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“Local authorities and energy in France. Increasing duties, limited means of action”

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The French energy sector, very centralized and state-driven, has been transforming itself, in particular under the action of local authorities. As in many other countries (*Urban Studies*, 2014; *Energy Policy*, 2015; *Environment and Planning C*, 2017; Renewable and sustainable energy reviews, 2020), the latter are becoming full-fledged players in the management of a field from which they have long been excluded, particularly since the nationalization of the electricity and gas industries in 1946. This greater involvement is still emerging and is certainly set to continue, in particular due to the increased use of decentralized production and digital technologies. In the meantime, the future of the governance regime remains unclear, and several interpretations coexist on the lessons to be learned from this transformation, between those who see it as a historical break and those who see it in continuity with the past.

In this chapter, we outline the new energy governance pattern that is emerging in light of current developments. To do so, we distinguish two ways in which French local authorities may intervene. The first relates to the organization of energy industries and markets. It shows that local actors still play a very marginal role in the regulation of this sector, despite the multiplication of numerous territorial initiatives. The second mode of action is about energy as a flow present in many fields that are targets of specific public policies: in the building sector (construction and renovation of housing), social action (fuel poverty), urban development, energy-climate and mobility. These areas show a much greater involvement of local authorities as a result of the decentralization laws. In a third section, we articulate these two forms of intervention (market, sectoral public policies), highlighting the many obstacles that local authorities must face, which, in our opinion, reflects a decentralization that is still timid and under strong constraint.

1. LOCAL AUTHORITIES AND ENERGY MARKET REGULATION

The first area of local intervention is the organization and regulation of energy markets. It is historically linked to the development of the first energy networks. In France, as in other European countries, the *communes*¹ (municipalities) have been front line players in managing these infrastructures, which initially did not extend beyond the perimeter of cities or small villages (Poupeau, 2017). This resulted in the passing of a fundamental law, still in force: the law of 15 June 1906. It established a concession regime for electricity, gas and, later, heating networks. Municipalities became the organizing authorities of public energy distribution. In practical terms, they could grant a local monopoly to a company (or create their own operator) to serve their territory in exchange for a right to monitor investments (the municipality was to be covered in its entirety, according to a mutually agreed program) and tariffs (limited to maximum prices). They could do this alone or by joining forces by creating unions of municipalities (on the scale of a conurbation or a rural area).

¹ About the territorial organization of France, see the box “Territorial organisation in France” which outlines the various levels of local and regional authorities that are active there (communes, unions of municipalities, intercommunalities, departmental councils, regional councils). In the chapter published in the book, this box has been moved to the introduction.

This regime has been profoundly transformed throughout the 20th century while remaining formally in force. In this respect, a distinction must be made between two types of energy: electricity and gas, which have been taken over by large public monopolies managed by the State, and heating networks, under the responsibility of municipalities, with less State intervention.

1.1. From local to national management: electricity and gas networks

For gas and especially for electricity, the situation changed considerably from the 1920s onwards (Lévy-Leboyer, Morsel, 1994; Poupeau, 2017). Under the action of technical, economic and political dynamics, the regulation of these sectors gradually moved, in part, out of the hands of the municipalities (and their unions) and fell into those of the state. The networks were interconnected, first on a regional and then on a national scale. They became national (as opposed to local) public utilities, which gave rise to an increasing intervention by State administrations, which saw them as essential activities in the economic (competitiveness, independence) and social (access to comfort, fight against rural exodus) modernization of the country. This did not mean a radical questioning of the historic remit of municipalities in the regulation of public energy distribution (law of 15 June 1906), but rather its relativization, with generation and transmission becoming increasingly autonomous activities over which local authorities had no control. The nationalizations of 1946 and the creation of two large public monopolies, EDF (electricity) and GDF (gas), marked this new institutional order.

With the liberalization of energy markets, local authorities still play a peripheral role. As a result of the accounting and legal separation of activities previously managed in an integrated way by public monopolies (unbundling), energy supply (tariffs and services) is now outside the historical scope of the jurisdiction of local authorities, now limited to the management of “physical” distribution infrastructures. Supply is considered to be market-based, and therefore open to competition, under the watchful eye of the State (regulatory authority). Admittedly, local authorities still retain some prerogatives on the setting of regulated sales tariffs set up by the State to avoid excessive price increases for domestic consumers. But these are expected to disappear in the near future, confirming the withdrawal of local authorities. In this respect, local authorities can only act as consumers and customers for the public buildings for which they are responsible. They cannot organize purchasing groups for their inhabitants, which would result in a sort of reconstitution of the former concession regime.

