



**Auvergne  
Rhône-Alpes**  
Énergie Environnement



# POWERITY

**Interreg Europe**



European Union  
European Regional  
Development Fund

## **Second Interregional Thematic Seminar**

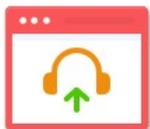
**8-9 April 2021**  
**online**

# HOW TO USE ZOOM?

Zoom Réunion

La parole est à : Nina Maschio Esp...

**Sujet de la réunion :** Ma réunion  
**Animateur :** Zoom AURA-EE  
**Code secret :** 201453  
**Lien d'invitation :** <https://us02web.zoom.us/j/87353824038?pwd=WjNHakFq...>  
[Copier le lien](#)  
**N° de participant :** 115801



Rejoindre l'audio

Audio de l'ordinateur  
connecté



Écran partagé



Inviter d'autres personnes

— □ ×

Participants (1)

**NM** Nina Maschio Esposito AU... (Moi)  



Inviter Me mettre en sourdine Prendre le rôle d'animat

Chat

Envoyer à : Tout le monde  Fichier 

Saisir le message ici...

     
Désactiver le son Vidéo

 1   
Participants

   
Chat

   
Écran partagé

   
Enregistrer

Quitter



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# Opening and welcome

## Objectives of the seminar

*Patrick Biard (AURA-EE)*

## Introduction of the **POWERTY** project

*Joaquín Villar Rodriguez (AEA)*

# DAY 1: Energy poverty: How can the EU Green Deal contribute to increase the use of renewable energy by vulnerable groups?

1. EU strategy and plans  
Interreg Policy Learning Platform  
Q&A

2. Regulatory framework in the partners' regions  
*Break*  
Influence of policy instruments  
Local energy communities  
Q&A

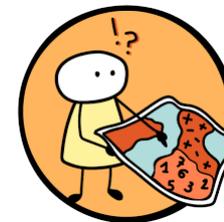
3. Roundtable discussion



## Riddle me this...



1. The foot of any animal
2. Word to ask “in what place?”
3. Favorite drink of the British people



-> Acronym of an interesting and very useful project!

**PAW – WHERE – TEA ▶ POWERTY**



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## SESSION I

# EU Strategy and plans: Green Deal, Renovation wave and revision of EU directives

*Teresa Aristegui (DG Energy,  
European Commission)*



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# Interreg Europe Policy Learning Platform: Presentation of the platform and how it can support policies addressing energy poverty

*Katharina Krell (thematic expert Low-carbon economy, Interreg Europe)*

# The Policy Learning Platform: capacity building for regional development

- How to fight energy poverty? –

Katharina Krell, thematic expert low-carbon economy

POWERTY - Interregional thematic seminar:  
**Energy poverty: How can the EU Green Deal  
contribute to increasing the use of renewable energy  
by vulnerable groups?**  
Online | 8 April 2021



**Interreg  
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European Union | European Regional Development Fund



# What is the Policy Learning Platform?



- A space for **continuous learning**, dedicated to **regional policymakers**
- We help people **deliver better policies by finding inspiration in what others do** around Europe
- We **take stock** from all the knowledge and experience gathered around the Interreg Europe funded projects
- We believe in **the power of cooperation** and facilitate networking among peers



# Meet the thematic experts



# What does the Platform offer?



Online  
learning  
possibilities

(Events)  
...on hold...

Personalised  
policy advice





Energy poverty

**Exclusion**

No access

No participation

No role to play

No money to invest

No benefits to reap

No power

No interest

# 1. Online learning possibilities

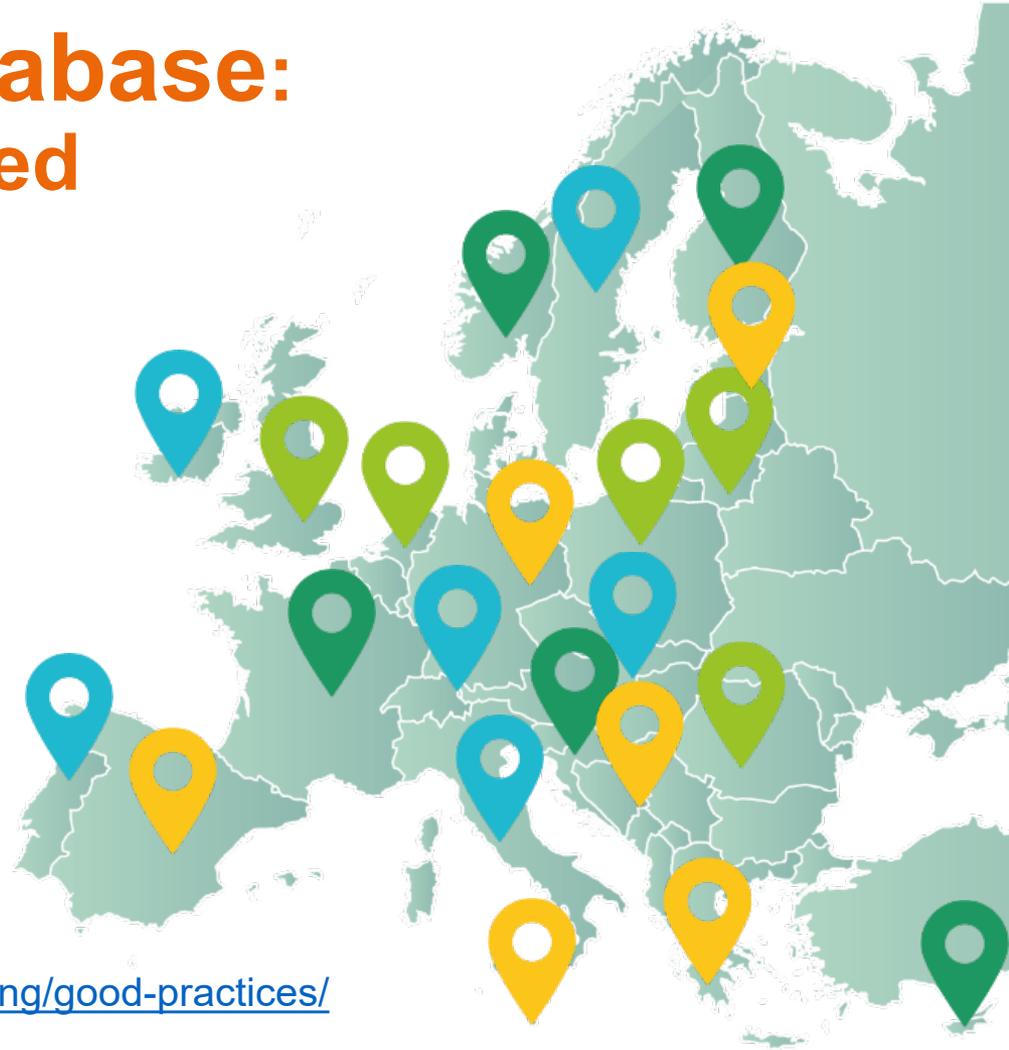


# Good practice database: inspire and get inspired



~ 1 900

Expert validated good practices



<https://www.interregeurope.eu/policylearning/good-practices/>



# Access to RE investment for **small** amounts

**Inclusion = Allowing all parts of society to participate in the energy transition.**

## **Solutions:**

- **Community RES**
- **Crowdfunding**
- **Rental schemes**
- **Subsidies**
- **Full funding**



<https://www.interregeurope.eu/policylearning/good-practices/item/86/solar-photovoltaic-communal-farm-scheme/>

### **Solar Photovoltaic Communal Farm Scheme**

In the Rabat region of Malta, the roof of the Tal-Fiddien Reservoir has been converted into a solar photovoltaic farm that invites investments from citizens who may not be able to invest in solar PV in their own properties as they lack a suitable surface (such as in a ground floor apartment). The installation contains 4,000 PV panels totalling 999 kWp (kilowatt peak – the electricity production of a PV system when at maximum capacity). Residents can purchase between 1-3 kWp at a price of EUR 1,500 per kWp and in return they benefit from a feed-in tariff of 15 cents per kWh generated for the first six years, and 10.5 cents for the remainder of the twenty year lease. The scheme was established by the Maltese Energy and Water Agency to boost renewable energy generation on the island. Despite an initially slow start, the scheme has been very successful, with all 999 kWp purchased within nine months of the launch, by around 400 households.



# Monthly subscription schemes

N.B.: In the absence of good practices from our community, we look outside, even outside of EU

**Inclusion = Allowing all parts of society to participate in the energy transition.**

Good practice: **QUANTICO rental. Financing model for solar self-consumption facilities**

## Solutions:

- Community RES
- Crowdfunding
- **Rental schemes**
- Subsidies
- Full funding

<https://solecsa.co.za/rentals/>

## PV Renting Process Explained

An electricity consumer (system operator) rents a solar power or battery back-up system from an entity (the system owner). The system operator uses the electricity and pays a monthly rental fee.

### 1. Installation

Solec (system owner) installs a PV system or battery back-up solution on the property of the electricity consumer (system operator) home or business.

### 2. Rental Contract

The electricity consumer rents the PV system or battery back-up solution from the system owner.

### 3. Monthly Rental Fee

The system operator pays a rental fee per month and utilizes all the electricity produced by the PV system or in case of battery back-up, the electricity saved in the battery bank.

### 4. Buy Out

After 7 years the system operator can buy out the system for a residual value of 10% of the initial purchase price or option to buy out the system at any time during the rental agreement.



# Grants & Investment Subsidies

**Inclusion = Allowing all parts of society to participate in the energy transition.**

## **Solutions:**

- **Community RES**
- **Crowdfunding**
- **Rental schemes**
- **Subsidies**
- **Full funding**



<https://www.interregeurope.eu/policylearning/good-practices/item/3879/domestic-solar-pv-pilot-scheme/>

### **GOOD PRACTICE: Domestic Solar PV Pilot Scheme**

In the absence of a feed-in tariff for domestic PV electricity to be sold into the grid, the Irish Government launched a pilot scheme in 2018 that offered grants to homeowners for Solar PV systems, including metering and control technologies (700 EUR/kWp) and battery storage systems (1,000 EUR). Systems had to be sized for household self-consumption of generated electricity and could include solar PV systems up to 2kWp, or 4kWp if installed with battery storage. The batteries themselves had to provide minimum storage of 2kWh (and be connected to a minimum 2kWp PV system). Since 2018, the scheme has led to more than 1,500 domestic PV systems and new installed capacity of 5,000 kWp from 3.5 million EUR of grants. As well as the benefits for homeowners, the scheme also contributed to growth in the PV sector with the registration of 90 new PV installers and the establishment of a stronger market. Typically, each installation could meet around a third of household energy requirements.

