

# Wind power planning in France (Aveyron), from State regulation to local planning

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## Abstract

Since a few years, French wind power has undertaken an unprecedented development. Few turbines are in place (756 MW), but the overall granted capacity amounts to about 2.7 GW. The administrative territory of Aveyron, one of the best wind power potential in the Country, is an interesting case for understanding the ways in which industrial wind power is being developed and regulated in France. The paper presents Aveyron wind power development by dividing it into three periods. For each period, we also sketch national developments in wind power policy.

Between 1996 and 2000, Aveyron was one of the few places selected for developing wind parks under the French "Eole 2005" call for tender.

Between 2000 and 2005, French regulation shifted to fixed tariffs for small wind parks (less than 12 MW). The lack of planning approach provided developers with a window for profits. Numerous projects of small parks were submitted for development authorisation, overflowing the local administration. During the year of 2003, a new law on urbanism provided some rules for individual project developments without answering the key issue of territorial planning. In Aveyron, a local scheme devised by the decentralized branches of the State had a limited reach due to the lack of mandatory status and concertation.

In July 2005, a new Energy Law imposed the design of Wind Power Development Zones (WPDZ) as a condition for tariff benefit (starting July 2007). WPDZ appeared to local actors as a promising tool but it came late. Many projects were already granted with construction permits.

## Introduction

Wind power has only been recently developed in France. Very few turbines are actually in place (756 MW) but the overall granted capacity amounts to about 2.7 GW (Observ'èr, 2006). Two factors largely contributed to its take-off: international commitments, which allowed for a turn in French wind power policy in 2000 (feed-in tariffs); local opposition, which contributed to a shift in the principles underlying French energy planning.

The paper casts French wind power development by tracing it chronologically at two different levels: the national level at which institutions and regulatory tools are adopted; the local level at which such tools are implemented. The local level also is the one at which genuine landscape and acceptance issues are faced. Aveyron, in the South West of France, is the department chosen for this exercise. It is among the best wind potential in France (cf. Figure 1). As is the case at the national level, few wind turbines are actually installed in Aveyron (66 MW) but a significant capacity has been granted with construction permits (186 MW) and the pressure for new developments is still intense.

We suggest that, both at the national and local level, wind power overflows existing institutions, connecting issues and scales that are usually dealt through separate procedures, at different institutional levels or within distinct conceptual frameworks. This is mainly due to a combination of technical characteristics of the object, such as height (connecting territories and actors through co-visibility), intermittency (connecting the wind intermittency with centralized grid management practices) and non-exhaustibility (connecting global and local environmental issues). By doing this, wind power entices actors

to devise inventive solutions, which are able to endorse the role of interface and renew planning practises.

Wind Power Development Zone (WPDZ) seems to be a case in point. It is an original and innovating instrument for local planning included in the new programming law for French energy policy (Ministry of Energy, 2005). It consists of a zoning attached to tariffs benefit, which should be devised by municipalities, preferably at an inter-communal level<sup>1</sup>. WPDZ is still in its infancy but it is expected to fill a gap between national planning (i.e. fulfillment of RES-E targets imposed by the European Directive on renewable energies) and local planning (i.e. concerted decisions on capacity developments and wind turbines siting). At the national level, WPDZ emerged as a compromising solution to unprecedented tension over the decentralization of energy policy during the parliamentary debate on the new energy law. These tensions ensued from acceptance issues over wind power developments, which were relayed by the members of the French Parliament. At the local level, WPDZ is expected to entice local authorities to co-ordinate their development decisions and take account of the territorial / landscape dimension of wind power technology. Yet, as suggested by the case of Aveyron, WPDZ comes late. Many actors have already been granted with construction permits and have incurred irreversible costs to do so. The current limitation in grid capacity has been ignored by the local administration, leading to the delivering of authorizations that exceed the capacity of connection to the grid. As a result, chances are that WPDZ design take place in a context where accumulated lock-in hinder them from playing their planning function.

## 1996 – 2000: Tender or the ambiguity of the French State

### A FRENCH TENDER AS A DIVERSION

In 1996, that is one year after the EU White Paper on Energy Policy had set targets for renewable energies in the EU (12 % of raw energy consumption in 2010), the Danish wind power development was already emerging as an exemplary case (600 MW already in operation in Denmark according to Nielsen [1996]). That same year, the installed wind power capacity in France amounted to about 6 MW (ADEME 2006a), most of them being due to Europe's support to the technology. The discrepancy between France and the other member States was due to a mix of reasons, ranging from a very centralized political culture to a technological and institutional lock-in into nuclear industry.

As far as electricity produced from renewable energies (RES-E) is concerned, the first noticeable regulatory move seems to date from February 1996. Inspired from the UK Non Fossil Fuel Obligation (NFFO), the French Ministry for the Industry decided to launch a tender program named «Eole 2005». Of-

ficially, this program aimed at triggering the development of 250 to 500 MW of wind energy – i.e. several hundreds of wind turbines - by the horizon of 2005. Between 1996 and 1999, two tenders (resp. 50 MW and 100 MW) were issued, leading to the selection of 325 MW (79 MW + 246 MW). However, the actual installed capacity (70 MW as of today) sharply contrasts with the selected one<sup>2</sup>.

Various reasons for failure have been pointed at, such as: the administrative procedures, the “stop and go” regime of the tenders (four successive slots) and their competitive aspect (Cochet Y, 2000). Defenders of wind energy saw in the choice of a tender program the long lasting ambiguity of the French authorities as regards to the development of RES-E technologies. French experts were already advising the French authorities to avoid tender programs and opt for investment subsidies / fixed tariffs (see, for instance, Chabot 1996). Tender programs might also have been avoided on the basis of what was known from the UK NFFO bad performance at that time<sup>3</sup>.