However, this restriction of the municipalities’ historical field of authority gets along with an opening up to new areas of action, particularly in production. This sector, formerly reserved for the two public monopolies and a few industrial players, has gradually been opened up to local authorities, which, in a liberalized market, are considered producers in the same way as other players. They (municipalities and their unions, intercommunalities, *régions* and *départements*) can thus create (semi-)public companies dedicated to the production of renewable energies in electricity and gas (see Chapter 6). But local authorities can also participate in private initiatives, including citizens. The “clean energy for all Europeans” package (2019) introduces the notion of the “renewable energy community”, which allows local authorities to be involved in such projects. However, despite these new opportunities, it is clear that the role of local authorities is still marginal. For electricity, renewable energies

account for only 17% of production in France, with nuclear energy still predominant² (see Chapter 1). Moreover, local authorities contribute only slightly to the development of these alternative energies, given the strong presence of large industrial groups. For gas, biogas production (used to generate electricity and heat, or to be injected into natural gas networks), in which local authorities are active, but again in modest proportions, remains much lower³. These data show the very low weight of local authorities in the French production mix.

1.2. The preservation of a stronger local influence: heating networks

Unlike electricity and gas, heating networks, mostly set up in urban areas, have always kept strong ties with municipalities. The latter can operate them either by creating local operators or by calling on private companies, often subsidiaries of large firms. The first heating networks appeared in France in the 1920s. However, their expansion phase took place mainly after the Second World War, a period of strong urbanization that led several large and medium-sized cities to build such infrastructures to serve their outskirts⁴. Often composed of large housing estates, these areas fit well to the business model of heating networks, which needs a high population density to be economically viable. As a result, the number of infrastructures increased sharply and reached 664 in 2016 for a network length of more than 5,000 km⁵.

Thanks to the responsibilities they have retained (organizing authorities or operators' owners), municipalities have, in this sector, more leeway than in electricity or gas to make their energy choices. They are more directly involved in setting tariffs, which may lead to low price policy decisions for certain population groups (however limited by the fact that heating and cooling networks are in competition with electricity and gas). Similarly, they may try to influence the use of renewable energies in the production units that supply the infrastructure. Many conversions have been made in this way, under pressure from certain local elected representatives, ecologists in particular, to go, for example, from coal and fuel oil to biomass. At present, even if this figure cannot be attributed solely to the action of municipalities, 53% of heat production is provided by renewable energies or waste⁶. This proportion is expected to increase in the coming years under the joint action of the State and local authorities, as part of the French strategy for the development of renewable energy.

² Source: Ministère de la transition écologique et solidaire (MTES).

³ In 2017, biogas accounted for only 2.3% of gross electricity production from renewable sources and 2.8% of primary heat consumption. Moreover, in 2017, very little biogas (3%) was injected into gas networks via its transformation into biomethane (CGDD, *Chiffres clés des énergies renouvelables 2019*, 2019; pp. 8 and 53). Available at: <https://www.statistiques.developpement-durable.gouv.fr/sites/default/files/2019-05/datalab-53-chiffres-cles-des-energies-renouvelables-edition-2019-mai2019.pdf> (Accessed: 24 March 2020).

⁴ CEREMA, *District heating and cooling in France*, 2018. Available at: <http://reseaux-chaaleur.cerema.fr/district-heating-and-cooling-in-france> (Accessed: 24 March 2020).

⁵ Ibidem.

⁶ Ibidem.

Territorial organization in France

France is characterized by great complexity in the organization of local and regional authorities. In this chapter, five main levels are mentioned.

The oldest level of government is the **communes** or **municipalities**, of which there are about 35,500. Drawing their origins in the Middle Ages, the communes were established during the French Revolution and reinforced throughout the 19th century as a level of local government close to citizens. Their remit and powers have varied according to the periods but the laws of decentralization (from the beginning of the 1980s) have considerably strengthened them in terms of town planning, roads, transport, social action and culture, to name but a few areas. Municipalities have sometimes managed some of their public services in an intermunicipal form by setting up **unions of municipalities** (*syndicats de communes*) in charge of managing energy, water or other activities, which they considered more efficient to entrust to structures with a broader scope. There are currently more than 10,000 unions with approximately 80 different jurisdictions⁷. Not all of them are simply governed by municipalities, as other levels of local government may be involved.

The **departmental councils** (*conseils départementaux*), formerly known as general councils⁸ (*conseils généraux*) and numbering 98, were created at the time of the French Revolution to serve as a basis for the establishment of the Republic. They quickly acquired strong competences, particularly in road management and social action. Regularly criticized for what would be their archaism, they were never abolished and were even sometimes reinforced in their competences during the decentralization laws of 1982-1983 and 2004. At present, they have retained important responsibilities in road management and social action.

New forms of **intercommunalities** or **municipal groupings** (*intercommunalités*) appeared in France during the 20th century. These are structures that, unlike the unions of municipalities, are organized to manage several areas at the scale of a territory that is supposed to make sense from an economic (job pool) and social (life pool) point of view. Intercommunalities began to develop in France from 1959 onwards in various forms. Currently, four main types can be distinguished (in order of importance in terms of population and powers exercised): *communautés de communes*, *communautés d'agglomération*, *communautés urbaines* (for big cities theoretically) and *métropoles* (metropolises). In particular, the metropolises, created from 2010 onwards, are entrusted with increasingly important competences, including, recently, energy.

