



**Auvergne
Rhône-Alpes**
Énergie Environnement



POWERTY

Interreg Europe



European Union
European Regional
Development Fund



New financing mechanisms benchmarked experiences in POWERTY project and pilot action for third-party citizen investment in renewable energies for vulnerable groups



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Avec le soutien de :



- The **SWOT analysis** carried out by partners in the 4 countries involved show that the **cost structure of renewable energies (high investment costs and low operating costs) is the main obstacle to their dissemination to vulnerable groups.**
- This is despite the fact that renewable energies are profitable in the long term.
- So we need to find innovative, sustainable financing systems that don't rely on solidarity alone.



1. Some innovative " good practices " identified in partner regions
2. Some "good practices" from further afield
3. Inspiration for the French pilot action
4. Description of the pilot project
5. Conclusion and outlook

Interesting best practices several countries

- **Social criteria in incentive programmes for energy improvement in housing**
- Spain (Programa de Rehabilitacion Energetica des Edificios “Andalucia es mas”) France (Air-wood fund and Habiter Mieux sérénité) and Poland (STOP SMOG Program)
- These subsidy programs judiciously direct their funds towards households most in need, based on income criteria. This is one way of making the homes of these target groups more resilient.
- However, these mechanisms are mainly concerned with energy efficiency, and works involving renewable energies is rare.

Andalucía es más
Programa para el
Desarrollo Energético
Sostenible de Andalucía



CEL PROGRAMU
Ograniczenie emisji zanieczyszczeń do powietrza, poprawa jakości powietrza oraz poprawa efektywności energetycznej budynków poprzez realizację przedsięwzięć nakazanych na rzecz najmniej wadliwych gospodarstw domowych w budynkach mieszkalnych jednorodzinnych, w tym w szczególności tych, których członkami są osoby mające prawo do korzystania ze świadczeń pieniężnych na podstawie ustawy z dnia 12 marca 2004 r. o pomocy społecznej.

RZĄDOWY PROGRAM
SMOG STOP

BUDŻET PROGRAMU
DO **698** MLN ZŁ

OKRES WDRAŻANIA 2019-2028

Interesting best practices several countries

- Crowdlending / crowdfunding platforms
- Spain (ECROWD), Lithuania (TIPS Investment Platform)



- These platforms can be used to bring together financiers and developers of renewable energy projects.
- They also enable citizens to get involved in the energy transition in ways they can afford.
- Finally, the beneficiaries of energy are not always the financiers of the projects.

Interesting best practices several countries

Efficient heating systems for the vulnerable groups



Campaign for the free replacement of wood- and coal-based combustion systems in Sofia Municipality for improved air quality, The Clean Air program in Poland and “Air-wood fund “in Grenoble’s area

- In Bulgaria and in Poland , many low-income households heat their homes with low-quality wood and coal from low-efficiency combustion plants, in France these are mostly old wood-burning appliances . Due to general inefficiency, this is very costly and creates significant indoor and outdoor pollution (PM10).
- Recognizing that the initial cost of an efficient heating system is a major obstacle for vulnerable groups, authorities help household to switch for highly efficient systems based on wood, pellets; air-to-air heat pumps; a district heating network where a highly efficient condensing gas boiler is installed.

■ Quantum Energía Verde

has developed a financing solution called "Alquiler Quantico", based on the rental of renewable energy installations with no initial investment, making it easier for everyone to access the benefits of self-consumption without having to make an initial investment, and offering a 20-year contract during which maintenance of the installation is guaranteed: covering repairs and operation. More info:

<https://www.quantumenergia.es>





- **Self-consumption and collective renewable: Ola Solar de Lebrija**
- OSL is a pioneering mechanism in Spain that allows these people to participate in renewable energy installations through small financial contributions. With a minimum investment of 100 euros, they become "co-participants" in the installation with a return of 6% (after taxes).

OSL has installed collective photovoltaic solar energy on the roofs of 11 municipal buildings in Lebrija (Seville), on loan from the town council (public schools, a senior citizens' centre, a fire station, a sports centre, etc.). The energy is sold on the electricity market. The revenue from the sale is used to repay the money lent to the citizens who participate in the project.



#SolSurAutoproduction: Collective purchase model of 50+1 self-consumption photovoltaic installations

- The Som Energía cooperative uses the collective purchasing model, which enables an adjusted market price to be obtained when a large number of self-consumption installations are purchased simultaneously.
- In addition, as a gesture of solidarity, for each collective purchase, one self-consumption photovoltaic installation is donated to a non-profit organization.





