Final study, April 2020

Analysis, identification of tools and actions, recommendations for the development of participatory and citizen-led renewable energy projects in Normandy

Contracting authority

Normandy Region
Abbaye-aux-Dames
Place Reine Mathilde
CS 50523
14035 Caen Cedex 01

Representative

SCIC Sarl - les 7 Vents
25 rue du docteur Guillard – 50200 Coutances
Tel.: 02.33.19.01.40 – Fax: 02.33.19.02.52 - email: contact@7vents.fr - www.7vents.fr
SIRET no.: 480 216 845 0069 - APE code: 7112B

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Introduction

This study is part of the Interreg Europe "APPROVE" project, in which the Normandy Region is a partner. Its purpose is to identify tools and actions, and issue recommendations for the development of participatory and citizen-led renewable energy projects in Normandy. This type of project is promoted in particular with a view to encouraging local ownership of the energy issue, and therefore a greater willingness to accommodate renewable energies in the region.

The study presented in this document is in different parts. The potentials of renewable energies are first put forward, with an analysis of the context in Normandy and feedback on the advantages of a participatory and citizen-led approach. A presentation of practices in other regions of France then gives a detailed overview of the various types of organization possible. Finally, the study focuses more specifically on Normandy, and issues a proposal for a "Citizen-led Energy Plan" that can be followed by the Region, along with various recommendations concerning strategic documents and the political initiative.

Abstract

The study is part of the European project Interreg “APPROVE”, in which the Normandy Region participates as a partner. Its main objective is to identify tools and actions, and to propose recommendations in favour of the development of participatory and citizen-led renewable energy projects in Normandy. This type of project is promoted with a view to encouraging local ownership on energy issues, as well as a greater likelihood that local inhabitants will welcome renewable energies in their region.

The study is organized in three parts. First, the potentials for renewables are presented, along with the Normandy context, and the advantages of such a participatory and citizen-led initiative are emphasised. Next, practices in other French regions are introduced, giving the reader a clear view of the different options available. Finally, the study focuses on Normandy, and a proposal for a “Citizen Energy Plan” which could be followed by the Normandy Region is developed. Various recommendations concerning strategic documents and the policy approach are also given.

The main findings of the study are that participatory and citizen-led projects can be initiated for any source of renewables, and under the umbrella a great diversity of legal structures. The common features they must share, according to the Energie Partagée association charter (see details in the study) are local roots, shared and transparent governance, and ecological principles. They must also be non-speculative in nature.

An analysis of the Normandy region has made it possible to highlight several needs, such as the need for more support for groups who want to engage in a renewable energy projects, the need to be able to communicate better on projects, and the need for local authorities to become familiar with this type of project.

This assessment has enabled a series of recommendations to be made, mainly concerning two areas: the creation of a regional coordination network and the creation of special financial support for these projects.

Potential for the development of renewable energies in Normandy: overcoming possible obstacles through citizen-led and participatory projects

Normandy is both a major energy-producing region and a large consumer, and is also a major emitter of greenhouse gases. Today, it is one of the pioneer regions for the development of marine renewable energies, and its potential for land-based development means that promising prospects can be considered. It aims to increase the percentage of renewable energy consumed to 32% by 2030.

Production goals **– SRADDET 2020**

	2015	2020	2021	2026	2030
TRANSCRIPTION DES OBJECTIFS NATIONAUX GLOBAUX					
% d'ENR dans consommation finale (objectif PPE)		**23%**			**32%**
Projection de la consommation finale (en GWh - base 2012)		93 345	92 207	86 515	81 962
Projection de la production d'ENR nécessaire à l'atteinte de l'objectif (GWh)		**21 469**	**22 037**	**24 570**	**26 228**
DETAILS DES OBJECTIFS PAR TYPE D'ENERGIE RENOUVELABLE (en GWh)					
Bois énergie particuliers	3 936		3962	3983	4 000
Bois énergie agriculture	0		3019	4397	5 500
Bois énergie cogénération	889				
Bois énergie industrie	376				
Bois énergie collectif réseau de chaleur	525				
Bois énergie collectif	88				
Solaire Thermique	24		55	80	100,00
Biogaz chaleur	163		293	401	487,0
Chaleur Fatale+ déchets	763		858	937	1 000,0
Biogaz injection	0				1 700,0
Eolien	1 260		2156	2903	3 500,00
Méthanisation	139		307	448	560,00
Hydraulique	120		122	124	126,00
Photovoltaïque	121		313	472	600,00
Cogénération Bois	306		464	595	700
Cogénération Chaleur fatale+ déchets	262		317	363	400
Eolien marin	0		1560	5 000	8 300
Hydrolien	0		0	1027	1400
	8 972		**13 424**	**20 729**	**28 373**

Production goals for SRADDET (regional planning, sustainable development and territorial equality scheme). These objectives are expressed as a transcription of the national goals in the first part of the table and detailed by type of renewable energy in the second part).

In order to achieve this objective, it appears necessary to make use of all available renewable sources. However, certain sectors, such as wind power or anaerobic digestion, are subject to problems of citizen acceptance. Opposition groups are growing and structuring themselves at national and regional levels

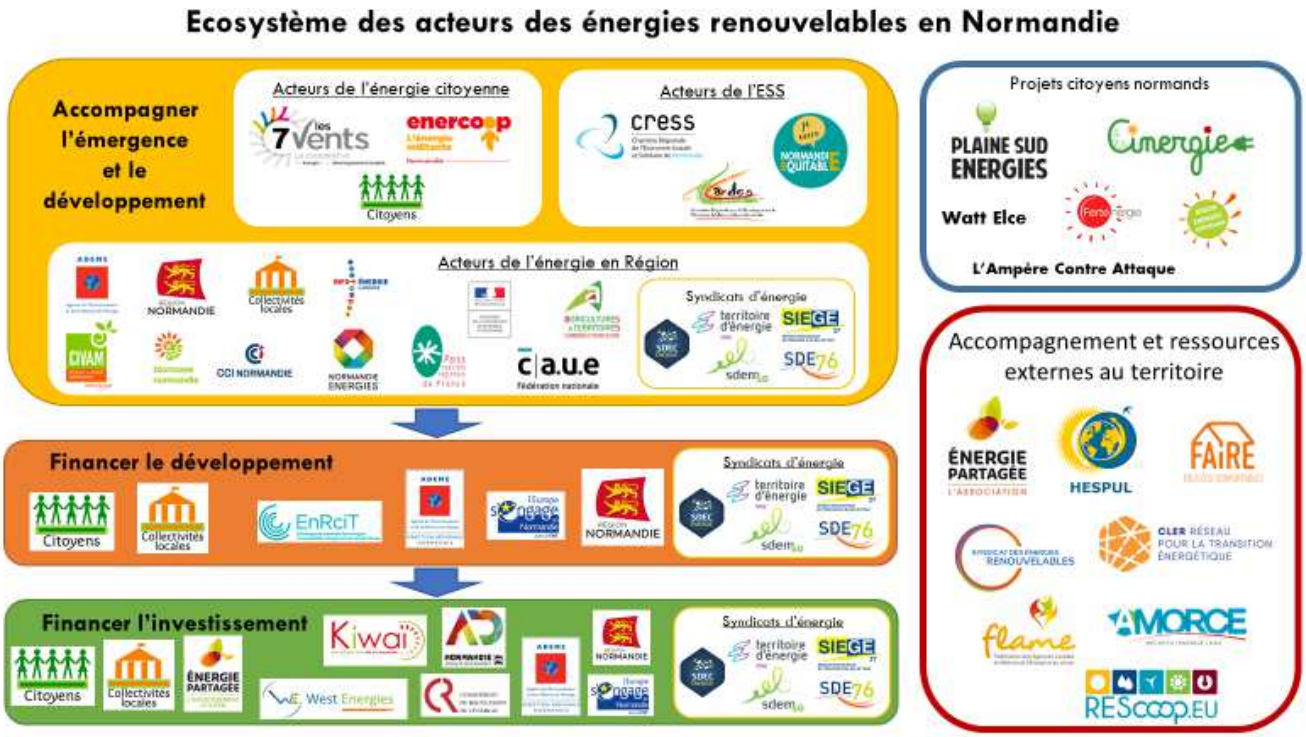
and are building arguments to get such projects abandoned, which shows a reluctance of a section of the population to see renewable energy (RE) projects emerge in its area. In order to develop renewable energies in the region, it is therefore advisable not to neglect any available source, and to make sure that the local population is mainly favourable to the development of such projects.

In addition to fostering local economic roots and ownership of energy issues at all levels, participatory and citizen-led renewable energy projects can provide an answer to this problem of acceptance, through participation and consultation.

These projects implement new development models, based on a multi-stakeholder game requiring a strong commitment from those involved. They often come up against numerous obstacles and barriers, most of which can be removed by supporting actions.

RENEWABLE ENERGY POTENTIAL IN NORMANDY

The main potentials identified in terms of technological sectors concern wood energy, biogas, onshore wind and renewable marine energies (offshore wind and tidal). This is not to forget photovoltaic solar energy and hydraulic energy, which have a lower potential, but which can be strongly rooted locally and allow those involved in the area to take ownership of energy procurement. Before exploring different cases of participatory and citizen-led projects in France by sector, and comparing them with possible deployments in Normandy, the diagram below summarizes the ecosystem of those involved in the field of energy in Normandy and gives a global vision of the current context there[1].



[1] To find out more about the organisations specifically linked to participatory and citizen-led energy in Normandy, a map is available via this link: http://u.osmfr.org/m/406665/

Ecosystems of those involved in the energy field in Normandy (categorized by function: supporting emergence and development, financing development, financing investment, and by type: Normandy citizen-led projects, support and resources external to the region).

Wood energy

An historic, abundant and local resource, wood energy is by far the most widely used renewable energy source in Normandy. The Normandy Region, in conjunction with Ademe, contributes to the expansion of this sector with its wood energy plan which includes different missions (developing local resources, facilitating the organization of the sector, developing new boilers, accompanying and supporting structures, project leaders and players, help in planning and monitoring objectives).

In late 2017, there were 249 collective wood-fired boilers (chips and pellets) and 44 industrial boilers. Collective boilers represent an installed capacity of 233.4 MW and industrial boilers an installed capacity of approximately 400 MW. They consumed around 3,500 GWh over the year. The consumption of wood for domestic heating has been evaluated at 4,166 GWh.

From individual homes to the district heating network, wood-energy projects take on very varied proportions. Unlike wind and photovoltaic energy, heat production and distribution are fully controllable and predictable, making biomass a key resource for securing Normandy's energy supply.

