

POWERTY

Renewable energies for vulnerable groups

STATE OF ART & SWOT ANALYSIS

Auvergne Rhone-Alpes (France) – January 2020



STATE OF ART: ENERGY POVERTY AND RENEWABLE ENERGY

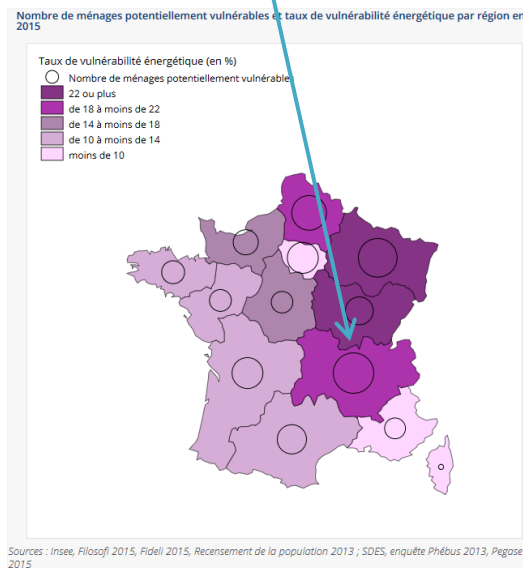
Objective: to describe the starting scenario and the scope of energy poverty and renewable energy in your region, focusing on regional needs.

1. Brief Picture of the Region

In France¹:

- 1 out of 5 French people feel cold
- A modest household pays its energy bill 1,925€ compared to 1,584€ for an average household
- The energy bill is the 2nd cause of unpaid bills
- Every € invested in energy retrofit represents a saving of 30 c€ in health care costs

In our region, 19% of households are in a vulnerable energy situation: 1 out of 5. The majority of them are social buildings with very poor energy performance and very few vulnerable groups have access to sustainable energy solutions.



2. Renewable energy sector. Brief Description

Auvergne Rhône-Alpes has significant renewable energy sources (solar, hydro, biomass) distributed throughout the region that could be made accessible to these communities.

¹ (Source: INSEE - National Institute of Statistics and Economic Studies - 2019)

Renewable energy production reaches 43,583 GWh, representing 35.5% of the region's energy production in 2016. Auvergne-Rhône-Alpes is the leading French region in terms of hydraulic production. Hydropower accounts for nearly 90% of renewable electricity production, while other renewable electrical energies (photovoltaic solar, wind, biogas or waste electrical recovery) are growing strongly: +8% compared to 2015, +165% since 2010. Three-quarters of thermal renewable energy production comes from biomass. The other thermal renewable energies (heat pumps, solar thermal, thermal recovery of biogas and waste) are constantly increasing: +6% compared to 2015, +48% since 2010, in particular driven by the development of heat pumps.²

Wood energy: the key stakeholders in the wood energy sector (production and consumption) have created a forum for exchange, sharing, work and co-construction: the Auvergne-Rhône-Alpes Wood Energy Strategic Committee.

Biogas: the Region is in charge of the implementation of a regional biogas scheme. A biogas club brings together the key players in this sector. AURA-EE manages an observatory of the biogas sector in Auvergne-Rhône-Alpes region.

PV plants: Recently, the Region has set up a working group on "Excellence of the solar sector" and "New economic models". AURA-EE leads the regional governance.

Energy communities: the "Auvergne-Rhône-Alpes Citoyennes et Locales Energie" (AURACLE) network brings together project leaders, local authorities, institutional players and support structures that wish to share their experience in setting up renewable energy production projects involving citizens. It currently has around fifty members and is led by Auvergne-Rhône-Alpes Energie Environnement (AURA-EE).