Third-party investment by citizen cooperative -

- Solar heating system in co-ownership building, financed by **local energy community**: Buxia énergies

More than 360 shareholders (with also 460 kWp PV on the roof). 3 of 5 households involved in the building project are retired with incomes that did not allow them to borrow enough

The local community has financed the project and is reimbursed from the gas savings

Solar system cover 42% of needs for domestic hot water and heating

Thermal units is reimbursed by gas savings



Budget and funding

- Budget for Buxia Énergies cooperative :
 - Thermo Solar unit: 15.4 k€
 - PV unit : 21.8 k€
- Funding :



	Thermo Solar	PV
Citizen Equity	5.5 k€	5.1 k€
AuRA region subsidy	9.6 k€	5.8 k€
Debt		10.9 k€



Reimbursed by
operating fees at level
of gaz saving bills



Reimbursed by
feed-in tarif selling
electricity

Powerty pilot - principle

The citizen investment fund as a tool for developing renewable energy for low-income households

- Objective: to test the implementation of an ESCO-type contract between public companies and vulnerable households
- 2 pilot areas :
rural (Portes du Vercors)
and urban (Greater Lyon)

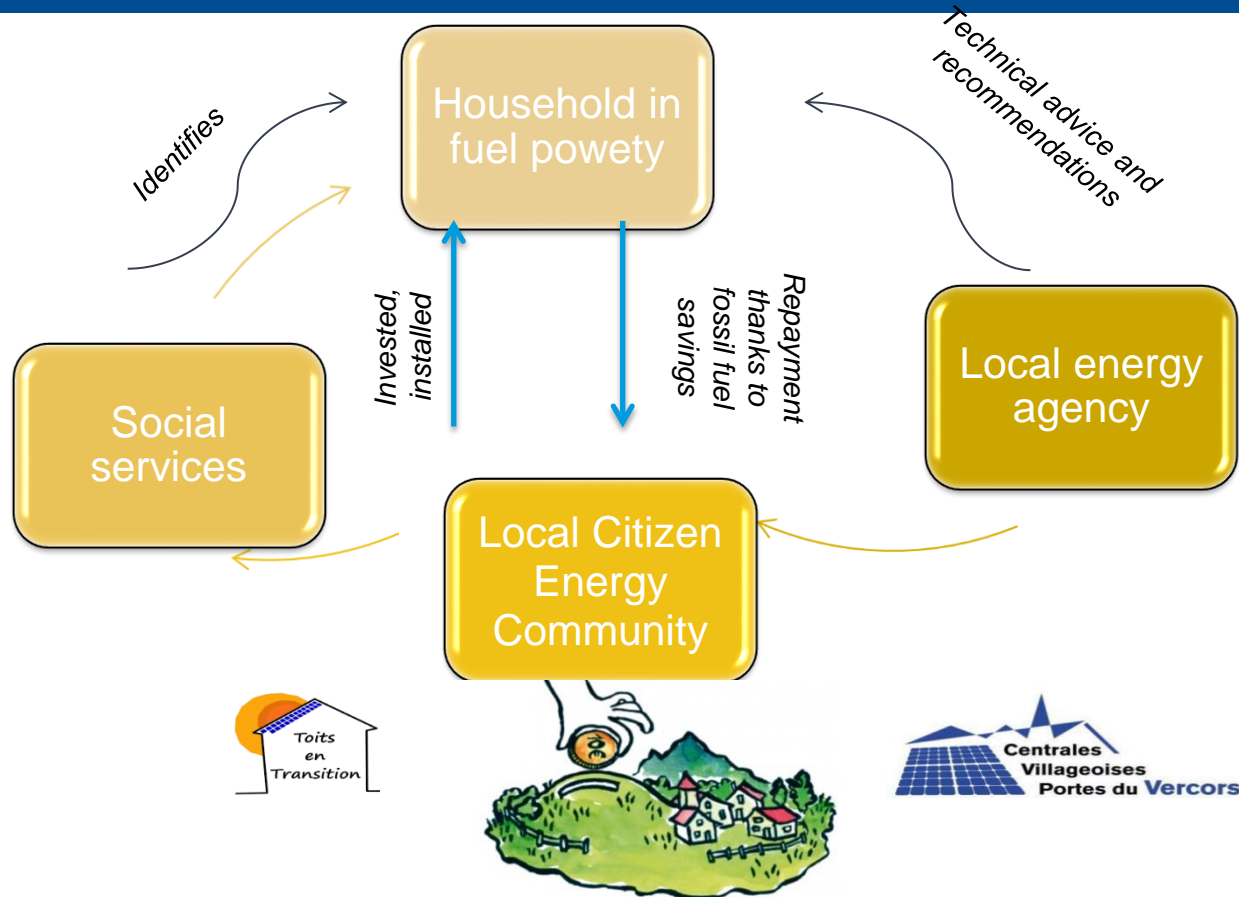


Photo: Les plus beaux villages de France | Photo: Dominique Perraud Architecte

- Contents:
 - ✓ Legal and financial study
 - ✓ Visits to around 100 homes
 - ✓ Carrying of the investment by CEC