Regional councils (*conseils régionaux*) were established in France in 1972. Their representatives have been elected by universal suffrage since 1986. They have an increasing number of responsibilities, as public authorities consider that, because of their scope and size, they are best placed to deal with issues such as economic development, transport and land planning. There are currently 18 (including 13 in metropolitan France), following the mergers carried out in 2015.

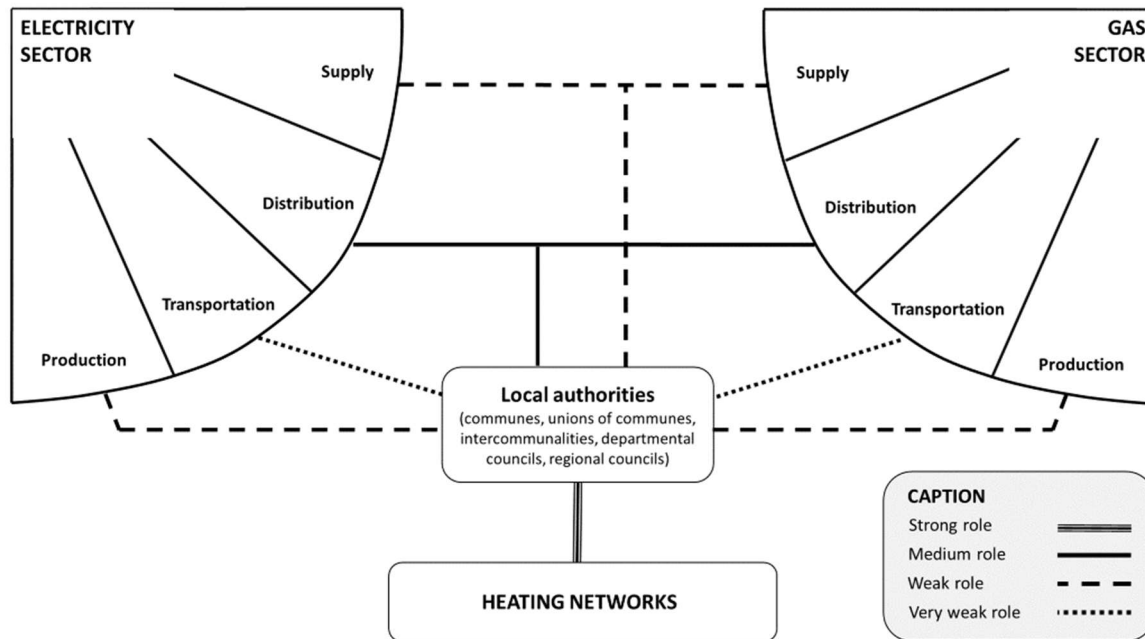
⁷ Figures of the Ministry of the Interior.

⁸ In 2015, the *conseils départementaux* replaced the former *conseils généraux*. For simplicity, we will use the first name also for periods prior to this name change.

1.3. Local authorities: emerging players but with limited powers

In the end, the industrial organization of the energy sector shows a still reduced involvement of local authorities, as summarized in figure 1.

Figure n°1. Local authorities and the regulation of the energy sector⁹



In electricity and gas, few levers currently exist, apart from public distribution, which, however, has not yet been liberalized. The introduction of competition, which is constantly being postponed, could perhaps lead to a revival of power for the municipalities, their unions and intercommunalities that are responsible for it. The situation in the heating networks appears very different, as the status of the organizing authority granted by the law of 15 June 1906 has been much better preserved. However, this observation must be put into perspective. On the one hand, the municipalities do not have total freedom of action in this sector, which is in competition with electricity and gas, as alternative sources of heat. Their degree of strategic latitude and autonomy is therefore reduced. On the other hand, heating networks have a very limited weight in energy. They currently account for only 6% of the heat and cold supply in France¹⁰.

⁹ Author's diagram. It should be noted that the low weight of heating networks in the sector (on an economic point of view) is illustrated by the small place they occupy visually on this graphic representation.

¹⁰ CEREMA, opus cited.

2. LOCAL AUTHORITIES AND SECTORAL POLICIES

The involvement of local authorities is not confined to questions of market organization and regulation. It also concerns public policies that have a direct and indirect impact on (mainly) energy consumption, in all its dimensions, and (a little less) on supply. Historically, local authorities have first intervened as owners of their buildings, for their uses (administrative services) or for those of their population (schools, libraries, cultural and sports facilities, etc.). They have also led many actions in the management of public lighting. They continue to act in such fields as consumers. But other forms of implication have since been added, as local powers have taken on new responsibilities, in particular in the fields of housing (2.1.), fuel poverty (2.2.), planning and development (2.3.) and mobility (2.4.). In this second section, we come back to these different main responsibilities in a “chrono-thematic” way, that is, according to their order of appearance over time.

