ENERGY COMMUNITIES IN FRANCE & NORWAY

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Introduction:

The EU has established itself as a world leader in environmental law and renewable energy, participating in the transition with much legislation and policies aimed at tackling the negative effects of climate change, through both mitigation and adaptation measures. The most recent batch of mitigation measures- aimed at limiting the emissions of greenhouse gases to an acceptable level of below 55% by 2030 compared to 1990 levels[1]- is the clean energy package. This is the 4th energy package adopted by the union with various tools aimed at achieving the emissions targets.

The 4th energy package included legislation such as the Electricity Directive 2019 and the Renewable Energy Directive 2018, and these directives, inter alia, establish a legal basis for citizen[2] and renewable energy communities[3]. These enable end consumers of electricity to be empowered by participating together or individually in the energy transition.

This method of empowerment of both citizen and renewable energy communities is based on the concept of consumers collaborating in a system of *open and voluntary participation* in energy production, sharing, and sale. The rights given to consumers by the directives to adopt these communities include the rights to collaborate and engage in generation of supply, consumption, aggregation, energy storage, energy efficiency services, or charging services for vehicles.

[1] Delivering the European Green Deal | European Commission (europa.eu)
[2] Electricity (recast) Directive 2019/944, Art.16
[3] Renewable Energy Directive 2018/ 2001, Art. 22

French & Norwegian legislation

- *1) French legislation*

Now, we are going to focus on the French legislation about Energy communities. At first[4] the notion used in French law to refer to Energy Communities is *autoconsommation collective*, which could be translated as collective self-consumption. It appeared in French law in a ministerial report called "the self-consumption and the self-production of Renewable electricity" in 2014, stemming from the application of the Energetic transition for Green Growth Act (la transition énergétique in 2016). Collective self-sufficiency is defined as the ability of the consumer to answer their energy needs with their own energy production. The current French legal definition is in the article L. 312 of the Code of Energy[5]; establishing that self-consumption can be considered *collective* when one or several producers supply one or several final consumers who are linked as the same legal entity, and whose input and output slots are located in the same building, including housing.

After the adoption of the Renewable Energy Directive by the European Council and Parliament in 2018[6], the French Parliament transposed 'renewable energy communities' into French Law. However, the concept of a citizen energy community took longer to emerge. The first idea was to create a large notion of energy communities which would include both notions of renewable energy communities and citizen energy communities into a specific chapter in the Code of Energy. It was proposed by some French deputies like Delphine Batho or Marie-Noëlle Battistel but was rejected.

Finally, an order of the 3 March 2021[7] implements the concept of citizen energy communities and replaces the code of energy on this question. Both types of Energy communities are included in the self-consumption concept[8]. Articles L. 291 and L. 292 of the Code of Energy which gave the legal definition, also use the same terms as article 2 of the EU Directive on the Internal Electricity market (cite directive) and the first article of the Directive on Renewable Energy cited.

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[4] DE FONTENELLE Louis, "Les communautés énergétiques, Revue Énergie - Environnement - Infrastructures n° 8-9, Août 2019, dossier 29

[5] Article L.312 Code of the Energy "*L'opération d'autoconsommation est collective lorsque la fourniture d'électricité est effectuée entre un ou plusieurs producteurs et un ou plusieurs consommateurs finals liés entre eux au sein d'une personne morale et dont les points de soutirage et d'injection sont situés dans le même bâtiment, y compris des immeubles résidentiels*. »

[6] Directive EU 2018/2001 of the European Union Parliament and Council of 11 December 2018 on the promotion of the use of energy from renewable sources

[7] Ordonnance n°2021-236 of 3 march 2021

[8] Article L. 315-2-2 "Lorsque l'opération d'autoconsommation collective réunit une communauté définie à l'article L. 291-1 ou L. 292-1, la personne morale organisatrice mentionnée à l'article L. 315-2 peut être cette communauté" (when the operation of collective auto-consumption reunites a community as defined in the article L. 291-1 or L. 292-1, the organising legal entity mentioned in the article L. 315-2 can be this community)