→ **February 2020: 7 citizen-led projects in operation in France**

Example - MICHAUCO collective micro-boilers

Location: Zudosque, Pas de Calais

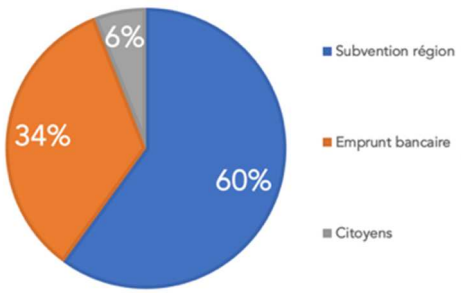
Power: 1 200 kW

Production: 1,730 MWh/year

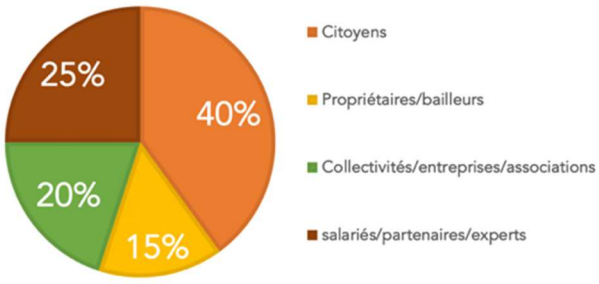
Description: Ten collective wood-fired boilers each allowing heating networks to be installed between several buildings. For each boiler, the aim is to associate local foresters and farmers in order to guarantee a local supply loop.

Status of the supporting organisation: Social enterprise (*Société coopérative d'intérêt collectif - SCIC*)

Budget: €1.3M



Shared governance



Anaerobic digestion

Promoting and developing biogas production is the ambition of the Normandy Anaerobic Digestion Plan launched in late 2018 by the Region and Ademe. A land of agriculture, the Normandy Region has a particularly high potential for development in this sector. The Normandy sites produced 333 GWh in 2018, while ADEME estimates the development potential at nearly 5,000 GWh/year.

However, anaerobic digestion projects face certain difficulties, particularly related to acceptability. Pollutants (noise, lorries and smells) caused by particularly large production units are a real issue, and can generate tension with the neighbourhood.

→ **February 2020: 2 citizen-led projects in operation in France**

Example - Anaerobic digestion unit METHAMOLY

Location: Saint-Denis-sur-Coise, Loire

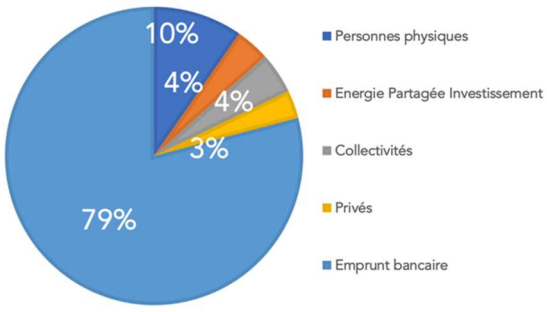
Power: 120 Nm3/h

Production: 11,000 MWh/year

Description: A group of 12 farmers who pool their production of green waste to produce biogas directly injected into the network. The project has been opened up to citizen savings through Shared Energy, and other companies are involved, such as Enercoop, Engie, SEM Soleil and Agri ENR.

Status of the supporting organisation: Simplified joint-stock company (*Société par actions simplifiée - SAS*)

Budget: €6.2M



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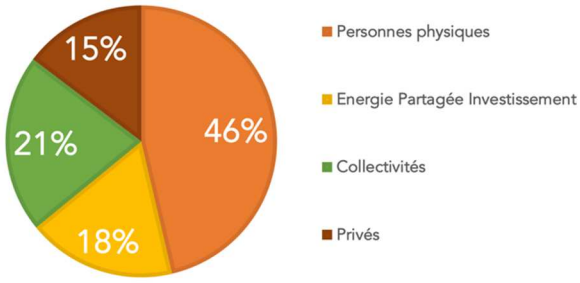


Wind (land and sea)

With 822 MW of installed capacity in 2018, Normandy ranks 8th among mainland regions in France in terms of wind power development. According to the 2019 Barometer of renewable electrical energy in France[2], the total 2050 resource is thought to be 20,900 MW[3]. This shows a strong potential for development, particularly near the coast and at sea.

Wind energy also faces acceptability problems, mainly concerning onshore wind farms. A number of problems are attributed to wind turbines, some of which are real, while others are due to ignorance. Opponents of wind development are well-organized, and regularly win cases leading to the abandonment of many projects.

[2] See appendix 1

The term "resource" here refers to the maximum installable potential of a technology. The wind resource includes the onshore and offshore wind energy sectors. The source used by the 2019 Barometer of renewable electrical energy in France is the Ademe study "*Vers un mix électrique 100% renouvelable en 2050* - Towards a 100% renewable electricity mix in 2050", 2016.

→ **February 2020: 13 citizen-led projects in operation in France**

Example – Bégawatts wind farm

Location: Béganne, Morbihan

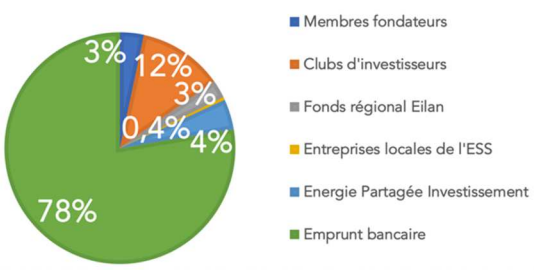
Power: 8,000 kW

Production: 18,000 MWh/year

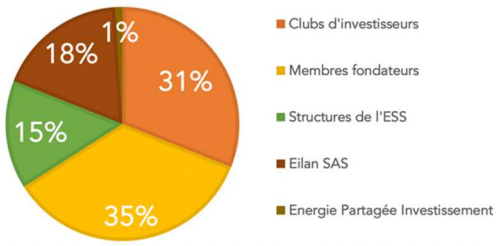
Description: Emblematic of citizen-led energy in France, the founders of Bégawatts are the pioneers of joint development, with this farm bringing together many players. As a result of a long dialogue within the region, no plea has been filed against the farm, a fact unusual enough to be worth mentioning.

Status of the support structure: Simplified joint-stock company (*Société par actions simplifiée - SAS*)

Budget: €12M



Shared governance



Marine turbines

The Raz Blanchard Current, near Alderney in the Channel Islands, is the world's foremost commercially exploitable marine turbine potential. Aware of this potential, the Normandy Region has made a firm commitment, alongside its partner local authorities, to the deployment of marine turbines, by investing massively in the port of Cherbourg to make it ready for the development of activities linked to marine energy, and particularly marine turbines.

→ **February 2020: 0 citizen-led projects in operation in France. What if the first one was in Normandy?**

Photovoltaic solar power

Although Normandy has only a moderate amount of sunshine, the efficiency obtained with the latest generation of panels combined with a sharp drop in investment costs makes this technique a perfect fit in the Normandy energy mix. With a current installed capacity of 153 MWp, Normandy is far from its estimated potential resource[4] of more than 20,000 MWp (2019 Barometer of renewable electrical energy in France).

Preferably set up on rooftops or in brownfield areas, photovoltaic installations are relatively low-powered, but are distributed throughout the country and can potentially concern the entire population. With few problems related to acceptability, solar energy has many advantages that make it an obvious source to be developed.

The number of installations and the flexibility offered by photovoltaics lead to a diverse range of business models and operating methods.

→ **February 2020: 120 citizen-led projects in operation in France.**

The term "resource" here refers to the maximum installable potential of a technology. The photovoltaic resource includes photovoltaic systems on the ground and on rooftops. The source used by the 2019 Barometer of renewable electrical energy in France is the Ademe study "*Vers un mix électrique 100% renouvelable en 2050* - Towards a 100% renewable electricity mix in 2050", 2016.

Example - MIN A WATT solar roof

Location: Rezé, Loire-Atlantique

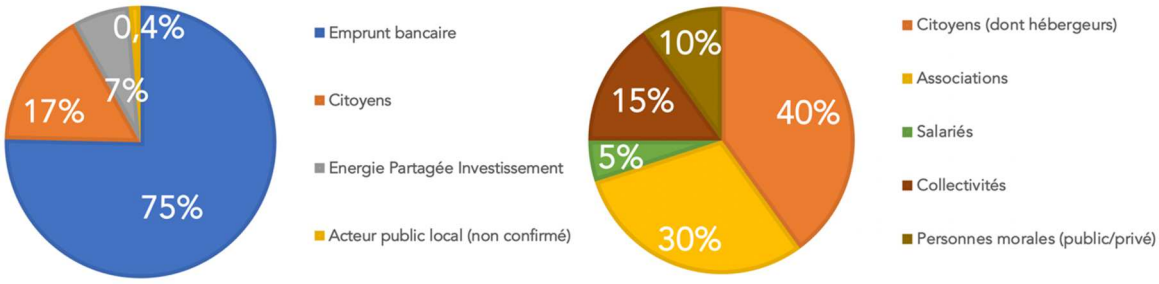
Power: 500 kW

Production: 550 MWh/year

Means of operation: Full self-use to supply the refrigerators and common areas of the Nantes national wholesale market (*Marché d'intérêt National - MIN*)

Description: This is one of the largest individual self-use projects in France. The call for projects launched by Nantes Métropole required citizens to be included in the project, and Enercoop, associated with a citizens' collective, were able to develop this project, with support from Cowatt of which it is now a member.

Status of the supporting organisation: Simplified joint-stock company (*Société par actions simplifiée - SAS*)



Example - Les Survoltés d'Aubais ground-based facility

Location: Aubais, Gard

Power: 249 kW

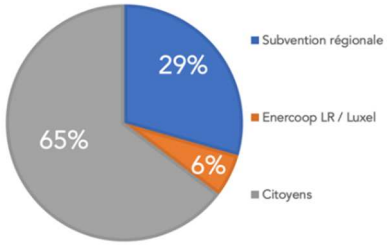
Production: 370 MWh/year

Means of operation: Total injection

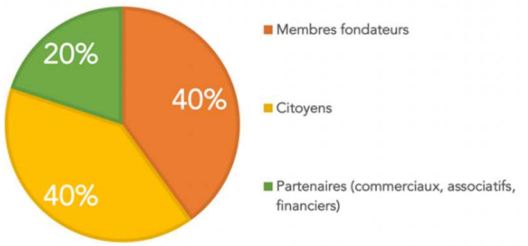
Description: Ground-based facility projects make sense on brownfield sites such as the former landfill site, unsuitable for any agricultural activity, used by Les Survoltés d'Aubais. This project is particularly striking in terms of the citizen involvement it has generated.