2.1. *Thermal renovation of buildings*

In France, local authorities have been involved in housing policies since the interwar period (Voldman, 1997). At a time when urbanization was developing at a steady pace, the aim was to promote a supply of housing that met modern hygiene standards (fight against insalubrity, comfort, etc.), while at the same time responding to growing demand. In particular, cities positioned themselves very early in the production of social housing in order to enable low-income citizens to find a home under financially acceptable conditions.

In this area, interest in energy issues has been late. Until the 1970s, the major challenge for governments was to ensure massive construction of housing at low production costs (Effosse, 2003). Energy issues were certainly not neglected, but they were mainly confined to the following question: what type of energy should buildings be supplied? The question was then essentially posed in terms of energy prices. However, the production of quality, well-insulated and low-energy-consuming dwellings took a back seat.

It was only with the oil crisis of the 1970s that a greater concern arose about managing energy demand in buildings (Pautard, 2009). Under the action of the ADEME and the ANAH¹¹, public policies were implemented to achieve energy savings. Thermal renovation programs began to be carried out, led by the State, which provided the majority of public funding. The commitment of local authorities on these issues, sometimes even earlier, then increased. According to a recent study, the housing sector, which represents a major challenge in terms of energy transition¹², is today a priority area identified by local authorities¹³. Several actors, levels of intervention and instruments can be identified¹⁴.

¹¹ ADEME: Agence de l'environnement et de la maîtrise de l'énergie; ANAH: Agence nationale de l'amélioration de l'habitat.

¹² It should be remembered that, in France, the building sector is the largest source of greenhouse gas emissions, behind transport (source: MTES).

¹³ Study carried out from 4 December 2019 to 8 January 2020 by Infopro digital études for the newspaper *La Gazette des communes* on a sample of 350 local authorities (20% elected officials and 80% agents) (“Transition énergétique : des collectivités bien engagées mais des moyens insuffisants”, *La Gazette des communes*, 25 February 2020). 46% of respondents indicate that energy renovation of buildings is a high priority, 40% that it is a priority. Available at: <https://www.lagazettedescommunes.com/663723/transition-energetique-des-collectivites-bien-engagees-mais-des-moyens-insuffisants/> (Accessed: 24 March 2020).

¹⁴ For a fairly recent review, see *Plan bâtiment durable*, “Financements de la rénovation énergétique des logements privés et déploiement du tiers-financement : état des lieux et perspectives”, 2017, Rapport remis à la

Municipalities and intercommunalities are, first of all, very involved as board members of the bodies responsible for social housing management. They can thus initiate ambitious policies or provide financial support for programs to control consumption and aid renovation work. Examples include the *opérations programmées d'amélioration thermique des bâtiments* (OPATB, scheduled building thermal improvement operations) and the *opérations programmées d'amélioration de l'habitat* (OPAH, planned housing improvement operations). The action of municipalities and intercommunalities has extended more recently to the private sector, where stakes are high. Urban planning laws make it possible to impose stricter criteria for the construction of new, less energy-intensive buildings. Some cities have also created local energy agencies to raise awareness on energy issues (Poupeau, 2008). These structures, partly funded by the ADEME and the European Union, offer free advice to citizens, in particular to inform homeowners about aids to reduce the energy bill of their property.

Other local authorities are involved in thermal renovation. *Départements* can, through grants, sign partnership agreements with the ANAH and social landlords. More recently, *régions* have also taken a position on this issue. The NOTRe law voted in 2015¹⁵ strengthens their responsibilities by making them the coordinators of energy renovation platforms. They are thus pushed to set up entities to better articulate national programs and local initiatives. Some *régions* create other tools, such as calls for projects or third-party financing companies dedicated to the renovation of buildings, sometimes in conjunction with other levels of local government.

2.2. Aid for non-payment and the fight against fuel poverty

Local authorities also play an important role in helping the most deprived populations. Far from being isolated, their action is closely linked to that of the State, which has gradually taken up the issue. As early as the 1980s, in a context of persistent economic crisis, the State compelled the public companies EDF and GDF to set up a system of aid for unpaid electricity and gas bills for the poorest people (Dubois, Mayer, 2013). Municipalities and *départements* were very quickly involved, as part of their social action responsibilities, which resulted in the integration of this aid into the *fonds solidarité logement* (FSL, solidarity housing fund). Co-financed at 50% by the State until 2005, the FSL is now entrusted to *départements*, which may delegate part of its management to the municipalities. For a long time, it has been one of the main aid tools for the most deprived populations, with the energy component accounting for the largest share¹⁶. Alongside it, other schemes set up by the State (aid for unpaid bills in 2004, social tariffs for electricity and gas in 2008, ban on winter power cuts in 2008 or energy vouchers in 2018) or by local authorities themselves coexist.

