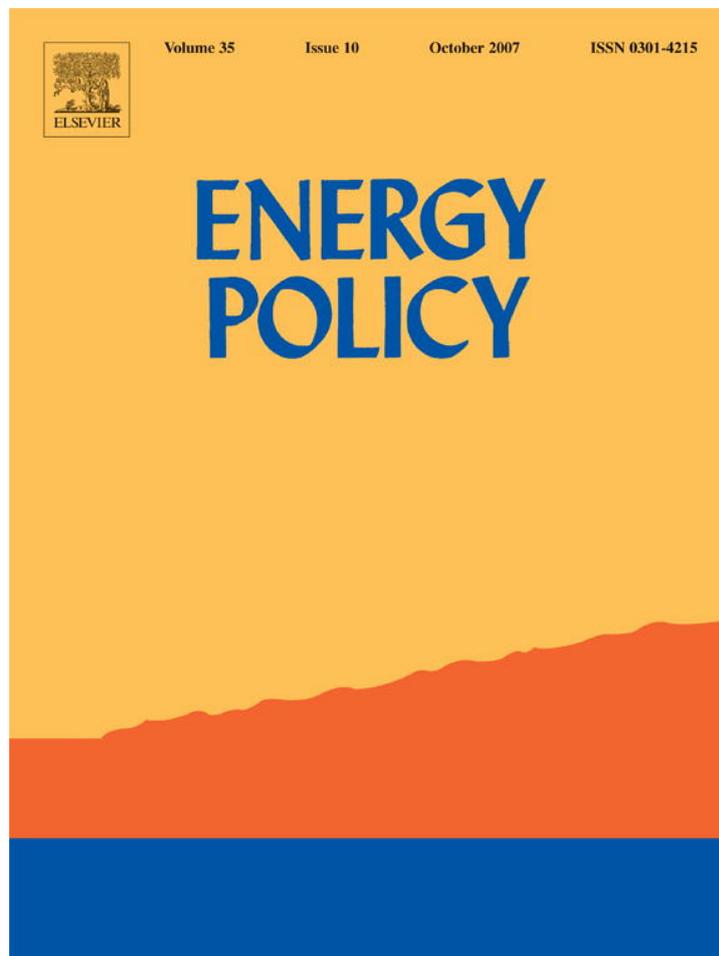


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Viewpoint

# French perspectives in the emerging European Union energy policy<sup>☆</sup>

Sophie Meritet

*CGEMP, Paris Dauphine University, France*

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## Abstract

The debate over a common European energy policy, its necessity and its establishment has been going on for a number of decades. The discussions have been recently brought back into the spotlight by the evolution of energy market fundamentals and the taking into account of environmental protection. In spite of the energy diversity of the European Union (EU), a common vision has always been shared by all over energy development for the future. The achievements of the internal market, the fight against climate change and supply security are the common energy battles that call for a solution in common. This policy remains the responsibility of the States, but decisions vary from one country to the next. To move from a shared vision to a European energy policy, large steps are necessary. The European construction is making evolve the “typically French vision” of energy policy. France was often characterized as the “black sheep” in the EU. In the political context of president elections, the energy debate in French is of a high interest. This paper discusses the main issues with the French energy policy in the emerging European energy policy.

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*Keywords:* European Union; Energy policy; France

## 1. Introduction

The debate over a common European energy policy, its necessity and its establishment has been going on for a number of decades. The discussions have been recently brought back into the spotlight by the evolution of European energy market fundamentals, environmental protection measures and the gas conflict between Russia and Ukraine, which also affected Western Europe. Today, a complex equation must be solved: provide the European Union (EU) with secure and inexpensive energy (which is a strong element of competition), and reduce at the same time greenhouse gas emissions. The current European dependence on imported energy resources is increasing further and the energy sector has entered into a turbulent period in terms of prices and security of supply. These factors create a number of risks and uncertainties in the European energy landscape. They also create a need to

think about a common strategy over the long term. Dealing with tendencies towards “national economic protectionism”, the European Commission in March 2006 presented the *Green Book* (EC, 2006a, b) that provides a basis for discussions on European energy policy. Looking at the diversity of the energy situation within the EU, the idea itself of a common policy was unrealistic a few years ago. Nevertheless, a shared vision has always existed among the Member States for the creation of a single energy market.