# Webinars

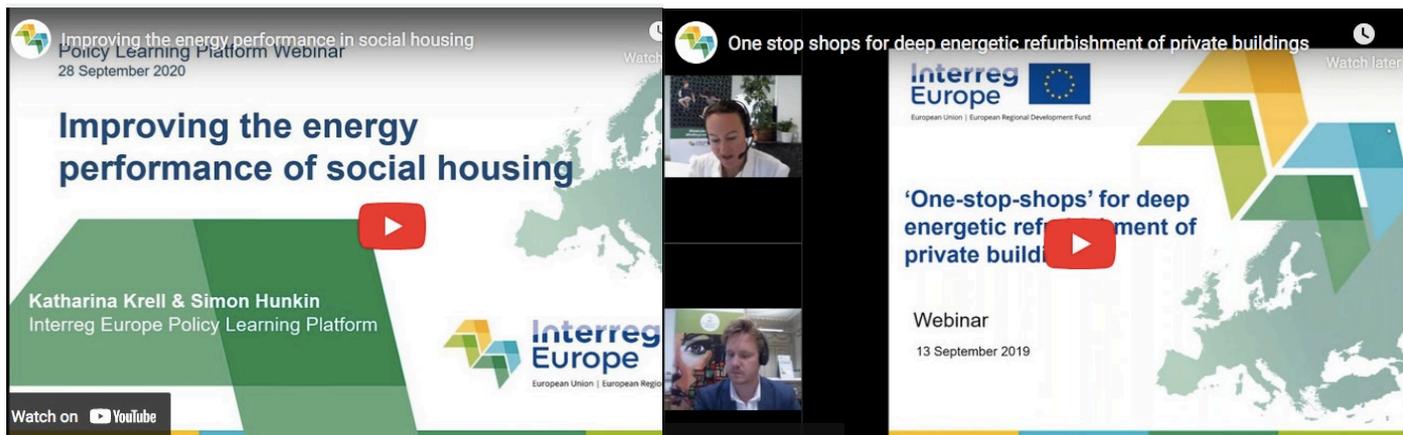


Coming up →

**Webinar: Jobs and skills for the energy transition**

Get prepared for the energy transition through skills! Join the Policy Learning Platform for a webinar on this topic on 29 April from 14:00 to 15:30 PM CET.

All webinars are available in replay →



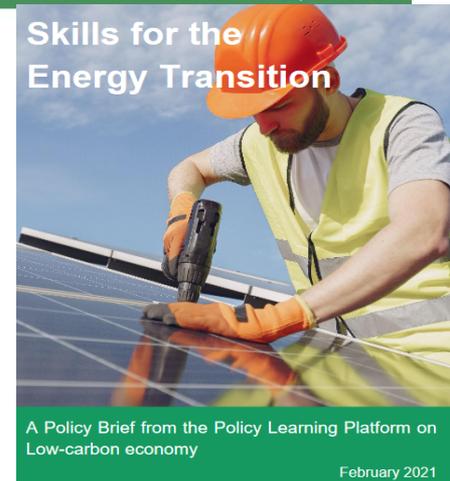
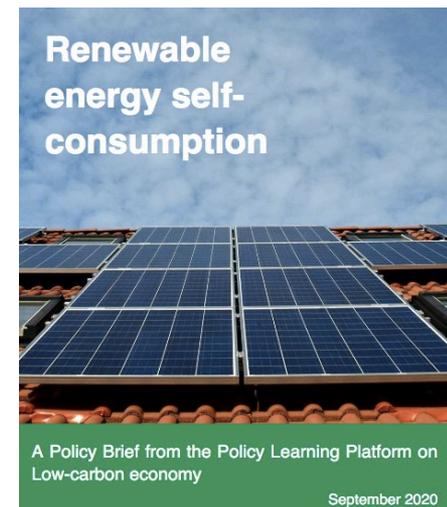
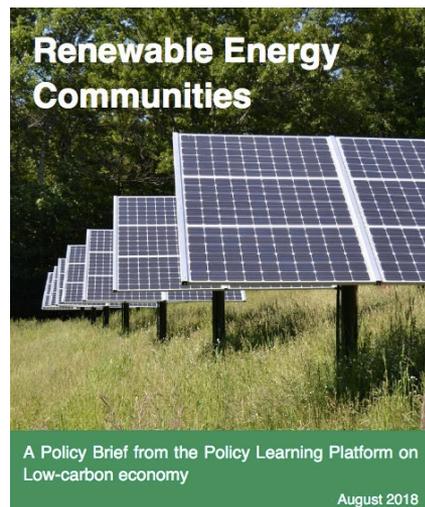
<https://www.interregeurope.eu/policylearning/knowledge-hub/>

# Policy briefs



**Over 60  
policy briefs**

<https://www.interregeurope.eu/policylearning/knowledge-hub/>



# Thematic newsletters



**Policy digest  
directly in  
your  
mailbox!**

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<https://www.interregeurope.eu/policydigest/>

**THE POLICY DIGEST**  
Research and Innovation

Dear <First name>,>

The Policy Learning Platform has put together this digest edition on research innovation strategy for smart specialisation (RIS3).

Research and innovation are vital in today's challenging environment and R public investments. This is why the concept of research and innovation strategy specialisation is at the centre of the European Union cohesion policy strategy. Commissioner for Regional Policy Corina Creţu, 'smart specialisation will be important than ever in the post-2020 period'.

RIS3 equally offers regions many opportunities to become more entrepreneurial and experiment with new policy strategies.

From workshops to policy briefs, the Interreg Europe community gathers a lot of knowledge on this subject. Take a look at the ideas and policy recommendations we gathered for you and make sure to reserve your spot for our upcoming webinar!

Enjoy the read!

**Effective RIS3 policy solutions take a data-based approach. Interreg Europe brings together regions from all over Europe, the ideal space for policy learning.**

Mark Paterson, Interreg expert on research and innovation

**THE POLICY DIGEST**  
Low-carbon economy

Dear <first name>,>

The Policy Learning Platform has put together this autumn edition of the policy digest on establishing financial instruments for refurbishment of buildings.

The European Union aims to reduce its greenhouse gas emissions and **buildings are a main challenge**, being responsible for 36% of total CO2 emissions. Renovations can be costly with mid- to long-term payback times, and building owners (private or public) may be reluctant to invest in such interventions. Here is where financial instruments such as loans, equity and guarantees can play an important role.

In this policy digest we gathered **ideas and policy recommendations** for you in the form of written publications, but we also invite you to join our upcoming **webinar!**

Enjoy the read!

**Massive investment in deep energetic refurbishment is needed to reach the target of an energy efficient and decarbonised European building stock by 2050. Grants and public funding alone will never get us there.**

**One key to success is leveraging private investments through financial instruments.**

Katharina Kroll, thematic expert of low-carbon economy

# Online community



**18,000+**  
**Members**

<p><b>Isabel Trömel</b> Steinbeis Innovation gGmbH / Steinbeis-Europa-Zentrum <b>Interested in:</b> Networking with peers, Exchanging good practices, Attending networking events</p>	<p><b>Ger van den Kerkhof</b> Flanders Make <b>Interested in:</b> Joining a project, Networking with peers, Attending networking events, Following online learning activities</p>	<p><b>Marc van der Zande</b> Sports and Technology <b>Interested in:</b> Joining a project, Sharing a project idea, Networking with peers, Exchanging good practices, Attending networking events</p>	<p><b>Luc van Raaij</b> ERAC <b>Interested in:</b> Joining a project, Sharing a project idea, Networking with peers</p>
<p><b>Johanna Vannes</b> The Baltic Institute of Finland <b>Interested in:</b> Leading a project, Joining a project, Sharing a project idea, Networking with peers</p>	<p><b>Adriana Varela</b> Centre for the Development of Industrial Technology</p>	<p><b>Etienne Verhelle</b> Interreg Europe - Joint secretariat <b>Interested in:</b> Networking with peers, Attending networking events, Following online learning activities</p>	<p><b>Virginia Vidal Touza</b> Axencia Galega de Innovación <b>Interested in:</b> Leading a project, Joining a project, Networking with peers, Exchanging good practices, Attending networking events, Following online learning</p>

<https://www.interregeurope.eu/policylearning/community/>

# 3. Personalised policy advice



# Get the support you need



- **Policy helpdesk**  
ask the experts and receive policy advice online
- **Matchmakings**  
get together with relevant people to share your challenges and good practices
- **Peer reviews** (2-day onsite meetings or online)  
team up with other European regions to get their feedback and recommendations

<https://www.interregeurope.eu/policylearning/expert-support/>

# Peer reviews: a service on demand



## Target groups:

- Managing authorities / intermediate bodies of Structural Funds (ERDF / ESF)
- Other local and regional policymakers

## Approach:

- Short application by 1 organization for individualized consultancy during 2 full days.
- Face-to-face exchanges with 4-5 experts (peers) from other regions on concrete policy challenges

*Ex: Improving the efficiency of ESIF funding for energy efficiency measures in social housing (HdF)*  
*Education programmes for energy efficiency professionals (Western Macedonia)*  
*Developing a new logistics policy in a holistic way (Warsaw)*

## Support:

- Active support by the thematic experts of the Policy Learning Platform
  - *Identification of suitable peers*
  - *Guidance and coordination/ moderation support*



[www.interregeurope/policylearning](http://www.interregeurope/policylearning)  
[k.krell@policylearning.eu](mailto:k.krell@policylearning.eu)



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# Q&A

VULNERABILITY  
CONTINENT CONSUMPTION  
POLICY  
POVERTY  
INCLUSION  
HOUSING CARBON REVISION CENTRE  
LEARNING KNOWLEDGE SELF ENERGY HOUSING  
SHARING ZERO NEUTRAL SOCIAL OF OF OF  
NEUTRALITY EXCHANGE  
RESOURCE COLLABORATION  
COOPERATION COLLABORATION  
MOVEMENT



**Auvergne  
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**POWERTY**  
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## SESSION II