The 1990s and 2000s marked a notable evolution in the care of people facing difficulties in meeting their energy needs. The first was semantic. “Management of unpaid bills”, which had

Ministre du Logement et de l'Habitat Durable (Ministry for Housing and Sustainable Habitat). Available at: http://www.planbatimentdurable.fr/IMG/pdf/170321_rapport_financements_de_la_renovation_energetique_des_logements_privés_et_deploiement_tiers-financement-2.pdf (Accessed: 18 March 2020).

¹⁵ Loi n°2015-991 portant nouvelle organisation territoriale de la République (law on the new territorial organization of the Republic), passed on 7 August 2015.

¹⁶ About 83 million euros in 2010, which then concerned approximately 328,000 households (Assemblée des départements de France, Ministère du logement, de l'égalité des territoires et de la ruralité, “Place et rôle des Fonds de Solidarité pour le Logement (FSL) dans la politique sociale du logement : état des lieux et perspectives”, 2015, p. 75). Available at: https://www.gouvernement.fr/sites/default/files/contenu/piece-jointe/2016/02/etude_fsl_et_courrier.pdf (Accessed: 18 March 2020).

been used until then, gradually disappeared to be replaced by the term “fuel poverty” (Dubois, Mayer, 2013). With it prevailed a broader definition of the populations targeted by public policies. The so-called “Grenelle 2” law defined this term as follows: “is in a situation of fuel poverty a person who has particular difficulties in obtaining the energy supply necessary to meet his or her basic needs in his or her home because of inadequate resources or housing conditions¹⁷”. Henceforth, a person is considered to be in a situation of fuel poverty when he/she spends more than 10% of his/her income on energy expenditure in his/her home. ADEME estimates the number of people concerned at 3.8 million in 2018, or 14% of French households¹⁸.

The other change concerned the scope of government action. For a long time, the public intervention was mainly curative and consisted in helping households to pay their energy bills. From the 1990s onwards, actions were also preventive and focused on the behavior of individuals and their housing. This paradigm shift is now reflected in more diversified strategies, both in raising awareness of energy savings and in renovating certain poorly insulated buildings. In this context, local authorities remain front-line players, particularly as part of the thermal renovation programs that they may carry out (see section 2.1.). They also intervene through the local energy agencies mentioned earlier.

2.3. From urban planning to energy-climate schemes

Local authorities also pay an increasing attention to energy planning. Municipalities have been involved for a long time in planning operations, in conjunction with the State (urban modernization and development since the interwar period, policies for large housing estates in the 1950s-1970s, creation of new economic areas, etc.). But, as in the case of housing policy (2.1.), energy issues were slow to be fully taken into account, usually being reduced to a trade-off between sources of supply for new urbanized areas or neighborhoods. Even the decentralization laws of the early 1980s, which transferred urban planning to the *communes*, remained silent on the subject. Pushed by EDF and GDF, the State was reluctant to strengthen local powers. This situation persisted in the years 1990-2000, despite little change. Now, municipalities and intercommunalities can carry out urban projects with a more substantial energy component, particularly in eco-neighborhoods. They may therefore influence decisions on energy supply and the extension of electricity, gas or heating infrastructures. But such initiatives are undertaken on a fairly small scale. The power of local actors remains still limited in the rest of their territory, even if the MAPTAM law of 2014¹⁹ has created new opportunities for metropolises (development of energy master plans).

The intervention of local authorities has been strengthening since the 1990s. It has been extending, on the one hand, to a new field of action (energy-climate) and, on the other hand, to new levels (*régions*). While previously excluded from the energy planning process, *régions* are now associated by the State to renew its practices and methods, which are considered too top-down. A first step was taken with the development of the *schémas de services collectifs* (SSC, collective services schemes) launched by the State in the late 1990s, which covered a

¹⁷ Article 1-1. of the law n°2010-788 portant engagement national pour l’environnement (on a national commitment to the environment), 12 July 2010 (translated from French).

¹⁸ Available at: <https://www.ademe.fr/expertises/batiment/quoi-parle-t/precarite-energetique> (Accessed: 17 March 2020).

¹⁹ Loi n°2014-58 de modernisation de l’action publique territoriale et d’affirmation des métropoles (law on the modernization of territorial public action and affirmation of metropolises), passed on 27 January 2014.

wide range of areas, such as energy, transport, culture and health. This experience, far from being convincing, continued on other bases afterward. The fight against climate change, which has emerged as a national stake, reinforced the legitimacy of *régions*, considered as key actors to relay the strategy set by the State (reduction of greenhouse gases, deployment of renewable energies, etc.). In 2007, the *schémas régionaux climat air énergie* (SRCAE, regional climate air energy schemes) were thus created following the “Grenelle de l'environnement”, a major institutionalized participatory process aimed at mobilizing all stakeholders around sustainable development. The SRCAEs were one of the new tools to achieve this (Poupeau, 2013; Gérardin, 2018; Dégremont, 2018). They were based on a closer association between the decentralized State services and *régions*, co-producing a document setting out regional guidelines for decreasing consumption, developing renewable energies and reducing greenhouse gas emissions. In 2015, a new phase was reached with the creation of the *schémas régionaux d'aménagement et de développement durable des territoires* (SRADDET, regional schemes for the planning and sustainable development of territories), established by the NOTRe Act. By integrating the SRCAEs into a multi-sectoral approach, the SRADDETs gave a little more power to the *régions*. These schemes are more prescriptive, with regard to the other planning documents (urban planning, housing, transport). But, above all, their preparation is now entrusted to the *régions* alone.