Status of the support structure: Simplified joint-stock company (*Société par actions simplifiée - SAS*)

Budget: €340k



Shared governance



Example - Energ'y Citoyennes photovoltaic clusters

Location: Grenoble urban area

Power: 180 kW

Production: 216 MWh/year

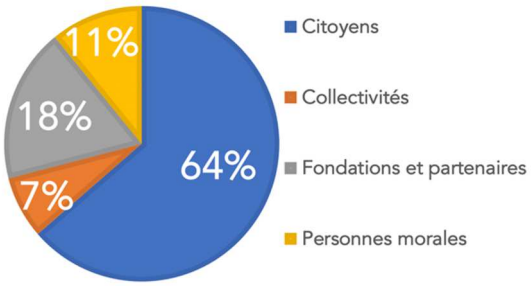
Means of operation: Total injection

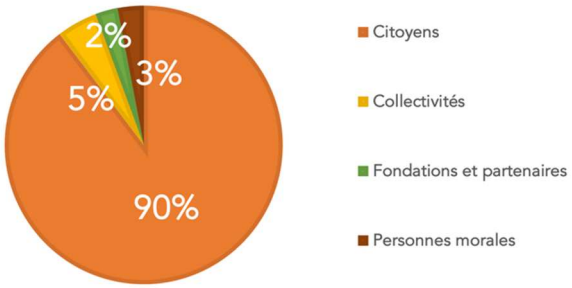
Description: PV clusters bring together several small roofs as part of a single company, in order to pool materials and costs. Solaire D'ici, supported by Energ'Y Citoyennes, is a pioneer in this field, with a set of 14 roofs covered with solar panels in late 2019.

Status of the support structure: Simplified joint-stock company (*Société par actions simplifiée - SAS*)

Budget: €257k

Shared governance





Hydraulic power

Although Normandy is not a mountainous area, it has a lot of relief, and hydraulic energy has a long history of development in the region. Today, the installed facility provides 43 MW of available. The low level of State financial support for the sale of electricity, the complex regulatory imperatives, and the challenge of ecological restoration of waterways, which tends more towards renaturating and the erasing of thresholds, make the hydraulic sector one that is not very active.

However, this source of energy is of local, educational and cultural interest. Many villages in Normandy have a mill that no longer works, and would like to renovate it. This source of energy, central to the daily life of the inhabitants of a town of village, both visible and historical, can have important consequences on the relationship to energy that the people in a region have.

→ **February 2020: 182 citizen-led projects in operation in France.**

Example – Provence Energie Citoyenne power plant

Location: Velaux, Bouches du Rhône

Power: 150 kW

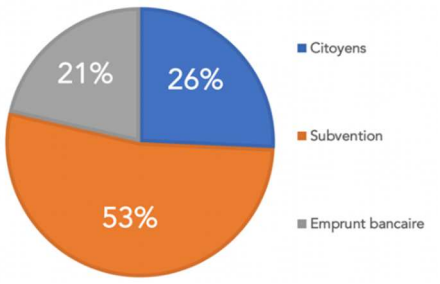
Production: 510 MWh/year

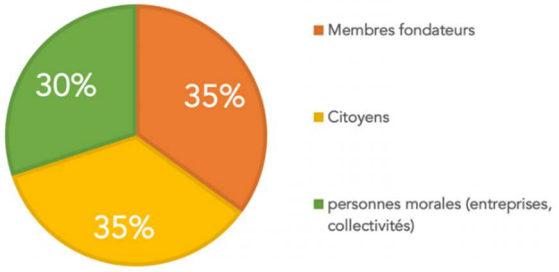
Description: Nearly 200 citizens came together as a collective to save the old Velaux mill, which was converted into a power plant in 1962 and has been out of service for 7 years. After 4 years of efforts, the new plant was inaugurated in 2019, attracting over 400 visitors. The PACA region's strong support for this project is a testament to the symbolic and historical character of run-of-river mills in France.

Status of the support structure: Simplified joint-stock company (*Société par actions simplifiée - SAS*)

Budget: €700k

Shared governance





OBSTACLES TO THE DEVELOPMENT OF RENEWABLE ENERGY IN NORMANDY

Some renewable energy projects face special imperatives, and may generate barriers to their development. Participatory and citizen-led projects are likely to minimize or even solve certain problems. The table below tries to explain how, by presenting information collected during the Normandy region APPROVE meetings.

Obstacles and barriers identified (APPROVE)	**Benefits in the case of a participatory/citizen-led project**
Regulatory and military imperatives (particularly for onshore wind power)	None
Low financial return for the towns or villages, as compared with inter-communality	The 2015 TECV law allows local authorities to invest directly in renewable energy projects in their area.
Renewable energy disadvantaged by the "artificial" price of electricity in France	None
Lack of real return or direct benefit to the people	Strong local roots, permanent dialogue with local residents, citizen savings possible for local residents.
Move from a centralized model to a decentralized production system	None
Lack of information and ownership of energy issues, solutions (Negawatt scenario), the role that citizens can play	Substantial local communication related to the renewable energy project. Citizen-led projects feature a more global approach with a popular education and teaching issue that is rarely found among private developers.
Lack of dialogue between some developers and local authorities	Dialogue is the basis for building citizen-led projects
Local elected officials lack the means to react for when faced with canvassing by private developers	Support for elected officials. Participatory/citizen-led projects provide a credible alternative to the projects of conventional private developers who sometimes use and abuse questionable arguments.

ADVANTAGES OF DEPLOYING PARTICIPATORY AND CITIZEN-LED PRACTICE IN NORMANDY

Generally speaking, the use of renewable energy sources is advantageous, regardless of the nature of the project concerned. This is because renewable energies offer environmental benefits:

- **Limiting global warming** by consuming energy with low greenhouse gas emissions.

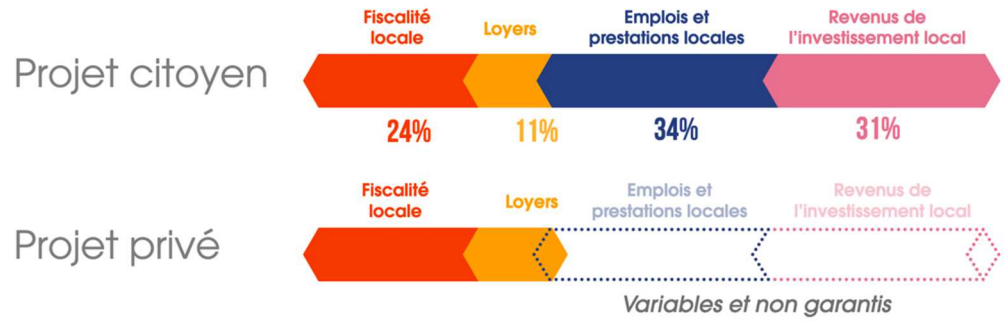
- **Decreasing dependence on fossil fuels**, avoiding extracting, transporting, processing and distributing them.

- **Reducing air and soil pollution** by decreasing the amount of toxic discharges emitted when using fossil fuels.

However, because of their local roots and their transparent, open mode of governance, participatory and citizen-led RE projects can generate even more positive aspects for a region. In addition to the environmental advantages that the use of renewables allows, there are also economic, educational and local community advantages:

Economic advantages

- **Lower energy bills for the region,** reduced foreign trade and added wealth for the region by promoting a local resource.
- **Benefit from local economic spin-offs** on average 2.5 times greater than conventional renewable energy projects through citizen savings, community investment or the hiring of local service providers.



This diagram compares a citizen-led project and a private project in terms of local economic benefits. They have in common local taxation and rents, and differ in terms of local employment, services and local investment income, which are variable and not guaranteed in the case of private projects.

Resource doc to find out more:

→ **Statistical field study by Energie Partagée - December 2019**

- **Create sustainable jobs** in the renewable energy sector (studies, construction, maintenance, operation), as well as jobs generated in other sectors (accounting, insurance, animation,

awareness raising, support, etc.). The dynamics of citizen-led projects favour local service providers and therefore support local VSE/SMEs by calling on them as much as possible, encouraging the relocation of know-how in the regions.

- **Develop short circuit loops**, making the area more autonomous and resilient in its ability to develop renewable energy infrastructure, and introduce circular economy approaches.

- **Creating resilience** in the regions in the face of future systemic changes: increasing scarcity of fossil fuels, rising energy import prices, etc.

Educational advantages

- **Promote awareness** of environmental issues, the urgency of global warming, and the wide range of options offered by renewable energies through projects close to home, easy to visit, with volunteers to pass on their know-how.

- **Set up a dialogue** between the different strata of the population, by involving local residents in a project that potentially concerns everyone.

- **Benefit from increased acceptability of renewable energy projects** through dialogue, participation, communication and transparency, which foster a climate of trust between the different parties involved.

- **Develop popular education practices** by implementing concrete actions, allowing local educational institutions access to an activity aid that is both relevant and fun.

- **Encourage the reappropriation of issues** related to the energy transition. In addition to the importance of deploying renewable energies, this is an opportunity to give a reminder of the challenges of energy sobriety and efficiency.

- **Develop solidarity** by understanding how energy, drawn from natural resources and shared within society, works.

Direct advantages for local authorities

In addition to the benefits common to all types of RE projects, such as attaining regional climate, air and energy plan objectives, obtaining recognition such as the Tepos label, for example, and better control of the energy supply to communities hosting RE projects, the participatory and citizen-led nature of the initiative is also an opportunity for local authorities to:

- **Create synergies within regions**, with a possible knock-on effect led by local stakeholders and citizens involved in the projects.

- **Gain the confidence** of local residents by committing to, or supporting a meaningful renewable energy citizen-led project.

- **Enhance the value of its land holdings** in the case of renewable energy projects using public land or buildings.

- **Protect themselves against canvassing by private developers,** by being able to propose a concrete and beneficial alternative for the area, without seeking to exclude them from the projects.

A BRIEF DETOUR THROUGH SOCIOLOGY: POINTS TO BE KEPT IN MIND IN ORDER TO GUARANTEE THE BENEFITS OF SUCH AN INITIATIVE

Citizen-led and participatory RE projects have definite advantages, for all the reasons stated above, and particularly, in terms of the issues addressed in this study, to promote the acceptability of this type of project and the appropriation of energy issues by as many people as possible. Before moving on and analysing the potential for this in Normandy, analysing the mechanisms in other regions of France and making recommendations, it seemed important, in the light of the emerging literature on the subject, to briefly present certain points that need to be kept in mind in any participatory and citizen-led initiative, along with proposals for methods to overcome the difficulties they reflect.

