

Chapter 5

Wind Power Landscapes in France: Landscape and Energy Decentralization

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Abstract In 2000, at the dawn of the adoption of the EU Directive on renewable energy, a green-red alliance opened a political window for the emergence of a genuine wind power policy in France. Yet today, after more than 10 years of one of the highest feed-in tariffs in the world, the installed capacity in France is still low. Wind power, if it is to be developed at any significant level, has to fight against the centralization of both French energy policy and landscape protection. In this context, the landscape processes, which take place when wind power is either planned or sited at the local level through open governance, are places and occasions for institutional and social innovation that contribute to building decentralization. This chapter examines the ways in which wind power development has raised tensions over the centralization of both energy and landscape policy in France.

Keywords Wind power development • Landscape policy • Energy policy • Decentralization • France

5.1 Introduction

The Kyoto process and the works of the Intergovernmental Panel on Climate Change (IPCC) have progressively made the world aware of the fact of anthropogenic global warming with its likely major economic and social consequences (GIEC 2007).

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Business as usual and adaptation scenarios are numerous and debated. However, all of this points to key trends, including the necessity of limiting growth in energy demand and of diversifying the energy mix (EREC and Greenpeace 2007; AIE 2007, 2008). The development of renewable energies is supposed to be part of this diversification.

Because of their decentralized nature, these energies (wind, solar, marine energy, biofuels) generate multiple and perceptible links to energy resources. They induce a recomposition of the socio-technical link to these resources. They contribute to raising awareness of the consequences of our energy demand, including its impact on the environment. They face policy makers with energy and spatial issues, calling for reconsideration of our relation to landscape.

Wind power policy is a case in point. Because of their scale and physical presence, wind turbines generate considerable landscape transformations, which invite us to reconsider the ways in which we experience and represent landscapes. The detailed examination of planning and/or siting processes of new energies introduces a better understanding of the social processes that underlay the emergence of new “energy landscapes.” It also casts a new light on the ongoing liberalization of the energy sector in the European Union, which frames renewable energy policies in the different member states.

This paper focuses on landscape mutations in France and on their link to the liberalization of the energy sector. We argue that, in France, wind power development faces policy makers with the issue of decentralizing both energy policy and landscape policy. The paper proceeds in three steps. First we analyze the recent development of French wind power policy and point to the difficulty for French institutions of transferring decision power regarding the approval of wind power projects and their spatial planning from state to non-state actors and from the center to the periphery (decentralization) (Sect. 5.2). We then turn to examining landscape as a key dimension of all wind power projects. We discuss the capacity of the French administrative tradition of landscapes protection – a formal, visual, and centralized tradition, which we call the “State landscape” – to regulate the development and the presence of wind power in the landscape (Sect. 5.3). Finally, based on the results of two case studies, we show that the ongoing energy decentralization in France, however uncertain it may be, calls for a decentralization of the policy of landscape protection (Sect. 5.4).

5.2 Wind Power and Energy Decentralization

Since the end of the 1990s, the European Union has provided energy and climate policies with an unprecedented regulatory basis. Within nearly a decade, a set of directives and texts – White Paper (UE 1997), European Climate Change Program (UE 2000b), Renewable Electricity Directive (UE 2001), Biofuels Directive (UE 2003), Renewable Energy Directive (UE 2009a), and Third Energy Package “3 × 20” – have punctuated a progressive transition from voluntary targets and a

sectorial approach to renewable energy provision (i.e., electricity, biofuels) toward compulsory requirements and a more integrated approach (e.g., renewable energies, energy demand). In this process, the link between energy and climate policy has grown stronger. Energy policies have also been articulated with a territorial dimension, as illustrated by the action plan model attached to the 2009 Renewable Energy Directive (UE 2009b).