In 1999, the French Ministry of Environment issued a decree explaining to prefects how to ease wind power developments and better take account of public acceptance and environmental issues (Ministry of Environment, 1999). However, most of the projects selected revealed difficult to finance because of cost understatement<sup>4</sup>. New conditions issued at the end of 2000 (about 84 €/MWh for the first five years, 84 to 20 € the following years) were not enough to overcome the obstacle. By that time, the comparative success of countries having implemented tariffs (i.e. Germany 4.44 GW, Denmark 1.76 GW, Spain 1.45 GW compared to UK 0.33 GW or France 0.02 GW<sup>5</sup>) made it clear that tenders were not the best policy instrument to secure a takeoff of wind energy.

By that time, Aveyron had been one of the few places selected for project development under the Eole Program. It would even be one of the very few places in which an Eole project would actually be developed.

### AVEYRON: “EOLE 2005” / THE MERDELOU PROJECT AS A PREMIÈRE AND A PROMISE

Application to the Eole program had to be turned in by wind power developers. Communities wanting to develop such projects had thus to contact developers and proceed through them.

Couffouleux is a small rural village in Aveyron (111 inhabitants). In the mid nineties, the municipality did not benefit from any industrial or commercial revenues. Agriculture was on the decline. In February 1996, the mayor, M. Durand, a former farmer, was looking for ways of reimbursing the debts as he met an engineer from Valorem, a small company working in the field of renewable energies. A Midi-Pyrénées wind potential atlas pointing at the most windy places already had been issued and the region was particularly targeted by developers. The Merdelou site was identified by the Valorem engineer at

1. The French levels of governance do not overlap with the ones usually covered by the Anglo-Saxon terminology. For the sake of simplicity, we use a terminology found in international description of the French administrative organization (OECD, 2006): *Municipality* (French “*commune*” more or less corresponding to the English parish); *Inter-communality* (group of municipalities officially registered); *Department* (sub regional administrative division); *Region* (French *région*); *Central / national government or State* (central administration); *Non central / Sub national government or State* (regional or departmental administration). *Regional and departmental prefects* are local representatives of the State.

2. Source: [http://www.espace-eolien.fr/lille/General/2005\\_gene](http://www.espace-eolien.fr/lille/General/2005_gene).

3. For a discussion of NFFO performance, see: Douglas and Saluja, 1995; Mitchell, 1996; Mitchell and Connor, 2004; Van den Horst, 2005; Agnolucci, 2006.

4. Submitted projects applied as low as 51 /MWh (Cochet, 2000, p 98). As a matter of comparison, in a recent report, that is almost ten years after the Eole tender, the EU Commission evaluates the French long-term minimal marginal generation cost at 50 /MWh (Commission 2005a).

5. As of the end of 1999 (Observ’er, 2000).

the occasion of a field trip. Valorem undertook a study free of charge and convinced the German company Enertrag to finance the project. Faced with a favourable local reaction to the idea of a wind power project, the company checked that there were no major environmental or infrastructure constraints (e.g. airports, radar ...) and that the connection to the grid was easy. It then successfully applied to French tenders so as to set testing polls and obtain funding for a 12 turbine- and 15.6 MW project (October 1997 – November 1999). The Merdelou project was emerging as the biggest French wind project at that time.

In 1999, the development of a wind park was a première for the Aveyron administration. The Midi-Pyrénées prefect (regional prefect) asked the Aveyron prefect (department prefect) to set up an ad hoc commission in order to follow the process. The commission was made up of various branches of the decentralized state administration organized into what had then been called a MISAP. It included prefect services as well as a large panel of department administrations including: agriculture (DDAF), roads and infrastructures (DDE), health and social issues (DDASS), environment (DIREN), industry (DRIRE), architecture and cultural heritage (SDAP). Other entities became associated to the MISAP, such as: civil and military aviation (DAC/Suc; RAM); a Regional Park (PNRGC); the departmental council for architecture, urbanism and environment (CAUE); a local and collectively-owned electricity distributor (SIEDA); the local branch of the national non-profit organization for birds' preservation (LPO) and the regional branch of the National Energy Agency (ADEME). The Aveyron MISAP also being a première, roles and attributions got defined over the course of the work and the DDE (roads and infrastructures administration) progressively endorsed a co-ordinating role<sup>6</sup>.

In May 1999, land agreements for the Merdelou project had been signed without problem. Yet, the mayor of Peux-et-Couffouleux wanted to secure local acceptance and decided to site three turbines on the territory of the adjacent municipality (Brusque). Two months later (July 12, 1999), the public meeting was attended by more than half of the village (56 participants) and people were very supportive of the project. Just a few days before (June 3, 1999), the application for construction permit had been turned in to the administration.

At that time, local administrations did not have to assess the environmental and landscape impact of wind power projects. Nonetheless, the MISAP wanting to secure legitimacy to its advice decided to undertake such an assessment. The DIREN progressively became in charge of environmental issues, covering mostly wildlife and noise issues. In August 1999, the project had already been modified according to a LPO's advice in order to take account of bird's migrations. However, as it progressively appeared that no one in the administration was used to assess the landscape impact of such a project, the MISAP decided to consult a departmental Commission for Sites, Perspective and Landscapes (CSPL), composed in equal part of administrations, municipalities and experts (e.g. associations, professional organizations). CSPL stated against the project based on its vis-

ual impact, as perceived from a neighbouring hill (Bellegarde, south of the site) and on the presence of a protected flower (*Tulipa Australis*). This was enough to make landscape into a central issue. It also provided PNRGC with the opportunity to convince the MISAP of contacting a private landscape company in order to collaborate with the developer on the siting of the turbines. One outcome was to cancel a project of access-road for building vehicles through the forest and substitute it for the enlargement of an existing forestry path. While this was considered by the company as a rather superficial integration of landscape considerations into the project, it made it possible for the MISAP to deliver the construction permit (December 13, 1999). A final appeal by a neighbouring farmer was rejected by the administrative Court in April 2000 and the building works began in July 2001. They ended in June 2002, with the connection to the grid in Lacaune.