Consequently, Renewable Energy Communities are defined in article L. 291-1 of the Code of Energy as "an autonomous legal entity which answers to the following criteria" :

1° an open and voluntary participation,

2° "its shareholders and members are natural persons, local authorities, including municipalities, or small enterprises

3° "is effectively controlled by members or shareholders that are natural persons, local authorities, including municipalities, or small enterprises"

4° its primary purpose is to provide environmental, economic or social community benefits to its members or shareholders or to the local areas where it operates rather than to generate financial profits"

We find logically the same criteria and elements of definition in EU law and French legislation. The only difference is that for the French Law, the Renewable Energy activity can not be the main professional activity or a commercial activity for a private entity[9]. The main idea behind this is to ban the creation of commercial businesses in the Energy sector by using purported 'renewable energy communities' and the more lenient rules which apply. If the main purpose of a private legal entity is to produce electricity or energy with a renewable energy process, their activity must be regulated with the classic rules of energy producer companies. The idea is not to protect existing commercial activities but to create a specific framework, bringing a specific protection and specific rights to particular communities, allowing them to enter the sector as participants

Regarding citizen energy communities, French Law has taken over the same terms and criteria as the EU directive in the article 292-1 of the Code of Energy. Indeed, the French legal definition of citizen energy community refers explicitly to the EU definition. Therefore, citizen energy community are legal entities:

- Which are based on voluntary and open participation

- Which is effectively controlled by members or shareholders that are natural persons, local authorities, including municipalities, or small enterprises

- its primary purpose is to provide environmental, economic or social community benefits to its members or shareholders or to the local areas where it operates rather than to generate financial profits

In addition, the 2021 order[10] creates a common legal treatment for Renewable Energy communities, and it was extended to all Energy communities. In fact, the legal treatment is based on the self-consumption legal rules. Article 315-2-2 of the Code of Energy considers

[9] Article L. 291 Code de l'Énergie *: "cette participation ne peut constituer son activité commerciale ou professionnelle principale*"
[10] Ordonnance n°2021-236 of 3 march 2021

Energy communities as legal entities which organize a collective self-consumption[11]. The Energy communities are based on the overall concept of open and voluntary-based participation. In order to establish itself, an Energy community has to declare itself to the public supply manager[12]. Marie Lamoureux[13] describes this procedure as simplified because they don't need any authorisation or decision from the State or local authorities. This simplicity is based on the authorities' will to make their creation easier and faster, and is coherent with their will to develop renewable energy and facilitate self-consumption.

The order also establishes a few rules about the relationship between the collective self-consumption actors and the public supply manager, especially regarding the amount of electricity injected in the public network and the determination of its volume[14]. The aim is to protect a non-discriminatory access to the public network for energy communities.

However, Citizen Energy communities have more legal obligations than renewable energy producers due to their nature. They are electricity producers, and their production is incorporated into their own consumption and into the public network. As a result, they are financially responsible for the loss of balance they provoke on the electric system[15].

In addition, we can remark that French Law is very detailed and faithful to EU law. This can be explained by the French obligation to transpose EU directive in national Law as an EU member state.

The French legislation transcribes the French government's will of financing and developing collective self-consumption and Energy communities, consistent with the objectives of the EU. The state organized several public tender offers to encourage the creation of Energy communities on the territory, with the aim to promote a way of operating in collective self-consumption. For example, the State has promoted a public tender offer in 2016 in mainland France and 64 projects were selected to receive subsidies[16].

To conclude, the French law on Energy communities is quite new and very specific and detailed. This could lead to some complications in the future, especially in its application. We can then imagine that this law will evolve through case law.