In gradually implementing this regulatory framework, France has profoundly modified its energy sector. It unbundled its former monopoly and separated electricity production from grid management activities (creation of the Réseau de Transport d'Electricité – RTE). It initiated a diversification of its electricity mix by adopting a feed-in tariffs for renewable electricity (FR 2000), reforming its energy policy programming law (POPE law) (FR 2005, 2009a, b) and establishing the Grenelle Environment Forum (COMOP 2007; FR 2008, 2009c, d). These changes resulted in a twofold increase in the production of the renewable energies (continuing wind power, supporting solar PV, and creating new incentives for biomass). This development of renewable energies was supported by “sectorial” energy policies (feed-in tariffs for wind power, then solar) and progressively integrated into a purported process of “high environmental quality.” These developments marked a cultural shift regarding a kind of management that was traditionally centralized and organized around the choice of nuclear energy. To that extent, they reflect the gradual emergence of a decentralized energy policy and raise the issue of its territorial governance.

The conditions under which of French wind power policy has emerged since the mid-1990s demonstrate the influence of decentralization issues. After some years of trifling wind power development under a system of public tenders (“Eole 2005” 1995–2000), France has gradually changed its national policy framework for feed-in tariffs (December 2000) (FR 2000) and wind power development zones (adoption July 2005, applicable July 2007) (FR 2005). This new framework paved the way for the progressive takeoff of wind power in France. In 2012, the national installed capacity amounted to 4.6 GW. But the adoption of this policy framework triggered a genuine controversy. During the parliamentary debate leading to the adoption of the French Energy Policy Programming Law (POPE), wind power, whose contribution to the French energy mix was infinitesimal, suddenly became a national issue and the object of real debate. National media pointed to “*éolicide*” (literally “wind power eradicating”) amendments. Landscape issues and local opposition were invoked in order to justify the need for State coordination. Detailed analysis of this debate, however, shows that the political battle was fought over the decentralization of the French energy policy (Nadaï 2007a, b): who in the central government, the regions, the departments or the municipalities¹ could or should allow the installation

¹ The French levels of governance do not overlap with the ones usually covered by English terminology. For the sake of simplicity, we use a terminology based on an international description of the French administrative organization (OECD 2006): community or municipality(ies) refers to the French “commune” or “municipalité,” an entity more or less corresponding to the English parish or local government, albeit it is not a governmental administration in France (their elected

of wind farms? The battle was fought by manipulating a set of regulatory variables such as the size of wind power parks (through power threshold for the benefit of fixed tariff), the institutional allocation of decision-making power (state or non-state institutions), the territorial scale for decision-making (national, regional, departmental, or local), and the public control over wind power development (e.g., veto or consultative power of local commissions and height/power trigger thresholds for the study of impact and public inquiries). Two parliamentary readings failed to reconcile the diverging viewpoints. The successive proposals ranged from full delegation of wind power policy to local municipalities (full decentralization) to central State control through rational planning tools (full centralization). A joint committee ensued and developed a compromise. The new device, wind power development zones (WPDZs), allowed municipalities and/or intercommunalities to join together and devise zones in which they thought wind farms could be developed. WPDZ should be submitted for administrative authorization to the local representative of the State: the department prefect. Wind farms located in approved WPDZ could benefit from the fixed tariff.

In principle, WPDZ aimed at offsetting the lack of planning framework that had existed since the adoption of feed-in tariffs (in 2000). They aimed at renewing the territorialization of wind farms. Their devising should take into account issues of connection to the grid, environment, and landscape. They appear as a device open to non-state actors, which increases the chances to take local and territorial issues into account. Unlike the German or Danish wind power zones, however, French WPDZ are not planning zones per se but electric contracts that then become planning incentives. They are not translated into urban planning documents (a process which would have involved town councils), and wind power projects do not have to be located in a WPDZ in order to be granted a construction permit: only tariff benefit is conditional to siting in a WPDZ. As such, the WPDZs look like a French exception, evidence of a thwarted decentralization and a decentering of energy policy that is symptomatic of the ambivalence found in French political circles and institutions when it comes to the development of (decentralized) renewable energies.