# State of the art of the regulatory framework in the POWERTY partner countries

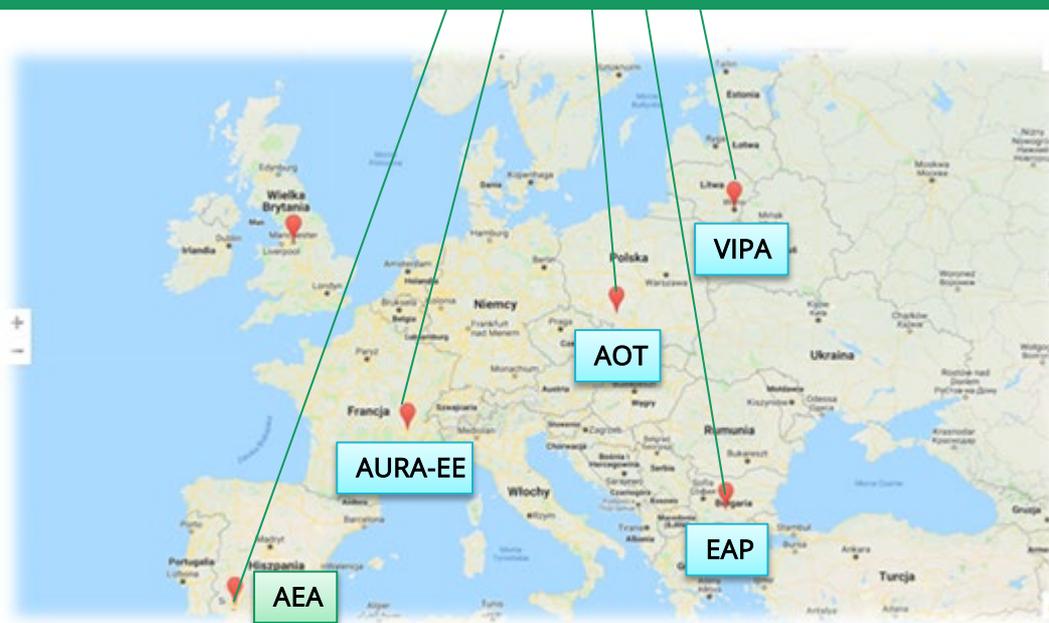
*POWERTY partners*



# STATE OF ART

## Energy poverty regulation

## Renewable Energy normative



# ENERGY POVERTY REGULATION



Andalucía in Spain  
Andalusian Energy Agency (AEA)

- **2009:** [Social bonus for electricity](#) (RDL6/2009)
- **2013:** Urban renovation, regeneration and renewal (L8/2013)
- **2014:** Program of [minimum vital supplies of the Junta de Andalucía](#) (DL8/2014)
- **2017:** Definition of vulnerable consumer (RD897/2017)
- **2017:** Prohibition of disconnection of electricity of the consumer at risk of social exclusion
- **2017:** Programme of [housing renovation for vulnerable households](#) (Catalonia)
- **2018:** [Social bonus for heating](#), hot water and cooking (RDL15/2018)
- **2018:** Prohibition of disconnection of electricity of vulnerable groups
- **2019:** [National strategy against Energy poverty 2019–2024](#) was approved (mandatory RD15/2018)

Definition of Energy Poverty. 4 axes and 19 measures. Objective 25% (→ 50%) reduce indicators for 2025

- **2020:** Social bonus including SMEs and families affected by COVID19 (RD11/2020)
- **2020:** [National Energy and Climate Plan 2021-2030](#). Measure 4.11: Fight against energy poverty.

→ *European week of energy poverty (17-23 February)*



## Andalucía in Spain Andalusian Energy Agency (AEA)

The regulation of self-consumption in Spain began in 2011 although the great novelties that enhance it have arrived in 2018, with the **repeal of the sun tax**, and in 2019 with **RD244/2019** that places the **citizen at the center of the energy model** with **free access** to the production and **sale of energy** and responsible for its consumption.

- **Taxations free**. The elimination of all charges and tolls for self-consumed renewable energy.
- **Simply bureaucratic procedures**. The elimination of access and connection permits (powers <15 kw), the obligation of a second meter disappears ...
- **Unlimit instaled power**. Before you could not install a photovoltaic power equal to or less than the contracted power, now it is possible.
- **New surplus compensation**. Among the regulated modalities is that of pouring excess energy into the network (power <100kW) which is discounted in the monthly bill (Limit amount of the bill).
- **Third party production**. The rental of roofs is allowed for third parties to generate electricity and share the benefits.
- **Collective self-consumption / proximity installation**. Facilitate collective self-consumption and define proximity installation as production or generation facility intended to generate electricity to supply one or more consumers under any of the self-consumption modalities. This allows shared self-consumption in **industrial estates**, in **residential areas** and collective self-consumption in the **community of owners**.
- **Self-consumption record**. Monitoring integrated energy and climate plans.

# ENERGY COMMUNITIES REGULATION



Andalucía in Spain  
Andalusian Energy Agency (AEA)

- **2019 April:** An advanced framework on self-consumption allowing for the use of the public grid by **collective self-consumption** (RD244/2019)
- **2020 June:** First introduces **energy communities and aggregators**, only defining their general purpose and nature (DL 23/2020)
- **2020 November:** Ministry for the Ecological Transition and the Demographic Challenge launched a **public consultation** about local energy communities
- **2021 January:** Ministry for the Ecological Transition and the Demographic Challenge launched an **expression of interest** to identify mechanisms to promote local energy communities
- **2021 February:** Energy communities as beneficiaries of grants **programme** for building modernization “PREE” (including RES) + **social criteria** (social bonus)

So far, no detailed legislation on energy communities exists but there is **great interest for the local energy communities** and many initiatives similar to them are already emerging (**more than 30**)



Auvergne-Rhône-Alpes in France

Auvergne-Rhône-Alpes Energy Environment Agency (AURA-EE)

**Law of 10 July 2010, known as Grenelle 2, sets out a legal definition of energy poverty:** "Is in a situation of energy poverty [...] a person who experiences in his housing specific difficulties to have the energy supply necessary to satisfy his basic needs due to the unsuitability of his resources or his housing conditions".

**1 March 2011:** setting up of the **National Energy Poverty Observatory (ONPE)**. To measure energy poverty, the ONPE uses a basket of indicators: the energy effort rate, the low income/high expenditure indicator and the feeling of discomfort => 1 million households are in a situation of thermal discomfort and economic vulnerability and about 5.6 million households are in energy poverty according to at least one indicator.

**2018:** introduction of the **energy voucher**, a State aid for low-income households to pay for energy costs in their homes and for some energy renovation work. The scheme now covers almost 5.5 million households.

**Energy renovation programmes** for the most vulnerable households - Creation of the National Housing Agency in 1971 and introduction into French law of programmed housing improvement operations in 1991.

# SELF-CONSUMPTION NORMATIVE



Auvergne-Rhône-Alpes in France

Auvergne-Rhône-Alpes Energy Environment Agency (AURA-EE)

**SELF CONSUMPTION NORMATIVE:** law 2017-2277 and decree 2017-676 (French government 2017) which contain provisions for individual and **collective self-consumption**.

- Individual self-consumption is limited to a single person with on-site presumption
- Individual self-consumption does not involve the public grid for sharing the produced electricity while collective self-consumption does
- Collective self-consumers can choose between the standard distribution grid tariff (TURPE – national Distribution Grid Utilization Tariff) and CSC TURPE (Enedis 2019)
- Collective self-consumption is allowed if electricity is produced and consumed by several consumers and producers linked together through a legal entity -> covers a basic requirement for energy communities according to the EU framework
- In 2019, collective self-consumption was extended to a geographic distance of 2 km between the injection and consumption points with a cumulative power of the production facilities below 3 MW on the continental metropolitan territory. In a recent amendment, an exceptional increase to a 20 km distance between the two most distant participants is foreseen for isolated projects in areas of low population density (French government 2020)

# ENERGY COMMUNITIES REGULATION



Auvergne-Rhône-Alpes in France

Auvergne-Rhône-Alpes Energy Environment Agency (AURA-EE)

The concept of **renewable energy community** has been transposed into French law by the law n° 2019-1147 of 8 November 2019 on energy and climate.

An autonomous legal entity can be considered a renewable energy community if it:

- Is based on open and voluntary participation
- Is effectively controlled by shareholders or members in the vicinity of the renewable energy projects it has subscribed to and developed. Its shareholders or members are natural persons, small and medium-sized enterprises, local authorities or their associations
- Its primary objective is to provide environmental, economic or social benefits to its shareholders or members or to the local territories where it operates, rather than to seek profit

A renewable energy community can:

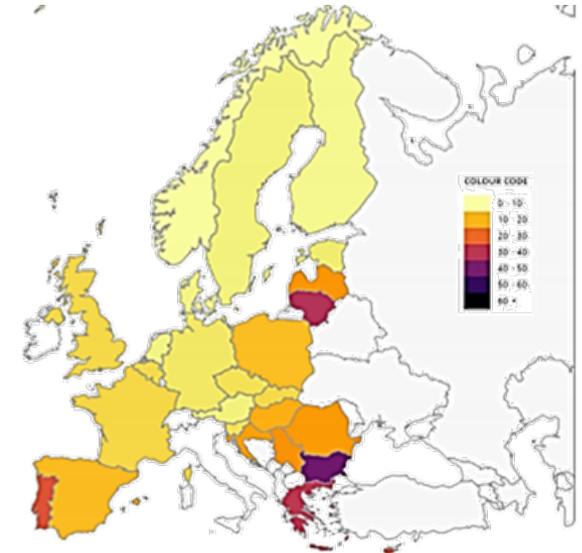
- Produce, consume, store and sell renewable energy, including through renewable electricity purchase agreements
- Share, within the community, the renewable energy produced by the generation units owned by the community
- Access to all relevant energy markets, directly or through an aggregator.



Plovdiv in Bulgaria  
Energy Agency of Plovdiv (EAP)

## REGULATORY: Country energy poverty progress

- **Energy poverty remains a very serious problem in Bulgaria:**
  - it covers significant part of the population;
  - due to its specific context and nature in Bulgaria, it **leads to serious environmental problems**, especially with air quality
- **There is no working definition developed at national level**
- As of now, **EP is tackled as a part of a broader set of social policies**, making no distinction with income poverty
- There are also no targeted measures to alleviate energy poverty
- **Definition on Vulnerable consumers (electricity) !**
- EC's assessment of the final **National energy and climate** plan – it still lacks an assessment of energy poverty (there is no estimation of the number of energy-poor households, nor is there an indicative target to reduce this number).





Plovdiv in Bulgaria  
Energy Agency of Plovdiv (EAP)

## ENERGY POVERTY REGULATORY REFORMS – used in key strategic documents

### NATIONAL ENERGY AND CLIMATE PLAN

- ❑ **Outlines EP as a serious problem**
- ❑ **Outlines the need of a mechanism to protect the vulnerable consumers**
- The lack of such mechanism is a barrier for the start of the full liberalization of the electricity market
- The mechanism should ensure a **minimum quantity of electricity, other than heating needs.**
- The Mechanism plans to subsidize 100 or 150 kWh/m of electricity, in dependence of the heating mean, of nearly 500 000 households for a time of 5 years.