This change in the planning process does not only affect *régions*. It also widens the scope of intervention of municipalities and intercommunalities. In particular, the latter has been increasingly promoted by the State government. In 2004, the *plans climat énergie territoriaux* (PCETs, territorial energy-climate plans) were created to rally such actors, considered as key partners for implementing national guidelines. The TECV law²⁰ transformed these schemes into *plans climat air énergie territoriaux* (PCAETs, territorial climate, air and energy plans). Their preparation is now compulsory for intercommunalities with more than 20,000 inhabitants. Like regional schemes, with which they must be compatible, the PCAETs are general guidance documents which, on the basis of a territorial diagnosis, identify goals and actions to be carried out with regard to the decrease of consumption, renewable energy development and reduction of greenhouse gas emissions.

The profusion of these documents, which are often produced very quickly and without any real consultation, contributes to the rise in power of local authorities at various levels. However, their effects should not be overestimated. Indeed, these schemes are very much framed by the State and the major energy operators, who do not intend to “cede ground” (Poupeau, 2013; Briday, 2020). On the one hand, the SRCAEs/SRADDETs and PCAETs must comply with national planning documents, for example, the *programmation pluriannuelle de l'énergie* (PPE, multiannual energy programming). On the other hand, they are only supposed to discuss certain issues. For example, national choices such as nuclear power generation are not intended to be addressed. Finally, these schemes do not have their own funding. Such sub-national planning responsibilities should therefore be seen as tools enabling the State to involve local actors more closely, and not as instruments for a greater decentralization (Poupeau, 2013).

²⁰ Loi n°2015-992 relative à la transition énergétique et à la croissance verte (law on energy transition and green growth), passed on 17 August 2015.

2.4. Energy and mobility issues

Transport and mobility, which, along with buildings, represent a significant share of energy consumption, are among the areas of jurisdiction for French local authorities. Here too, energy issues are receiving increasing attention, since the agenda-setting of environmental (pollution) and, more recently, climate change (greenhouse gas emissions) problems. According to the survey mentioned earlier²¹, these issues raise less interest than energy renovation of buildings, public awareness or street lighting. However, 26% of local authorities see them as a high priority and 48% as a priority.

In this area, local authorities have many levers at their disposal. First, they can act on their own assets by replacing their fleet of cars and buses with electric or natural gas-powered vehicles (NGVs), in order to eradicate the use of fossil fuels. This mode of action is becoming increasingly widespread, in particular because it demonstrates a strong political will on environmental issues. Local authorities can also rely on their responsibilities as road managers and transport organizing authorities to implement more ambitious public policies. Some are supporting soft mobility through local plans and the development of cycle paths (Huré, 2019). Others are launching schemes to deploy electromobility in their territories (Cranois, 2017; Sajous, Bailly-Hascoët, 2017). Many initiatives are aimed at installing charging stations. This foreshadows the gradual establishment of a national network able to encourage more and more drivers to use electric vehicles. In this process, cities and *régions* are increasingly active, with sometimes ambitious mobility plans. However, rural areas, through *départements* and above all energy unions of municipalities, can also set up this equipment (Cranois, 2017; Boyer, 2019).

3. A LOCAL RISE UNDER CONTROL

We are therefore witnessing a proliferation of initiatives and skills-taking that has been widely reported in the academic and professional literature in France. It clearly shows that the French energy model is undergoing many changes, under pressure, in particular, from decentralizing forces. In this last section, we qualify this observation by highlighting the many obstacles faced by local authorities.

3.1. Decentralization under strong political constraints

Local initiatives are first of all part of an institutional system that is still largely controlled by actors who are in favor of the historic centralized model. The first section of this chapter clearly shows that local authorities' room for maneuver remains very limited in the regulation of energy markets. The second section reminds us that the State is still very present to control local action when it comes to potentially challenging the economic and industrial order, as is the case for strategic planning.

This intervention under constraint is explained by the balance of power between supporters and opponents of decentralization. Three networks of actors are currently structuring the field of energy reforms in France on this specific issue (Poupeau, 2020a). The first ("historic

²¹ "Transition énergétique : des collectivités bien engagées mais des moyens insuffisants", *La Gazette des communes*, article cited.

Jacobins”) includes key players, such as most State administrations, major energy operators, employers’ lobbies and most government political parties, eager to maintain a centralized frame. The second network (“alternative decentralizers”), which is in favor of greater decentralization, brings together forces that are certainly important but emerging, including some large associations of local elected officials, pro-environmental NGOs and some political parties (especially ecologists). Between these two poles, we can identify a third network (“moderate decentralizers”), made up of a powerful association of rural elected officials and a few State administrations seeking a stronger, but controlled, involvement of local authorities.