3. State of Play of energy poverty in your region

At national level, several new laws have been passed that allow the collective production of renewable energy and self-consumption of energy. Although this new legal framework provides new opportunities to help mitigate energy poverty, policy and subsidy programmes at regional level have not yet been adapted to address energy poverty in a more effective manner. It is necessary to identify the technologies and innovative elements of low cost that best adapt to the situation of vulnerable groups, as well as the forms of financing, operation and maintenance of renewable facilities that are more appropriate for this type of group. At a national level, several public bodies support and finance housing improvement projects for a vulnerable population: ANAH (National agency for housing improvement), ADEME (agency for the environment and energy management), a cluster RAPPEL (network of actors against poverty and energy poverty in housing), an observatory ONPE (national observatory on energy poverty) and foundations (Abbé Pierre for instance). At a local level, local agencies support vulnerable people. Energy poverty is the competence of the "Départements",

² source: Regional observatory for climate, air, energy and greenhouse gases (ORCAE) - key figures 2019

intermediate scale between the region and the municipalities. Lots of local authorities have identified actions aimed at vulnerable population in their action plan.

When we talk about energy poverty, it's also important to consider mobility sector. In our region, a new project (2018) is running: PEnD-Aura+. It brings together 17 regional partners alongside AURA-EE: local authorities and actors related to travel and integration in the territories. The objective of the program is to provide an innovative response, on a territorial scale, unparalleled until now, to the mobility need of people on the fringes of mobility, while reducing the impact on the region's territories, particularly at the periphery of urban areas and in rural or sparsely populated areas.

4. Link to the RIS3

The regional innovation strategy's objective is related to exploring and developing new fields of innovation, addressing social challenges, such as energy poverty. The opportunities considered in RIS3 are fundamentally based on the development of new innovative solutions for energy networks and storage, including renewable energies as well as energy intelligent buildings.

5. Policy Instruments. Regional and National Plans and Policies on renewable energies and energy poverty

There are no specific financing and legal instruments that facilitate the development of collective or individual energy renewable projects for those affected by energy poverty.

6. Legislation, Regulation

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7. Financial Support and Instruments

There are several financial instruments regarding renewable energies in France. We could classify them according to the target:

Households

For existing individual housing, the development of renewable thermal energy mainly involves three support tools: the tax credit for energy transition, the zero-rate eco-loan and the energy

saving certificate scheme. There is also an air-wood fund provided by some big local public authorities (agglomerations of Grenoble, Lyon, etc.)

Collective residential, tertiary, agriculture and industry sectors

The Renewable Heat Fund: This fund supports the development of the use of renewable thermal energies: biomass (forestry, agriculture, biogas, etc.), geothermal energy (in direct use or via heat pumps), solar thermal, recovery energies, as well as the development of heating networks using these energies. Electricity from renewable sources is promoted through a feed-in tariff, a premium tariff as well as through tenders for the definition of the premium tariff level.

The regional council in most cases provides a supplement to national aid.

Mobility

Incentives for the development of electric and hydrogen vehicles

R&D

One billion €/year for R&D in energy; 42% for new energy technologies (ie. non nuclear, non fossil)

8. Preliminary Good Practices

Innovative renewable energy technologies:

- *Toit vosgien (résidence J. Ferry) - Social landlord which builds passive and low-tech housing supplied by RES*
- *Dynacité – collective PV self-consumption*
- *Sol solidaire – mobilises donations to reduce the energy bills of social housing beneficiaries using solar energy*
- *Development of district heating using solar thermal and wood energy.*

New financing formulas:

- *Air-wood fund - This local fund subsidizes the replacement of obsolete wood heating equipment with high-performance equipment. An additional bonus is given to vulnerable households to facilitate their access to these technologies*
- *Third-party investment by citizen cooperatives - production of wood or solar heat (e.g. Buxia énergies)*
- *FATMEE – Support fund for water and energy management works for vulnerable groups.*

Regulatory framework:

- *Convergence of renovation assistance schemes for precarious households - New mechanism (January 2020) to help investment in renewable energy and energy savings 'Ma prime rénov' managed by the ANAH, which supports households in their renovation projects*

- *The zero-rate eco-loan*

Empowerment of vulnerable groups and social innovation

- *Energy saving certificate program AEELA / MSA - "Energy Saving Accelerator for Farmers' Housing" with accompanied self-rehabilitation.*
- *ABC - <http://www.ville-amenagement-durable.org/Demonstrateur-ABC>: 2 collective housing buildings (social and intermediate rental) to meet the concept ABC (Autonomous Building Citizen), which aims to experiment the technologies and behavioural changes required for the self-consumption and energy and water autonomy of the buildings.*

