Auvergne Rhône-Alpes Énergie Environnement

EVENT SUMMARY

Regional conference of the European POWERTY project

Renewable energies also for vulnerable households

Thursday 7 July 2022, from 2pm to 4pm

Introduction and background

AURA-EE, in conjunction with citizen energy communities and local associations for the energy transition, **invented a contractual and economic model to enable low-income households to equip their homes with renewable energy through citizen investment.**

This model is based on support and feasibility studies carried out by a local energy and housing agency, and the administrative and financial management of the renewable energy installation by an energy community on behalf of the household.

This conference was an opportunity to present and discuss this model. On the agenda: an overview of energy vulnerability and renewable energies, the presentation of a new model of third-party citizen investment, and discussions on the means of operational implementation of the model.

Auvergne-Rhône-Alpes Énergie Environnement
18 rue Gabriel Péri
69100 Villeurbanne
E-mail: info@auvergnerhonealpes-ee.fr
www.auvergnerhonealpes-ee.fr

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INTRODUCTION

- ***Catherine Premat - AURA-EE, Coordinator of the POWERTY project***

Presentation of the regional agency AURA-EE as well as the actions implemented in the framework of the European Interreg Europe POWERTY project, which aims to give access to RE to vulnerable households.

- ***Etienne Viénot - AURA-EE, Europe & International Officer***

Presentation of the European activity of AURA-EE. AURA-EE is a member of FEDARENE and has conducted 55 European projects to date, 15 of which are ongoing as of mid-2022, including several co-financed by the Interreg Europe programme.

Additional references :

- Objectives and achievements of the POWERTY project available on the website Centre de ressources pour les territoires en transition d'Auvergne-Rhône-Alpes.
- The meeting was attended by 11 representatives of local authorities, 11 representatives of citizen energy communities, 3 ALTEs, 2 social actors, 1 university/research centre, 3 institutional actors, 5 other structures (INES, Copawatt...).

AGENDA

- Benchmark of good practices - Noémie Zambeaux, AURA-EE
- Pilot action: new model - Pierre Magdinier, Toits en Transition; Jacques Régnier, Centrales Villageoises Portes du Vercors
- Legal study - Noémie Zambeaux, AURA-EE
- Household support - Benjamin Bichot, Soliha Drôme; Noémie Zambeaux, for ALEC Lyon
- Sun4All project - Olivier Levasseur, Communauté de communes Cœur de Savoie
- Action plan and conclusion - Catherine Premat, AURA-EE

BENCHMARK OF GOOD PRACTICES

- **Noémie Zambeaux, AURA-EE**

RESULTS OF THE ANALYSIS CONDUCTED

Assets

- The price of renewable energies which is decreasing and is cheaper in total cost
- Political support
- Local actors present and involved
- Emerging projects and experiments

Weaknesses

- Target audience difficult to engage
- Public not owner of their own home
- Investment costs and remaining costs too high
- Complexity of some technologies

Opportunities

- Energy renovation grants to combine renovation and renewable energies

- Third party investment by cooperative societies
- Growing concern about climate change has fuelled research and technological innovation
- Involvement of social landlords and associations

Threats

- No model for installing renewable energies for the precarious
- Dispersed population in rural areas
- Regular changes in technical and financial requirements for renewable energy
- Insufficient quality control of facilities
- little handholding support if needed

Insulating buildings is necessary, but in order to push a Negawatt approach to the end, it is important to help households to install renewable energy, and thus face the volatility of energy prices.

Another lesson is that the focus is mainly on electricity, but it is **essential to also (and especially) look at heat,** which is key for households in the winter period and is often a subject of precariousness.

GOOD PRACTICE IN FRANCE

The topics that were identified as good practices in France are: the **third-party investment** in solar thermal energy, the **wood air fund** (for the replacement of open fireplaces but also wood stoves dating from before 2002), the **precariousness bonus** of the greater Grenoble region, the **urban heating network** of the Grenoble conurbation, the **CEE AEELA programme** (support for farmers to reduce energy consumption in their homes), the **ABC autonomous building** (mixed housing building on the Grenoble peninsula integrating 62 social housing units, solar self-consumption and energy storage), **the zero interest eco-loan**, the "**energy cheque"** (automatic aid for vulnerable households), the "**Habiter mieux sérénité**" initiative to help households escape from energy insecurity, the **CEE précarité (precariousness CEE)**, **Sol'Solidaire (**collective self-consumption in social housing).