### NATIONAL PLAN FOR RECOVERY AND SUSTAINABILITY

- ❑ **Energy Poverty definition for the purpose of financing energy efficiency projects**
- Timeline:
- **Q3/2021** Establishment of a working group for preparation of a proposal by the respective Ministries – Ministry of Energy & Ministry of Regional Development and Public works
  - **Q1/2022** Draft definition of "energy poverty " requires amendments of the Energy Efficiency Act (EEA)
  - **Q2/2022** Adoption of an improved EE Act



Plovdiv in Bulgaria  
Energy Agency of Plovdiv (EAP)

## 3 BAPVs support schemes for single household are established

### 1) Individual self-consumption mode “entirely for self-consumption” (the easiest to implement)

- The DSO has just to be notified, as long as there is no power to the grid
- BESSs are allowed to be installed
- **Collective self-consumption is now allowed**

### 2) Net billing - whether the surplus is fed to the grid (**hard to implement by the vulnerable groups**)

- according to the requirements of the Renewable Energy Act., the price at which electricity is sold is determined by EWRC

### 3) Feed-in tariffs - preferential prices are utilized for PVs up to 30 kWp (Premiums) through the FiTs (the **scheme is not appropriate for individual HHs**)

**No net-metering is yet available**

**Battery Energy Storage Systems (BESSs)** - consumers utilise battery storage technology for domestic purposes and for increased self-sufficiency

# ENERGY COMMUNITIES REGULATION



Plovdiv in Bulgaria  
Energy Agency of Plovdiv (EAP)

None of the concepts below are yet transposed into the national legislation:

Self-consumer	Active customer	Renewable Energy Community (REC)	Citizens Energy Community (CEC)
Art. 21. of REDII 2018/2001	Art.15 IEMD of 2019/944	Art. 22. of REDII 2018/2001	Art.16 of IEMD 2019/944

- There are **no energy communities Reforms/Targets set** in the National Recovery and Sustainability Plan.
- The national energy and climate plan sets the following targets:
  - Promotion of local energy communities to participate more actively and efficiently in the market and to enable an active transition of **Active customers**
  - Creation of a digital platform and tools for comparing the suppliers offers, which will support the active participation of consumers in the market.

# ENERGY POVERTY REGULATION



Opole in Poland

Agglomeration Opole Trust (AOT)

1. In Poland, there is no definition of energy poverty.
2. In **the Energy Law**, Art. 3 section 8c, only the concept of "Sensitive Customer" appears, e.g. in relation to electricity: Quote "sensitive consumer of electricity - a person who has been granted a housing allowance within the meaning of Art. 2 clause 1 of the Act of June 21, 2001 on housing allowances (Journal of Laws of 2019, item 2133), which is a party to a comprehensive contract or an electricity sales contract concluded with an energy company and resides in the place where electricity is supplied;
3. Similarly, for the purposes of the Stop Smog Program, the following quotation was defined: "**A household is energy poor** if it has difficulties in satisfying its energy needs due to: low income or characteristics of the apartment. If the cost of meeting energy needs is so high that household members are faced with the dilemma of limiting these needs or saving at the expense of other goods, such as food, medicine or education, then we are talking about energy poverty. In addition,
4. on February 23, 2021, (appointed by the Minister of Climate) was established TEAM to support a vulnerable recipient and reduce energy poverty in Poland.

# SELF-CONSUMPTION NORMATIVE



Opole in Poland  
Agglomeration Opole Trust (AOT)

**Regulations on energy self-consumption were included in Chapter 2 of the Act on Renewable Energy Sources** (Journal of Laws of 2015, item 478, as amended)

## Main conclusions of the act:

- Electricity introduced into the distribution network is subject to settlement not earlier than 12 months before the date of introducing energy into the network. It means that surplus energy can be stored in the public grid for a period of 365 days, and its reception takes place in a ratio of 1: 0.8 or 1: 0.7. **We can take 80% or 70% of the energy introduced by us to the public grid. This solution is called annual electricity balancing. (more than 10 kW - in a quantitative ratio of 1 to 0.7; not more than 10 kW - in a quantitative ratio of 1 to 0.8)**
- No connection fee,
- No need to run your own business to be able to resell the surplus of produced Energy,
- electricity is resold at 100% of the average energy price from the previous year,
- the cost of installing a two-way meter is on the side of the energy company, not the prosumer,
- Photovoltaic installations with a capacity lower than the previously issued connection conditions may be connected on the basis of notification of this fact to the energy operator.
- Power of the photovoltaic installation cannot be higher than the connection capacity

# ENERGY COMMUNITIES REGULATION



Opole in Poland  
Agglomeration Opole Trust (AOT)

Legal regulations regarding **energy cooperatives (Energy communities)** and energy clusters have been included in the Act on Renewable Energy Sources (Journal of Laws of 2015, item 478, as amended)

The body responsible for maintaining the list of energy cooperatives is the **General Director of KOWR (National Agricultural Support Center)**.



*But... in Poland they are a non-existent and unrecognized phenomenon. The existing regulations on energy cooperatives remain completely dead – until now, none has been created in Poland.*

*In Poland, the initiatives which work quite well are Energy clusters.*



In Lithuania

Public Investment Development Agency (VIPA)

- There is no legal definition of energy poverty in Lithuania
- The Lithuanian Department of Statistics regularly performs sample household's survey and calculates 4 main indicators to measure Energy Poverty. These indicators are proposed by EU Energy Poverty Observatory:
  1. Arrears on utility bills (*share of (sub)population having arrears on utility bills*) – 7,9% in 2017
  2. Low absolute energy expenditure (*share of households whose absolute energy expenditure is below half the national median*) – 28,9% in 2017
  3. High share of energy expenditure in income (*the proportion of households whose share of energy expenditure in income is more than twice the national median share*) – 17,1% in 2016
  4. Inability to keep home adequately warm (*share of (sub)population not able to keep their home adequately warm*) – 14,9% in 2016

# SELF-CONSUMPTION NORMATIVE



In Lithuania

Public Investment Development Agency (VIPA)

- **PEER TO PEER EXCHANGE** - currently prosumers (energy consumers producing energy for self consumption) in Lithuania don't have possibility to transfer or sell extra energy from powerplants that they own. Discussion is being held to change this situation
- **UNLIMITED DISTANCE** – there is no limit for energy (electric) delivery within Lithuania for prosumers:
  - prosumers can build powerplant in one part (e.g. on the land that they own in countryside) of Lithuania and consume at several places (only at places that they own). There is an electricity network fee for energy accumulation and transfer which is approved by National energy regulatory council (fee is not applied for electricity consumed at the site of production, e.g. on the roof)
  - prosumers can buy part of the big power plants (remote power plants) build specially for self-consumption purpose (special procedures and regulations applied) and consume at any place (that they own) in Lithuania. There is an electricity network fee for energy accumulation and transfer which is approved by National energy regulatory council
- **HIGH VOLTAGE DISTRIBUTION** – there is possibility for big energy consumers having access to high voltage network to get advantage of prosumer model to. Both energy production and consumption sites have to be connected to such network. There is an electricity network fee for energy accumulation and transfer which is approved by National energy regulatory council which is lower than the one for low voltage network users
- **COLLECTIVE AND PROXIMITY SELF-CONSUMPTION** – prosumers can build collectively or buy part of already build powerplant as well as to build powerplant on the site of consumption. New regulation on renewable energy communities was also adopted to expand possibilities for collective self-consumption
- **THE ENERGY FROM RENEWABLE ENERGIES HAS NO CHARGES OR TOLLS** – energy production from RES does not have any charges and tolls, There is an electricity network fee for energy accumulation and transfer which each year is approved by National energy regulatory council
- **THE POWER INSTALLATION SELF-CONSUMPTION WITHOUT LIMIT** – there is no limit for power plants that are build for prosumers, nevertheless there is a limit of power capacity to be used at one site limited to 500 kW (e.g. remote power plant can be 10 MW, but one prosumer for one of its sites can buy only 500 kW)



In Lithuania

Public Investment Development Agency (VIPA)

In **Lithuania**, a new law on renewable energy has been approved which allows the establishment of renewable energy communities (Republic of Lithuania 2020).

## Renewable energy community (REC) shareholding structure:

- at least 51% of energy community members must be natural persons. Other members can be – municipality, companies, etc.
- shareholders (natural persons) have to reside in the same municipality or in neighboring one (proximity limitation)
- shareholders cannot have more than 20% of the votes in another energy producing company
- shareholders can't receive profit, all profit have to be attributed to community interest in the field of environment, community welfare, education, recreational or culture

## REC activities and rights

- design and manage energy power plants (heat or electricity)
- produce and sell the generated energy (to REC members or network) without independent energy provider license
- deliver produced energy to REC members free of charge
- REC has priority when selling energy to network
- spatial planning process is simplified for renewable energy plants below 500 kW

# ENERGY POVERTY

	Spain	France	Bulgaria	Poland	Lithuania
National Energy Poverty Strategy	YES	YES	NO	NO	NO
Definition of Energy Poverty	YES	YES	NO	NO	NO
National Energy Poverty Observatory	YES Ministry	YES	NO	NO	YES
Subsidies for the energy renovation of housing	YES	YES	NO Currently	YES	YES
Energy saving certificates dedicated to the fight against energy poverty	NO	YES	NO	NO	NO
Solidarity Fund	YES Energy bills	YES Housing	NO	NO	NO

# RENEWABLE ENERGY NORMATIVE

	Spain	France	Bulgaria	Poland	Lithuania
Peer to peer exchange	NO	YES	NO	NO	NO
Unlimited distance	NO 500m	NO 2 km urban 20 km rural	NO	NO	YES
High voltage distribution	NO low	NO low - medium	NO low	NO low	YES
Collective and proximity self-consumption	YES	YES	YES	NO	YES
The self consumption energy from renewable energies free charges or tolls	YES	YES	NO Duty taxes & Grid taxes	NO PV fees are charged	YES
The power installations self-consumption without limit	YES	NO 3MWp max	NO <connection capacity	NO <connection capacity	NO



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## 5 minute-break

<https://www.youtube.com/watch?v=hso3oR8PJss>



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# Influence of policy instruments to promote energy efficiency in social housing