Participatory and citizen-led projects do not necessarily mean equal participation: input from the concept of ecological inequalities

Despite the often accepted idea that popular shareholding allows a diversity range of people to participate, two sociological studies, one in Alsace[5] and the other in the Mauges region[6], tend to highlight unequal appropriation of the energy issue. In the case of the wind project in Alsace, in spite of a strong determination to create, through a project with shared governance, appropriation of the energy issues, decision-making power remains mostly concentrated in the hands of the socially powerful. The concept of ecological inequalities, which focuses primarily on the exposure of the most vulnerable to environmental risks, is then also defined according to another dimension: that of the different kinds of relationships that residents in a given area have with regard to the instruments that are supposed to embody the concerns of sustainable development, in this case carrying out the energy transition. “Might this tool, which is presented as a collective and cooperative one, turn out to be, on the contrary, exclusive?” [7]

In the Mauges region, which has seen the birth of various renewable energy projects over the last two decades, the same disparity in the appropriation of the energy issue has been observed. As an example, a wind project, although organized into different groups (farmers, private individuals and elected officials), finally revealed its limits from different points of view: firstly, the local authority, although providing political support, did not commit financially to the project, which may have contributed to its fragility and to a lesser sharing of local benefits (projects supported by local authorities are more likely to allow economic outcomes that indirectly benefit the local population more widely, through

[5] Christen G, Hamman P, *Des inégalités d’appropriation des enjeux énergétiques territoriaux ? Analyse sociologique d’un instrument coopératif autour de l’éolien «citoyen»,*(Inequalities in the appropriation of regional energy issues? A sociological analysis of a cooperative instrument for “citizen-led” wind power), Vertigo vol 14, 2014

[6] Mazaud C, Geneviève P, *Un territoire rural dans la transition énergétique : entre démarche participative et intérêts particuliers,* (A rural area in the energy transition: between a participatory approach and special interests), Review Lien social et Politiques, n°82, 2019, pp 118-138

[7] Christen G, Hamman P, *Des inégalités d’appropriation des enjeux énergétiques territoriaux ? Analyse sociologique d’un instrument coopératif autour de l’éolien «citoyen»,*(Inequalities in the appropriation of regional energy issues? A sociological analysis of a cooperative instrument for “citizen-led” wind power), Vertigo vol 14, 2014

projects of general interest for example). Secondly, the group of private individuals was mostly composed of citizens belonging to the middle and even the upper class. In addition, the group of farmers, with some bargaining and decision-making power, seemed to be the ones who did best out of the operation.

In this second case, although those active in the area managed to rally round to confront foreign investors in order to reappropriate local resources, there is nevertheless inequality in the way in which energy transition actions are appropriated, which in turn leads to economic spin-offs that are relatively concentrated in the hands of certain groups; the fact that the local authority did not participate financially has accentuated this concentration since local people were therefore unable to benefit from the indirect economic spin-offs that might have come about had the local authority invested.

The issues described above are not specific to citizen-led and participatory renewable energy projects, but are much more akin to inequalities in participation in public life that are deeply rooted in society.

Creating project appropriation and acceptability means taking into account the local population as a whole, and therefore that the governance of participatory and citizen-led projects should be open in practice and not only in theory. Work on the best methods of facilitating such projects would therefore not be out of place in this setting.

The sociological factors of the success of participatory and citizen-led projects: theoretical thinking beforehand to better anticipate the initiative

"The risk of environmental degradation, despite the consensus, arises when someone has been "forgotten" during the process or, in general, when it is necessary to justify the expected outcomes of the project to those who did not take part in setting it up". According to the IAU Île de France study[8], the creation of trust is therefore essential, and various participatory processes are highlighted in order to be able to take all those involved into account in the process. Starting out from the postulate that "any social relationship is presented as a conflictual cooperation of people who cooperate to produce something but who inevitably come into conflict because of their unequal positions in that cooperation", the study seeks to understand how to organise governance that facilitates an effective and democratic multi-stakeholder participatory approach. The preferred approach makes it possible to design an arrangement according to six criteria (circulation of information, type of representativeness, etc.)[9] and offers indicators as to the degree of openness that each organisational choice made induces. These tools are very valuable for giving though before the projects begin, about methods that might make it possible to overcome possible conflicts, and that tend to help projects effectively open up to a diversity of citizens in the area.

Moreover, this study highlights various factors for the success of a project, which we will briefly outline here: from the standpoint of internal organization, training people in technical and collaborative issues is essential, as is their involvement at local level. Room for manoeuvre must be

[8] *Les facteurs sociologiques de réussite des projets de transition énergétique* (Sociological factors for the success of energy transition projects), IAU Île de France, Arene, November 2018 (see appendix 2)
[9] Ibid, p14-16

perceived by everyone involved so that they can all express their interests and ideas, and their involvement must be long term. Also, the fact that local authorities and elected officials must demonstrate willingness with regard to the projects is put forward. These data will make it possible to overcome any organisational problems caused by contrary habits or mutual distrust, for example.

External factors also need to be taken into account; in this regard, public subsidies and feedback can play a crucial role in the successful implementation of the project.

Stating these points to be kept in mind does not constitute an argument for slowing down the development of citizen-led and participatory projects, but rather contributes to thinking, in order to disseminate such projects, bearing in mind the possible issues raised by shared governance, and to better anticipate the means of overcoming them.

POTENTIAL FOR DELIVERING PARTICIPATORY AND CITIZEN-LED PROJECTS IN NORMANDY

Compared to other regions of France, there are few citizen-led renewable energy projects in Normandy. However, there is the pioneering French citizen-led solar project, Plaine Sud Energies, which has inspired many others in France. And the number of emerging collectives has never been as high as it is today, demonstrating great willingness to commit locally to the energy transition. These different groups all have difficulties to be overcome and identified needs, which have been brought to light through interviews with those involved in the projects. Also, the description of an association's failure to pursue a project helps to highlight specific needs, and to identify the levers that can be used to more effectively support the collectives formed and avoid discouraging members.

The situation at present - February 2020

Projects in operation
Plaine Sud Energies – Photovoltaic solar – 74 kW – Bourguébus (Calvados)
Cinergie ABBEI – Photovoltaic solar – 36 kW – Saint Etienne du Rouvray (Seine-Maritime)
→ *See APPROVE best practice factsheets*
Projects under development
Watt Elce – Photovoltaic solar – Coutances (Manche)
L'Ampère contre-attaque - Photovoltaic solar – Granville (Manche)
SAS Ferténergie - Photovoltaic solar – La Ferté Macé (Orne)
Commune de Montérolier – Wind turbine (Seine-Maritime)
Emerging collectives
Citoyens en Cotentin association – Les Pieux (Manche)
Cotentin Nature association – Saint Pierre Eglise (Manche)
Bessin Energie Citoyenne association – Bayeux (Calvados)
ARBRES association – Thury Harcourt (Calvados)
Cocité association – Bernay (Eure)
RAS'Campagne association – Bourg Achard (Eure)

The failure of an emerging project

In 2018 the association Bazoches Energie in the Orne department began to take an interest in the implementation of citizen-led renewable energy projects in the Bazoches-sur-Hoëne region. As a result of consultation, meetings and research, a gymnasium with a high potential for fitting photovoltaic panels was identified in the town. The group very much wanted to get many people involved in this project, and so they made contact with the town hall to start discussions. In late 2019, the town hall announced that it was not interested in working together but wanted to run this promising project alone, without working with the association. The latter, demotivated by this failure in spite of the fact that the project was a promising one, was dissolved shortly afterwards, as the members felt unable to engage in discussions about a participatory, citizen-led, multi-stakeholder approach.

This illustration shows us the specific problem of the lack of awareness of people in the public sector in the area where a collective emerges.

Needs analysis and presentation of levers

Emerging collectives on the theme of citizen-led energy often find themselves confronted with a number of difficulties. These may be structural, methodological or operational. They reflect the complexity of multi-stakeholder projects, the skills required to develop such initiatives, and the limits of volunteerism in the deployment of large-scale projects.

A survey of the project promoters listed in the table above highlighted the main difficulties encountered. Translated into needs, solutions can be found to these difficulties by actuating the appropriate levers.

Difficulties encountered	Needs identified	Potential levers
Unfair division of labour and complex internal cohesion	- Group leadership - Definition of responsibilities - Notions of sociocracy	- Personalized support - Energie Partagée training, module 3
Lack of human resources and volunteer burnout	- Recruiting volunteers - Recruiting employees	- Personalized support - Financial aid - Energie Partagée training, module 2

Difficulties in choosing the appropriate legal structure	- Structural support - Legal training	- Personalized support - Energie Partagée training, module 5
Lack of external means of communication	- Getting to grips with the tools offered by Energie Partagée - In-house skills development	- Personalized support - Energie Partagée training, module 2
Difficulties in communicating with local authorities, lack of development methodology	- Knowledge of EPCI strategic objectives and plans - Work on discussions between citizens and institutions	- Personalized support - Energie Partagéetraining, module 7
Limited financial benefits of photovoltaic projects in Normandy	- Special grants - Assistance with funding studies - Investment aid	- Financial aid - Personalized support and pooling to increase investment sizes and/or reduce costs
Limited technical knowledge	- Training and awareness-raising	- Involvement of local people - Partnership with the members of the Energie Partagée network, integration into the national citizen-led energy network
Lack of knowledge of development methodologies and possible financial arrangements.	- Feedback from outside experience - Identify best financial engineering practices	- Personalized support - Energie Partagée training, modules 6 & 7
Lack of credibility when presenting the approach to public and private stakeholders and to citizens	- Belonging to a network identified as serious and competent - Knowledge of references from within or outside the area	- Personalized support
Lack of support from the local authority in which the project is emerging	- Support from public stakeholders and willingness to engage in discussions and collective action	- Raising the awareness of elected officials about participatory and citizen-led renewable energy projects - Training on shared governance initiatives

In this first section we have looked at the potential for renewable energy in Normandy, the obstacles linked to the acceptability of projects, and the way in which a participatory and citizen-led approach could respond to these obstacles in the region. The presentation of examples of participatory and citizen-led projects in other regions illustrates that this type of project is feasible regardless of the renewable energy source under consideration. A sociological perspective also allows us to mention the points requiring special care that must be kept in mind in the context of such projects. An inventory of project groups and their needs in Normandy gives a detailed overview of the notion of participatory and citizen-led projects, applied to the Normandy region. In order to see how this momentum could escalate and spread, we must now turn to an analysis of what is being done in other regions of France.

Inventory of practices helping to develop participatory and citizen-led projects in France

OVERVIEW OF PARTICIPATORY AND CITIZEN-LED PROJECTS

Projects with varied characteristics

Citizen-controlled companies producing and using renewable energy are still in their infancy. The sector is starting to move forward through experimentation, and of the 257 projects listed by Energie Partagée, there is an impressive diversity of practices:

- **8 types of legal entities:** Public limited company, limited liability company, simplified joint-stock company, collective interest co-operative society (limited, limited liability and simplified joint stock), semi-public company, and general partnership
- **5 technological fields:** Photovoltaic solar, wind, anaerobic digestion, wood energy, micro-hydroelectricity
- **Installed capacity** from 4 kW to 18,000 kW
- **Investment budgets** from €20k to €34M.
- **Stakeholders from all fields**, both public and private

This abundance of ways of doing things is undoubtedly an asset since it allows project leaders to find the project that suits their ambition, their skills, their ability to get involved, etc. But it is also an obstacle, since the diversity of practices generates great complexity in the choice of orientations and in equal access to financing.

Participatory and/or citizen-led?

To date, there is no official definition of what a “citizen-led” or “participatory” project is. However, there is a clear trend in usage, which can be summarized as follows:

Participatory: brings together projects for which funding can be shared by several natural or legal persons (companies, local authorities, citizens, farmers, etc.).