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[11] Article L. 315-2-2 "*Lorsque l'opération d'autoconsommation collective réunit une communauté définie à l'article L. 291-1 ou L. 292-1, la personne morale organisatrice mentionnée à l'article L. 315-2 peut être cette communauté."*

[12] Article 315-6 Code of Energy

[13] LAMOUREAUX Marie, Droit de l'énergie, Précis Domat, 2020

[14] Article 315-4 to 315-7 of the Code of Energy

[15] Article 292-3 of the Code of Energy "*Une communauté énergétique citoyenne est financièrement responsable des déséquilibres qu'elle provoque sur le système électrique"*

[16] Site of The French Minister of the Ecological Transistion https://www.ecologie.gouv.fr/systemes-dautoconsommation

2) Norwegian legislation

As Norway is not a member of the EU, the EU directives do not automatically apply to Norway. However, through the EEA agreement the directives can be implemented in Norway as long as the EEA and EFTA agree on that the directive has the necessary relevance for the EEA agreement.This process has many steps which are time consuming, and it usually takes several years before an EU directive is implemented in Norway. A relevant example is the third energy package from the EU which came into force for the EU member states in 2013, while it took almost eight further years for it to be accepted and implemented in Norway. As the EU recently agreed on a fourth clean energy package, it is likely that this too will take a long time to implement in Norway.

In comparison with France, where the EU directives are the functioning legislation, Norway has its own legislation regarding consumer participation and energy communities. The most prominent Act is *Energiloven* ("The Energy Act") from 1990 (LOV-1990-06-29-50). This Act applies to the production, transformation, transfer, sale, distribution and use of energy, cf. § 1. This Act is influenced by, and up to date with, the third energy package from 2013 (implemented in Norway in 2019). According to § 3-1, installations for "the production, conversion, transmission and distribution of electrical energy cannot be built, owned or operated without a license". A common understanding of this is that the Norwegian state requires a license for all production, transmission, distribution etc. Furthermore, in § 3-1 it is stated that the Norwegian Energy Ministry determines by regulation "how high voltage or what installed power an electrical system must have for the first paragraph to apply". In short, this paragraph means that everyone who wants to produce, distribute etc. electrical energy in Norway will need to apply for a license.

§ 4-1 states that "without a license from the regulatory authority, no one other than the state can be responsible for the sale of electrical energy". This implies that local energy communities would need to apply for a license to be able to sell electrical energy, since this originally should only be done by the Norwegian state.

In addition to *Energiloven*, there are two important regulations: *Energilovforskriften* ("Energy regulations", FOR-1990-12-07-959) and *Nettregulering og Energimarkedet-forskriften* ("NEM regulations", FOR-2019-10-24-1413). These give additional rules to *Energiloven* and has a more detailed framework to ensure that production, transformation, transmission, distribution and use of energy take place in a socially rational manner, as well as facilitating an efficient energy market, where the sale of energy takes place in a socially rational manner, and ensure effective market monitoring.

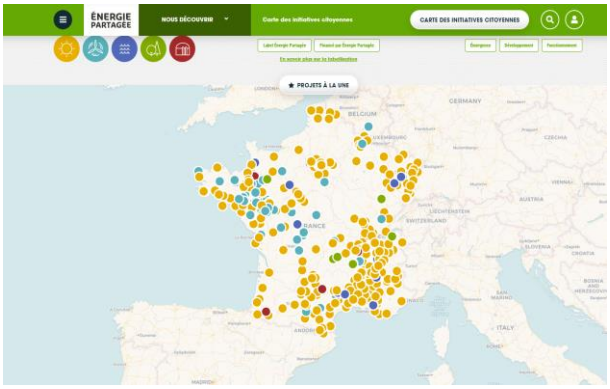
In many ways the Norwegian legislation portrays a framework where the majority of- if not all- energy regulations are state controlled. However, exceptions can be made as long as one follows the regulated procedures stated in *Energilovforskriften* or *Nettregulering og Energimarkedet-forskriften*.