*Ryan Weber, leader of the SOCIAL  
GREEN project*



POVERTY PROJECT - II INTERREGIONAL THEMATIC  
SEMINAR  
08 April 2021

# Policy Solutions for Mitigating Energy Poverty: The green renovation wave



Ryan Weber  
Social Green  
Nordregio



**Interreg  
Europe**



European Union | European Regional Development Fund



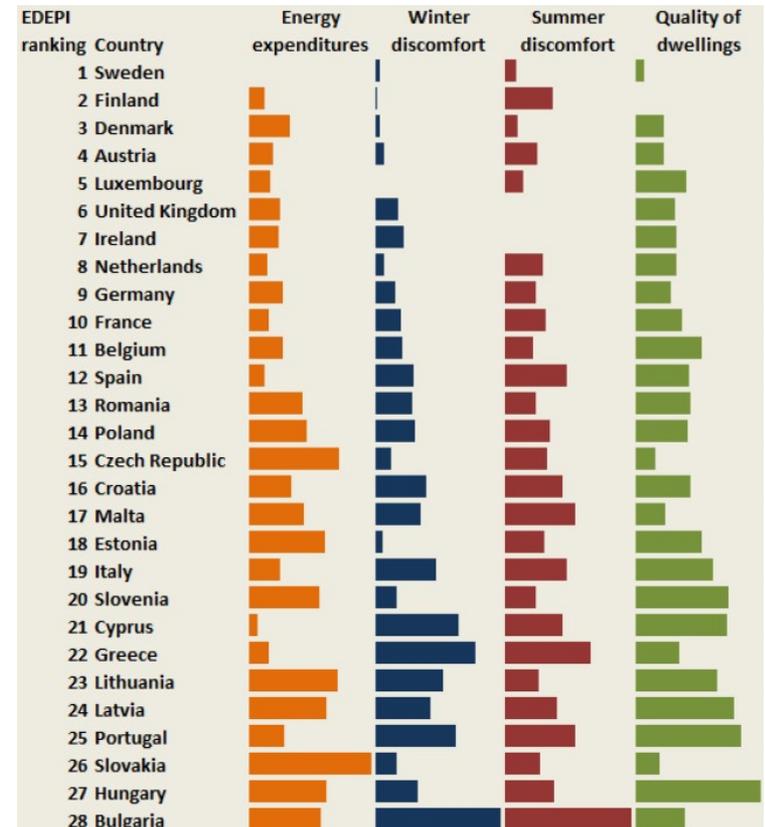
# Overview

1. Tackling energy poverty through policy: trends and key challenges
2. Policy pathways for the future



# Energy Poverty

- Symptoms:
  - Summer and winter thermal discomfort
- Causes:
  - Thermal inefficiency of buildings
  - Energy expenditure (energy prices & consumption)
  - Income levels (e.g. hidden energy poverty)
- Magnitude:
  - Affecting almost 50 million people in Europe, impacting wellbeing and public budgets allocated to welfare payment and health.



[https://www.openexp.eu/sites/default/files/publication/files/european\\_energy\\_poverty\\_index-eepe\\_en.pdf](https://www.openexp.eu/sites/default/files/publication/files/european_energy_poverty_index-eepe_en.pdf)<sup>3</sup>



# Key Challenges

- 1. Lack of unified, strategic and evidence-based approach for mitigating energy poverty**
  - Lack of national energy poverty definitions or strategies
  - Poorly developed evidence-based knowledge
  - Investment in better quality homes is slower than necessary
  
- 2. Costly short-term policy solutions win-out over long-term and strategic ones (Housing Europe, The State of Housing, 2019)**
  - Social welfare support delivered should not prevent governments from addressing energy efficiency measures. They can lead to significant savings on the long-term
  - Between 2009 and 2015, expenditure on housing allowances in the EU has increased from €54.5bn to €80.8bn
  
- 1. Coordinating and scaling energy efficiency improvements are challenged by the institutional structure of the housing sector**
  - Variance throughout Europe
  - Dependence on a patchwork of policy solutions involving regional and local actors



# A policy path for the future



Increased annual investment in building retrofits :

- Over €100 Billion/year (BPIE, 2017)

In Central, Eastern and Southern Europe:

Cohesion Fund Spending:

4.35%

Demand-side interventions

95.65%

Supply-side interventions

implementation

- Extend co-benefits within policy development

BPIE, 2017

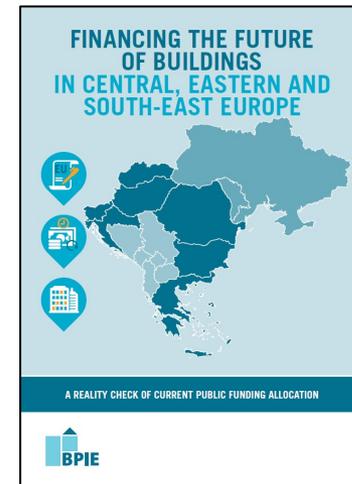
Cohesion Fund Spending:

94%

No-repayable Grants

6%

Financial Instruments





# A policy path for the future



Increased annual investment in building retrofits :

- Over €100 Billion/year (BPIE, 2017)



Policy innovation:

- Leveraging: transition from grants to financial instruments

## Zero-interest eco-loans (France)

- Interest free loans for energy renovation works
- €1 public funding → €12 private investment

## Green funding scheme (The Netherlands)

- Preferential interest rate offered to green investors
- €1 public funding → €83 private investment

## KredEx scheme (Estonia)

- Subsidies for reconstruction of multi-apartment buildings
- €1 public funding → €2.33 private investment

BPIE, 2017



# A policy path for the future



Increased annual investment in building retrofits :

- Over €100 Billion/year (BPIE, 2017)



Policy innovation:

- Leveraging: from grants to financial instruments

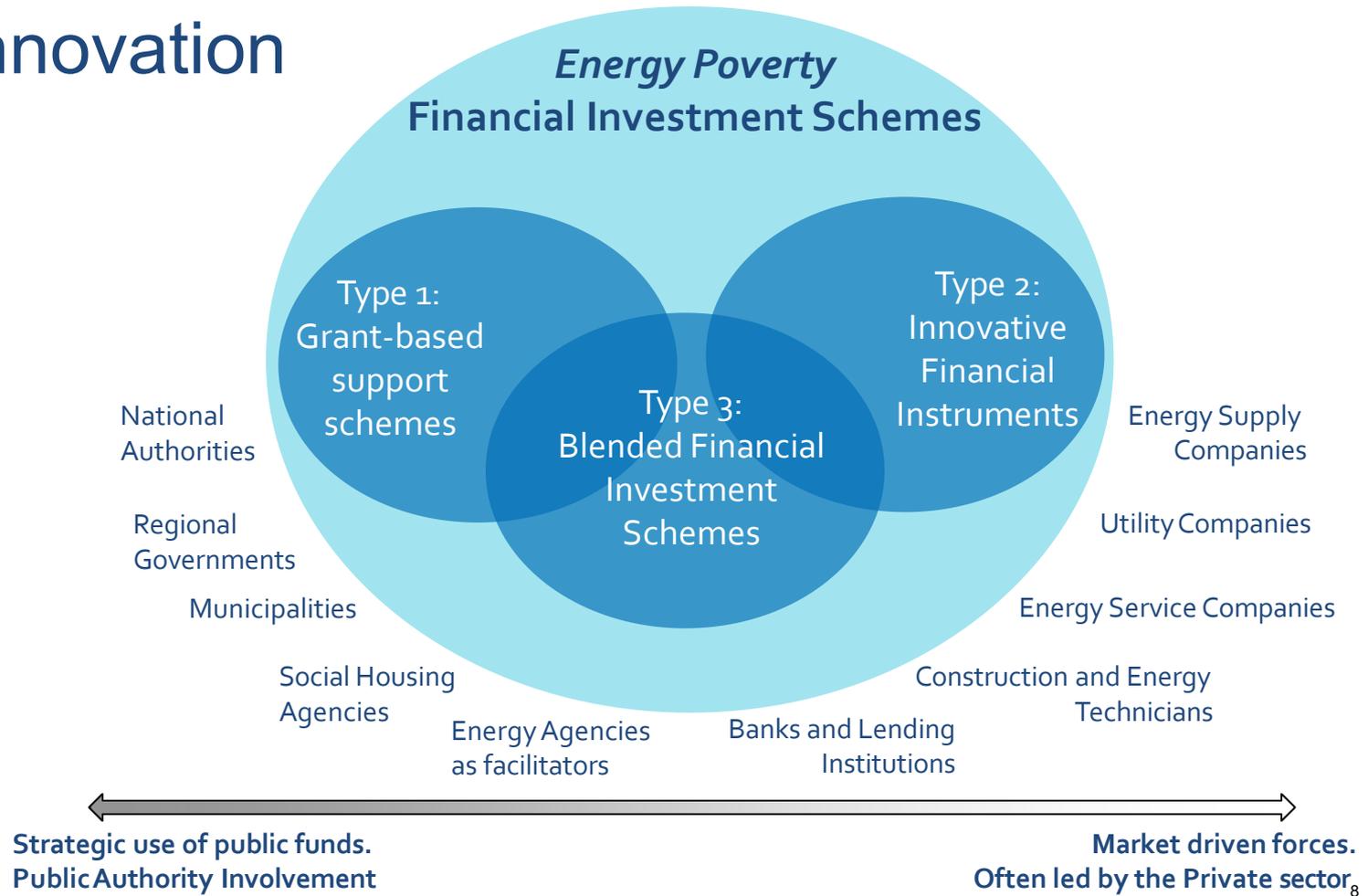


Relevant EU policy developments:

- 13 National long-term renovation strategies
- Renovation Wave initiative for buildings.
- BPIE highlights the importance of energy performance contracting as a key tool to deliver the necessary renovations.

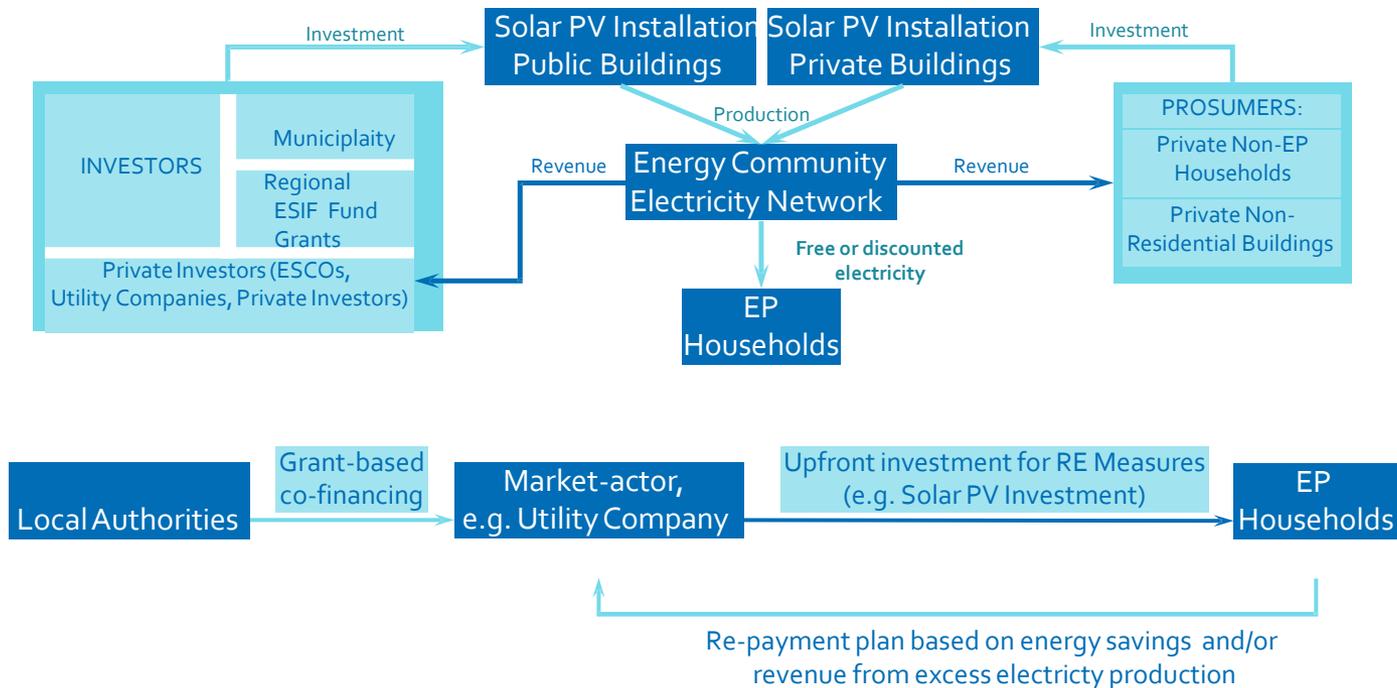


# Policy Innovation





# Regional partnerships developing and testing new models





# Conclusions

- **Policy integration at all levels: EU, national & local**
- **A shift transition to blended funding schemes**
- **Energy communities as a key concept to tackle emerging technical, societal and economic challenges**
- **Bottom-up development of solutions – start with an assessment of local opportunities**
- **We need champions – look in the mirror.**