GOOD PRACTICES IN OUR EUROPEAN NEIGHBOURS

Quantum Energia Verde (Spain)

Has developed a financing solution "Alquiler Quantico", based on the rental of renewable energy installations without any initial investment and making it easier for everyone to access the benefits of self-consumption. Offers a 20-year contract during which the maintenance of the installation is guaranteed (covers repairs and operation).

Legal framework for self-consumption simpler than in France. No feed-in tariff, everything goes through the "market". This initiative has greatly inspired the POWERTY project in the region, which consists of having a third party invest in RE, which rents the equipment over 20 years to the households in the buildings concerned.

ECOO (Spain)

Has set up a solar panel integration company whose employees are people at risk of exclusion. RE has a higher job creation potential than fossil fuels, and the jobs are decentralised (in the sense that each territory needs qualified installers, energy auditors, etc.). This is suitable for the inclusion of vulnerable groups in the labour market. This good practice can inspire regional decision-makers looking for retraining programmes.

SMIC energy (Andalusia)

Strategic plan to combat fuel poverty among older people.

Modular micro-houses (Poland)

A family with a large house/apartment receives a proposal to exchange it for a prefabricated, modular, passive micro-house (a house made up of functional modules) offered for rent by a developer, local government or other entity acting for the benefit of vulnerable people. These houses incorporate solar panels and water harvesting systems.

Simplifying legislation (Lithuania)

The Lithuanian legislation on the installation of small-scale power plants from renewable energy sources was cumbersome. Actions have been taken to simplify it and make it more easily accessible. For local loops: simplification of administrative procedures has enabled prosumers, including vulnerable groups, to use energy from renewable energy power plants in their homes.

POWERTY PILOT ACTION FOR NEW MODELS

- **Noémie Zambeaux, AURA-EE**

Within the framework of the POWERTY project, the Interreg Europe programme funded a pilot action whose objective was to **test the implementation of an ESCO** (Energy Service Company, more commonly known as Energy Performance Contract) **type of contract between citizen companies and vulnerable households**.

Two pilot territories were selected: a rural territory (Portes du Vercors) and an urban territory (Greater Lyon). A legal and financial study was carried out, based on visits to around one hundred homes. The investments are carried out by a citizen energy community.

In a **citizen energy community**, citizens are included in the capital. There are two types of projects: **participatory investment projects which** have local governance (public and citizen); **participatory projects** (participatory debt) which are based on local financing but without access to governance.

- **Jacques Régnier - Centrales Villageoises Porte du Vercors**

Within the framework of the Village Power Plants on the territory, a working group on energy saving had been set up. This group appreciated the proposal of the POWERTY project, which enabled progress to be made on the target of precarious households. The main obstacle identified was finding financing for these people, particularly in terms of bank guarantees.

- **Pierre Magdinier - Roofs in Transition**

The aim of the association is to enable citizens of the Lyon Metropolis to become involved in the energy transition by participating in the construction of solar energy production facilities. It has about twenty active volunteers. For Pierre Magdinier, opening up to vulnerable households is a way of breaking out of the isolationist mindset. It should be noted that the rise in energy prices favours the logic of self-consumption. The legal and economic study proposed was considered particularly interesting by the group of volunteers from the collective.

FOCUS ON THE LEGAL STUDY THAT WAS CARRIED OUT

- **Noémie Zambeaux, AURA-EE**

THE MODEL TESTED

- The energy community invests in equipment (wood boiler, individual solar water heater, stove...) in a modest household/s;
- The energy produced directly benefits the household;

- The household "repays" the investment through a rent calculated on the basis of energy savings after a period of time sufficient to pay back the investment (5-10 years).

In the end, the precarious household benefits from having RE equipment for free (compared to its initial state) and this shelters it from price volatility.

This is only possible if the repayment period is long enough to generate a profit. Once the investment has been repaid, the energy savings benefit the household.

Through this study, the idea was to remove 3 main barriers: financial (citizens = patient investors who have savings, in search of meaning), administrative (the citizen energy community manages relations with craftsmen, mobilises aid and studies the possibilities), technical (work identified by the ALEC).

We are talking about energy production (especially heat) for the benefit of the building's inhabitants.