Throughout these successive developments, the Merdelou project remained a première for Aveyron wind power development. It was the occasion for the administration to enact innovative planning practices (for France) through the setting up of the MISAP, which was then going to evolve under decisive changes in the national context.

## 2000 – 2005: Tariffs for a playing field

### NATIONAL LEVEL: IN SEARCH FOR WAYS OF DEVELOPING WIND POWER

#### The 2000 French « law of modernization »: a draught-in for turbines

The law of “modernization and development of a public service for electricity” was adopted on February 10, 2000 by the French Parliament as an application of the EU Directive 96/92/CE related to common rules for electricity market (Commission, 1996). The new law was a turning point concerning the liberalization and the diversification of the French energy sector. Its article 10 included the setting up of fixed tariffs for the (mandatory) purchase of wind power electricity by the French producer “Electricité de France” (EDF). Such a turn in French renewable energy policy was allowed by a series of converging factors including French internal politics and contingencies of the EU agenda (Nadaï, 2006).

A few months after the adoption of the French law, two acts of law specified the French tariffs. In December 2000, a decree limited the tariff eligibility to parks under 12 MW of capacity, which amounted to about 6 to 12 turbines at that time (Ministry of Economy, 2000b)<sup>7</sup>. In June 2001, a second text (Ministry of Economy, 2001c) specified the profile of the French tariffs: uniform and stable (i.e. 8,38 cts €) over the first five years, dependant on location and progressively decreasing over the following ten years. In other words, the new rules were setting up a clear incentive for rush at a moment where no planning rules

6. At that time, such an initiative was rather exceptional in France, especially regarding the number and the diversity of the parties involved. Only very windy and early wind power developing regions had set up similar committees before 2003 (e.g. Bretagne, Languedoc-Roussillon ...) They became more common after 2003.

7. The 12 MW cap was a political compromise based on a rather contingent basis. During the first reading (February 18, 1999) of the draft law, several limits were proposed by the members of the National Assembly, ranging from 8 MW to 25 MW. The lowest proposals aimed at limiting EDF expenses as an obligatory purchaser of RES-E. The highest proposals came from defenders of wind power and aimed at fostering its development. Over the course of the debate, M. Pierret, Secretary of Industry, proposed 12 MW as a middle way.

**Table 1: Number of local planning documents (all categories) issued by the regions, departments or other territorial entities per year (publication dates):**

Before 2000	2000	2001-2002	2003	2004	2005	2006
2	3	3	11	10	12	7

or environmental requirements had been set up for project development.

Regions and departments, faced with an increasing pressure from developers, were in need of planning rules. As wind power development started to raise increasing concern (e.g. impact on landscape, impact on birds, noise...) an ad hoc commission nominated by the French Senate proposed rules of urbanism to become the rule for wind power developments and suggested the devising of departmental / interdepartmental planning schemes (Le Grand, 2002). The proposal of law was not developed as such, but inspired legal developments in a related law.

#### **The 2003 French Law on gas and electricity: steps for siting as a patch for planning**

By the year of 2003, wind power developments only fell under the usual law of urbanism (such as urban legal documents, so-called POS or PLU<sup>8</sup>). If not the case, by default rules applied and wind power developments could be considered in any area, especially in those delimited as "agricultural". In January 2003, a new Law on gas and electricity markets (Ministry of Economy, 2003a) clarified this situation by imposing strong procedural steps to wind power development (article 59), namely:

- The implantation of any turbine higher than 12 meter would be submitted to a construction permit,
- Any wind power park development above 2,5 MW would be submitted to a study of impact and, if not the case (< 2.5 MW), to a notice of impact (lighter version of the study),
- Any implantation of turbine higher than 25 meters should be submitted to public inquiry.

Such rules were imposing the three procedures on any wind power development.

The issue of territorial planning had emerged during the debate in the National Assembly but it was not followed upon<sup>9</sup>. Finally, the law encouraged regions to devise wind power development schemes and, in doing so, to take account of department's and local communities' advice. However, these schemes were not made binding by the text. This left the question of planning unsolved, as other documents, especially construction permits, were not reflecting on issues of landscape as raised by wind power developments:

*"With the construction permit, we have to follow the rules [for urbanism] and we have no influence on land planning [...] We cannot say to a developer that we disagree with a place [...] From my point of view [construction permit] is not the most relevant tool [...] it has been conceived for housings [...] but a windmill raises other issues [...]" (Permit instructor, local administration, interview by the authors, August 23, 2006)*

Overall, regions, departments, inter-communalities or PNRs reacted by devising local wind power schemes or charters. These initiatives started quite early over this period and became noticeable by 2003, through the issuing of official documents.<sup>10</sup>

These documents ranged from mere mappings of regulatory or technical constraints (e.g. Special Protection Areas, classified sites or monuments, housing areas, grid connection polls ...) to layered representations of the territory including what was generally called a "sensitive analysis" of the landscape – i.e. an encompassing analysis leading to the distinction between landscape units or entities defined by their physical, ecological, cultural and spatial features. These documents also varied according to the procedure through which they were devised (some documents resulted from administrative or expert, others from concerted decisions) and the production of zoning hierarchies for wind power development (some documents just compiled constraints and landscape qualification, others displayed favourable to unfavourable zones for wind power developments).