Examples of energy communities

❖ *1) In France : Toits en Transition et CEVIVAL*

In France, there are a lot of energy communities, as is shown by the map of initiatives from citizens in France[17]. Concerning energy communities located near Lyon, ***Toits en transition*** (Rooftops in transition) is a cooperative created in May 2015. It is a collective of voluntary citizens sharing the will to develop locally the renewable energies and to launch actions of sensitization to the questions of energies on the territory of the Metropolis of Lyon and its surroundings. *Toits en Transition* develops solar energy projects financed by citizens and local actors. The project consists of the installation of photovoltaic solar electricity production facilities on the roofs of public and private buildings in various municipalities of the Lyon metropolitan area. An educational mission around energy is also at the heart of the project. More specifically, the collective of citizens wishes to carry out awareness-raising actions on energy issues on various sites open to the public. The projects managed by the local cooperative "Un Deux Toits Soleil" produce and sell electricity to the grid, and the use of generated profits is then discussed and voted on in a general assembly. It is governed in a transparent and democratic way (1 person = 1 vote), and the cooperative rents the roofs to the owners, then is remunerated by selling the electricity produced to an electricity supplier according to the feed-in tariffs fixed and guaranteed by the State over 20 years. Profits finance new projects, set up awareness actions or remunerate investors. The photovoltaic installations are collectively financed by the citizens and all the actors who wish it. To carry out the project, the cooperative is accompanied by the *Local Agency for Energy and Climate* of the Lyon Metropolis.

Another example of an energy community is CEVIVAL (we had the opportunity to meet one founding member) which belongs to the network of “Les Centrales Villageoises”. “Les Centrales Villageoises” gathers small local companies with citizen governance to carry out projects in favor of the energy transition by being part of a local economic pattern. They bring together citizens, local authorities and local businesses to contribute to energy transition by taking into account cross-cutting territorial issues (local economic development, landscape integration, social links, etc.). The Centrales Villageoises operate as a network of projects based on a common system and on the sharing of tools and services. This model is now implemented in several French regions. As such, the association and CEVIVAL are part of the energy communities’ movement represented by



[17] Map of energy communities initiatives : *https://energie-partagee.org*

AURACLE at the regional level and Energie Partagée at the national level. It was originally an association but its members decided to found a company whose role is to manage the projects. In February 2017, the simplified joint-stock company CEVIVAL was created by 22 founding members and registered with an initial capital of €12 250. Today, CEVIVAL has nearly 150 shareholders and more than €450,000 has already been invested. For more than 4 years, the company has developed about 20 photovoltaic installations on the territory of the "Communauté de Communes des Vallons du Lyonnais" (CCVL), as shown in the photo opposite[18]. These facilities produced 220 MWh per year and three new large installations are under study. The authorization from Electricité De France (EDF) is obtained by CEVIVAL via compulsory purchase agreements and a preliminary procedure to have a tariff accepted. The procedure must be done for each roof and it must be done at the right time because the tariffs and rules are subject to frequent change. For instance five years ago, solar panels had to be "imposed-integrated" according to the local land use plans (PLU), which means that the solar panel was put in place of the tiles and the panels were integrated into the edge of the other tiles. However today, the best price is proposed for superimposed solar panels so CEVIVAL is stuck between PLU rules and the prices. On top of that, the main problem is the thermo-sensitivity of the energy market: the more sun you have, the less day you need energy and all forms of energy cannot be stored at the moment. As such, CEVIVAL must constantly adapt to these constraints.

CEVIVAL illustrates the energy communities' concept through the main characteristics of the company and the territory. First, the scheme encourages citizen participation. The aim is that citizens collectively take ownership of the energy transition, both in terms of energy virtue and from a green energy perspective.

