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## **Energy strategy in the European Union**

**KEY WORDS:** energy strategy, European Union, environment

### **Introduction**

The energy is a strategic element since it constitutes the motor of the trade. In addition to this strategic character it is the necessity of reconciling the demands derived from the free concurrence and from the security of supply with certain social objectives and with the preservation of the environment.

Also, since the States members are interdependent, the energy policy transcends of the national borders, for what it should acquire an autonomous dimension.

On the other hand, in the breast of the European Union, the energy balance rests fundamentally in the consumption of the fossil fuels (41% petroleum, 22% natural gas) and on the solid fuels (16% coal, lignite, crowd) for what it is necessary to adopt an energy long term strategy that guarantees the supply.

We could say that this main character has been enough so that a common, coherent and unified energy strategy exists in the breast of the European Union. However, this is not so. While the coal and the nuclear energy have specific treaties (The ECSC Treaty for the first and the Euratom Treaty for the second), the rest of energy, in spite of its importance in the consumption of the EU, is subjected to a general application of the precepts of the TEU, relative to the interior trade and to the defense of the competition, and to a no very abundant derived right that makes that strong

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regulating discrepancies between the state legislation that are applied in the several member States still exist. For that reason the energy community policy is fragmentary and incomplete and it is very far from having become a reality, although as a consequence of the effects of the two energy crisis (of 1973 and of 1979) the communities authorities took conscience of the necessity of joining positions in order to avoid future shocks of the economic activity and tried to assure the energy supply or at least reduce its dependence on the third countries.

However, for a long time, the energy common policy has been more a policy of intentions than of facts, more a partial policy than a global one and more for sectors in crisis than an active policy of stimulus of common market. In spite of this, it is necessary to recognise that the EU has obtained some important advances in this field such as the progressive liberalisation of the electricity and of the natural gas markets.

The energy strategy of the European Union gives content to the energy community policy that is configured by a group of measuring whose aim is to influence in the production and in the use of the energy in order to assure the growth and the well-being of the citizens. This supposes that the European Union assumes the power of address and control of the basic principles to which the different juridical national systems are supposed to adjust.

The community intervention does not seek to unify, but complete and harmonise the initiatives of the several States members since, in accordance with the principle of subsidiary action, the energy policy should consider as a subject of the States members.

The content of energy policy in the EU refers, between another, to the following topics:

- ◆ the insurance of an enough, reliable and economic energy supply,
- ◆ the resolution of the specific inherent problems to certain modalities of energy (coal, nuclear energy),
- ◆ the respect of the environment,
- ◆ the guarantee of the obligations of public service,
- ◆ the achievement, especially after the Single European Act, of an only market,
- ◆ the improvement of the competitiveness of the European companies.

In definitive, the design of the energy community policy is supposed to be presided over by the idea that the European Union is responsible for the regulation and assurance, through all the means to their reach and with the collaboration of the States members, for the continuity and regularity of the supplies of energy in the best possible conditions of economic efficiency, for which she should propitiate the liberalisation of the markets and the game of the competition.

This means, in the opposite direction, that the States members are supposed to collaborate in the attainment of the objectives of the energy community policy for what they are supposed to give the part of their necessary sovereignty in order to get the full integration of the energy sector to community level.

Given the width of expounded objectives, the energy community policy is extraordinarily complex. Also, it is a policy that lacks a juridical unified treatment, has been adopted very late in the Community and it is affected for the geopolitic and economic environment, in which it has been developed, and highly influenced for the international context since it has a very important external slope (agreements with third countries for the supply, international commitments in environmental matter, etc.).

In summary, while in the sectors of the coal and of the nuclear energy the Commission parades a strong position since she enjoys of autonomy and she can act directly as an organ of supranational supervision and in defence of the Community interest in the face of third countries in the international forums, for the rest kind of energy (petroleum, gas, electricity), to which the dispositions of the TEU are applied, the Commission should limit to establish some regulating frames, for what she requires the previous agreement of the Council.

## **Regulation**

How we have pointed out, the EU energy policy has been taken developed into two different planes: for some special kinds of energy and for the rest (horizontal). The first one dispenses a specific deal to the coal and to the nuclear energy and has been gone profiling in fields like the electricity or the natural gas.

The ECSC Treaty regulates the common market of the coal and the steel. Its last purpose was, without a doubt, to reconcile Germany and France gravely faced in the Second World War and to prevent the German rearm.