Focus – Participatory project – Self-use PV (2019-2020)

Rouen - Saint-Exupéry gymnasium

Size of the installation: 200 m2

Total investment: €150k

Project sponsor: Ville de Rouen

Amount of participatory collection: €60k

Number of investors: 37 citizens

Crowdfunding platform: Collecticity

Interest rate of the loan: 2.2% over 3 years

Local roots: Funding for Rouen residents only

Citizen-led: brings together projects for which the investment (capital financing and access to governance) is shared between several stakeholders, with a citizen majority in governance.

However, citizen-led projects are not limited to cooperative companies. Certain conventional company formats, such as SAS (simplified joint-stock company), make it possible to impose cooperative operation through their articles of association. In particular, this company format allows for greater flexibility, reducing certain costs.

The support schemes proposed by local authorities that are committed to involving citizens in the energy transition process, through participation in financing and decision-making concerning renewable energies, are therefore most often conditioned by selective criteria that guarantee the "citizen-led" nature of the project.

The Energie Partagée association has drafted a charter[10] that defines the four essential pillars of a citizen-led project:

- **Local roots:** the company running the project is controlled by local authorities, individuals and their groups and/or the Energie Partagée fund. This means that they have a majority shareholding in the capital and/or a shareholders' agreement guaranteeing control in the long term.
- **Non-speculative purpose**: the return on capital is limited; a percentage of the profits is allocated to the educational aspect and to investment in new citizen-led projects.
- **Governance:** democratic, cooperative type, featuring transparency.
- **Ecology**: respect for the environment from local to global

[10] Energie Partagée charter (see appendix 3)

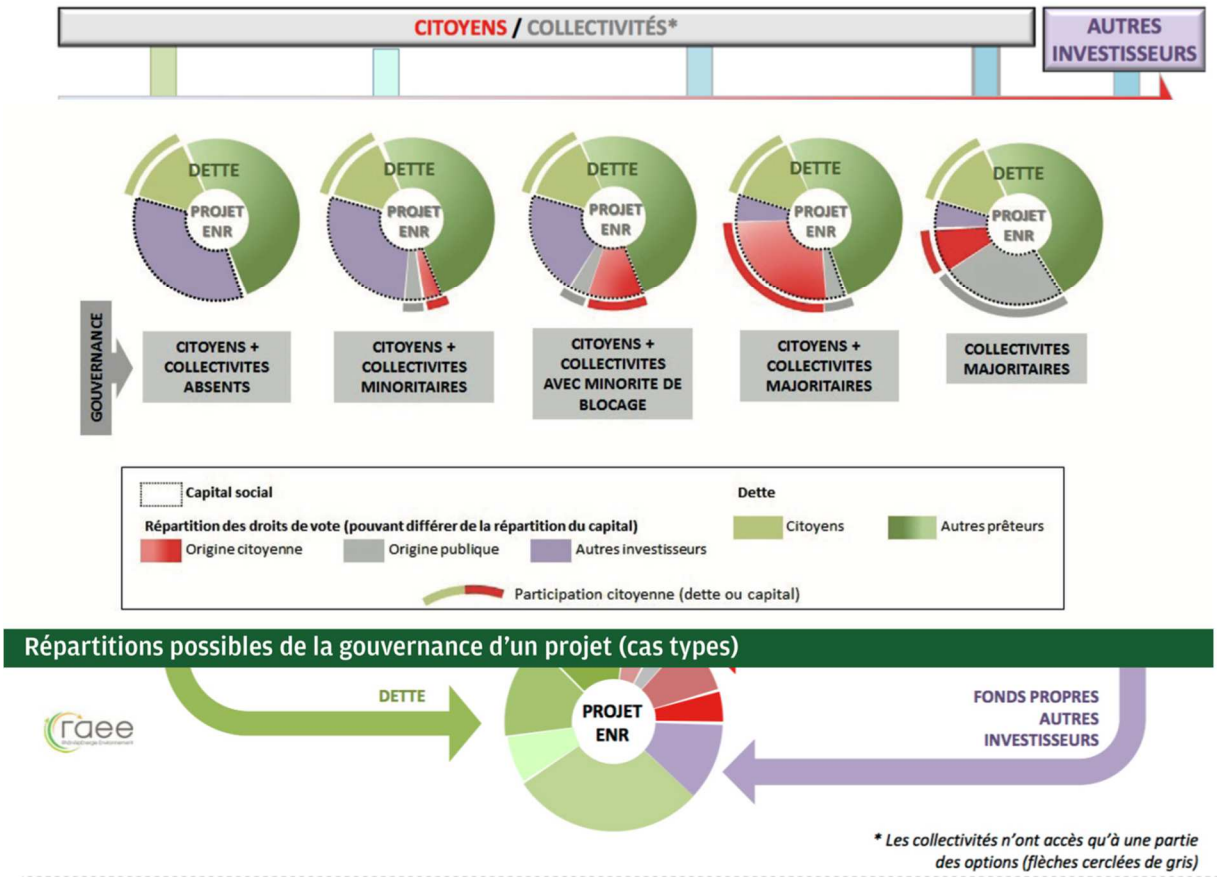
In addition, a series of criteria has been derived from these four pillars allowing the Energie Partagée association to decide whether or not to validate the citizen-led approach to a project, by means of a “citizen label”.

Citizen labelling depends on many criteria, including:

- Awareness-raising / training carried out
- The role of local stakeholders (residents, local authorities, companies): the percentage of local shareholders must be at least 50%.
- The role of residents (natural persons residing in the intermunicipality or neighbouring intermunicipality): there must be at least 20 members/shareholders (directly or via a local instrument) or at least 50 (when the project is intermediated by a non-local instrument)
- Opening the financing of the company's own funds to the inhabitants (as a minimum, equity financing should be open to all residents indirectly through an intermediary from the SSE).
- Opening and renewal of individual shareholders in the local group involved in the project's steering bodies. At the very least, one opening must be made possible even if there has been no renewal in practice.
- Local skills must be included to take charge of local activities
- The citizen majority (citizen stakeholders: residents, local authorities or otherwise, SSE and public intermediaries in proportion to the participation by local authorities and citizens). At the very least, there must be a minority citizens' alliance but with a statutory blocking right via a shareholders' agreement with clauses for the repurchase of shares by citizens and/or funding disconnected from governance between the AGM and the steering committee.
- Transparency of information
- Percentage of citizen investment in direct or intermediated capital (must be at least 35%)
- Shareholder independence (at the very least, the links of interest with the project's supplier or client companies must have been discussed between shareholders and be accepted by the community of shareholders)
- Good knowledge of local environmental issues
- Compliance with the commitments of the impact study, if any.
- Compliance with investment commitments
- Management of unplanned impacts

Economic models (from purely participatory projects to citizen-led projects)

These diagrams illustrate the different modes of participation of stakeholders in project companies (debt or share capital, with different levels of involvement in governance).



REGIONAL EVENTS

To facilitate the emergence and structuring of citizen-led projects, Energie Partagée and its partners are present throughout France. In 10 regions, coordination networks have been set up and offer support for local project leaders.

These networks are diverse in the way they emerge, are created and are managed, in their financing methods, in their scope and in the actions they carry out. However, they are all active in the following three fields:

- **Structuring and running the network**
  - Promoting citizen energy towards all public and private stakeholders with the requirement of adapting to different audiences (local authorities, inhabitants and developers).
  - Training of project leaders and relays
- **Impetus and support for the emergence of projects**
  - Guidance function and linkage to the national network
  - Basic methodological support on technical, legal, financial and involvement aspects
  - Advising project leaders about the different possible participatory scenarios
  - Assistance in building the core of the project
  - Assistance in finding funding for the development phase
  - Coordinating the ecosystem of people useful for citizen-led projects
- **Project monitoring: role of "guardian" of the citizen-led approach**
  - Applying the shared energy "compass", the tool for assessing the citizen-led nature of renewable energy projects
  - Alert and guidance role for projects that do not meet compass criteria

➔ <u>What funding is available for these networks?</u>

Of the 10 regional networks in existence early 2020, the Ademe/Region duo is systematically involved, with various distributions. This funding in the form of grants is sometimes supplemented by European aid (ERDF), grants from local authorities, funding from private foundations and the provision of services.

Resource doc on next page to find out more:

Overview of the funding table for the regional Energie Partagée networks (see full table in appendix 4)

This table presents the existing regional coordination economic models for RE citizen-led projects.

...urces financières en 2018

	Centre val de loire		PACA		Energies Citoyennes en Pays de la Loire	
...s	Montant	Durée	Montant	Durée / taux d'aide	Montant	Durée / taux d'aide
	0,00 €		150 000,00 €	3 ans à partir de 2018 /50 %		
	59 000,00 €	1 an renouvelable	28 786,00 €	3 ans à partir de 2017	35 000,00 €	1 an renouvelable
	117 000,00 €	3 ans	61 965,00 €	3 ans à partir de 2018	68 000,00 €	1 an renouvelable
	0,00 €		0,00 €		10 000,00 €	1 an renouvelable
	20 945,00 €	2 ans	0,00 €			
	6 341,00 €	1 an	0,00 €			
	114 813,50 €		80 250,33 €		113 000,00 €	
	10 000,00 €	1 an				
.						
...ppSud						
			10 000,00 €	Un an		
	10 000,00 €		10 000,00 €			
	0,00 €		en prévision			
...es collectivités	0,00 €		en prévision			
...es collectifs citoyens / entreprises						
	124 813,50 €	0,00 €	90 250,33 €	0,00 €	113 000,00 €	0,00 €

Focus – CIRENA network (Nouvelle-Aquitaine)

Support structure: CIRENA (association created en 2018)

Human Resources (2019): 2.4 part-time equivalent

Funding of the network (2018): Region (€36k) + ADEME NA (€27k) + DREAL (€7k) + services provided (€19k)

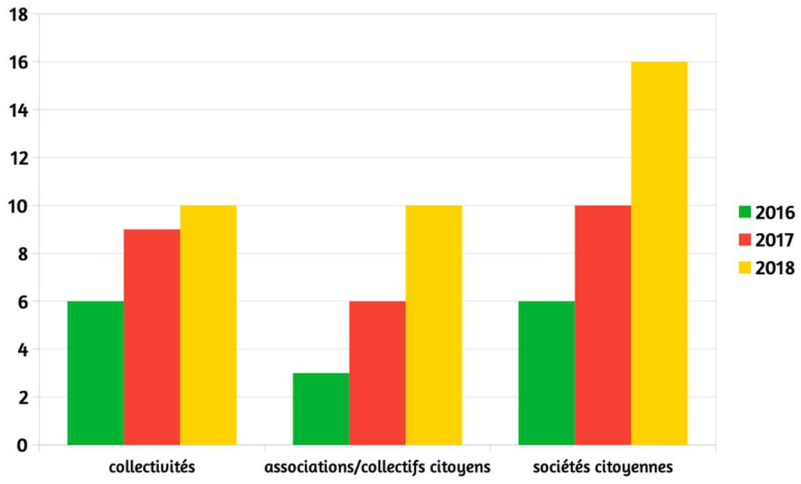
Membership: Subject to a fee (double membership with Energie Partagée)

Description: The CIRENA network (CItoyens en Réseau pour des EnR en Nouvelle-Aquitaine) was created in 2016. Before becoming independent, it received support from Enercoop Aquitaine, which provided the first salaried position. The members of this network (25 organizations in late 2018) are mainly associations, civic societies and local authorities.