In any case, as these schemes were not backed by any legal status, local consensus was the only way to provide them with a *de facto* status and relevance for wind power planning. Aveyron was one of the regions, which engaged quite early in the devising of a scheme.

#### **AVEYRON UNDER DEVELOPERS PRESSURE: THE ADMINISTRATIVE CAPTURE OF A FRAMING SCHEME, VISUAL LANDSCAPE FOR TOURISM**

A "wave of wind projects", such are the terms in which inhabitants, politicians and administrative at the local level express their memory of the period. As a matter of fact, the economic incentive brought up by the 2001 tariff decree enticed the developers to prospect for new sites and multiply the contacts with community mayors or land owners, as witnessed by the high number of permit applications (cf. Table 2).

The growing number of wind power projects under application increased the need for administrative co-ordination at the department level. In 2002, the departmental administration set up a wind power steering committee as a follow up of the former ad hoc MISAP commission. The goal of the Committee was to develop a framing scheme for wind power development.

8. Plan d'Occupation des Sols (POS) are maps displaying land use as legally registered. Plan Local d'Urbanisme (PLU) are a more recent version of these documents including sustainable consideration for the future. When PLU are devised by a community, they replace the old POS.

9. The issue of planning did emerge during the parliamentary debate. For instance, on December 13, 2002, an amendment proposing "[...] a departmental scheme valid for both onshore and offshore spaces" (M. Gaubert, amendment 143) was supported by some members of the Assembly as it could be the occasion for "[...] public collectivities [to] give their opinion". Yet, support was not strong enough so as to permit its adoption by the National Assembly.

10. Source, French ADEME: <http://www2.ademe.fr/servlet/KBaseShow?sort=1&cid=96&m=3&catid=15129>

**Table 2: Projects submitted for construction permit between 1999 and 2005\* (Source DDE 12, Fall 2006)**

Year	1999	2002	2003	2004	2005
Construct. permits (nb)	1	3	8	21	7
Turbines (nb)	12	15	46	90	36
Capacity (MW)	5.6	1.35	82	238	66

**Table 3: Warning index for wind power development (1 low, 2 medium, 3 strong)**

	Plateau with bocage	Plateau of the Grands Causses	Hilly bocage	Woody hills and valleys
Emblematic	Non existent	3	3	3
Remarkable	1	2	2	2
Non characterised	1	1	2	2

First very open as was the MISAP, it progressively focused on the local administration, coordinated by the DDE, for various reasons such as the work load and the legitimacy of decision making:

Formally, the Aveyron wind power scheme has been developed by synthesizing the knowledge brought up by the different parties involved in the new steering committee. Yet, this knowledge was more or less faithfully translated as the DDE synthesized the surveys of the SIEDA, the LPO, and the CAUE.

The SIEDA had undertaken two surveys on wind power development (SIEDA, 2001 and 2002). The thrust of their approach was to map what they called “constraints and sensibilities”. As regards to natural areas, the resulting “constraint” map was based on regulatory or conventional criteria (biotope protection areas, Natura 2000 areas, classified biological sanctuaries, ZNIEFF<sup>11</sup>, UNESCO biosphere sanctuaries). For another part, “sensitive areas” were mapped on pre-existing data, including “highly sensitive areas” as defined by the PRGC in its Charter<sup>12</sup> (e.g. wetlands, dry grasslands, woods, canyons and valleys, agricultural lands...).

Birdlife protection was one conflicting issue. The LPO advocated for a four-level zoning for bird-life protection but only obtained the inclusion of a three levels in the schemes, which it felt was not protective enough:

*“We particularly wanted the [purple] zones where we were totally opposed to the siting of wind farms [...] We expected the administration to do so [and] preserve birds reproduction, sectors of high biodiversity, immediate surroundings of dormitory for Red Kite, sectors for Golden Eagles [...] In fact, we were asked by the MISAP to remove the purple and change our opinion about zones in which wind turbines would be absolutely forbidden. Then, all being red, this meant: “possible installations but with hard constraints” [...] We had to remove our terminology too [...] Step by step, the discussion were no longer technical but political [...] The final acceptance by the Prefect validated the transition from purple to red” (LPO, interview by the authors, August 24, 2006)*

Landscape was another major issue. It was jointly approached with architectural heritage issues. Both aspects were dealt through a similar “regulatory / sensitive” lens, which implicitly sat a dichotomy between exceptional (classified, protected) and ordinary landscapes. Regulatory constraints were mapped on the basis of classified sites, including a 500 m protection perimeter in the case of ZPPAUP (Zones for the Protection of the Architectural, Urban and Landscape Heritage)<sup>13</sup>. The local branch of the Ministry of Culture in charge of architecture and heritage (SDAP), pointed at *co-visibility* as wind power main impact and obtained from the MISAP the inclusion of a 10-kilometer perimeter of so-called “strategic co-visibility” around a few sites; mostly urban and historical landmarks (Rodez, Millau, Villefranche, Conques, Najac).

Tensions in the MISAP emerged when it came to landscape characterisation. In a precedent survey, the CAUE (CAUE 12, 2001) divided Aveyron into six “landscape entities” reflecting the historical / cultural / natural dimensions of its territory. This representation was considered by part of the MISAP, especially by the SDAP, as not detailed enough to inform the new wind power scheme. A private landscape company was commissioned to undertake a landscape study and associate heritage values with landscape entity (Carrés Verts, 2002).

“Carrés Verts” first distinguished twenty-three entities, which it pooled into four landscape types (e.g. “hilly bocage”). Second, it listed in a quite arbitrarily way elements (e.g. ridges, ambiances, agricultural landscapes ...), which could be considered of “high” heritage interest and from which it derived a three-level patrimonial indicator (e.g. “emblematic”). Heritage values were then crossed with the description of the landscape types in order to derive, for each landscape, a degree of sensitivity to wind power developments. As a general matter, open field and plateau were considered as less sensitive to wind power developments than hilly bocage or woody landscapes. The result was as shown in Table 3.