These are committed voluntary actors as over 75% of shareholders are citizens, and a management board of 11 members. Also, it is a participatory governance system as the status gives the right to vote at general meetings (one member equals one vote regardless of the number of shares owned) and therefore, the right to participate in the decision-making process. All shareholders are divided into working groups and project groups.

From 2022, the shareholders are able to decide at the general meeting on a dividend of around 1 to 2% (€100 will yield €1 or €2 per year). From 2022 onwards, each year at the general assembly, the members will decide on the proposal of the management board, on the allocation of profits dividends to shareholders, on the reinvestment in energy production facilities and on the financing of other projects or CEVIVAL actions (energy management, awareness campaigns, etc).

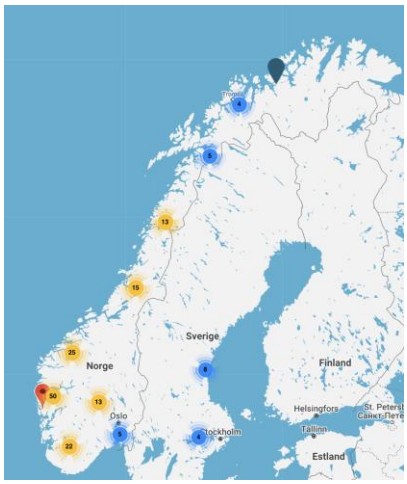
Investing – in an energy community as well as in other projects - involves a certain amount of risk. Indeed, the capital is not guaranteed. Nevertheless, the risk is very limited in this particular case because the income is secured thanks to the electricity purchase rate guaranteed by twenty-year contracts. Concerning the financial viability, it is moderate and must

[18] Electricity meter of Vaugneray primary school, equipped with solar panels thanks to CEVIVAL.

be considered in the long term (>10 years). However, CEVIVAL aims to achieve a higher return on investment than the French system of "Livret A". Then, "Les vallons du lyonnais" is a positive energy territory for green growth thanks to the commitment from local authorities and the mobilization of the local population. The development of green energy is mostly ensured by CEVIVAL – the installation of solar power plants. The company also has the merit of raising awareness about energy efficiency.

One of CEVIVAL projects is called ***Du soleil dans les Vallons !*** (Sun in the Valleys!). The first mobilization campaign led to the investment of €450,000 and the realization of twenty photovoltaic installations on public and private roofs. CEVIVAL is currently launching a second mobilization campaign in order to collect €120 000. The goal is to invest in four large photovoltaic projects (two agricultural sheds, an agricultural drying shed and a shaded area). This project would quadruple the production capacity.

- *2) In Norway :*



A study carried out by Thema Consulting Group on behalf of NVE, the Norwegian Water Resources and Energy Directorate under the Ministry of Petroleum and Energy, concludes that there are in fact no local energy communities in Norway that involve genuine end-user participation. However, there are developers who try to make communities within the models that already exist in Norway, even though these are not "local energy communities" according to the EU definition. One of these is Småkraft, which owns and operates over 160 power plants, and by that is Europe's largest 'small power producer'.[19] Småkraft has 25 employees at 7 different offices all over Norway, as well as one employee in Sweden. They work with over 750 landowners throughout Norway to produce approximately 1700 GWh of renewable electricity annually.

During our intensive week in Bergen in late April, we visited three of Småkrafts hydro power plants on Osterøy, an island situated outside of Bergen. There we got to learn more about how Småkraft works with the local communities, as well as how their hydro power plants function and how they distribute the energy produced by their hydro power plants. Annually they produce enough energy to cover the annual consumption of over 100,000 households. They see themselves as an important contributor to value creation, as the local community is involved throughout the production process. Småkraft rents the land from the landowner, local overseers run the power plant, local contractors are used for developing and

[19] Map of Småkraft hydro power plants: https://smaakraft.no/om-smaakraft/

maintenance of the power plants, and the local council receives property tax from the power plant.[20] Local actors are therefore important throughout the entire procedure.