The actual time lag between the adoption of the feed-in tariff (2000) and the implementation of the first WPDZ (2007) implied a “backward planning process” symptomatic of the difficulty besetting French politics with respect to decentralizing the wind power policy and managing the politicization of wind power. Between 2000 and 2007, the task was extremely difficult for local state services, local authorities, and local populations: very few turbines were installed in the country, and the feed-in tariff was being implemented in the absence of any planning framework.

representatives are mayors or local councilors); “intercommunality(ies)” to a group of communities structured as a territorial entity so as jointly to organize public services such as waste management, public transportation, etc.; “department” to the French “département,” a subregional administrative division; “region” to the French “région”; “central/national government or State” to the central administration; and “ministerial fields services” to the regional offices of departments/ministries (region and department prefects are local representatives of the State).

Developers prospected rural communities in search of windy sites and the agreement of mayors or farmers in exchange for promises of financial returns (wind power tax, property incomes). Local state services were at a loss to regulate the rising number of project proposals. The French government continued to announce rising national wind power objectives to the European Union, but developed only very gradually siting or planning tools, such as building permits, impact studies, or good practices. These tools supported local state services in project appraisal, but they did not really help to address issues of territorial planning and local politics. Over the period 2000–2007, in the absence of a national doctrine, local state services (DDE, DIREN, DRIRE, SDAP²) started to take the initiative. Many of them formed ad hoc inter-administrative platforms in order to face collectively the wave of projects submitted for administrative approval. They began to experiment. This included the devising of wind power plans aimed at regulating the territorial distribution of wind farms. About 46 of these were developed over this period by regions, departments, and other territorial entities. They mainly took the form of standard sieve mapping exercises. The zoning approach prevailed, derived from the accumulation of regulatory constraints (protected landscapes, heritage, flora and fauna issues, co-visibility with axis of transit). The resulting maps targeted wind power development toward less protected and allegedly less qualified areas, without implementing any coherent principle of densification.

In 2007, as WPDZ came into force, a large number of wind farms were already installed. As a consequence, many WPDZ were just “project WPDZ”: they consisted in recycling impact studies that had been devised for project development without any planning dimension.

In the French context, the difficulty in decentralizing energy policy has led to a backward process: feed-in tariffs were implemented before any planning framework was adopted. In the interval, in the absence of clear national framework, local administrations and communities have had to find their own approach to wind power planning.

5.3 Wind Power and the Landscape Process

To a certain extent, the process of developing a wind farm is akin to a landscape process. A wind power project takes place in a site; the materiality and the scale of wind turbines become part of the landscape and raise the question of the becoming of this landscape. Wind power thus becomes a prism through which the landscape is reinterpreted. Often the development of a wind power project triggers collective mobilization. Landscape emerges as a public concern and a shared issue, notably when debating the siting of the project. In this process, landscape is a category that

²The departmental service of infrastructures; the Regional Environmental Field Service (DIREN); the Regional Industry, Research and Environment service (DRIRE); and the Departmental Service of Architecture and Heritage (SDAP), respectively.

also allows the parties to debate about shared values and local or regional identity. In France, such a debate also addresses the capacity of the French state to endorse the mission of protecting the national heritage.

The French context is characterized by a strong tension with regard to landscape issues. The debate on landscape was reopened during the 1980s. It was nurtured during the 1980s and 1990s by interdisciplinary forums, including philosophers, senior officials, and social scientists (Chabason 1995; Dagognet et al. 1982). These forums pointed out the lack of coherence between economic development and land planning. At a time when environmental issues were coming to the forefront and French environmental policy was emerging, they argued for a genuine landscape approach and policy, distinct from environmental policy. Environment, they argued, is a natural asset, relevant to protection policy. In distinction to environment, landscape is a cultural asset, emerging in artistic representations of the land (Roger 1997). While historically the vedutas were the first representations of landscape, artistic representations were the origin of its force and evolution. Hence, landscape should not be subjected to preservation.