This result appeared a bit simplistic to the parties involved, including the CAUE itself:

*“Their work is only a rough estimate. They have noticed that our work was not undertaken at a relevant scale... which was true. Our study is not an inventory. It is a synthesis. From the*

11. Launched in 1982, ZNIEFF (Zones Naturelles d’Intérêt Ecologique Faunistique et Floristique -) have the aim of identifying and describing areas presenting high biological capacities and a good state of conservation.

12. [http://www.territoires-durables.fr/agenda21Detail.asp?pk\\_agenda21=19#le\\_projet](http://www.territoires-durables.fr/agenda21Detail.asp?pk_agenda21=19#le_projet)

13. <http://www.culture.gouv.fr/culture/organisation/dapa/pdf/zppaup-ang.pdf>

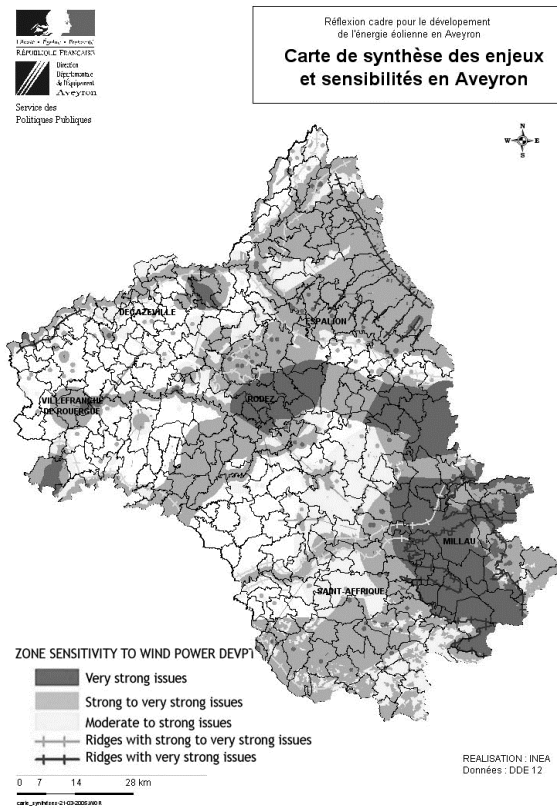


Figure 1: “Framing Thought for wind power development” (April, 2005)

six original entities, they defined about twenty [...] Their work lacked land observations, it lacked fine mapping [...] they attributed values [to the entities] and the final classification was strange. [It was a] mathematical look on the landscape [...] it was a denial of the reality of the land. How is it possible to derive a notation from this theoretical cutting-up?” (CAUE, interview by the authors, August 24, 2006)

This did not prevent the DDE from simplifying further away the landscape approach. First, it decided to only retain the most sensitive landscapes for warning (bold categories in table 3). Second, it applied a 10-kilometer perimeter of “strategic co-visibility” along major tourism itineraries, namely highway and “national roads”.

As the DDE stated it quite frankly, priority was given to the visual dimension of landscape (see Fig. 1 and 2).

“In Aveyron, we chose to state that it was good for wind power to be far away, to be lost in the countryside ... our orientation was to say that it is good for wind power not to be seen by a lot of people [...]” (Permit instructor, DDE 12, interview by the authors, August 23, 2006)

The resulting scheme was divided in four types of zones (cf. Figure 1) from incompatible to compatible with wind power developments, depending on the number of layers raising “strong issues”.

Issued in April 2005, it was the first operational wind power planning document in Aveyron. While it proved useful for administrative co-ordination, its reach as a planning document remained limited for a set of reasons. First, the configuration

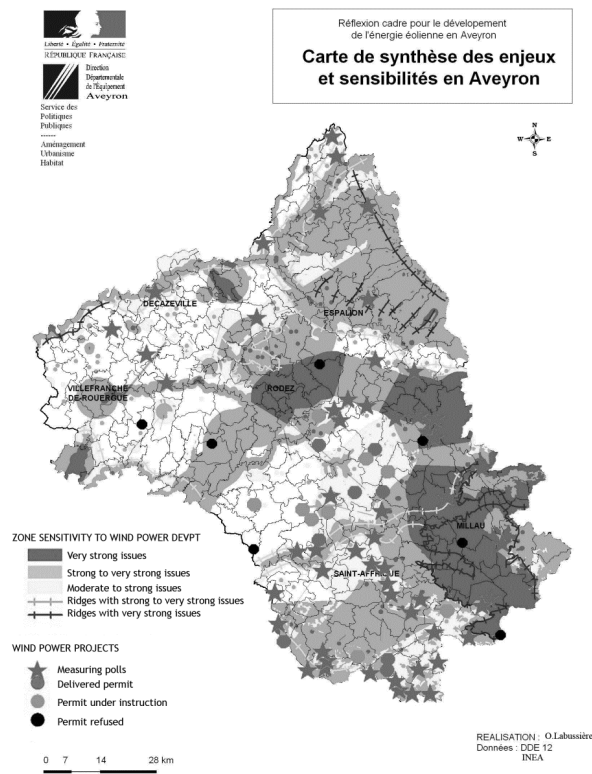


Figure 2: Effectiveness of the Wind power scheme (projects under development as of May 2006)

of the Aveyron electricity grid was not taken into account while it only allowed for about 75 extra MW. Second, the issue of density of wind turbines in given areas was not addressed and the departmental scale at which the scheme was designed was not fine enough so as to locate and fine tune project developments<sup>14</sup>. Finally and most importantly, the document was lacking either binding or consensual status, as shown by the number of wind power project under way in non-recommended zones (cf. Fig. 2) and by the position of some members of the MISAP:

“The choice was made to add the constraints [...] it is a little bit like adding up carrots and turnips [...] it leads to a strange result as it confuses constraints which can be overcome on a case by case basis at the level of the project and more general heritage /landscape constraints concerning landscape as a whole” (Local institution, interview by the authors)

The French law did not endow this document with a binding status (cf. part titled: “National level: in search for ways of developing wind power”) but the local administration did not either have a will to do so: the department prefect asked for its title to be changed from “Scheme for wind power development in Aveyron” to “Framing Thought fo ... “ in order to avoid any legally binding connotation<sup>15</sup>.