Besides Småkraft, there are also other developers in Norway who try to make small communities within the models we already have, for instance with solar energy. One idea is to put solar panels on the roof of housing associations (borettslag) to produce electricity for the entire building. The problem today is that the Norwegian legislation does not allow this, as only one person can be a solar energy customer. One would have to make a power production company instead of an energy community, where people would be shareholders instead of consumers. It would then be more of an investment than just a non-profit community creating green energy. However, NVE has already started working on legislation for these types of housing associations so they can have increased capacity for prosumers (pluskunder). The entire building could then be one prosumer and still share the energy within the building, this would however require all of them to have the same power supplier. One key factor for energy communities in the EU is that it gives the consumers the power to have more than one power supplier, which would not be possible within the Norwegian legislation as it is today.

Most of the power bill for consumers in Norway is for the grid (“nettleie”), which comes from the amount of cables that have to be up at any moment. During the coming years these infrastructures will have to be switched out because of aging, which might make it more attractive for communities to work together towards creating their own community of green energy.

Comparisons and Conclusion

To fully understand how successfully these models of energy communities operate in France and Norway, one must draw comparisons on the pros and cons of each.

It has been displayed how the French system of ‘collective self-consumption’ is coherent to a large extent with the EU model of energy communities, with both being based on open and voluntary participation- a concept enshrined at EU level and implemented in France by the Energy Code. This operates in France alongside the number of other requirements shown for a project to qualify as an energy community; this makes sense as these communities benefit

[20] Graphics of the production process: https://smaakraft.no

from the self-consumption rules which are far less onerous than the commercial law rules binding energy producer companies.

The French system therefore closely adheres to the EU model of energy communities set by the directives, thus implementing rather successfully this proposed system.
However, in realistic terms the French system has faced its share of problems which have not been addressed by legislation. For example, the French National Assembly decided in 2020 that they would cut retroactively the feed in tariffs awarded to solar energy production[21]. The consequences of such cuts are that energy communities such as CEVIVAL are losing huge amounts of potential profits per mWh compared to if they privatized.

The Norwegian system on the other hand, has been clearly shown as not consisting of any energy communities according to the EU and French definitions. The lack of implementation of the 4th energy package hinders Norway in the sense that its model for energy production by small communities is incompatible with the rest of Europe, at least until a time where the national legislation establishes energy communities which are classified differently from small energy producers.

However, even though small energy producers like smaakraft do not benefit from some special legal status of energy community, they can still in reality operate based on open and voluntary participation. The agreements smaakraft had with local landowners to use their land in return for free energy supply encourage more consumers to participate by offering spare land to power companies.

This method of participation is not, however, as extensive as the powers given to communities in the French model, where the consumers actively control decisions as shareholders in the joint project.

In conclusion, energy communities have been displayed as taking many different forms and operate on a sliding scale of the level of participation. Whilst the French model follows the EU directive closely in empowering the consumers to form communities with special status, the Norwegian model rather has small energy producers working alongside consumers in deals as they choose to have energy produced on their land for free supply.

Both these models have their advantages and drawbacks- i.e. the French system has led to communities being undercut by the tariffs decreasing to a level lower than what they could make by selling directly to the market, yet they give communities the legal status of not being bound by the same commercial laws as producers. The Norwegian system however enables anyone with proper licensing to operate with communities in making agreements for production and profit sharing, yet this lack of guidance through legislation means there are not many small energy companies which award social, economic, and environmental benefits to consumers the way that energy communities are intended to do.

[21] Dentons - Retroactive cuts for French solar feed-in tariffs

A proposal could be a combination of the two models of an energy community which is separated by law from small energy producers, yet sells to the market for profit the same way a company would (rather than using feed-in tariff system), then only using the profits to expand and benefit the local community/ shareholders/ and the environment as a whole. This would be the ideal model for energy communities as it would achieve the goals of the directives and promote expansion to entice more consumers to join the energy transition by subscribing to the community.