The issues addressed in the study are related to insurance, mobilisation of bank financing, ownership of purchased equipment, mobilisation of ENR aid, the question of leasing, etc.

LEGAL LESSONS LEARNED

The study highlighted several points of attention:

- The **sharing of responsibilities** between the investor and the beneficiary households. Several solutions exist that allow or require the citizen energy community to leave the operation of the equipment to the beneficiary. Except for wood energy, where it would be preferable for the citizen energy community to keep control in order not to degrade the equipment (moderate risk if a professional manages the equipment, for example a social landlord who would have an operator).
- The **risk of non-payment of** repayments: this is a strong constraint given the precarious target. However, repayments are essential for the citizen energy community to invest elsewhere (revolving fund). This is a fundamental issue that still needs to be addressed.
- **Reclassification as leasing**: French law reserves the possibility to offer leasing solutions to banks. A citizen energy community cannot offer leasing by taking a margin, it must offer these services at zero cost. There is no bank offer available at this time.

ECONOMIC ASPECTS

Two subsidies studied: MaPrimeRénov' in the Vercors and the heat fund in Greater Lyon.

The model would be **profitable** within a few years thanks to these subsidies, especially as fossil fuels and electricity are increasingly expensive.

Study of the subsidy circuit according to the aid and the status of the investment (the citizen energy community can be mandated by the beneficiary).

ACCOMPANYING FAMILIES (VERCORS)

- **Benjamin Bichot - Soliha Drôme**

Soliha Drôme works in the area of the Community of Municipalities of Royans-Vercors, a predominantly rural area. It identifies the households concerned and the requests. Within the framework of POWERTY, 12 households were audited, 5 were selected.

CASE 1

An elderly person, retired, autonomous and not isolated, owner-occupier, with a tax income of 9 k€, supported financially by her children to be able to heat her home (4 k€ of fuel oil per year in 2021). Dwelling from the 1970s, uninsulated low concrete floor, non-performing insulated attic, very old boiler...

Project studied: installation of a wood pellet boiler, low floor insulation and change of joinery. Energy gain of 39%, amount of work: 45 k€ TTC.

Financing via MaPrimeRénov' sérénité + other aid (Department, CEE, pension fund, etc.): 55% of the cost is covered.

The remainder of the cost is financed by the Centrale Villageoise (no possibility of a bank loan) with repayment by the household in the form of monthly instalments over 10 years of €110/month.

CASE 2

Family of 4, owner-occupiers, active, with a tax income of 30 k€ (very modest, but can borrow).

House from the 2000s, insulated but not efficient (energy sieve but no question of touching the insulation), are willing to invest in a wood pellet heating system coupled with a solar water heater.

Financing via MaPrimeRénov' sérénité (+ other aid: CEE...).

The remainder of the cost possibly financed by the Centrale Villageoise up to 144€ / month over ten years.

LESSONS LEARNED

What was validated in the pre-operational phase:

- **This model meets a real need**: a local player who invests (Centrale Villageoise) represents an important decision-making tool, a vector of incentive communication, a lever for performance.
- **Obstacles to be overcome**: make these projects long-term, use an operator trained in social support (dual skills required for the project: social AND technical), explain the calculation of the remaining costs, ensure compatibility with all financial aid (all must be validated at the risk of cancelling the project if this is not the case), the need for administrative sobriety to be replaced by the human link between the support worker and the household

SUPPORTING HOUSEHOLDS (GREATER LYON)

- **Noémie Zambeaux, for ALEC Lyon**

CASE 1

A condominium with 120 units.

- Building: correct thermal envelope ;
- Current heating system: gas condensation 808 MWh HCV ;
- Individual domestic hot water ;
- System envisaged: geothermal energy on groundwater (or vertical probe but more complex).

With the heat fund mobilised, the third-party citizen investment solution works well for this example, which presents elements in favour of renewable heat. The households in the condominium are modest and cannot invest in a costly solution. The rental model allows for a rent that is largely compensated by the energy savings (living expenses for the households) over a 10-year amortisation period (gross payback time - GPR ~7 years), corresponding to the duration of the rental contract envisaged.

CASE 2

Building "Les marronniers" managed by the association Habitat et Humanisme:

- 7 flats + 1 commercial lot => 344 m^2 heated;
- Building: planned renovation work ;
- Current heating and hot water system: electricity 18 100 kWh ;
- System envisaged: wood boiler (in the current boiler room with underground silo).