9. References

- *Ministry for an Ecological and Inclusive Transition: <https://www.ecologique-solidaire.gouv.fr/lutte-contre-precarite-energetique-cheque-energie-aides-renovation-energetique>*
- *RAPPEL national network: <https://www.precarite-energie.org/>*
- *National observatory of energy poverty: <http://onpe.org/>*
- *"Energie solidaire": <https://www.energie-solidaire.org/>*

SWOT analysis

TOPIC 1. INNOVATIVE RENEWABLE ENERGY TECHNOLOGIES AIMED AT VULNERABLE GROUPS, INCLUDING COLLECTIVE AND URBAN ENERGY SYSTEMS.

WEAKNESSES

- Lack of data
- Tackles energy retrofit but not RES
- High-Tec technologies sometimes difficult to implement and to make accesible to vulnerable groups, due to economic constraints and regulatory reasons. High-tech technologies are driven by innovation and are therefore not widespread.
- District heating: the tariff for heat or electricity is unique. It is not differentiated for low-income households.

THREATS

- Scattered population in rural areas

STRENGTHS

- Interesting initiatives that are getting off the ground (cf. SOL solidaire, autoconso)

OPPORTUNITIES

- Wood energy widely and easily available in our region and citizens acculturated to it
- In a mid-term vision: third-party investment by citizen cooperatives

TOPIC 2. NEW FINANCING FORMULAS FOR RENEWABLE ENERGIES SUITABLE FOR VULNERABLE GROUPS.

WEAKNESSES

- Complex and time-varying procedures, sometimes incompatible with each other and unsuitable for RES
- High cost investment for RES but low functioning cost, the opposite for fossil fuels

THREATS

- Remaining costs still too high

STRENGTHS

- Energy communities
- Crowdfunding for renewables recognized by the law
- National incentive schemes for energy retrofit include the development of RES (for individual investment)

OPPORTUNITIES

- The laws have become more flexible so that citizens can invest in renewable energy: crowdfunding, energy communities, etc.
- The investment costs of RES are getting lower

TOPIC 3 IMPROVEMENTS IN THE REGULATORY FRAMEWORK FOR RENEWABLE ENERGIES AND VULNERABLE GROUPS

WEAKNESSES

- Regulatory framework: electrical energy is encouraged despite a higher cost for the consumer
- Lack of technical means and local manpower: craftsmen, social and health trades, etc.

THREATS

- Fuel poverty is not within the region's competence, it's managed at a lower level

STRENGTHS

- Government financial support for the most modest households
- Structures and a network of actors who provide support to people in vulnerable situations
- Fuel poverty taking into account in SECAPs equivalent (mandatory for all local authorities with more than 20,000 of inhab.)
- Public policies that combine social, climate and air quality issues

OPPORTUNITIES

- Municipalities are obliged to have at least 25% of social housing
- Local authorities implement voluntary social housing plans and can encourage RES in their urban planning
- New laws that allow the collective production of renewable energy and self-consumption of energy

TOPIC 4 EMPOWERMENT OF VULNERABLE GROUPS AND SOCIAL INNOVATION TO STIMULATE CITIZEN PARTICIPATION OF THESE SOCIAL GROUPS

WEAKNESSES

- Beyond financial barriers, there are also social obstacles: lack of citizen involvement in the energy issues for instance and administrative obstacles: complexity of aids and support, lack of access to information, etc.
- Difficulties in accessing the homes of vulnerable people and undertaking work in their homes
- Social workers, public support services for vulnerable people, are not trained in energy.

THREATS

- Energy retrofit improve comfort but do not allow households to get out of poverty

STRENGTHS

- Social landlords have been raising awareness for many years

OPPORTUNITIES

- Easier participation and stronger interest of citizens in renewable energy projects thanks to energy communities for instance.