Powerty pilot - principle



Action Pilote Powerty - interests

Lifting the financial barrier :

- Citizens are patient investors (5 to 10 years)
- They have savings (over 400 billion euros)

In their quest for meaning, they want to give priority to: the local economy (74%), innovation (69%) projects in the general interest (65%) and transparency (71%).

Lifting the administrative barrier :

- CEC manages relations between craftsmen
- It mobilises aid and studies the best possibilities

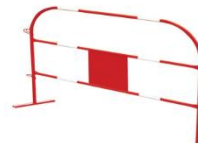


Lifting the technical barrier :

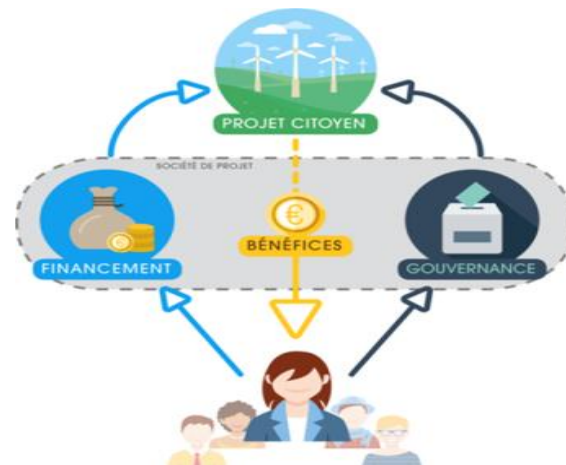
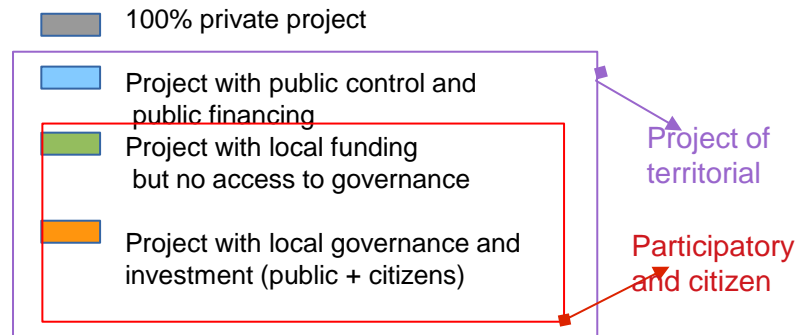
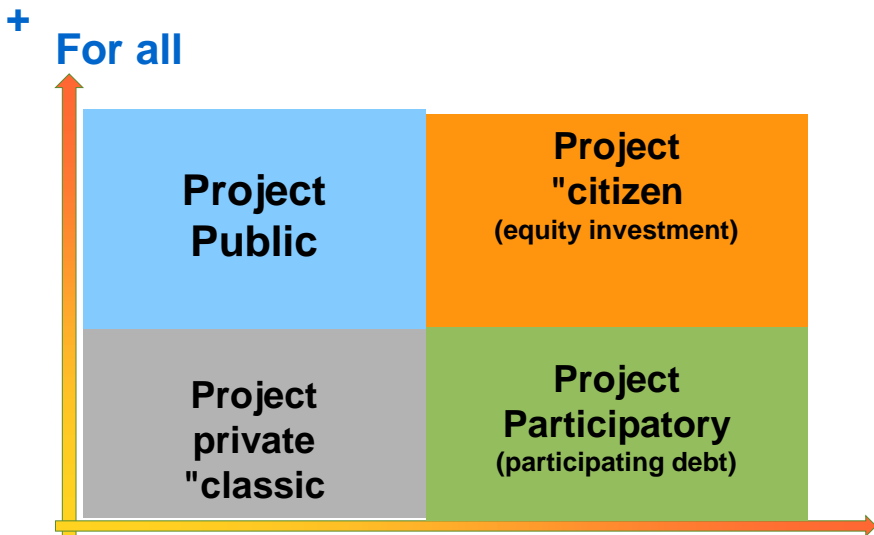


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The work is identified and validated by ALEC



What are Citizen Energy Communities?