# Further Reading

[The Building Performance Institute of Europe: https://www.bpie.eu/publication/a-guidebook-to-european-building-policy-key-legislation-and-initiatives/](https://www.bpie.eu/publication/a-guidebook-to-european-building-policy-key-legislation-and-initiatives/)

- *Energy Services and the Renovation Wave: Opportunities for a Green Economic Recovery in Europe*
- *A Guidebook to European Building Policy: Key Legislation and initiatives*
- *Financing the future of buildings in Central, Eastern and South-East Europe*

[The State of Housing 2019, Housing Europe: https://www.housingeurope.eu/resource-1323/the-state-of-housing-in-the-eu-2019](https://www.housingeurope.eu/resource-1323/the-state-of-housing-in-the-eu-2019)

[European Energy Poverty Index, developed by OpenEXP: https://www.openexp.eu/european-energy-poverty-index-eepe](https://www.openexp.eu/european-energy-poverty-index-eepe)

Maxim, A., et al., (2016) Implications and Measurement of Energy Poverty across the European Union. *Sustainability* 2016, 8(5), 483.

[National long-term renovation strategies: https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings\\_en](https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings_en)



# Thank you!

Ryan Weber

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[www.Nordregio.org](http://www.Nordregio.org)



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# Local energy communities: what is at stake?

*Roland Tual (REScoop)*



## Local Energy Community, what is at stake?

How can EU directives support the creation of local inclusive energy communities involving vulnerable groups?

POWERTY event on 08 April 2021

# Introduction

REScoop.eu is the European federation for citizen energy cooperatives

Initiatives by groups of citizens in renewable energy and energy efficiency

50+ membres, 1.900+ cooperatives,  
1.2+ million citizens



# REScoop.EU

# Introduction

- Roland Tual
- Project manager @ REScoop.eu
- Topics: demand-side flexibility, EU regulation, ...



REScoopVPP have received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement No 893240.

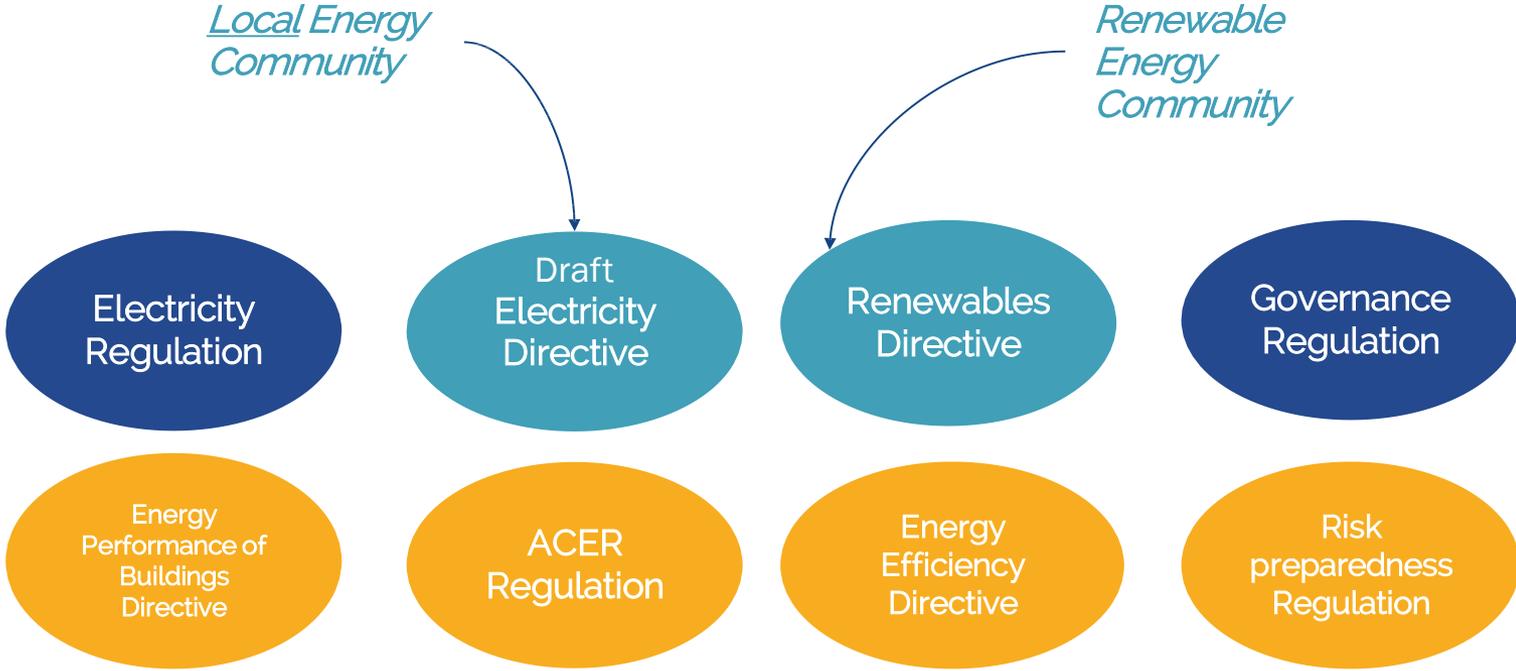
# Content

- Energy communities and energy cooperatives
- Energy communities and vulnerable households in the texts
- The role of cooperatives

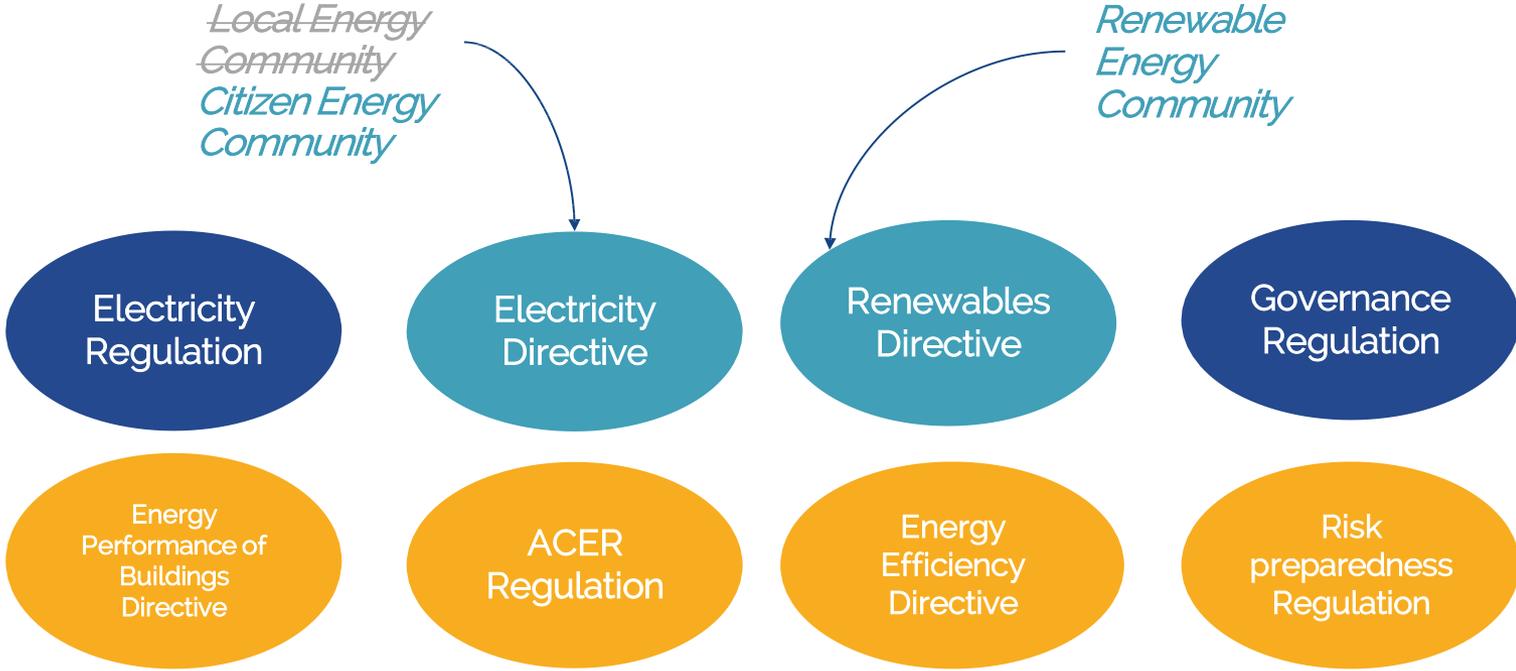
# Content (1/3)

- Energy communities and energy cooperatives
- Energy communities and vulnerable households in the texts
- The role of cooperatives

# The Clean Energy Package



# The Clean Energy Package

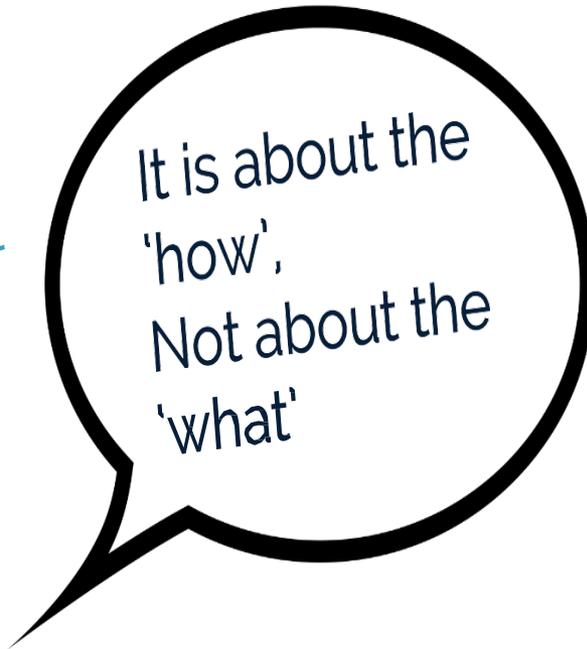


# An organisational concept

voluntary and open participation

effectively control by members

members are natural persons, local authorities, including municipalities, or small enterprises;