Given the positions of its members in the political, economic and administrative landscape, the network of “historical Jacobins” is currently locking the political agenda of decentralization issues. In order to limit the influence of “alternative decentralizers”, it knows how to use arguments that shape the political construction of debates: promotion of the nuclear industry (as a jobs provider, an instrument of national sovereignty and a tool to decarbonize energy), support for EDF (to consolidate its status as a “national champion”), preservation of national solidarity between territories (which could be undermined by too much decentralization) and so on. Faced with it, the arguments developed by local actors still carry little weight in the national political arena, which explains their weak ability to change the rules of the game. In this context, the action of local authorities is certainly recognized. But it is rather confined to a relay function of national public policies, as for the development of renewable energies or electromobility.

3.2. Seeking financial and human levers

Local authorities are also hampered by the access to funding and a high dependence on the State. In the survey earlier mentioned²², 62% of respondents working for them believe that the lack of financial resources is the main obstacle to the implementation of local energy policies. They also highlight the weakness of human resources (37%) and expertise. These data echo other surveys pointing out budgetary difficulties in managing energy issues²³ and implementing the PC(A)ET²⁴.

Local authorities have no specific resources dedicated to energy²⁵. They must therefore dig into their own general budget to meet their ambitions. In particular, the State has, up to now, always opposed to their being able to collect part of the *contribution énergie climat* (CEC, climate and energy contribution), a tax introduced in France by a 2014 finance law to put a price on carbon. The Association of French Mayors asked that it be partly allocated to the municipalities, because of their commitment to the fight against climate change, through territorial climate schemes. In June 2018, several associations of local elected officials called for local authorities implementing PCAETs and SRADDET to receive 10% of the 8.5 billion euros collected by the State, a sum which, according to some projections, should reach 22

²² Ibidem.

²³ In 2017, only 19% of municipalities had a dedicated agent, compared with 51% for intercommunalities (enquête ADEME communes, 2019, p. 37).

²⁴ The *Assemblée des communautés de France* (ADCF), which brings together intercommunalities, identifies, in 38% of cases, the “human resources” factor as a brake on the adoption of PC(A)ETs (Bosboeuf, Dégremont and Poupeau, 2015).

²⁵ Apart from local electricity taxes, that can only be collected by (unions of) municipalities and *départements*, or royalties perceived on concession contracts.

billion euros in 2022²⁶. For these associations, this amount would enable them to finance the drafting, organization and implementation of climate plans, estimated at, respectively, 1, 10 and 100 euros per inhabitant. Despite these pressures, the government turned a deaf ear, and the subject has been left out of the debate until today²⁷. This recurring failure reflects a great reluctance of the State and, in particular, the Ministry of Economy and Finance, to entrust substantial financial resources to local authorities for energy-climate²⁸.

In this context, local powers are still very dependent on State funding. New financial tools exist for them today, such as third-party financing companies or semi-public companies. However, their scope is still very limited with regard to the challenges represented, for example, by the thermal renovation of buildings and the development of renewable energies.

3.3. Local governance as a source of rivalry and fragmentation

Finally, local authorities do not present a united front that would enable them to better resist the coalition of “historic Jacobins”. Many different levels of local government are involved in the energy sector, with their own vision and interest. Municipalities, historic players in the field, still retain important responsibilities. Unions of municipalities are also very present in public distribution networks, energy demand management, renewable energies and electromobility (Boyer, 2019). *Départements* keep some duties, in particular with regard to fuel poverty. Finally, *régions* have emerged as new actors in the fields of climate, air quality, energy and sustainable development. The table in figure 2, which summarizes the jurisdictions of local authorities, to which should be added “voluntary” interventions, clearly illustrates this multiplication of levels of government. From this point of view, energy does not differ from other areas of public action in France, being characterized by an “institutional mille-feuille” which, although it may have benefits (different levels and resources can be activated by local actors wishing to tackle energy-climate issues), does not always make these interventions legible or coherent. It gives rise, in particular, to problems of competition or institutional articulation that contribute, in a way, to maintaining a centralized model.

A first example is the public distribution of electricity, one of the most important responsibilities of local authorities in the regulation of energy system (see section 1). In this field, municipalities are the organizing authorities for networks managed by operators, whether local or, more generally, national (Enedis, a subsidiary of EDF). Few have retained this function, which has been transferred either to departmental-sized unions of municipalities, mixing rural and urban communes (on a voluntary basis), or to large

²⁶ “Les collectivités vont-elles enfin bénéficier des recettes de la taxe carbone ?”, *Actu Environnement*, 19 June 2018. Available at: https://www.actu-environnement.com/ae/newsletter/newsletter_quotidienne.php?id=2095 (Accessed: 25 March 2020). “Les collectivités invitent le gouvernement à travailler sur la redistribution de la TICPE”, *Environnement Magazine*, 19 June 2018. Available at: <https://www.environnement-magazine.fr/territoires/article/2018/06/19/119729/les-collectivites-invitent-gouvernement-travailler-sur-redistribution-ticpe> (Accessed: 25 March 2020).