This paper presents the French perspective towards the European energy policy. In the European energy market’s deregulation process, France has sometimes been referred to as the “black sheep”, with its national energy model built on strong state intervention, two energy champions (state-owned firms Electricité de France EDF and Gaz de France GDF), nuclear power as the main source of electricity and the French concept of “public service”. At the same time, France is less dependent on energy imports compared to other Member States. Nevertheless, France is facing the same international demands and developments with the same risks and uncertainties as other EU countries. It needs to diversify its energy mix and improve

<sup>☆</sup>The views presented in this paper can be referred only to authors who are sole responsible for them.

*E-mail address:* [sophie.meritet@dauphine.fr](mailto:sophie.meritet@dauphine.fr)

its security of supply. How can France define its national energy policy within the emerging European context? As the French energy model does not fit neatly into all aspects of the emerging European policy (e.g. deregulation process, renewable energy development), France has therefore been under pressures to adapt. When French energy policy was defined in 2005, the challenge was to protect national interests and take into account the European process. The strategic energy sector is still at the core of all debates in France especially with the upcoming Presidential elections next spring and the opening up of the European energy sector to competition in July 2007. This paper focuses on the main French concerns related to energy policy within the emerging European context. It is divided into three related parts. The first section presents the French energy situation to understand the national constraints compared to other Member States in the EU. The second section discusses the national energy policy model in more depth and the final part analyzes the position of France towards European energy policy. It will be argued that France has been evolving from its position of being the “black sheep” and now displays an interesting position of protecting its national interests while still complying with the European vision.

## 2. The French energy situation compared to other EU members

The history of European nations and their respective energy reserves have implied a very high level of energy diversity throughout the EU. When comparing European countries, it is surprising to notice the differences that exist, depending on the energy mix, industrial organization, the role played by the state, the dependence on imports, and so forth. In France, the history of energy policy has always been characterised by a very strong intervention of the state. Public firms, or controlled by the state, allowed the development of the French energy sector and played a major role in its modernization, in the promotion of independence and in security of supply. The French nuclear program, launched shortly after the first oil crisis in 1973, is a good example since nuclear power covers approximately 40% of the French current energy needs (whereas the share of nuclear power in the world is about 8% in 2006). This very “hexagonal” and state-oriented vision has to change with globalization of the energy markets, the construction of the EU, the multiplication of uncertainties and also with financial constraints facing states for energy investments.

In contrast to several European countries which benefit from raw materials (coal in Germany and Spain, gas in the Netherlands, etc.), France is poor in energy resources. It does not possess many energy resources immediately available: the last coal wells closed in 2004, and the natural gas layer of Lacq provides less than 1% of the national production of primary energy. The nuclear program was a response to the oil crises. France, like other industrialized

countries, reacted to the two oil crises with measures in favour of the security of supply which deeply modified its national energy mix. In 2006, France has 58 nuclear power reactors with an installed capacity of 63 GW (it is the second largest park in the world after the United States). In order to ensure the security of its energy supplies, France’s energy policy has given priority to the development of a national energy supply, most notably nuclear energy and renewable energies.

Among the EU countries, significant differences subsist on the level of the four following dimensions (Chevalier, 2006):