Later, critics pointed out the limits of anchoring landscape in cultural representation and separating it from the land and the environment (Berque 2005; Dewitte 2001; Hirsch and O'Hanlon 1995; Nadaï 2007a, b). They gradually focused on the political dimension of landscape, seen as a collective project and process. They directed attention to the practices that underlay the production of landscape and their tense relation with heritage and protection practices (Trom 1996; Besse 2001; Dewarrat et al. 2003; Nadaï 2005; Pousin 2001). This shift from protection to project has become a key issue, both practical and political, with France joining the European Landscape Convention or ELC (UE 2000a). The ELC places the emphasis on everyday landscapes and on a more opened governance of heritage policies; it introduces management and development issues at the heart of landscape policies. Termed "the just landscape" by some analysts, the ELC is seen as an innovative paradigm for landscape policies, which develops the dominant normative approach to landscape toward a more collective management of landscapes (Olwig 2007). In some ways, wind power development provides a testing ground for such views. It calls for evolving the administrative tradition of landscape protection toward a project approach. The French circular which aimed at implementing WPDZ (FR 2006), albeit very general in its guidelines, referred clearly to the ELC and the Aarhus Convention on information and citizen participation.

In practice, however, French wind power policy had to be articulated with a tradition of landscape protection that dates back to the early twentieth century and is deeply rooted in monument heritage. This tradition emphasizes the visual dimension of the landscape and does not easily lend itself to development in the direction of more open governance. Three concepts are at its foundation: "heritage" (i.e., sites and monuments considered as being part of the national "common good"), "co-visibility" (i.e., the visibility of a project from a monument or a protected site), and "surroundings" (i.e., objectified through a geometric zoning, the surroundings conveys the idea that the subjective perception of a monument is dependent on its nearby environment, which must be protected). This tradition constitutes the basis

for what could be called a “state landscape,” that is, an institutional form of landscape objectification which has expanded since the 1970s through a diffuse body of laws in the areas of environment, architecture, and urbanism. This development has led to successive implementations of the notion of surroundings through public easements. The regulatory definition of these different zonings (e.g., ZPPAU, ZPPAUP) has progressively evolved from normative protection to a broader governance and process approach (e.g., specifications, public inquiry, project, and development approach).

Despite this evolution, the legislative package put the emphasis on the visual dimension of the landscape. Landscape concerns are translated as visual relations. Visual relations are formally translated through geometric representation (e.g., zoning, easements) in a 2D space: the plan. This chain of translations paves the way for a governance of landscape concerns that relies on a geometric encoding of sight. In the plan, geometric lines are endowed with the weight of law. They divide space and create subareas in which specific administrative field services, such as the ones in charge of heritage and landscape, are vested with a power of veto in permitting proceedings. When it does not translate into a formal power of veto, this state perspective on the landscape leans on the notion of co-visibility in order to objectify the surroundings and bring it into existence as part of the landscape: “It is a matter of sight. From the monument, we look at what’s happening around it, and from the surroundings, we look at what’s happening to the monument; it works together... a jewel and its case.” The translation of this visual approach into a plan is fundamentally concentric: perimeters, circles, or radiuses take heritage elements as their point of origin. The plan aims at endowing a visual geometry with the power to ground administrative decisions about landscape protection: “we see or we don’t see.” The geometry on which decisions are based, however, acquires political relevance only if it fits the specific situation it is supposed to translate and regulate.

This “state landscape” that consists of numerous concentric figures expresses the state’s normative power. It is recomposed by the emergence of wind power, because wind turbines give rise to far-reaching co-visibilitys with numerous heritage elements and connect these concentric figures. As a result, the process of decentralization induced by wind power development and thwarted in the arena of energy policy finds a new testing ground for governance of the landscape. In other words, France cannot jointly support landscape policy and wind power policy without challenging the former because of the new visual relations generated by the latter.

5.4 Energy Decentralization and Landscape Decentralization

The issues raised by the development of wind power highlight the necessity to envision more positively the creation of new landscapes. In order to do so, the French tradition of landscape protection, centered in the management of impacts, should move toward a project approach. Landscape governance should not remain restricted to the management of the physical dimension of the space, but should look for ways

of sustaining the necessary social changes that underlie the composition of shared wind power landscapes.