As a result, an early start but a limited will in the devising of local planning did not seem enough to offset the lack of plan-

14. Interview with the PNR, August 17, 2006.

15. In reference to the existing SCOT (Schema de Cohérence Territoriale), which is legally binding.

**Table 4: Projects submitted for construction permit or under way in 2006 (Source DDE 12, Fall 2006)**

Year	Construct. permits (nb) / Turbines (nb) / Capacity (MW)	Communes
2006	11 / 47 / 109	St-Laurent-du-Lévezou, St-Beauzély, Curan, Tauriac-de-Camarès, Mélagues, Montagnol, Pruines, St-Félix de Lunel
2006	At least 12 intentions of projects under way (as off the fall of 2006)	St-Affrique; Vézins de Lévezou; Arques et Ségur; Arnac-sur-Dourdou; St-Georges-de-Luzençon; Saint-Rome-de-Tarn; Lavernhe-de-Séverac; Marnhagues-et-Latour; St-Beaulize; Saint-Jean-et-Saint-Paul; Murasson; Brusque

ning institutions. By 2005, like many other French departments and regions, Aveyron was faced with a lack of genuine planning orientation.

**Since 2005, the uncertain emergence of decentralized planning**

**THE FRENCH “POPE” LAW AND THE NEW PLANNING TOOLS: WIND POWER AS A SYMBOL AND MEDIA FOR DECENTRALIZATION ISSUES**

Since the adoption of the first legal rules in 2003, wind power had not been genuinely co-ordinated by the French State. The technological progress in the turbine industry was allowing for new sites to get developed and the restriction of tariffs benefit to small wind parks was contributing to the multiplication of projects.

As off July 2005, as wind power development overflowed the administrations and triggered increasing opposition at the local level, a new planning instrument was adopted within a new French Energy Programming Law (so-called “Loi POPE”, Ministry of Energy, 2005a): the Wind Power Development Zone (WPDZ). WPDZ is a wind power development scheme, which might be proposed by communities or inter-communalities to the prefect of department. Most important, from then on, wind power parks would have to be located in a WPDZ in order to benefit from fixed tariff<sup>16</sup>.

The adoption of WPDZ was the outcome of a particularly long process of parliamentary readings due to strong dissensions between the Senate and the National Assembly (Nadaï, 2006). While the POPE Law in discussion was supposed to embrace the overall French energy strategy for the future, wind power became a central issue in the controversy between partisans of decentralizing and upholder of centralizing energy policy. A compromise was finally settled, which endowed the local authorities with a power of proposition in the definition of wind power planning, while keeping the final decision in the hand of the State (Prefect of department).

This mid-way solution was symptomatic of the ambivalence of the French institutions concerning the development of decentralized renewable energies. First, WPDZ preserves the possibility for the French State to either hierarchically control wind power policy or genuinely back up the decentralized planning proposals coming from the local authorities. Second, WPDZ was a way to decentralize wind power planning in the practice but not in the legal texts: it had the status of a mere “electric

document” (i.e. a condition for tariff benefit) but was practically endowed with the functions of a planning document. It potentially allowed for big wind power parks to be developed in France, which was not the case before. A wind power tax was also attached to WPDZ in order to allow the sharing of wind power revenues among communities, eventually as a compensation for the visual impact of the turbines. Last but not least, WPDZ was supposed to take account of the protection of landscapes, historical monuments, remarkable and protected sites, which meant that they were the long-awaited instrument for the territorial planning of wind power developments.

Often, local administrations<sup>17</sup> perceived WPDZ as a relevant but late solution to the issue of wind power planning. Most of them had granted permit authorizations for capacities approaching or exceeding the capacity of connection to the grid. Therefore, municipalities did not have much resource left in order to undertake extra surveys for the devising of WPDZ. Often, developers offset this lack by recycling projects files into WPDZ applications, submitting what the local administration called “Project WPDZ”. Faced with this, local administrations adopted contrasting strategies, ranging from blank refusal of “Project WPDZ” to tolerance of it as part of a transitory regime. Overall, WPDZ implementation ended up following a logic which seemed to depend both on the political will of the department prefect and on the context build over the passed years as regards to wind power development. Aveyron provides a good illustration of the type of issues raised at the local level by the timing of the national policy agenda.

**AVEYRON: WPDZ AS A CHANCE TO EMBRACE THE LANDSCAPE / TERRITORIAL DIMENSION OF WIND POWER DEVELOPMENT?**

As in many places, the adoption of the POPE Law intensified developers’ race for construction permits in the hope of bypassing the WPDZ devising process. Mayors also became very interested by the new wind power tax, as it could dramatically increase their community budget and allow for local development in otherwise depreciated areas. The number of projects under way rose anew, exceeding the 2004 peak (cf. Table 4). Project locations were only to a certain extent oriented by the Aveyron planning document, leading to a concentration of projects in so-called “favourable” zones such as the Mont Lévezou (cf. Figure 2).