1. *Energy intensity* is a measure of the relationship between energy consumption and national economic production. It varies between the 25 member states. In 2005, the energy intensity varies from 125 for Denmark and 300 for Luxembourg (in Mtoe, 1995 prices). The new members present energy intensities higher than those in the older Member States. The potential for improvement is very high because their emissions of greenhouse gases per inhabitant are higher than the European average. The structure of the French economy is more directed towards the services sector than other industrialized countries, which gives it a comparative advantage on the energy intensity (150 for France).
2. *Energy dependence* continues to increase for the whole EU which makes it more vulnerable. If nothing is done, energy dependence will reach 70% by 2030: 90% of oil needs and 80% of natural gas consumption will have to be covered by imports (Green Book, 2006b). This increase of import dependence can be explained by the imbalance between European reserves (0.6% of oil reserves in the world and 2% of natural gas) and its economic needs. Primary energy production in Europe is forecast to decline while demand is going to increase. This clearly raises the question of future prices and the availability of affordable energy. France still imports half of its consumption of primary energy, against nearly the three quarters before the nuclear program. Today, France produces 138 Mtoe and consumes 276 Mtoe (in 2005). It has thus an energy independence of 50% against 26% in 1973.
3. *Diversity of the national energy mix* is the most obvious characteristic to compare member states within the EU. The “energy mix”, or the combination of different forms of energy used, varies from one country to the next. In certain countries like Greece, energy consumption relies exclusively on imported oil and coal. Some countries are almost completely dependent on energy imports, like Portugal. The new member countries further accentuate this picture of energy diversity with a strong dependence on Russian gas supplies (especially Hungary) (Table 1). Between 1973 and 2005, French primary energy consumption evolved: coal now represents only 5% (15% in 1973), oil share 33% (67% in 1973), gas consumption doubled (from 7% in 1973 to 15% today),

Table 1  
Primary energy consumption in 2005

Countries	Total (Mtoe)	Oil (%)	Natural gas (%)	Coal (%)	Nuclear (%)	Hydro (%)
Czech Republic	44.4	22.3	17.4	46.2	12.6	1.5
Germany	324.0	37.5	23.8	25.3	11.4	1.9
Greece	33.5	62.4	6.8	26.8	–	3.8
France	270.0	33.0	15.0	5.0	40.0	7.0
Netherlands	94.7	52.4	37.5	9.2	0.9	–
Poland	91.7	23.8	13.3	61.8	–	0.9
Portugal	23.0	66.6	11.8	16.6	–	4.8
Slovakia	18.2	19.2	29.1	23.6	22.0	6.0
Sweden	49.7	30.4	1.4	4.4	32.7	31.1
UK	227.3	36.4	37.4	17.2	8.1	0.8

Source: BP Statistical Review of World Energy (2006).

electricity consumption was multiplied by 10 (from 4% to 42%) and renewable energies represent 5% of the total. Compared with the other OECD countries, France ranks seventh for CO<sub>2</sub> emissions per inhabitant. The most significant increase in consumption is the transports sector (20% in 1973 to 31% in 2005), while the industrial sector share decreased (from 36% to 24% in 2005) and the residential and services sectors have remained stable (43%).

4. *National energy priorities* continue to dominate European energy debates. The strategic energy sector remains linked to national considerations. Certain countries are interested in nuclear energy development (like Finland), which limit the importation of carbon dioxide. France will surely not stop its nuclear program and will continue to seek maximum energy independence. A number of governments are opening again the debate over the nuclear option (United Kingdom and Spain) while other governments are looking to protect their coal industry, like Germany or Poland. At the same time, some member states have decided to proceed further with the use of renewable energy sources than laid out in European directives (Denmark, Germany, etc.). At the European level, leaders accepted in March 2007 the target of 20% of renewable sources in energy consumption by 2020 (in exchange for flexibility on each country's contribution to the common goal). At a climate change summit, the EU adopted a new package on a long-term strategy for energy policy and climate change: cutting by 20% carbon dioxide emission from 1990 level by the year 2020, developing renewable energy sources, promoting energy efficiency and using biofuels. In France, a balance still needs to be found between relying on nuclear power with low electricity generation costs and renewable energies which need to be subsidized to help their development.

Considering the French energy situation in the EU, the challenge for the French government and administration was to define a new national energy policy which is more in line with the European process.

### 3. French energy policy: definition and means

Like all the other Member States, France has always had an own, distinct energy policy. For 30 years, the government decided on the energy policy in the name of the nation. With the process of European integration, governments lost some of their sovereignty. France is still seeking to define its national energy policy but has to take into consideration new European constraints.

At present, French energy policy is defined by the Energy Act of 2005 which emphasizes French interests through four priority axes. The first two apply to most of the European members. Even if they are shared at the EU level, the two last are more specific to France as they underline a higher degree of state intervention.