As witnessed by local case studies, the situation became critical in the period between the adoption of feed-in tariffs (June 2001) and the first WPDZ (July 2007) when no alternative to the “state landscape” was proposed. Many French departments developed their own wind power plan. They proceeded through trial and error, sometimes in conjunction with the implementation of WPDZ. Some cases of an innovative planning approach provided a framework within which new practices and ways of representing the landscape emerged, as in the Narbonnaise, the Aveyron, and the Eure-et-Loir (Nadaï and Labussière 2009, 2010, 2013, 2015).

These case studies illustrate the capacity of planning processes to put on hold the administrative zonings and the visual norms in order to devise new landscape categories, consistent with natural entities and more reflective of the ways in which daily landscapes are perceived and practiced (Nadaï 2009; Labussière 2010). These developments certainly create tensions, but they are illustrative of decentralization in the making. In the following, we develop two of illustrations.

5.4.1 Shifting from the Cathedral to Wind Power Landscapes

The first case study deals with wind power development in the Eure-et-Loir (Nadaï and Labussière 2015). This department is characterized by the presence of open fields, Chartres Cathedral, and one of the largest installed wind power capacities in France (444 MW approved in 2007, 705 MW in 2013). This case study shows how the presence of wind power can profoundly challenge a visual tradition of landscape protection and induce civil servants to revise their approach to landscape, potentially opening it to the creation of new aesthetic codes.

The land is covered, owned, and managed by industrial farmers. Interviews with various actors in this area bore witness to a conception of wind power as an affair of private business. Wind power projects allegedly (exclusively) concerned land and turbine owners: farmers and private wind power developers. There is no opposition to wind power, even in the most densely equipped areas. In other words, landscape did not seem to raise a public issue, except for the administration.

The French approach to landscape protection has long been centered in and operated from heritage elements and landmarks. In the Eure-et-Loir, this translated into landscape policy mainly remaining concerned with the views from and to Chartres Cathedral, a monument classified as part of the UNESCO world heritage.

In 2005, the first cartographic representation presented the cathedral in the form of geometric cones radiating into the countryside and supposed to map areas of visual protection (no wind power development in these cones). In practice, the proliferation of industrial wind turbines generated such a web of far-reaching visual relations in the countryside, and with existing monuments, that traditional landscape protection became unmanageable and forced the administration, so to say, to call it quits with the cathedral and decentralize its viewpoint.

This enticed civil servants to engage in fieldwork so as to develop a situated experience of the presence of the turbine and sharpen a definition of emerging landscape entities. Progressively, the perception of landscape relations and the language of sensation came to relay the traditional “perimeters of visual protection” in the approach to landscape protection. Fieldwork and perceptual experience in the form of a smooth space opened the administration to a relational perspective on the wind power landscape and laid the foundations for new landscape categories (e.g., “traditional” and “wind power” Beauce landscape) and new aesthetic codes.

These categories and codes underlay the devising of a new wind power plan. New cartographic forms such as “wind power basins” and “breathing spaces” were substituted for traditional protection perimeters and testified to the role of new landscape sensations such as visual density and visual relief in the landscape planning approach. This relational perspective on landscape restored the ability of the administration to have a say on wind power development and pursue its mission of preserving the landscape as a public good. Nevertheless, this second-generation plan is not radically innovative, since it still keeps the public at a distance: no public consultation on these new orientations has been undertaken, and the administration is not listening to the particular concerns of the population about the landscape. In this context, the socio-geographical configuration shaped by a market-driven farming seems to be suitable for a capitalistic wind power development model.