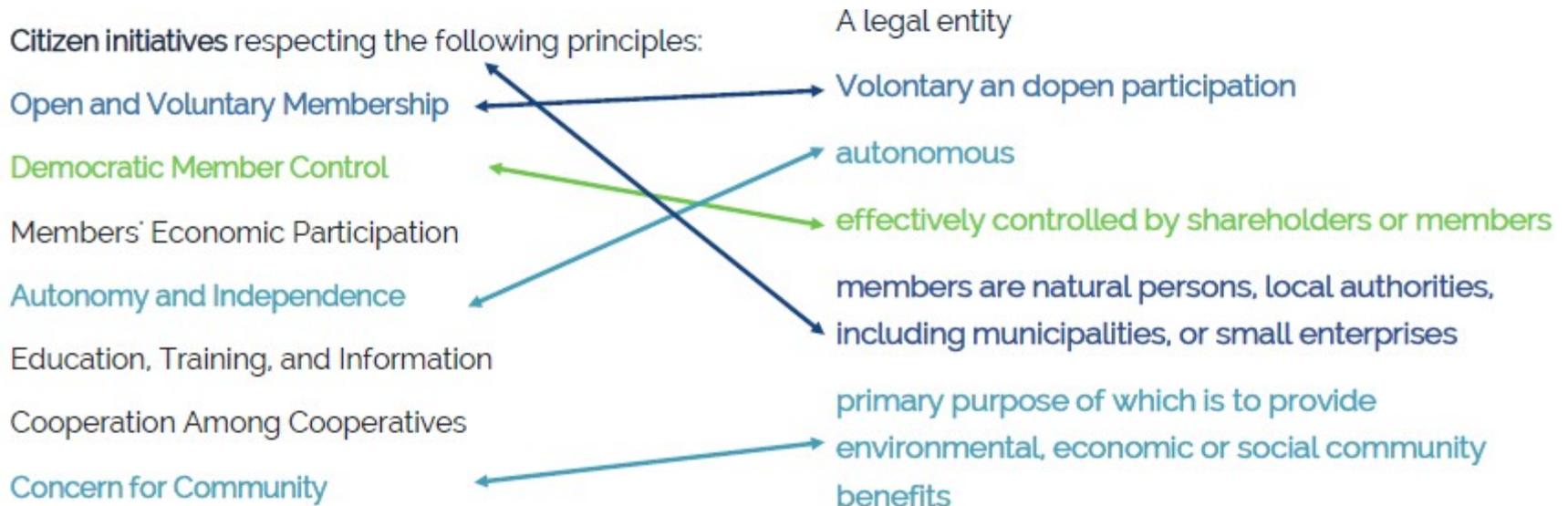


environmental, economic or social community benefits to its members as primary purpose

# Organisational concepts

CEC (Electricity Dir.)	REC (REDII)
legal entity	a legal entity
voluntary and open participation	open and voluntary participation
-	autonomous
effectively controlled by members or shareholders	effectively controlled by shareholders or members
-	located in the proximity of the renewable energy projects that are owned and developed by that legal entity
members or shareholders that are natural persons, local authorities, including municipalities, or small enterprises	shareholders or members of which are natural persons, SMEs or local authorities, including municipalities;
primary purpose to provide environmental economic or social community benefits	primary purpose of which is to provide environmental, economic or social community benefits

# Cooperatives & energy communities



# Content (2/3)

- Energy communities and energy cooperatives
- Energy communities and vulnerable households in the texts
- The role of cooperatives

# Some quotes...

*"Community energy offers an **inclusive option for all consumers** to have a direct stake in producing, consuming or sharing energy. Community energy initiatives **focus primarily on providing affordable energy** of a specific kind, such as renewable energy, for their members or shareholders **rather than on prioritising profit-making** like a traditional electricity undertaking."  
(Electricity Directive, recital 43)*

*"Empowering jointly acting renewables self-consumers also provides opportunities for renewable energy communities to **advance energy efficiency at household level and helps fight energy poverty** through reduced consumption and lower supply tariffs."  
(Renewable Energy Directive, recital 67)*

# Energy Communities in Greek law

Article 1(1) of the Greek Law 4513/2018 (Energy Communities and other

provisions) defines ECs as:

*"a cooperative with the sole purpose of **promoting a social and solidarity economy** and **innovation** in the energy sector, **tackling energy poverty** and promoting **energy sustainability**, production, storage, self-consumption, energy distribution and supply, enhancing energy self-sufficiency and security in island municipalities, and improving energy efficiency in end-use at local and regional level through the activation in the fields of Renewable Energy (RES), Cogeneration and High Efficiency Heat (CHP), rational use of energy, energy efficiency, sustainable transport, demand and production management, distribution and supply of energy."*

-> Means: **technology** (RES, CHP, EMS) + **efficiency** + **sufficiency**



**H Y P E R I O N**  
S O L A R C O M M U N I T Y

Credit: Hyperion Solar Community by [Electra](#).

# Content (3/3)

- Energy communities and energy cooperatives
- Energy communities and vulnerable households in the texts
- **The role of cooperatives**

# Information

Pajopower reaches out to people in socially vulnerable neighbourhoods with their “Klimaatmobiel”. People are curious and go and check it out. This is how they gain **trust**.

They talk to these people about the energy transition, the importance of **energy savings and renewables** and they teach them to switch energy suppliers, how to take action in their private homes and how to apply for subsidies.



Credit: De Klimaatmobiel by [PajoPower](#).

# Info and capacity building

With 'Gent Zonnestad', Energent helps **households that rent their dwelling** invest in renewables. They help facilitate the provision of **legal advice to both tenants and homeowners** on how they can develop shared projects.

To combat energy poverty, Energent works with a local charity that works to **help low income households invest in energy performance measures**, even if they don't own their dwelling.



Credit: Gent Zonnestad by [Energent](#).

# Circular investment and training

'Brixton Solar' community power project [allows tenants in social housing to make smaller investments](#) in the projects, and gives them a limited amount of the electricity produced with solar panels on their own roofs for free. Part of the revenues from the project go into a [dedicated energy efficiency fund](#) that allows people to take part in 'draught buster' workshops to help them cut energy waste and save further on their energy bills.

The cooperative also provides [training opportunities](#) for youth living in the local community through [an internship programme](#)

**B R I X T O N**  
**E N E R G Y** 



Credit: [Brixton Energy](#).

# Solidarity-based energy finance (i)

With its support lab, Les Amis d'Enercoop, Enercoop is implementing 'Energie Solidaire', a **solidarity fund that raises money through micro-donations from** energy bills of **consumers and** produced energy donated by renewables **producers** to support local social initiatives tackling fuel poverty



Credit: [Energie Solidaire.org](https://energiesolidaire.org).

# Solidarity-based energy finance (ii)

Coopérnico provides Cooperative Loans\* to its members, by allowing for **members to lend capital to the cooperative** to install solar PV panels on the rooftops of charities (already €1,2 M of investment).

Coopérnico is adapting it to enable members to **borrow from other members with low interest rates**. This capital is then used for self-consumption **RES equipment or in energy efficiency measures** with a low payback time. Interest rates range from 2.5% to 4%, much **lower rates than available banks or utilities offers** in Portugal.

\*The scheme was awarded by the Social Innovation to Tackle Fuel Poverty programme by Schneider Electric and the Ashoka Foundation

Coopérnico  
Energia verde, sustentabilidade e cidadania



Credit: [Coopernico](#).

# RESCOOP.EU

[www.rescoop.eu](http://www.rescoop.eu)

[roland.tual@rescoop.eu](mailto:roland.tual@rescoop.eu)

 @rescoop.eu

 REScoopVideos

 rescoop.eu

 @REScoop.eu

 REScoop.eu





## Q&A

INSTRUMENTS  
LOAN PROSUMER  
FINANCES  
SUFFICIENT  
LEVERAGING ENERGY  
AWAWARENESS  
FINANCIAL COMMUNITY INVESTMENT  
POLICY CITIZEN MIXED  
AFFORDABLE FINANCE  
SELF PUBLIC  
COMMUNITY  
PROSPECTIVE  
FINANCING PARTICIPATION  
SUFFICIENCY