²⁷ “Contribution énergie climat : les territoires vont-ils obtenir gain de cause ?”, *La Gazette des communes*, 13 July 2018. Available at: <https://www.lagazettedescommunes.com/573561/contribution-energie-climat-les-territoires-vont-ils-obtenir-gain-de-cause/> (Accessed: 25 March 2020). Questioned a few months later by Senator Guillaume Gontard, Agnès Pannier-Runacher, Secretary of State to the Minister of the Economy and Finance, simply eluded the subject. Available at: <https://www.senat.fr/questions/base/2018/qSEQ18110535S.html> (Accessed: 25 March 2020).

²⁸ Testimony collected during a meeting organized by the association Amorce (which namely defends the interests of heating networks) about SRADDET and PCAETs (9 March 2018).

metropolises (a process made compulsory by the MAPTAM and NOTRe laws). Given the financial and public policy stakes that distribution infrastructure represents for these two types of local actors, this transfer gives rise to forms of competition that play in favour of the “historic Jacobins”, who can rely on this rivalry to maintain their power (Poupeau, 2020b).

Figure n°2. *The jurisdictions of the French territorial collectivities in energy-climate*²⁹

	Climat related jurisdictions	Production and distribution of energy		Energy demand management	
Région	Leader (<i>chef de file</i>) “Climate, air quality, energy and sustainable development of the territory” Planning for economic development, transport, climate, air energy and biodiversity (SRADDET) Agriculture (management of European funds)	Crowdfunding	Develop distribution networks Operate a renewable energy production facility	Regional biomass and wind schemes	Public service of energy efficiency Coordination of territorial platforms for energy renovation
Département	Roads (<i>départementales</i>) Middle schools Transport of handicapped children		Energy distribution organizing authority (AODE)	Third party financing	Leader (<i>chef de file</i>) “Fuel poverty”
Établissement public de coopération intercommunale (municipal grouping)	Leader (<i>chef de file</i>) “Sustainable mobility and air quality” Development of several planning documents (PLU(I), PDU(I), PLH, SCoT ³⁰ , PCAET)				Coordinator of the energy transition Management of energy renovation platforms
Commune (municipality)	Leader (<i>chef de file</i>) “Sustainable mobility and air quality” Roads				Building permit

²⁹ Source: Réseau action climat, “Nouvelles compétences climat-énergie des collectivités territoriales”, May 2016, p. 34 (according to a table from the French Ministry of the Interior).

³⁰ PLU(I): Plan local d’urbanisme (intercommunal); PDU(I): Plan de déplacement urbain (intercommunal); PLH: Programme local de l’habitat; SCoT: Schéma de cohérence territoriale.

Energy-climate planning also illustrates the effects of this multiplication of local interventions. It shows not so much competition phenomena (even if there may be some) but rather difficult coordination between policies carried out by *régions* (through SRADDETs) and intercommunalities (through PCAETs). Although *régions* are supposed to build their SRADDETs with other local authorities (including intercommunalities), although the PCAETs must be compatible with these SRADDETs, research conducted on the subject shows a problematic articulation (Dégremont, 2018; Briday, 2020). It concerns not only the preparation of these strategic documents but also their implementation since *régions* cannot legally impose financial burdens on local authorities that would result from their own choices.

CONCLUSION

In this chapter, we have tried to provide an overview of local authorities' energy intervention. This is not an easy exercise, since energy is used in many areas of daily life and is involved in a large range of public policies. Consequently, the analysis of decentralization issues can give rise to very different interpretations. For some, based on the observations they can make in a few fields, the multiplication of local initiatives illustrates a break with the French historical model, marked by centralization. For others, who are interested, for example, in the organization of energy markets, the limited nature of local powers will be analyzed as a sign of continuity. It is thus difficult to draw a conclusion on the changes underway, especially in the digital age, which has not yet produced its effects and could make the general picture that we can draw a little more complex.

Despite these uncertainties, it seems to us that the decentralization of the French energy sector is still in its early stages. We have discussed the main reasons for this. The first one is political and institutional since the dominant energy coalition is still very much in favor of centralization and does not seem to be really challenged, at least in the short term. The second reason is financial, insofar as local authorities still have little room for maneuver, being caught up in a system of resource allocation - not specific to energy - which strongly constraints them. The third main reason is specific to the local governance of energy issues and the multiplication of actors that can hardly articulate their intervention in order to offer a "united front" against the advocates of centralization. These are as many reasons - to which one could add others - that invite a cautious reading of the current transformations, the term "local involvement" being, at this stage, more relevant than "decentralization" to describe the situation.

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