5.4.2 *Thinking Like a Massif*

Aveyron (southwest France) is one of the windiest French departments. Wind power development started in Aveyron in 1999. No wind power planning whatever was in place at that time. In order to cope with the increasing number of projects submitted for approval, the local administration decided to set up an interservices platform (in 2000) and start devising a planning scheme. At that time, the Parc Naturel Régional des Grands Causses (PNRGC), a non-state actor, suggested approaching wind power planning on the scale of the “massifs.” The suggestion was that massif entities offered a framework that was more compatible with collective action—local mayors could collaborate in planning wind power—and made it possible to better take into account issues of landscape (far-reaching co-visibility) and proximity. In 2000, the idea was discarded by the prefecture as being too complicated, because massifs overlapped administrative divides. The local administration set aside this territorial approach due to the lack of landscape analysis to objectify the massif entities.

The outcome was a first wind power planning scheme, issued in 2005. The approach translated wind power issues into zoning through several operations: the definition of landscape “types” based on morphology and heritage values, the mapping of regulatory constraints, and the addition of buffer zones so as to compensate for regulatory insufficiencies in the face of the exceptionally far-reaching co-visibility imposed by industrial wind turbines. This gradual shift from a qualitative

landscape issue to a zoning logic (favorable, unfavorable, or negative) certainly answered to the need of administrative instructors for rationality and objectivity in the face of pressure coming from wind power developers (Nadaï and Labussière 2009).

Inside the favorable zones, the development was left unplanned, and the pressure for project development was not really regulated. As the local administration was not used to communicate figures about projects under consideration (accepted, under acceptance, refused), word of mouth made up for the lack of information. Residents of a hamlet in the massif of Lézérou started to go door-to-door in order to cross-reference information. By doing so, they joined private concerns to a network covering the whole massif, in which they counted more than 200 wind turbines under consideration. In other words, wind power development was reaching a tipping point and compromising the entire Lézérou massif. In order to structure resistance against wind power, the residents created a league (“Levezou in Peril”) that tied together threads (heritage, proximity landscape, etc.) which were kept separated by the administration. Thus, local opposition endowed massif entities with a political existence. It politicized massifs in the center and the south of Aveyron in a new relational mode and reconfigured the access to wind power deployment. At the same time, landscape protection was being confronted by the limits of the first wind power plan (e.g., co-visibility between protected and authorized zones, obsolescence of landscape choices in the face of the rapid technological development of wind energy).

In 2006, WPDZ had just entered into its implementation phase at the national level and provided the local administration with the legitimacy to revise the existing power plan. The Aveyron prefect was replaced. The new prefect imposed a temporary moratorium on wind power permits until all WPDZ would be turned into the administration by intercommunalities. New wind power basins were designed by coordinating the WPDZ processes on the scale of the massifs. Massifs, as landscape entities, were thus endowed with a political and relational existence. They provided an alternative weave, allowing the administration and the local actors to mend the “holes” of the previous plan (i.e., “free” blank zones) and to embroider enlarged wind power zones. This second-generation plan did not fully depart from the initial one but rather took advantage of a new relational approach (i.e., massifs) as a transitional logic geared to more open wind power governance.

The PNRGC supported intercommunalities in this process through funding a landscape architect, provided they conformed to good practices in the devising of WPDZ (e.g., coordination on a massif scale, concerted decision process with local inhabitants). The process, which is still going on, has highlighted the unexpected potential of highlands (former commons used for grazing in the nineteenth century) at the other end of the massifs. The situation of these highlands limits the co-visibility between the wind farms and the villages. Their status makes it easier for communities to share the financial benefits from wind power. In this way, massif entities (i.e., relational, concerted, and convenient) illustrate how a planning approach can reactivate inherited socio-geographical configurations so as to foster the emergence of locally shared wind power potential.

5.5 Conclusion

Wind power development raises landscape issues in several European countries (Nadaï and van der Horst 2009, 2010). In the case of France, we have underlined the links between the process of decentralizing energy policy and that of decentralizing landscape policy – both triggered and intertwined by the wind power development.

As Paul Selman (2010) has said in a recent contribution, after railways and industry in the nineteenth and twentieth centuries, energy could become a major factor in the evolution of landscapes in the twenty-first century. The changes brought by the Industrial Revolution occurred on relatively long time scale; cultural changes, including the slow emergence of new aesthetic codes, could take place progressively. By contrast, the climate change imperatively calls for faster and probably just as radical changes in our landscapes. It is therefore necessary to understand these changes in order to translate them into politics.