Over 20 years, savings of 9% (but study carried out at the beginning of the year before revision of the heat fund model by ADEME).

Here, the solution of third-party citizen investment has a limit because it is very dependent on the hypotheses retained on the evolution of energy costs. The need to create a central heating system implies a high cost, which takes a long time to be amortised (TRB of 19 years -> difficulty encountered in setting up the hydraulic network). Despite this, this solution would provide heating energy that is less GHG intensive, renewable, and less subject to volatile energy costs.

Today, there is a lack of support from local authorities to secure this funding and to scale up. For the moment, the solution consists of relying on energy communities, but to go further (on the scale of an entire neighbourhood, for example), it is necessary to find other investors to finance the "remaining costs", as well as people to accompany these projects.

PRESENTATION OF THE SUN4ALL PROJECT

- **Olivier Levasseur, Communauté de commune Cœur de Savoie; Xavier Bouvier, INES**

SUN4ALL is a European project co-funded by the H2020 programme, which shares the objectives and philosophy of POWERTY.

The aim is to avoid a support system that creates dependency and perpetuates insecurity, in particular by offering households the possibility of being shareholders in a local photovoltaic plant, and by using the income generated by photovoltaic energy to reduce energy bills.

Started in October 2021 for 3 years.

The idea is to provide 50 households/year with personalised advice to reduce their bills.

The partners in Coeur de Savoie are :

The challenge of the project on the territory is to manage to animate and give meaning to the action "to make precarious households benefit from solar energy".

INSPIRATIONS

- New York State invests public funds in ground-based solar farms (as energy communities). A small portion of the profits generated by the sale of electricity from the farm is passed on to certain beneficiaries.
- In European countries: collective self-consumption PV installations on the roofs of social housing buildings.
- Sol'Solidaire: call for projects counting on patronage to complete the financing of collective self-consumption operations by social landlords.

- Watt Solidiaire: Financing of the remaining costs through third-party investment linked to the photovoltaic installation.

SUN4ALL

- Financing actions against fuel poverty with revenues from photovoltaic.
- Willingness to work on energy efficiency.
- **Photovoltaic sites to build on**: 5 sites currently + several in the coming years. Profits will be used to fund fuel poverty actions.

THE PACKAGE OF ACTIONS ENVISAGED

- Relaunch and expand the **SLIME service**: support tenant households through a coaching service + bill relief for about 15 households per year.
- Strengthen the "**j'éco rénove" scheme** in Coeur de Savoie: additional funding via SUN4ALL targeted at the replacement of heating systems (heat is a key element in energy renovation and among precarious households): 35 households per year in the area.
- **Innovate** by financing the remaining costs of a few comprehensive renovation projects and investments from other calls for projects.
- Innovate by testing the feasibility of a collective self-consumption project with social landlords.

DIFFICULTIES ENCOUNTERED IN THE CONTEXT OF THE PROJECT

- Successfully targeting fuel poor households in the area, most of whom are tenants of private landlords, is difficult.
- Reliability of the economic model = heart of the matter: inability to duplicate the New York model of investing in energy communities (public investment too high), brakes on the collective self-consumption model, difficulty in transferring the surpluses of the photovoltaic annex budget because, legally speaking, the local authority cannot put the profits into the main budget.
- Finally, the European project imposes a very ambitious territorial animation programme: 24 workshops, and 2 visits of photovoltaic and individual installations to each household. That's 200 visits!

CONCLUSION

Phase 1 of the POWERTY project ends at the end of July. In phase 2 (August 2022 - August 2023), AURA-EE's mission will be to monitor the actions implemented on the regional territory. In view of the contributions of phase 1 of the project and the pilot action, territorial actions could usefully be set up between active energy communities and local authorities to deploy a renewable energy equipment offer to low-income or vulnerable households. The current period of high energy prices and the call for sobriety in gas and electricity seem to be a good time to deploy these innovative solutions involving the inhabitants as actors of the energy transition of their territory and leaving nobody "on the side" of the road. At the end of the summer, a call for expressions of interest will be launched, in order to co-construct actions with the territories on the basis of the POWERTY model.

Keep us informed of ongoing projects of this type, we are available to relay your actions, translate your documents, disseminate your feedback.

Contact: catherine.premat@auvergnerhonealpes-ee.fr