1. *Energy independence and the security of supply*: This objective is conceived in the short as well as in the long run in quantity and in price. There is a double goal: to limit the exposure of the French economy to fluctuation in energy prices and to ensure the availability of sufficient capacity to cope with problems of energy shortages.
2. *Protection of the environment*: Energy and the environment figure among the most important challenges of the century. In addition to this Energy bill, in the Plan "Climat" (2004), France within the framework of its Kyoto commitments decided on measures to save nearly 15Mt of carbon equivalents per year by 2010 (which means a quartering of CO<sub>2</sub> emission by 2050).
3. *Energy at low cost for households and industries*: The price, quality and availability of energy are determining factors in France's competitiveness. This goal relies on our national nuclear program that allows us to have a low electricity production cost. A French fear is to lose our economic advantage in terms of cost production and our "public service" missions.
4. *Social and territorial cohesion*: It is important that the energy policy provides everyone, and in particular the most deprived in society, with access to a quality energy source at a competitive price. This concerns not only

solidarity but also taxation, regulated tariffs and missions of public service, such as, for electricity, obligation of supply, equal treatment of customers, etc.

To achieve these four goals of the Energy Bill, the French government emphasizes on four means:

1. *Control of the energy demand* through a series of incentives and programs including an innovative energy-saving certificate scheme (White Certificates) and tax incentives.
2. *Diversity of the energy mix* by increasing the use of renewable energies and keeping the nuclear option open.
3. *Development of energy grids and storage capacities* to improve the safety of France's energy supply. For example, the decree of 2003 relating to the "multiannual programming of the investments of electricity production" lay down objectives of capacity to be installed.
4. *Research and development on energy* to meet long-term challenges in terms of energy intensity, development and consumption of renewable energies.

#### 4. France's position in the EU

While France tries to define and implement its energy policy, the government has to face several challenges linked to the European integration process and energy market fundamentals.

European law goes beyond the notion of "state" and the construction of the single market must be done through competition. European requirements are a shock for the French culture ("*colberto-jacobine*"). They imply major changes of electric and gas industries and, more generally, of all network industries. European regulations imply a complete separation between competitive activities (generation, purchase and supply of gas and electricity) and regulated activities (transmission). Networks are regarded as opened "essential facilities" with third-party access supervised by an authority independent of regulation. The directives of 1996 (electricity) and 1998 (gas) initiated the deregulation process and the directive of 2003 provides for the total opening up to competition. This process has raised strong opposition from certain members of the French parliament (Right like Left), who require the renegotiation of the directive. This opposition reflects several refusals at once: the refusal of Europe, of the markets and of competition for "artificially" maintained protection.

The European process also leads to collective agreements. Member States signed the Protocol of Kyoto. They succeeded in setting up the first market of emission permits. This market does not function in a satisfactory way, but it is a major step in the direction of gas emissions reduction and might even eventually lead to a single energy market.

The "*Green Book*" published by the Commission does not yet reflect a truly common European energy policy but

it highlights a certain number of principles on which the Member States agree to build the future energy system. These principles are to improve the energy efficiency, to diversify the energy mix and to ensure the security of supply. These principles are (or will be) accompanied by precise national objectives with regard to: energy saving, development of renewable energies and security storages. Nothing is obviously indicated on nuclear power but each country preserves its freedom of choice. One cannot at the same time reduce the gas emissions and close the door to nuclear power as pointed out by L. de Palacio, the former energy commissioner. Against this background, France can evolve from its role of "black sheep" and better fit into the emerging policy of the EU. French national priorities as described in this contribution adapt to the European vision: French and European energy policies can be compatible and are not so different after all. During the last summit in March 2007, a new step has been made: a binding target of 20% for renewable fuels has been set in exchange for flexibility on each country's contribution to the common goals. References to the national energy mix have been added. It is one of the most ambitious packages on energy security and climate change protection (the EU even offered to go to 30% of reducing carbon dioxide emissions if major nations like the United States or Russia or China follow). In an attempt to balance the pro and anti nuclear power countries, it is recognized that nuclear may also play a role in Europe's drive to cut greenhouse gas emissions. For France, nuclear power is an answer to energy needs, climate change and fears of energy supply disruption, but sceptics counter that it is too costly and dangerous to be viable. Under pressures from several new members, the EU agreed that individual targets would be allowed for each of the 27MS. These countries rely heavily on cheap coal and oil and are reluctant to switch to more costly environmentally friendly alternative. The economic competitiveness is in question.