Wind power is currently the most mature of the new energy technologies. It is certainly part of the energy transition, but its contribution to it is also limited for various reasons (e.g., performance, variability, etc.). This contribution will greatly depend on the collective ability to regulate energy demand. The issues raised by wind power development might be reflective of upcoming challenges in the energy transition. As such, wind power could become a testing ground for our capacity to decentralize landscape and energy governance so as to take better account of the issues that will surely be raised by other new energy technologies.

The technological dream of an “a-social” power generation technology, leaving us untouched and unchanged, resembles the Arcadian landscape: it is a utopia. It does not exempt us from the social and political work necessary to renew our relationship with energy.

References

- AIE (2007) Renewables in global energy supply. AIE, Paris
- AIE (2008) Energy technology perspectives. Scenarios and strategies to 2050. AIE, Paris
- Berque A (2005) De paysage en outre-pays. In: Roger A (ed) *La théorie du paysage en France (1974–1994)*. Champ Vallon, Seyssel, pp 346–360
- Besse J-M (2001) Cartographie, construire, inventer: notes pour une épistémologie de la démarche de projet. *Carnets du Paysage* n°7 7:127–145
- Chabason L (1995) Pour une Politique du Paysage (entretien avec Odile Marcel). In: Roger A (ed) *La théorie du paysage en France (1974–1994)*. Champ Vallon, Seyssel, pp 260–272
- COMOP (2007) COMOP10, Plan de développement des EnR à haute qualité environnementale, rapport à Borloo J-L. Paris
- Dagognet F, Guéry F, Marcel O (eds) (1982) *Mort du paysage ? Philosophie et esthétique du paysage*. Champ Vallon, Seyssel
- Dewarrat J-P, Quincerot R, Weil M, Woeffray B (2003) *Paysages ordinaires: de la protection au projet*. Mardaga, Sprimont
- Dewitte J (2001) Pays paysage: à propos d’une difficulté théorique de l’artialisation. In: Chenet F, Collot M, Saint-Girons B (eds) *Le paysage, état des lieux*. Ousia, Bruxelles, pp 419–440

