sun4All programme.](#)
4. Sun4All [Comparative analysis of the regulatory framework in Sun4All pilot cities.](#)



What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Implementation Phase?

1. Thematic objective

- **To implement the energy poverty actions**

2. Thematic questions

- How to ensure efficient and effective implementation of the energy poverty actions in your municipality?

3. Thematic tasks

- To mobilise resources (i.e., financial, human, technical, digital, etc.) needed for the successful implementation of the energy poverty actions.
- To ensure an overall management of the implementation of energy poverty actions (e.g., the Sun4All financial support scheme).
- To mobilise stakeholders and citizens with a special focus on the vulnerable households (i.e., engagement and empowerment).

4. Sun4All knowledge resources

1. Sun4All [Implementation Plan of Sun4All programme.](#)
2. Sun4All [Local requirements to benefit from Sun4All program.](#)
3. Sun4All Project Report ["Revised version of blueprint model for the Sun4All programme"](#)
4. Sun4All [Capacity and Training Package.](#)

How to integrate
Sun4All's financial
scheme in the
Monitoring and
Evaluation Phase?





What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Monitoring and Evaluation Phase?

1. Thematic objective

- **To implement energy poverty actions impact assessment**

2. Thematic questions

- How to assess the impact of the energy poverty actions in your municipality?
- How to make data and indicators work for your municipality?

3. Thematic tasks

- To develop the procedure for the monitoring of the implementation of the energy poverty actions (incl., Sun4All financial support scheme): barriers encountered, status of implementation of each action, etc.
- To select energy poverty indicators from the perspective of the:
 - Covenant of Mayors - Europe requirements, municipality's needs and expectations.
 - Indicator roles and functions.
 - Municipality's resources, capacities, and potential.

4. Sun4All knowledge resources

1. Sun4All [Impact Assessment Indicators and Guidelines](#).
2. Sun4All [Implementation Plan of Sun4All programme](#).
3. Sun4All [Local requirements to benefit from Sun4All program](#).
4. Sun4All Project Report ["Revised version of blueprint model for the Sun4All programme"](#)
5. Sun4All [Capacity and Training Package](#).



What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Monitoring and Evaluation Phase?

1. Thematic objective

- **To report on energy poverty**

2. Thematic questions

- How to ensure effective reporting that guides decision-making process on tackling energy poverty in your municipality?

3. Thematic tasks

- To develop the procedure for the monitoring of the implementation of the energy poverty actions (incl., implementation of the Sun4All financial support scheme): barriers encountered, status of implementation of each action, etc.
- To ensure meeting the reporting requirements of the Covenant of Mayors for Climate and Energy – Europe defined in the Reporting Guidelines on Energy Poverty.

4. Sun4All knowledge resources

1. Sun4All [Impact Assessment Indicators and Guidelines](#).
2. Sun4All [Implementation Plan of Sun4All programme](#).
3. Sun4All [Local requirements to benefit from Sun4All program](#).
4. Sun4All Project Report ["Revised version of blueprint model for the Sun4All programme"](#)
5. Sun4All [Capacity and Training Package](#).



What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Monitoring and Evaluation Phase?

1. Thematic objective

- **To communicate on energy poverty**

2. Thematic questions

- What are the key aspects of energy poverty communication?
- How to communicate on energy poverty in your municipality?

3. Thematic tasks

- To analyse the existing energy poverty communication landscape in your municipality.
- To define the main stakeholders / audiences with whom you would like to communicate about the energy poverty.
- To identify the more appropriate channels your municipality is planning to use to communicate about just energy transition and energy poverty.

4. Sun4All knowledge resources

1. Sun4All [Glossary](#).
2. Sun4All [Dissemination and Communication Strategy](#).
3. Sun4All Video Project Presentation: [Energy Communities for a fair Energy Transition in Europe](#).
4. Series of video interviews "[Sun4All in...](#)"



What are the key activities for integration of Sun4All's financial scheme in cities' SECAPs at the Monitoring and Evaluation Phase?

1. Thematic objective

- **To reconsider the energy poverty actions**

2. Thematic questions

- How to reconsider the energy poverty actions in your municipality and improve their effectiveness?

3. Thematic tasks

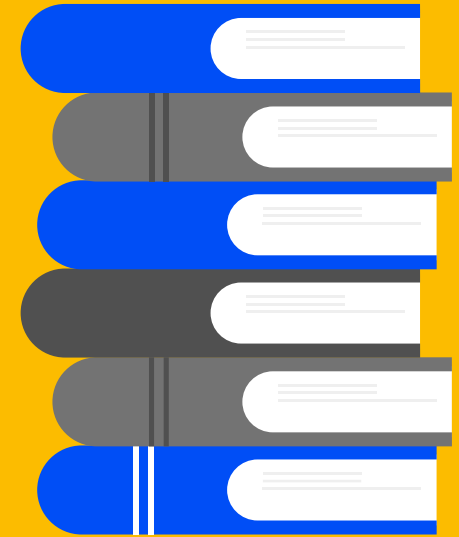
- To develop the procedure for the qualitative and quantitative assessment of the energy poverty actions (incl., Sun4All financial support scheme) in your municipality.
- To motivate and offer training, capacity building and knowledge sharing activities to the internal stakeholders involved in the energy poverty actions.
- Inform frequently the city council and politicians about the progress on tackling energy poverty.