Concrete actions (2018):

- Free support for members, up to 2 days per group within an area (34 interventions)
- 3 support services subject to a fee
- 4 training courses (44 participants)
- 11 participations in national and regional events
- 34 interventions within the framework of specific actions

Changing number of renewable energy citizen-led project leaders



Focus - ECLR Network (Occitanie)

Support structure: ECLR (association created en 2017)

Human Resources (2019): 2.75 part-time equivalent

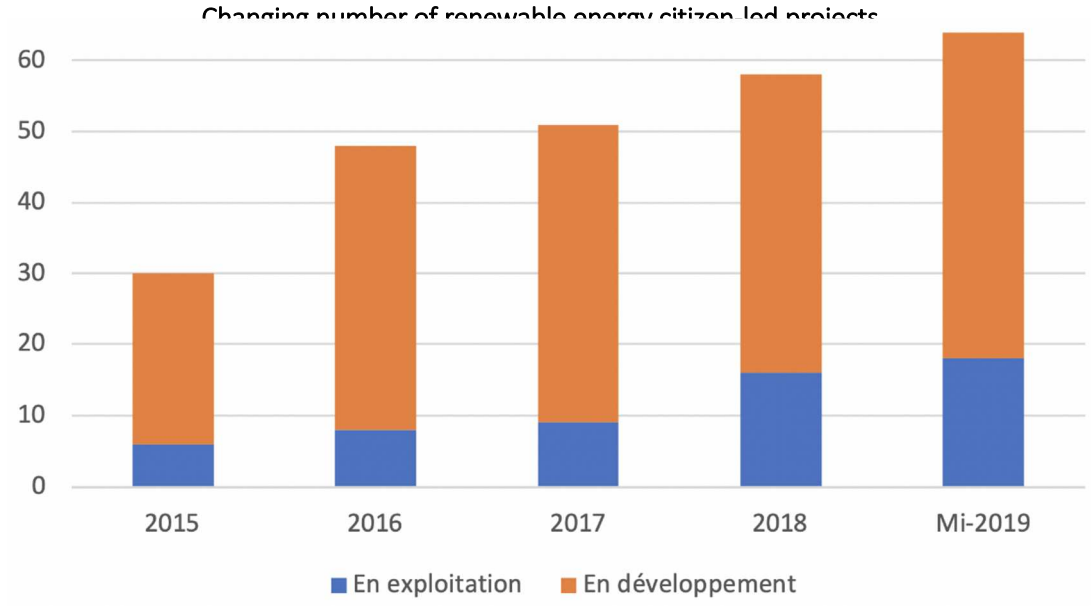
Funding of the network (2018): Region (€35k) + ADEME NA (€62k) + DREAL (€6k) + services provided (€96k)

Membership: Subject to a fee (double membership with Energie Partagée)

Description: The ECLR network was created in 2015 and now has 50 members. The association was initially hosted by Enercoop Languedoc Roussillon and is now autonomous, enabling a number of projects to be developed. In 2019, the network co-organised the first national conference on citizen-led energy with ADEME and Energie Partagée.

Concrete actions:

- Creation of tools for documentation, coordination and collaboration between project leaders (documentary base, project factsheets, computer graphics, quizzes)
- Support for members
- Support services
- Training courses (8 in 2018 for 116 participants)
- Participation in national and regional events
- Creation and coordination of a working group on the creation of a membership management tool
-



Example of support schemes

Type of assistance	Leader	Scheme
Emergence assistance	**Ademe Pays de Loire**	**Support scheme to increase the number of citizen-led RE projects.** Financial assistance in the emergence phase - Support and skills development for citizens, - Pre-feasibility study (to examine the potential technical characteristics of the project, the environmental issues, and to carry out an initial economic and financial analysis of the project) - Definition of the co-construction strategy, consultation and communication, - Pre-planning study of the legal structure that will support the citizen-led initiative.
	Region + Ademe Occitanie	**Call for expression of interest 2019 "Renewable energies and citizen-led cooperatives"** (aimed at local cooperative and citizen-led RE production companies, as well as local authorities and associations that can demonstrate that their project falls within the definition and criteria of the RE citizen-led project) Two types of assistance: - Decision-making assistance (support in involving citizens, in coordinating, in defining the project with regard to its technical and economic feasibility, assistance in setting up the project company); Eligible types of studies and services: Project management assistance based on an approach that facilitates the structuring of the project, studies of legal and financial arrangements, sociological analysis of the area (drafting questionnaires, etc.), concerted actions to involve stakeholders. The total rate of aid (Ademe + Region) is a maximum of 70% on an eligible expenditure base capped at €50,000 exclusive of tax. - citizen participation premium (see investment aid type)
	Region + Ademe Nouvelle Aquitaine	**Call for participatory and citizen-led projects for the Energy Transition** - aid for mobilization and consultation - aid for decision-making: legal and economic studies
		Call for citizen-led RE projects:

	Île de France (Paris) Region	- Support for the emergence of participatory and citizen-led projects through the use of service providers who help to define and secure projects: legal and economic studies and technical feasibility studies (excluding studies of a regulatory or compulsory nature) up to 80% of the amount including or excluding VAT if VAT is recovered and capped at €100,000. - investment support (see type of investment support)
	Centre region	Mobilization assistance: Grant of €2,000 for emerging citizen-led RE projects to finance communication actions, public meetings, etc.
Development assistance	**Region + Ademe Nouvelle Aquitaine**	**Call for participatory and citizen-led projects for the Energy Transition** - Project management assistance - Technical feasibility studies
	Region + Ademe Grand Est **Climaxion scheme**	**Subsidy to support the setting up of participatory and citizen-led RE projects (excluding GECLER support):** Grant 70% up to €15,000 *Photovoltaic energy:* Structure studies: Grant 70% up to €4,000/ building Self-use study: Grant 70% up to €5,000/ building *Solar thermal energy:* Study: Grant 70% up to €3,500/ building *Wood energy:* Study: Grant 70% up to €25,000 *Anaerobic digestion:* Feasibility study: Grant 70% up to €30,000 *Hydropower:* Studies: 70% up to €5,000
	Auvergne Rhône-Alpes region	Starter EnR scheme: (comes into play at the start of the project to accelerate and consolidate the development of RE projects in the region. Is aimed at "decentralised" production projects, which implies that its capital is held by local stakeholders such as companies, local authorities, groups of residents, farmers... it therefore directly concerns participatory and citizen-led RE projects). - Advance repayable at zero rate for missions exceeding €15,000 including VAT - Direct provision of service providers for study missions or consultancy support missions of less than €15,000 including VAT. (service providers selected from a resource centre made up of recognised experts in their field, who were selected via a call for tenders in 2016) **Call for decentralized partnership projects for renewable energy production.** (applications processed as they come in)

		Grant up to €200,000 / project and 30% of the amount invested to support decentralised partnership projects for the production of renewable energy. With this term, the Auvergne Rhône Alpes Region wishes to support projects rooted in the area, whose governance is carried out locally.
	Centre region	Decision-making assistance: Grant to support feasibility studies other than those of a regulatory or compulsory nature. 70% covered up to €10k for "small" projects (<100kW) and up to €20k max for "big" projects (>100kW)
Investment aid	**Region + Ademe Nouvelle-Aquitaine**	**Call for participatory and citizen-led projects for the Energy Transition** Citizen participation Bonus 1€ Region, 1€ citizen. €250 maximum per citizen, maximum 30% of the total cost excluding VAT of the project capped at €50,000 per project.
	Île de France (Paris) Region	**Call for citizen-led RE projects:** - Emergence support (see emergence support type) - Investment support (energy production equipment, grid connection, work to accommodate the facilities, technical assistance fees or project management costs) Up to 50% of the amount including or excluding VAT if VAT is recovered, and capped at €1 00 000.
	Occitanie region	**AMI 2019 "Renewable energies and citizen-led cooperatives"** (aimed at local cooperative and citizen-led RE production companies, as well as local authorities and associations that can demonstrate that their project falls within the definition and criteria of the RE citizen-led project) - Decision-making assistance (see emergence phase) - Investment aid for local cooperative and citizen-led RE production companies: citizen participation bonus in the form of an investment grant of "1€ Region, 1€ citizen". The eligible base for expenditure is capped at €100,000 and €500 per "natural person" citizen.
	Region + Ademe Grand Est **Climaxion scheme**	Photovoltaic energy: €400/kWp up to 100kWp (projects with citizen governance) Solar thermal energy: 60% up to €1,200 exc. VAT/m² (area <25m²). Beyond 25m²: heat fund Wood energy: 50% up to €400,000 Hydropower: 10 to 20% (depending on the fish protection device) up to €100,000
	Centre region	Investment aid: 1€ region for 1€ citizen, limited to €1,000 per citizen and a total amount of €100,000.

Focus – Calls for "Participatory and citizen-led Projects" (since 2018)

Nouvelle-Aquitaine region

Observation

In 2017, the momentum of citizen-led projects was low in the Nouvelle-Aquitaine region. A few projects are emerging, but few succeed.

Aims

• Reduce the risks for citizen-led projects: reducing the costs of initial studies and the risks associated with development financing

• Help project leaders to move towards the realisation of their projects

Targets

• Projects justifying "meaningful participation of citizens in the governance of the project or structure", without any quantitative criteria

• Local authorities (coordination aspect only)

Drawing up the scheme

• Call for project written jointly by ADEME and the Region, applications processed jointly. CIRENA (Energie Partagée regional network) is involved in all decisions.

Coordination

Provided by the CIRENA network (financed by ADEME and the Region), including for support for the application.

Aids

• Emergence phase: **mobilization/consultation assistance**
(€20,000 max.) and legal and economic decision-making assistance (€10,000 max.)

• Development phase : **aid for project management assistance** for companies that are mainly citizen-led - 90% of the shares held by individuals

(€20,000 max.)