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## SESSION III

**Roundtable discussion:**  
How can the revision of EU  
directives better support  
the reduction of energy  
poverty?

*Moderated by Patrick Biard (AURA-  
EE)*



## 1) National Energy and Climate Plans

- Poll 1
- Poll 2

## 2) Energy communities

- Poll 3

## 3) Technical capacity

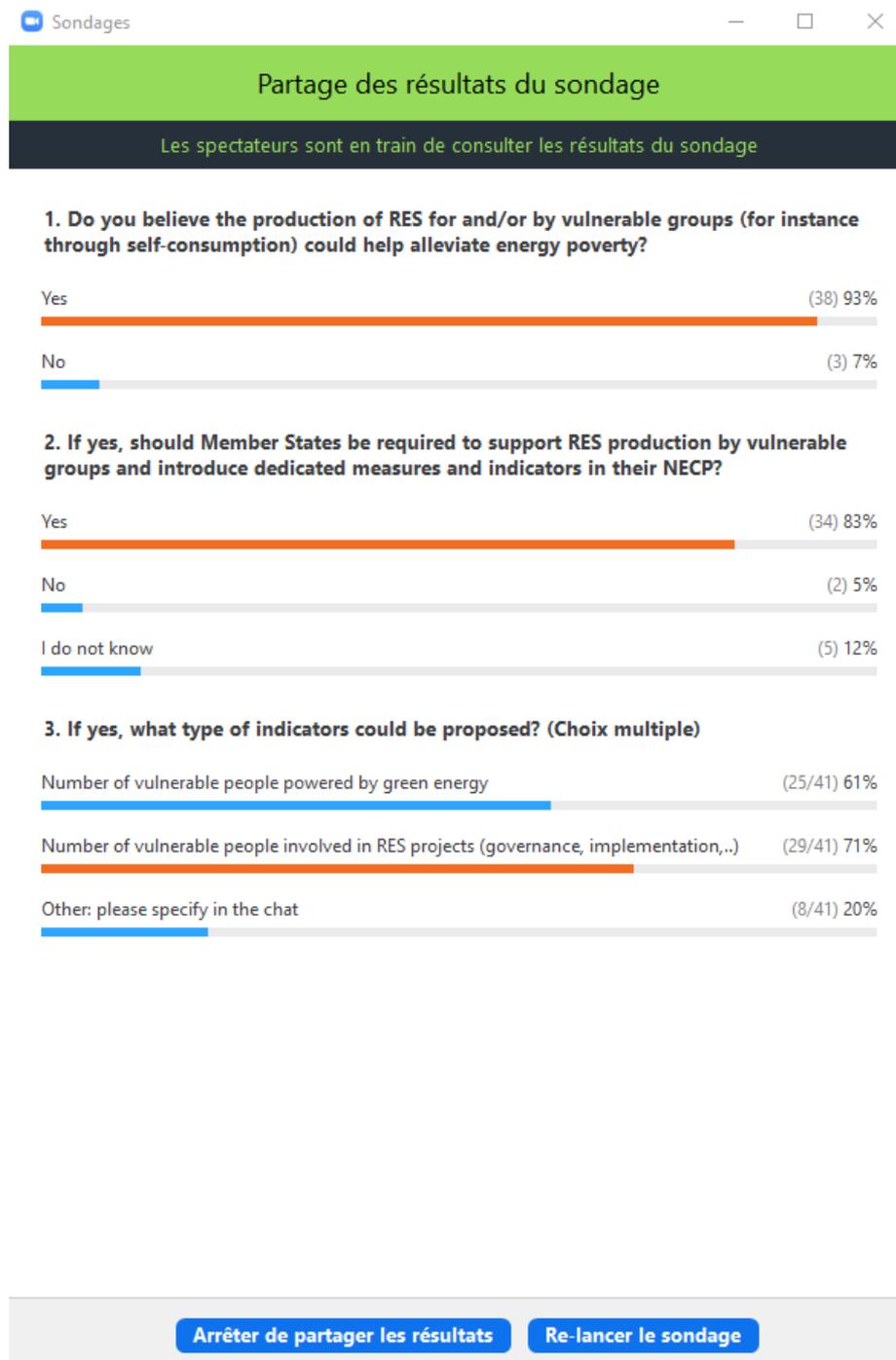
- Poll 4

## 4) Financing solutions

- Poll 5



# 1) National Energy and Climate Plans





## Remarks

There is a highly shared opinion that the production of RES for and/or by vulnerable groups can help alleviate energy poverty

NECPs are mainly targeting energy vulnerable groups through on energy efficiency measures in buildings. They should also include specific measures supporting RES production.

Dedicated indicators should help monitor the implementation of these RES production measures such as:

- Number of vulnerable people involved in RES projects and to a less extent number of people powered by green energy.



# 1) National Energy and Climate Plans

Sondages

— □ ×

Partage des résultats du sondage

Les spectateurs sont en train de consulter les résultats du sondage

**1. Please indicate the relevance of this recommendation in your region: 1) Need to provide more detailed assessments of the estimated number of energy poor households and more clearly set out indicative targets to reduce the numbers**



**2. 2) Intensify efforts to tackle energy poverty to match the momentum of the Renovation Wave initiative by providing more solutions to increase the energy performance of the existing building stock with dedicated measures and concrete actions**



**3. 3) Continue improving the monitoring systems in place to better understand how energy poverty levels vary depending on the building type or quality, income levels, and geographical characteristics and over time as targeted measures are being implemented**



**4. Should NECP and/or Regional energy plans include a dedicated regulatory framework addressing the issue of energy poverty in particular in relation with RES?**



Arrêter de partager les résultats

Re-lancer le sondage



## Remarks

- NECPs are valuable and effective tools to design and implement energy poverty mitigation measures. They can inspire the regional plans supported by ERDF funds. However, there is strong consensus of opinion by regional players that NECPs need to:
  - Provide more detailed assessments of the estimated number of poor households and more clearly set out indicative targets
  - Provide more solutions to increase the energy performance of the existing building stock
  - Continue improving the monitoring systems in place
- In complement NECPs should include a dedicated regulatory framework targeted at implementing primarily financial support and monitoring.



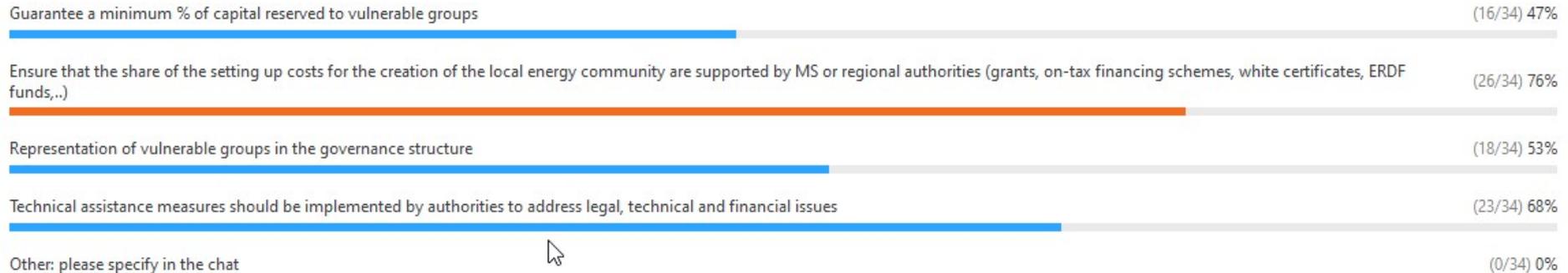
## 2) Energy communities

Sondages

### Partage des résultats du sondage

Les spectateurs sont en train de consulter les résultats du sondage

#### 1. Which are the key regulatory measures that would facilitate the integration and involvement of vulnerable groups in local energy community projects to be implemented by Member States. Please select the 3 key ones (Choix multiple)



Arrêter de partager les résultats

Re-lancer le sondage

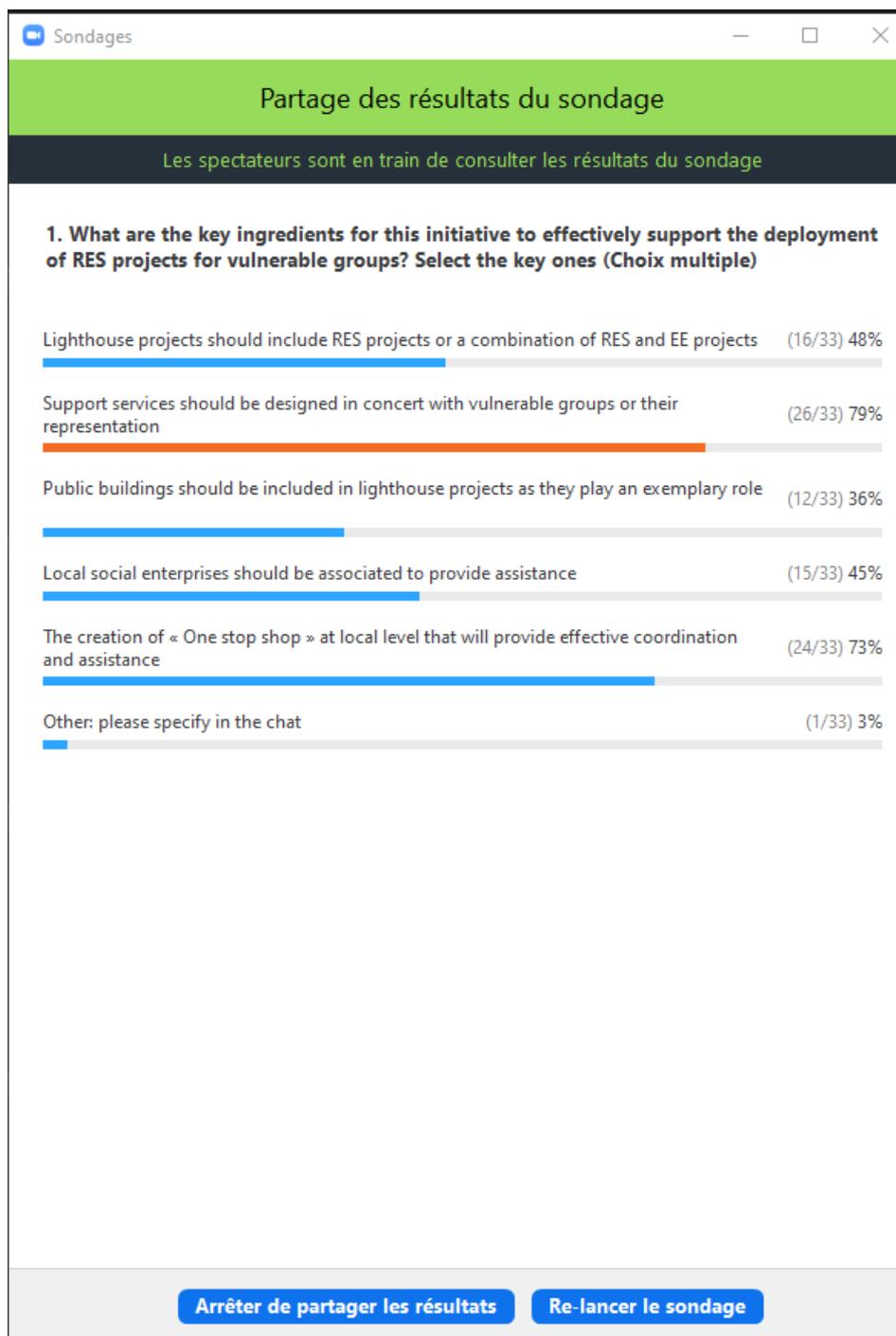


## Remarks

- The EU clean energy package establishes a clear link between energy communities and energy poverty. Community energy also enables certain groups of households to participate in the energy transition, who otherwise might not have been able to do so. This opinion is commonly shared amongst the participants.
- Engaging vulnerable groups in energy communities should be facilitated by measures ensuring that:
  - Setting up costs are supported by MS or regional authorities
  - Technical assistance is provided by authorities to address all legal, technical and financial topics



### 3) Technical capacity





## Remarks

The Commission will launch the « Affordable Housing Initiative » to guarantee that local social renovation projects have access to all necessary technical capacity.

Effective technical assistance should be designed in concert with vulnerable groups of their representatives. One-stop shop solutions at local level should be encouraged and supported.



## 4) Financing solutions

### Partage des résultats du sondage

Les spectateurs sont en train de consulter les résultats du sondage

#### 1. Do you think it could have a major effect in your own region?



Arrêter de partager les résultats

Re-lancer le sondage



## Remarks

The proposal from the Commission to expand the use of ESCOs and implement solutions enabling to overcome high upfront costs is highly supported and considered as an effective measure to support RES projects by vulnerable groups.



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# CONCLUSION

*Ruth Borrego Andrade (AEA)*



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## Evaluation survey day 1:

**<https://forms.gle/FDtugbyrYcPF6Kry7>**



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Énergie Environnement



# POWERITY

Interreg Europe



European Union  
European Regional  
Development Fund

# Thank you!