The instruction of construction permits was mostly undertaken by the DRIRE and the DIREN. The former was looking at electrical issues (e.g. granted authorisation for utility development) while the latter was in charge of all environmental and landscape aspects. The DDE might look at the project prox-

16. As a transitional rule, parks under 12 MW would still benefit from the tariff until July 14, 2007. Height threshold triggering public inquiry and study of impact were also changed from 25 to 50 meters. Tariff benefit was also extended from 5 to 10 years (Ministry of Economy 2007).

17. Interviews by the authors of the 22 (metropolitan) regional administration in charge of environmental issues (DIREN).

**Table 5: Outcomes of the permit instructions in Aveyron since 2002 (DDE 12, Fall 2006)**

	Public inquiries	MISAP advice	Prefect decision	Comments
Positive	29	20	24	- 6 projects judged to be in co-visibility with other projects , - 1 appeal to the administrative court.
Negative		9	8	- 2 incompatibilities with POS, - 1 negative advice from Commission for Sites, Perspective and Landscapes (CSPL), - 2 for proximity to infrastructures (housing, road), - 3 appeals to the administrative court.
Absent	3	3		
Total	32	32	32	

imity to roads or other infrastructures. Administrative advices were shared within the MISAP in order to reach a final advice. As usual in these processes, the DIREN advice was most often decisive for the administrative advice as well as for the final prefect decision.

Until very recently, only 49 turbines were in place in Aveyron, meaning that the reality of wind power development was mostly paper files, administrative decisions, public inquiries and public meetings. Opponents could voice their position by petitioning the prefect or during the public inquiry, mostly at the end of the process. In fact, public inquiries were not really attended by the public and led to systematic positive Commissioner's advice (cf. Table 5). The DIREN did not think as being part of its function to meet/listen to opponents' objections or to attend public meetings. It considered that opponents could only occasionally raise relevant issues as regards to project design:

*"Often, local opposition is irrational. There is part of Nimby into it. Behind landscape integration there are often private interests and fear of property devaluation [...] As regards to landscape issues, we consider co-visibility, we have guides for landscape analysis; landscape architects are part of our team [...] We are creating new landscapes. The role of the State administration is to check that these new landscapes are well structured [...] if you give thoughts to the way in which turbines are sited, perception will get used through time and the project will become integrated ... it is like the opposition to railways in the 19<sup>th</sup> century[...]"(Interview by the authors, November 15, 2006)*

Over the past years, administrative instruction on a project by project basis has granted concentration of projects in some landscape entities, such as for instance the Mont Lézou. In the absence of public information in this area, inhabitants from the Lézou have exchanged private information about projects underway in their respective municipalities. Summing approximately 200 turbines, they decided to create a non-profit organization for the protection of the Mont, "Lézou en péril":

*"[...] The territory is immense and we will not be able to look after all of the Lézou if people do not feel concerned. People have to know whether or not they want wind turbines [...]"*

*Now, the problem is rather simple [...] there are two hundred wind turbines on the Lézou [...] Time is past for wondering whether or not wind energy is the good solution [...] Two hundred, it is too much, even one hundred is too much [...] except for people who are financially interested in [it]. We cannot say to those persons that they have to change [...] of course it is financially interesting [...] as we say here, "ça c'est engagé", it has got tied in knots" (Association Lézou en Péril, interview by the authors, December 13, 2006)*

A recent public meeting on a wind power project in the Lézou area gathered about 120 persons. It was the occasion for the nascent opposition to voice its concern (e.g. arbitrage nuclear versus wind power in France, investors and developers profits ...) and especially the alleged proliferation of projects on the Mount and the overall logic of planning at work, as a woman noticed:

*"Could you tell us the number of projects surrounding this one? [...] How come that there is not an independent consultant undertaking a survey including all the projects underway in Lézou, all projects at once [...] we are talking about five turbines, but this is non sense because there will be turbines everywhere [...]" (Recorded by the authors, December 13, 2006)*

The administration being absent, the question remained unanswered. The audience kept wondering about the reasons why projects were proliferating in Lézou, when Larzac or Aubrac (two famous landscapes of Aveyron) seemed to remain untouched. According to different parties, the ambiance at the meeting witnessed to a turning point in Aveyron's short wind power history: the territorial dimension of wind power development had become a public issue.

As off today, no WPDZ have been officially registered in Aveyron. The first project-WPDZ, considered as a free-riding one by the administration, faced a refusal. The department prefect has recently underlined Aveyron mayors that inter-communality was a pre-requisite for WPDZ application. This raised critical issues as communities are now endowed with an amount of permits corresponding to an overall capacity that exceeds the possibilities of connection to the grid. Choices among projects will thus have to be made considering: the prospect for limited grid extension, the irrecoverable costs invested by developers



and communities into project application, the sharing of wind power tax revenues and the territorial display of the projects.

Current asymmetries in communities' endowment as regards to future wind power revenues are such that a sharing agreement might be difficult to settle: a possible reconfiguration of inter-communalities has already been brought up by some parties in case the negotiation failed<sup>18</sup>. On October 31, 2006, a first meeting led to a pre-figuration of a WPDZ, recycling to some extent the Aveyron planning document. It was made up of three zones. The idea had been worked out since a few months within the MISAP:

*"We have thought about a new map, in particular concerning the Lézvezou [...] sort of a large WPDZ. We identified [five] sectors, which were quite independent one from the other and in which wind power could be analyzed as a whole. [We] debated in the MISAP, trying to sort out what could be homogeneous [...] which led us to pool sectors according to landscape entities and electricity network [...] RTE<sup>19</sup> had told us the possibilities of connection [...] We did not make an important study compared with the initial scheme, but this is a complement"* (Local administrator, Interview by the authors, August 23, 2006)