• Investment phase: **participation bonus**, according to the principle 1€ Region = 1€ citizen
(€50,000max. per project or cluster)

Budget (yearly)

€100,000 (ADEME) + €200,000 (Region)

Results (late 2018)

The call for projects enabled 26 projects to emerge or even succeed, generating over 31 million euros in investment from over 800 citizens and local authorities. This momentum seems to be continuing and growing, given the number of applications submitted in the successive waves of calls for

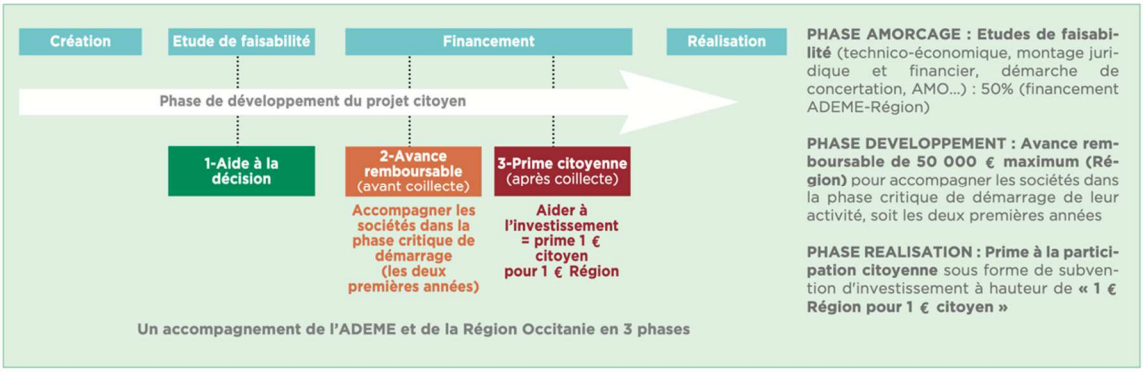
Focus - ADEME PAA and Occitania Region (2014, 2016, 2017, 2018, 2019-2020)

Cooperative and citizen-led renewable energies

The Occitanie region is known for its citizen momentum in renewable energies. In March 2020, Energie Partagée counted 17 projects in operation there and over 20 others in development or in the emergence phase.

This success is partly due to a call for projects led by ADEME and the Region since 2014, transformed since 2019 into a call for expressions of interest, and through the ECLR network, one of the most active in France (see ECLR focus).

Today in Occitanie, it can be seen that local authorities are becoming more interested in renewable energy projects in the region, as they are aware of the benefits of involving as many local stakeholders as possible.



AMI 2019-2020

The diagram shows the different methods of direct support for citizen-led projects in the Occitanie Region: support for feasibility studies, repayable advance and citizen bonus.

Targets

Local authorities, associations or companies whose aim is to develop renewable energy for the benefit of citizens

Aids

- Up to €35,000 for studies and decision support
- Up to €100,000 of citizen participation bonus for material investment

<u>To find out more: appendixes 5 and 6 (Nouvelle Aquitaine call for projects and Occitanie call for expression of interest)</u>

Simulation of the development of a citizen-led Energy Scheme in Normandy

In order to best structure citizen-led and participatory renewable energy projects at regional level and be part of the energy and citizen-led transition, various French Regions have supported the setting up of regional coordination networks. Their mission is to pool resources and skills, to encourage the emergence of new citizen-led projects, to support ongoing projects, to enhance their value, to coordinate the local network of stakeholders, to promote the citizen-led model, etc. This is the case of the ECLR network in Occitanie, Etincelle in Bourgogne Franche Comté, Taranis in Brittany and many others.

In order to encourage the setting up and spin-off of citizen-led and participatory renewable energy projects in Normandy, it is therefore also necessary to promote this type of project and to create the conditions in which they can emerge and succeed. There seem to be two main avenues that could make this possible: the existence of regional coordinators to support projects, guide project leaders, advise them, and lead a network of stakeholders, and the existence of financial aid to initiate the first phases of projects in particular. A “Citizen Energy” Scheme for Normandy would then be worthwhile and could have two components: coordinating a regional network, and adapting existing regional financial aid to encourage more citizen-led and participatory initiatives.

1 REGIONAL COORDINATION OF CITIZEN-LED AND PARTICIPATORY RENEWABLE ENERGY

Why do we need regional coordination?

Creating a regional coordination network in Normandy would have many advantages and would notably make it possible to remove the barriers encountered by the Normandy collectives mentioned in the first part:

- Interface between Normandy project leaders and the national network Energie Partagée, which has proven experience in the field.

- Accelerate and facilitate emerging citizen-led projects in Normandy
    - Personalized support
    - Better access to information (possible legal forms, financial aid, etc.)
    - Making these projects seem more legitimate to stakeholders

- Facilitating the dynamics of pooling:
    - At the regional level: information on existing umbrella companies that pool costs, projects, etc.
    - At national level: Energie Partagée relay which pools tools, training, solutions, operating models, databases, etc.

- Interface between citizen-led projects and the private and public sectors

- Raising the awareness of, and training, elected officials in Normandy about participatory and citizen-led renewable energy projects

- Link with the other regional coordination networks of participatory and citizen-led RE projects in France

- Link with the other Normandy networks (especially the Education for Sustainable Development network)

- Consolidation of the regional momentum via a link between the local Normandy collectives already existing and those to be created.

- Normandy citizens taking charge of energy and ecological transition issues

Under such an approach, regional coordination would be divided into three main types of actions described below. The network so created will have a name that will allow it to be easily identified.

The coordination could be co-financed by the Normandy Region, and possibly Ademe and ERDF funds for an ideal initial period of three years, during which the number of citizen-led and participatory RE projects will increase, with a strengthened network of local people, in this way participating in the energy and citizen transition in Normandy. It will probably take several years to structure this coordination network, in order to have time to disseminate the approach, create links with regional stakeholders, to allow the project leader groups to be set up and mature with the support of the network. Moreover, in the long term, the regional network will be strengthened and will have more resources to finance itself, through memberships, through the services provided... this will lead to a better self-financing capacity, which will make it possible to reduce the share of public funding.

Indicators could be created to evaluate this nascent network, and reports on the activities carried out could be drafted; these would make it possible to follow up on the missions with the funding partners.

Coordinating and running a network of regional stakeholders

- Representing the network to different groups (local authorities, associative and institutional networks) and contribute to public policies on renewable energy.
- Promoting the work of the network
- Promoting exchanges between various stakeholders and capitalizing on feedback
- Participating in national network discussions

Emergence of, and support for projects

- Project management assistance for citizens on small photovoltaic projects <250KWp
- Support for citizen mobilization
- Advising and informing project leaders about the different possible participatory scenarios
- Project monitoring, a “compass” to guide projects according to the criteria defined by Energie Partagée (non-speculative purpose, local roots, governance and ecology).

Awareness raising and communication

- Promotion of the citizen-led and participatory model of renewable energy to citizens, elected officials, potential financiers (banks, sponsors, etc.): creation of communication and computer graphics tools for the various stakeholders mentioned (brochures, newsletters, posters, web pages, Facebook, Twitter, etc.)→ *inspired by the work of Energie Partagée, adapted to the Normandy context.*
- Training for local authorities (energy issues + participatory democracy)
- Participation in awareness-raising events
- Capitalisation and dissemination of methodological tools (at the regional network level, + sent to the national level, Energie Partagée)

Profile and characteristics of a regional group leader:

- Experience in facilitation and participatory methods
- Previous expertise in setting up citizen-led RE projects and mastery of the technical, legal and financial aspects involved.
- Knowledge of the Normandy stakeholder ecosystem (energy, SSE, local authorities, etc.)
- Knowledge of how associations and networks operate

The three coordination missions described on the previous page could therefore take place over an initial period of three years, as is the case for other regional networks (Grand Est, PACA, Occitanie, etc.). The proposed distribution of missions below takes into account the situation in Normandy: the need to make this type of project known to the various regional stakeholders, and to form a network in the Normandy region connected to the national network, appear to be two priorities in the first instance. Awareness raising and communication missions, and coordinating and running a network of regional stakeholders would then be better represented in the timetable during the first year of coordination. The prevalence of these two missions at the outset should lead to more commitments and new citizen-led renewable energy projects. This is why the mission for the emergence and support of projects could grow in importance during the three years of regional coordination.

Proposition de répartition des missions d'animation

Année 1	Temps (%)
Emergence et accompagnement de projets	25
Sensibilisation et communication	37,5
Coordination et animation d'un réseau d'acteurs régionaux	37,5
	100

Année 2	Temps (%)
Emergence et accompagnement de projets	35
Sensibilisation et communication	32,5
Coordination et animation d'un réseau d'acteurs régionaux	32,5
	100

Année 3	Temps (%)
Emergence et accompagnement de projets	50
Sensibilisation et communication	25
Coordination et animation d'un réseau d'acteurs régionaux	25
	100

Proposal for the distribution of coordination missions

Year 1 *Time (%)*

Emergence of, and support for projects		*25*
Awareness raising and communication		*37.5*
Coordinating and running a network of regional stakeholders		*37.5*
		100
Year 2	*Time (%)*	
Emergence of, and support for projects		*35*
Awareness raising and communication		*32.5*
Coordinating and running a network of regional stakeholders		*32.5*
		100
Year 3	*Time (%)*	
Emergence of, and support for projects		*50*
Awareness raising and communication		*25*
Coordinating and running a network of regional stakeholders		*25*
		100

Potential guidelines for a 3-year time frame

2

Year 1

- Create links between the various project leader groups and support them
- Communicate on the emergence of the network to local stakeholders
- Create a dedicated web page
- Update emerging and ongoing projects
- Centralize information
- Create a network membership system
- Set up training courses for elected officials and citizens (using Energie Partagée tools)
- Set up a Normandy citizen-led energy day
- Participate in the discussions of the national Energie Partagée network

Year 2

- Support the emergence of new projects
- Intensify links and synergies
- Capitalise on experience feedback
- Fuel the web platform
- Canvass public stakeholders (contacts, training proposals, etc.)
- Start a newsletter
- Set up training courses, drawing from the Energie Partagée modules according to needs identified.
- Participate in the discussions of the national Energie Partagée network
-

Year 3

- Continue the above activities
- Run a satisfaction survey among the people supported (what points need to be improved in terms of coordination, support, etc.).
- Communicate about the results of the three years: x projects supported, x facilities connected, x emerging projects, x local authorities involved, x installed capacity, etc.
- Participate in the discussions of the national Energie Partagée network

In order to encourage the emergence and development of, and investment in, citizen-led and participatory RE projects, various schemes have been created in other regions of France. (see box Direct public aid for ENR citizen-led project leaders pages 31 et seq.)

They are a source of inspiration to present this second part of a “Normandy citizen energy scheme”, which would concern the financing of the emergence and development of, and investment in, citizen-led and participatory RE projects. The following recommendations could complement the Normandy-based **Idée Action “Production d’Energies Renouvelables”** scheme by promoting citizen-led projects.