Any French energy policy, and any program on energy and the environment should take into consideration European and worldwide problems. The French political community is conscious of these stakes but is still attracted by the maintenance of a mainly illusory and expensive public intervention policy and forgets that the fundamental key word is European and not "Franco-French". It is true that politicians are confronted with an electorate rather in favour of the status quo ante. Employees of public companies are tied to their privileges, consumers are against changes and afraid of competition and companies talk about delocalization to obtain regulated tariff. It is not easy to explain to French citizens that Gaz de France will propose supply electricity, that Electricité de France will supply gas and that in spite of our nuclear park, we pay an over-cost CO<sub>2</sub> and that the electricity prices will follow the one of electricity generated from coal in Germany. These concerns worry politicians, especially, in the economic contest with low growth but high energy prices. In terms of European energy policy, various elements must be

considered to understand the French position, related to energy companies' status, state intervention and the transport sector policy. Some of them are at the core of turbulent debates:

- State intervention on prices and tariffs for electricity and natural gas: for a long time, the prices of oil products were administered prices. It is still the case for gas and electricity, at least for certain categories of customers. Is it necessary to release these prices? With the deregulation process, the main question is how much “flexibility” the government can give to energy prices. For some people, this question should not exist because energy prices should be competitive and not state regulated.
- *Public utility concept*: Electricity and gas public utilities were very precisely defined by the French law. Their definition remains, however, rather broad but typically French with their “service public” missions. Each year, their cost is measured by the French regulatory commission. It might be that *service public* is not up-to-date anymore and not compatible with competition.
- *Relations with Brussels*: The European process is inevitable. It is possible that the French opposition could lead to a true crisis between Brussels and Paris before the presidential elections in early 2007.

## 5. Conclusion

In spite of the energy diversity of the EU, a common vision has always been shared by all the Member States over energy development for the future. The publication of the *Green Book* reaffirms the principle of solidarity between the countries in the EU. During the last summit, the EU drafted a compromise agreement that would make Europe the world leader in the fight against climate change.

Completion of the internal market, environment protection, and security of supply are the common energy battles that call for a common solution. Unity of the 25 member countries appears as the only means to meet the energy challenges of the 21st century. Even if the European Trading Scheme (ETS) is not well functioning, it shows that Member States can work together in the same direction in term of environmental protection. Why should this not also be the case for energy policy? Energy policy still remains the responsibility of Member States, and decisions vary from one country to another.

To move from a shared vision to a European energy policy, large steps are necessary but could be accelerated by

a common foreign energy policy. Foreign policy relates to diallog with the large exporting countries (Russia, OPEC), with the large consumers (the United States, China, Japan, India) and also with the poorest countries (where more than one billion individuals do not have access to electricity). It would permit the EU to speak with a “one and unified voice” in international energy negotiations. The globalization of energy–environment problems makes the multiplication of the international diallogs in bilateral or multilateral forms essential. Which compromises and commonalities can be identified and reached between Paris and the EU which seeks “to speak as one” on energy and environmental questions? That is the current challenge faced by the French government. France needs to figure out how to be part of the European process while still protecting its national ideas. France could play a significant role and even try to be a model in the EU. Some national fears need to disappear (end users, Unions, etc.) and some national advantages need to be highlighted (nuclear plants competitiveness, CO<sub>2</sub> emissions, renewable energies, white certificates, etc.). Thus, France might evolve from “black sheep” to an energy model based on better energy intensity, energy independence, low electricity costs, energy capacities storages and low emissions. France just needs to figure out how to deal with its long history of state intervention in energy sectors. The European energy market is in its move, slowly with recurring national protectionisms, obstacles and contradictions. Nonetheless, it is our future.

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