While pragmatism seems to be called for in order to choose the projects that will be backed by the future WPDZ, there is a chance that financial considerations prevail over genuine territorial planning. This issue has been well articulated by the PNRGC: *"the urging necessity to manage wind power developments at the scale of the massif in order to better embrace their cumulated impacts"* (PNRGC, 2005). As advocated by M. Aussibal<sup>20</sup>, landscape architect at the PNRGC, *"a massif is a set of ridges forming an entity that is both natural and human"*. According to him, foreseeing a WPDZ at the scale of the massif might open the possibility of optimizing the location of the projects. To some extent, this way of framing the problem has the advantage of emphasizing the potentialities of each situation. It provides local actors with both a responsibility and a negotiation power in front of developers: wind power projects are put in competition according to their ability to lead to wind parks of quality. Issues of landscape and proximity might be reintroduced in the process. Technically, the PNRGC advocates that the scale of the massif might allow it to work at a finer scale than that of the official department scale: scaling down to infra-communal considerations or even to the plots of land seems possible to the PNRGC in certain areas. The recourse to a symmetric argument (a massif is both a natural and a human entity) also restores ties that had been erased by the departmental scheme in its administrative deconstruction of Aveyron landscape. This broadens the acceptance of landscape underlying wind power planning: landscape is tied to collective interest, wind resource, ridges, proximity, inhabitants, sense of place and land use documents.

## Conclusion

At a point in time where participative planning is supposed to be the norm rather than the exception in European countries (Healey, 1998), the example of French wind power policy might seem outdated as regards to several aspects, such as: the persistence of hierarchical and administrative approach to policy devising and the prevailing of information over participation.

The parallel drawn in this paper between the national wind power policy and Aveyron wind power development points at a set of critical issues in the current French context. The political ambivalence concerning the decentralization of the energy policy led to a wrong timing, which hampered a genuine territorial planning in many regions. Wind power developments have been enticed through profit incentives before any form of planning had been developed and the resulting situation might not be reversible. When adopted, wind power planning instrument became a double-edged sword. As WPDZ has the function but not the legal status of a planning device, it allows community mayors, regions and departments to plan wind power territorial development but leaves them with an ill-devised tool.

Indeed, it is no longer clear whether or not the great amount of projects already granted with administrative authorization should prevail over WPDZ design. If this is the case, the rather difficult political debate about territorial planning and local acceptance of wind energy might suddenly appear to have been in vain. In the opposite case, the question of the sunk costs and the energy spent on years-long permit development by local actors will have to be faced. Last but not least, the necessity for projects to locate in WPDZ might have to be cleared up as it only depends on tariff incentive, which we know are due to erosion through time if we do not want to leave developers with undue rents.

Many regions and departments faced with developers' pressure did their best in developing local planning tools. The process analyzed in Aveyron is far from a unique case, especially in windy areas. Local administrations have developed co-ordinating platforms in order to ease and shorten permit instruction. First open to non-administrative parties such as NGO's or local associations, these platforms tended to focus through time on inter-administrative co-ordination. They left other parties aside to the exception of private developers, who are still invited for early contact. This was due to a set of ongoing reasons among which the increasing load of work (i.e. number of projects submitted for instruction, necessity to devise local planning tools) and the need to preserve legitimacy in decision making. This led the instruction process to focus on the technical dimension of environmental and landscape analysis. Landscape has been submitted to a process of reduction in order to gain in objectivity, as happened in Aveyron. By the same time, the subjective/conflicting dimension of it has been pulled out of the instruction process and delegated to the end of the process. While this is exactly what has willingly been avoided to developers, it left the public with a segmented (project by project) and end-of-the-pipe (public inquiry) platform for expression. Even the more, opponents' expression were often "subjectivized" while being pulled out of the process, as described in Aveyron (i.e. Nimby, private interest ...). As has been demonstrated (Wolsink, 1994; Healey, 1998), "opponents" are constructed by such "decide-announce-defend" planning processes.

18. Wind power parks such as Salle-Curan (29 turbines, 87 MW), which is intending even to double its size, represent a very significant revenue.

19. The national grid company.

20. Interview by the authors, August 17, 2006.

WPDZ devising offers a unique chance to re-open the process of territorial planning to participation. Indeed, the process of WPDZ design is the place where territorial planning should be discussed on a multi-project basis, as awaited and asked by the so-called “opposition” in Aveyron. If there is an ultimate chance not to conceive opponents’ legitimate interrogation about wind power planning as an immutable opposition, it is by making them part of the WPDZ process. Common sense would thus command for this opposition to be represented in the process and not faced with a final result to approve or oppose. The paradox is that WPDZ is recognized as a relevant and long-awaited instrument by the local administration, but it will do no more than mirror the current situation if it is processed in the current planning process.

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## Acronyms

- ADEME (Agence De l'Environnement et de la Maîtrise d'Energie);
- CAUE (Conseil d'Architecture, d'Urbanisme et d'Environnement);
- CDSPP (Commission Départementale des Sites, Perspectives et Paysages);
- DAC (Direction Aviation Civile);
- DDAF (Direction Départementale de l'Agriculture et de la Forêt);
- DDASS (Direction Départementale des Affaires Sanitaires et Sociales);
- DDE (Direction Départementale de l'Équipement);
- DIREN (Direction Régionale de l'Environnement);
- DRIRE (Direction Régionale à l'Industrie, la Recherche et l'Environnement);
- LPO (Ligue de Protection des Oiseaux);
- MISAP (Mission Interservices de l'Aménagement et du Paysage);
- PNRGC (Parc Naturel Régional des Grands Causses);
- RAM (Région aviation militaire);
- RTE (Réseau de Transport électrique);
- SDAP (Service Départemental de l'Architecture et du Paysage);
- SIEDA (Syndicat Intercommunal d'Électricité du Département de l'Aveyron).