For all the types of aid described and whatever the supporting structure, the project for which the aid will be received must comply with the **criteria** of the Energie Partagée Charter:

- Local roots
- Non-speculative
- Transparent, democratic governance
- Ecology

Beneficiaries:

- Citizen's collective or pre-planning associations aiming at deploying participatory and citizen-led renewable energy projects
- Local authorities, EPCI, etc. wanting to initiate and develop participatory and citizen-led renewable energy projects.
- Trade unions, coordinators of the energy transition in their own areas and wanting to initiate and develop participatory and citizen-led renewable energy projects.
- Local companies with participatory and citizen-led renewable energy projects

Emergence assistance (continuous application filing)

Emergence support is of particular importance in Normandy, where bringing projects to life is a prime need. Two types of assistance in particular could be developed :

- **Legal and pre-feasibility studies**

In the emergence phase, the studies that can be financed aim to help the group define its governance, its legal obligations and its economic viability.

The pre-feasibility study is used to observe the potential of the technical characteristics of the projects, related environmental issues, and also to carry out an initial economic and financial analysis of the project.

- **Aid for mobilization and consultation**

This should make it easier to involve civil society around the construction of a citizen-led and participatory RE project, and to create dialogue and a framework for consultation. The aid thus created must finance awareness-raising or communication tools, and possibly the use of consultation professionals.

70% maximum aid, capped at €20,000.

Development assistance (continuous application filing)

- **Feasibility studies and legal studies, excluding regulatory studies:**
  - Photovoltaic energy: 70% maximum aid
  - Solar thermal energy: 70% maximum aid
  - Wind: 70% maximum aid
  - Anaerobic digestion: 70% maximum aid (making the existing regional system eligible for all types of organizations supporting citizen-led and participatory RE projects).
  - Wood energy: 70% maximum aid

- **Project management assistance**

Aid can be requested for large-scale projects (PV project > 250kWp, wind project > 1MW, thermal RE project > 100 kWth per installation).

70% maximum aid

Investment support (continuous application filing)

- **Bonus system for citizen investment in RE:**

    - By proposing a contribution from the Normandy Region of €1 for every 1 citizen euro invested. The eligible base for expenditure is capped at €100,000 and €500 per citizen (natural person).
      This aid would be superimposed on existing aid under ordinary law in the various RE sectors.

Recommendations for adapting tools and the political approach

FURTHER SPECIFYING THE IMPORTANCE OF CITIZEN PARTICIPATION FOR RE PROJECTS IN STRATEGIC DOCUMENTS (SRADDET AND ERDF)

- SRADDET (regional planning, sustainable development and territorial equality scheme):
  - Have a **quantified strategic objective for the part devoted to citizen-led RE project** (sends **a clear signal about regional support** for this type of project).
    To date, the stated objective is 32% of RE in Normandy's energy consumption in 2030, but there is no mention of a potential for citizen ownership and participatory financing.

- ERDF:

Reference to investment priority 4a: "Promoting the production and distribution of energy from renewable sources"

  - As part of the **performance of the operational programme**, **key indicators and implementation stages** are included for Priority 3 “Making Basse-Normandie an eco-attractive region” (*p.133 ERDF BN OP*), for Priority 2 “Supporting the energy transition in Upper Normandy” (*p.130 ERDF HN OP*), including: “Renewable energies, additional renewable energy production capacity”.
    Building a sub-indicator or an additional indicator that allows for a specific target for citizen-led and participatory renewable energy projects. (Percentage of power in citizen-led and participatory projects in MW, or number of citizen-led and participatory projects, intermediate value and target value)
  - Include in the **investment priorities** specific support for participatory and citizen-led RE projects (all sources) via the possible co-financing of a regional event for example.
  - Add a special mention about participatory and citizen-led RE projects in the **guiding principles for the selection of operations.** For example, the ERDF Basse Normandie OP currently includes the contribution to local employment, with other sustainable development objectives (*p.107 ERDF Basse Normandie OP*). To these guiding principles can be added the principles associated with citizen-led and participatory renewable energy projects: local roots, open governance, non-speculative approach and ecological requirement.
    Formulating principles to promote the acceptability and ownership of projects at local level will help promote and obtain consideration for participatory and citizen-led RE projects.
  - If the project selection procedure is carried out through calls for projects rather than on an ad hoc basis, **introduce scoring criteria in such calls for projects** that take into

account the participatory and citizen-led nature of the project, in order to encourage such approaches.

What might ERDF grants consist of? (based on the model of other regions)

- **Financing support for the coordination mission of the regional network partly via the ERDF line** (Occitanie 2015 model: the ERDF finances 80% of the post of facilitator for 3 years, with Ademe, €8,000/year for 3 years, by the Banque Populaire du Sud foundation and self-financing)
- **Issuance of a call for projects focusing on the change of scale and innovation of citizen-led RE project**s via multi-annual European funding with a co-financing objective of €120,000 over 3 years. (PACA model)

INTENSIFYING AND CREATING REGIONAL INCENTIVES AND MECHANISMS FOR A WIDER DISSEMINATION OF CITIZEN-LED AND PARTICIPATORY RE PROJECTS.

- **Via calls for projects (see examples p 35-36)**

- **By reinforcing / expanding existing aid in Normandy**

➔ *Refer to the proposed Normandy Citizen Energy Scheme, p37-44*

- **Financing a regional coordination network for Normandy,** which is necessary to carry out the projects. Creating a network of facilitators able to provide tools for citizen-led projects in the Lower and Upper Normandy regions.

➔ *Refer to the proposed Normandy Citizen Energy Scheme, p37-44*

- **Encouraging local authorities (municipalities, EPCI, etc.) to get involved in support of citizen-led and participatory RE projects.**

The important role of local authorities for:

- Making public buildings available (e.g. the town hall of Lorient for photovoltaics for example, or Plaine Sud Energie for school roofs)

- Become part of a global approach for the region (if there is a Regional Climate, Air and Energy Plan, for example, or if it is a positive energy region, 100% RE, etc.).
- Obtain technical and/or financial expertise/assistance. (a local authority can take shares in a cooperative society for example)
- Communicate broadly about projects
- Obtain a certain legitimacy in the area concerned
- Help to secure the land

What is the role of the Region in encouraging local authorities to take a stand?

- **Information, awareness-raising and training of elected officials** in order to encourage local authorities to lead or support RE projects, and to inform them about possible financing, legal and financial rules, project methodologies, etc.

  ➔ **This role can be delegated to regional facilitators to offset the need for self-financing**

- **Calls for projects encouraging local authorities to promote citizen-led RE projects:** in addition to the Sustainable Region Calls for Expression of Interest 2030 and 100% Renewable Energy Region, local authorities can be encouraged to tackle the energy transition through involvement in citizen-led RE projects or the impetus generated by these.

  ➔ Example: Pays de la Loire 2014 call for projects[11]

- Encourage local authorities to **develop renewable energy sources** (solar land registers, etc.) and to carry out an **energy consumption assessment** of their area.

- **Communication with banks** about citizen-led and participatory RE projects, to make them aware of this type of project. They might provide financial facilities, in particular through **cash advances from ERDF funds** or guarantee funds to facilitate access to bank loans, for example.

- **Become a member of the local companies** set up to carry out renewable energy production projects.

For example, the Brittany Region invested through the company EILAN for the Begawatts project.

The Languedoc Roussillon Region became a shareholder of Enercoop LR in 2014.

- **Engineering support by involving regional services / specialized semi-public companies** for feasibility studies (companies, cooperatives, specialized consulting firms, etc.)

- **Promote local renewable electricity** with local and ethical aggregators, in order to encourage the sale of locally produced energy within the area.

[11] See appendix 7

ROLLING OUT POSITIVE COMMUNICATION WITH CITIZENS, LOCAL AUTHORITIES AND BUSINESSES TO GENERATE NEW COMMITMENTS

- On the **financial aid available** (defined beforehand) for citizens and others willing to engage in the process

- On **local economic benefits**. *A way to create value locally through projects permitting:*
  - Eventually, energy autonomy
  - Greater consideration of environmental issues
  - Greater consideration of citizens in the governance of projects
  - Reasoned investment of citizen savings for the benefit of local projects
  - Popular education on energy issues (sobriety, efficiency, RE for residual consumption)
  - Recourse to a local economic fabric

- **Explanatory, accessible and intelligible communication** about what a participatory and citizen-led RE project is, allowing wider public appropriation. (move away from the idea that only the most influential and socially well-positioned people in the region should be allowed to take ownership, and overcome the ecological inequalities highlighted several times in various sociological studies. See pages 16-17 of the document).
  Inspired by the Energie Partagée communication media, but with a specific focus on Normandy, a communication that particularly echoes the region.

  This communication work could be taken care of by the Norman regional coordination network which could be set up as part of the "Norman Citizen Energy Scheme" proposed in the previous section.

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RESOURCES FROM COLLECTIVES AND ASSOCIATIONS

Les retombées économiques locales des projets citoyens, Etude statistique de terrain réalisée par Energie Partagée (Local economic spin-offs from citizen-led projects. Statistical field study carried out by Energie Partagée), December 2019

Link to the complete study: https://energie-partagee.org/wp-content/uploads/2019/12/Note-technique-Etude-Retombees-eco-Energie-Partagee.pdf

Les énergies renouvelables citoyennes dans les SRADDET, 11 mesures pour un développement local des énergies renouvelables au service des territoires (Citizen-led renewable energies in regional planning, sustainable development and territorial equality schemes, 11 measures for local development of renewable energies for regions), Collectif pour l'énergie citoyenne (Appendix 9)

PCAET, Accélérer le développement local des énergies renouvelables (PCAET, Accelerating the local development of renewable energies), Collectif pour l'énergie citoyennes (Appendix 10)

Website of the Energie Partagée association: https://energie-partagee.org/

Websites of the various regional coordination networks:

Cirena (Nouvelle Aquitaine) : https://cirena.fr/

Taranis (Brittany): http://reseau-taranis.fr/

ECLR (Occitanie): http://reseau-taranis.fr/

Etincelle (Bourgogne Franche Comté): https://www.coopawatt.fr/etincelle-bourgogne-franche-comte

Energie Partagée in PACA: https://energie-partagee.org/outils/les-reseaux-regionaux/energie-partagee-paca-2/

Energie Partagée in Centre Val de Loire: https://energie-partagee.org/outils/les-reseaux-regionaux/energie-partagee-en-centre-val-de-loire/

Energie Partagée in Île de France (Paris region): https://energie-partagee.org/outils/les-reseaux-regionaux/energie-partagee-idf-2/

ECPDL (Pays de la Loire): http://ecpdl.fr/

AURACLE (Auvergne Rhône Alpes): http://www.enrauvergnerhonealpes.org/fr/projets-participatifs/le-reseau-regional-auvergne-rhone-alpes-citoyennes-et-locales-energies.html

GECLER (Grand Est): https://gecler.fr/

APPENDICES: FILE ATTACHED TO THE STUDY

"When only one man dreams, it's only a dream. But if many dream together, it is the beginning of a new reality." F. Hundertwasser

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Your contact

SCIC les 7 Vents

Florian Guillotte

Tel: +33 (0)2 33 19 01 37

florian.guillotte@7vents.fr