- EREC, Greenpeace International (2007) *Energy [r]evolution. A sustainable global energy outlook*. EREC and Greenpeace International, Bruxelles
- FR (2000) Loi n°2000-108 du 10 février 2000 relative à la modernisation et au développement du service public de l'électricité. Paris
- FR (2005) Loi n° 2005-781 du 13 juillet 2005 de programme fixant les orientations de la politique énergétique, JO n° 163 du 14 juillet 2005:11570
- FR (2006) Dispositions relatives à la création des zones de développement de l'éolien terrestre, circulaire du 19 juin 2006, ministère de l'Environnement. Paris
- FR (2008) Plan national de développement des énergies renouvelables de la France, ministère de l'Écologie, de l'Énergie, du Développement durable et de l'Aménagement du territoire, 17 novembre 2008. Paris
- FR (2009a) Circulaire du 23 mars 2009 relative à la territorialisation de la mise en œuvre du Grenelle de l'environnement. Paris
- FR (2009b) Circulaire du 19 mai 2009 relative à la planification du développement de l'énergie éolienne terrestre adressée par la Direction de l'énergie et du climat. Paris
- FR (2009c) Loi «Grenelle I» n°2009-967 du 3 août 2009 de programmation relative à la mise en œuvre du Grenelle de l'environnement. Paris
- FR (2009d) Projet de loi «Grenelle II» portant engagement national pour l'environnement, 155, déposé le 12 janvier. Paris
- GIEC (2007) *Changements climatiques, rapport de synthèse*. Genève
- Hirsch E, O'Hanlon M (1995) *The anthropology of landscape: perspectives on place and space*. Clarendon Press, Oxford
- Labussière O (2010) Éléments pour une prospective du milieu. L'enjeu du sensible en aménagement. *Cahiers de géographie du Québec* 54(153):499-515
- Nadaï A (2005) Site: La fabrication du paysage. In: Rémy E et al (eds) *Espaces, savoirs, incertitudes*. Ibis Press, Paris
- Nadaï A (2007a) 'Planning', 'siting' and the local acceptance of wind power: some lessons from the French case. *Energy Policy* 35(5):2715-2726
- Nadaï A (2007b) Degré zéro: portée et limites de la théorie de l'artialisation dans la perspective d'une politique du paysage. *Cahiers de géographie du Québec* 51(144):333-343
- Nadaï A (2009) 'Innovative' wind power planning. *Plann Theory Pract* 10(4):543-547
- Nadaï A, Labussière O (2009) Wind power planning in France (Aveyron): from State regulation to local experimentation. *Land Use Policy* 26(3):744-754
- Nadaï A, Labussière O (2010) Birds, turbines and the making of wind power landscape in South France (Aude). *Landsc Res* 35(2):209-233
- Nadaï A, Labussière O (2013) Playing with the line, channeling multiplicity. *Windpower planning in the Narbonnaise (France, Aude)*. *Environ Plann D* 31(1):116-139
- Nadaï A, Labussière O (2015) Planning wind power, re-inventing the visual landscape (Eure-et-Loir, France). *Landsc Res* 40(1):76-98
- Nadaï A, van der Horst D (2009) Wind power planning, landscapes and publics (Guest editorial). *Land Use Policy* 27(2):181-184
- Nadaï A, van der Horst D (2010) Introduction: landscapes of energies (Guest editorial). *Landsc Res* 35(2):143-155
- OECD (2006) *Territorial review of France*. OECD Publishing, Paris
- Olwig K (2007) The practice of landscape 'Conventions' and the just landscape: the case of the European Landscape Convention. *Landsc Res* 32(5):579-594
- Pousin N (2001) *Autour du projet : Repère pour un débat*. Carnets du Paysage n°7 7:59-63
- Roger A (1997) *Court traité du paysage*. Gallimard, Paris
- Selman P (2010) Learning to love the landscapes of carbon-neutrality. *Landsc Res* 35(2):157-171
- Trom D (1996) *La production politique du paysage: éléments pour une interprétation des pratiques ordinaires de patrimonialisation de la nature en Allemagne et en France*. Thèse de doctorat, Institut d'études politiques de Paris

- UE (1997) Commission européenne, *Énergie pour l'avenir: les sources d'énergie renouvelables - Livre blanc établissant une stratégie et un plan d'action communautaires*, COM (97) 599 du 26.11.1997. Bruxelles
- UE (2000a) Conseil de l'Europe, *Convention européenne du paysage*. Florence, Strasbourg
- UE (2000b) Commission Européenne. *Communication concernant les politiques et mesures proposées par l'UE pour réduire les émissions de gaz à effet de serre: vers un programme européen sur le changement climatique (PECC)*
- UE (2001) Commission européenne, *Directive 2001/77/CE du Parlement européen et du Conseil du 27 septembre 2001 relative à la promotion de l'électricité produite à partir de sources d'énergie renouvelables sur le marché intérieur de l'électricité*. Bruxelles
- UE (2003) Commission européenne, *Directive 2003/30/CE du Parlement européen et du Conseil du 8 mai 2003 visant à promouvoir l'utilisation des biocarburants ou autres carburants renouvelables dans les transports*. Bruxelles
- UE (2009a) Commission européenne, *Directive 2009/28/CE du Parlement européen et du Conseil du 23 avril 2009 relative à la promotion de l'utilisation de l'énergie produite à partir de sources renouvelables [modifiant et abrogeant les directives 2001/77/CE et 2003/30/CE]*. Bruxelles
- UE (2009b) Commission européenne, *Décision de la commission du 30 juin 2009 établissant un modèle pour les plans d'action nationaux en matière d'énergies renouvelables conformément à la directive 2009/28/CE du Parlement européen et du Conseil*. Bruxelles