4. Sun4All knowledge resources

1. Sun4All [Impact Assessment Indicators and Guidelines](#).
2. Sun4All [Implementation Plan of Sun4All programme](#).
3. Sun4All [Local requirements to benefit from Sun4All program](#).
4. Sun4All Project Report ["Revised version of blueprint model for the Sun4All programme"](#)
5. Sun4All [Capacity and Training Package](#).

Part 4

Focus on the
additional useful
Sun4All integration
resources





Planning Phase

1. EnergyMeasures project. How to identify energy vulnerable households? Please find the publication under the following [link](#).
2. European Commission. Energy Poverty Advisory Hub. 7 practical steps to energy poverty diagnosis – Energy Poverty Advisory Hub learning guide. Please find the publication under the following [link](#).
3. European Commission. Energy Poverty Advisory Hub. Energy Poverty Advisory Hub (EPAH) Handbook 1: A Guide to Energy Poverty Diagnosis. Please find the publication under the following [link](#).
4. European Commission. Energy Poverty Advisory Hub. Introduction to the Energy Poverty Advisory Hub (EPAH) Handbooks: A Guide to Understanding and Addressing Energy Poverty. Please find the publication under the following [link](#).
5. European Union. Energy Poverty Handbook. The office of Tamás Meszerics (Member of the European Parliament) via The Greens/EFA group of the European Parliament. Please find the publication under the following [link](#).



6. Life Adaptate Project. Guide for the Elaboration of Sustainable Energy and Climate Action Plans (SECAP), December 2019. Please find the publication under the following [link](#).
7. POWERPOOR Project. Empowering Energy Poor Citizens through Joint Energy Initiatives. Energy Poverty Guidebook for energy planning. Please find the publication under the following [link](#).

Implementation Phase

8. 10 EU-funded projects (BECoop, CEES, PowerPoor, eCREW, W4RES, UP-STAIRS, COME RES, EC2, NRG2PEERS, Sun4All) collaborative briefing. March 2023. Are renewable energy communities a vehicle to mitigate the energy crisis and lift people out of energy poverty? Please find the publication under the following [link](#).

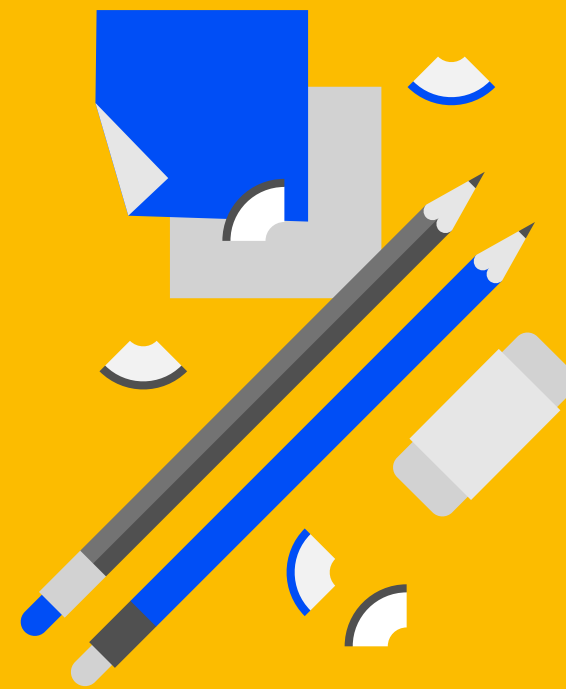
Monitoring and Reporting Phase

9. Covenant of Mayors for Climate & Energy – Europe. Reporting Guidelines on Energy Poverty, May 2022. Please find the publication under the following [link](#).
10. European Commission. Energy Poverty Advisory Hub. Energy Poverty Local Indicators. Please find the publication under the following [link](#).



11. European Commission. Energy Poverty Advisory Hub. Energy Poverty National Indicators: Insights for a more effective measuring. Please find the publication under the following [link.](#)
12. ODYSEE-MURE project. Measuring and monitoring energy poverty in the EU – Examples of good practices. Please find the publication under the following [link.](#)
13. Trinomics project. Selecting Indicators to Measure Energy Poverty. Please find the publication under the following [link.](#)

Final remarks





- The European Green Deal stresses the need to tackle energy poverty and ensure a fair transition. Ensuring that vulnerable households have access to renewable energies is equitable, helps to cover energy needs, and can support multiple policy goals, such as affordable energy, job creation, and improved public health.
- Although the need is great, many households may not be able to afford renewable energy systems installations or may be inhibited from participating in the energy transition for other reasons such as lack of access to information, difficulties to access finance or ownership patterns. Thus, it becomes more and more important for the local and regional governments to look for innovative solutions on how to integrate the aspects of tackling energy poverty into the sustainable energy and climate action planning and implementation process at the local level.
- Sun4All encourages the exchange of ideas, information and working practices between cities and other stakeholders addressing energy poverty. Fundamentals of the Sun4All project lie in the European and international networking and collaboration for the involvement of vulnerable consumers in energy communities, sharing renewable energies benefits for a just energy transition.

The EU is strongly committed to tackling energy poverty and protecting vulnerable consumers, as part of its objective to ensure that the green energy transition is fair and just, leaving no one behind.



European Commission. Directorate-General for Energy





Thank you!

Jurijs Grizans, ICLEI European Secretariat

Learn more:

 <https://sunforall.eu>

 info@sunforall.eu

 [Sun4All Project](#)

 [@Sun4All_EU](#)



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