Action Pilote Powerty - principle and scope

The aim of the pilot scheme is to create a framework for citizen energy communities to invest in renewable energy production equipment for low-income households.

- The Energy Community invested in equipment (wood boiler, CESI, stove, etc.) for low-income households
- The energy produced directly benefits the household
- The household "repays" the investment through rent calculated on the basis of energy savings
- After a period sufficient to repay the investment (5 to 10 years), the equipment

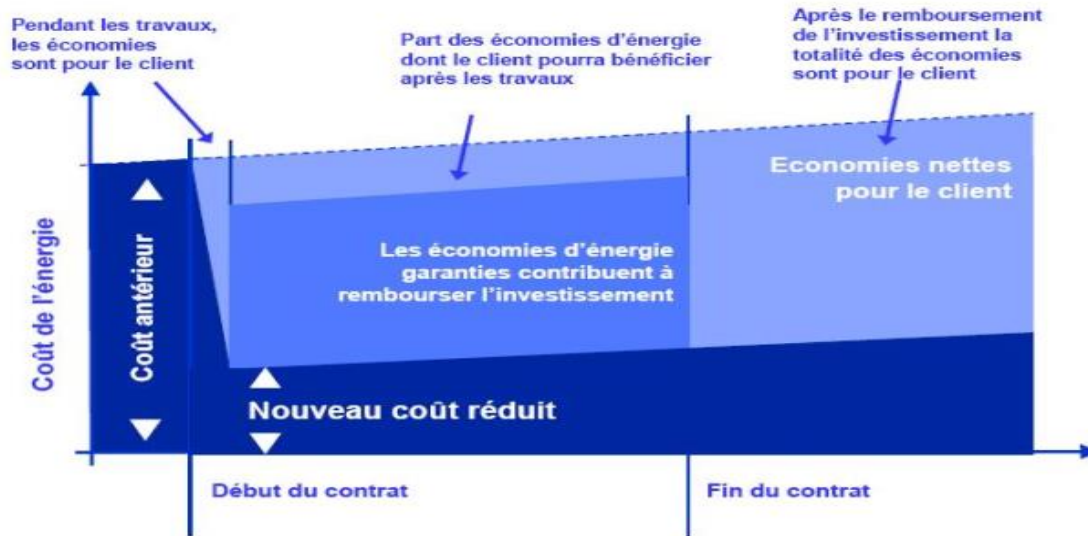


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At the end of the day, the poor household benefits from a renewable energy system free of charge (compared with its initial state).

Action Pilote Powerty principle and scope

The citizen investment fund as a tool for developing renewable energy for low-income households



Principe du mécanisme de « tiers financement » (source : CDC, 2010)

Possible if the repayment period is long enough to generate profits

Citizen collectives = patient investors seeking to give meaning to their savings in their local area.

Issues: insurance, mobilising bank financing, ownership, mobilising support for renewable energy, etc.

- **Sharing responsibilities between the investor CEC and the beneficiary household:** Several solutions exist that allow or require the CEC to leave the operation of the equipment to the beneficiary. In the case of wood, it is preferable for the CEC to retain control so as not to damage the equipment.
- **The risk of non-payment of repayments:** This is a major constraint given the precarious nature of the target, and it is essential that they repay so that CEC can invest elsewhere (revolving fund).
- **Requalification as leasing:** French law reserves the right to offer leasing solutions to banks. A CEC cannot therefore offer leasing on a margin basis. It must offer these services at zero cost... But no bank offer!

- **Profitable in just a few years thanks to existing subsidies in France:** Ma prime Renov', Fond Chaleur, etc. All the more so as fossil fuels and electricity become more expensive
- **Study of the subsidy circuit depending on the type of aid and the status of the investment** (CEC can be mandated by the beneficiary).
- **Drawing up a business plan**



Limits and obstacles

- No band-aid on a wooden leg: we need to get thermal renovation on board, but CECs can't do it (yet)!
- CEC mandataire MPR: risk of administrative phobia
- Bank guarantee against the risk of non-payment (especially for single-family homes)
- Risk sharing in the development phases
- Voluntary management vs. service obligation
- Available to owner-occupiers, not tenants

Conclusion and outlook

- Ideas for local, participatory financing, but also solidarity and public support, must find their place in the regulatory context of each country.
- European directives on energy communities and their transposition into national law should provide a framework for these systems to emerge.