The Euratom Treaty was signed in Rome (25th March 1957), at the same time that the Treaty on European Economic Community was. That Treaty entered into force on 1st January 1958. This Treaty was born in the face of the European shortage of energy resources and with the mission of promoting the investigation and the industrial development of the nuclear energy.

The general dispositions of the TEU are applied to the horizontal regulation of the rest of the energy sectors. This is a question not discussed after the reiterated jurisprudence of the Court of Justice in this respect. In concrete it applies the dispositions relative to the operation of the interior market, included the norms of the competition, the economic and social cohesion, the construction of the transeuropean nets, the commercial policy, the cooperation with third countries, the protection of the environment, the policy of investigation and the policy of the consumers.

Also, the energy community policy has been gone conforming to the following articles of the TEU: 100 (for the adoption of short term economic measures), 284 (for the establishment of measures of informative character) and 308 (in the case of dispositions of financial contain) and has specific regulations guided to the achievement of the interior market for the case of the electricity and the natural gas.

## **The hesitant steps toward the construction of an energy common policy**

The lack of an energy common policy behaves noxious effects of special importance such as the ones derived from the existence of contradictions in the administration of the energy policy of the States members. For that reason, the communities efforts have been guided to eliminate the problems derived from the different States practices to assure the supply of the energy markets, to create the only market and, more recently, to reduce the environmental noxious impact.

Without spirit of exhaustivity, we can summarise the main efforts by articulating an energy common policy in the following performances:

### **Main performances of the European Union about energy**

- 1951 (18 of April) Euratom Treaty.
- 1957 (25 of March) ECSC Treaty.
- 1958 Protocol about the means in order to assure a coordinate policy in the field of the energy.
- 1959 Creation of a group of work in order to establish the principles of coordination of the energy policy.
- 1960 Memorandum on the setting in progress of the coordination of the energy policy.
- 1962 Memorandum in order to reinforce the security of petroleum supply and get a common market of the energy.
- 1964 (21 of April) Protocol of agreement about the energy problems.
- 1968 (18 of December) First orientations for the energy community policy.
- 1968 (20 of December) Directive 68/ 414/ CEE in order to establish a petroleum stock of 65 days in order to guarantee the supply.
- 1971 (26 of July) Directive 72/ 318/ CEE on technical prescriptions of gas accountants.
- 1972 (13 of October) Communication about the necessary progresses of the energy policy in the EU.
- 1972 Regulation 1015 and Regulation 1016 about exports and imports of crude oil and natural gas.
- 1972 (19 of December) Directive 72/ 425/ CEE in order to establish a petroleum stock of 90 days to guarantee the supply.
- 1973 SEC (73) 1481 Communication: Orientations and priorities for the community energy policy.
- 1973 (17 of September) Resolution in order to articulate the bases of a true community energy policy.
- 1974 (11 of February) Creation of the International Agency of the Energy.
- 1974 (17 of December) Resolution in order to establish an energy strategy up to 1985.
- 1975 (13 of February) Resolution in order to solve the effects of the first energy crisis.
- 1986 (16 of September) Adoption of objectives of energy policy up to 1995 and about the convergence of the States Members policy.
- 1988 (2 of May) COM (88) 238 final. The interior market of the energy.
- 1990 Directive 90/ 396/ CEE about the norms applied to the gas apparatuses.
- 1990 (29 of June) Directive 90/ 377/ CEE relative to transparency of the electricity prices.
- 1990 (29 of October) Limitation of the emissions of CO<sub>2</sub> for the year 2000 to the level of 1990.
- 1990 Directive 90/ 547/ CEE relative to the traffic of electricity for the big nets.
- 1991 (17 of December) European Letter of the Energy.
- 1991 Directive 91/ 148/ CE relative to the limitation of the natural gas utilisation in the electric power station.
- 1994 (17 of December) Treaty about the Letter of the Energy and Protocol relative to the energy efficacy and the environmental related aspects

1995 Green Book of the energy: For an energy policy in the European Union.

1995 White Book of the energy: An energy policy for the European Union.

1996 (19 of December) Directive 96/ 92/ CE about common norms for the interior market of the electricity.

1997 (23 of April) Communication of the Commission relative to the global vision of the policy and their actions in the field of the energy.

1998 Directive 98/ 30/ CE about common norms for the interior market of the natural gas.

1998 (16 of April) gone into effect from the European Letter of Energy.

1998 (23 of March) Decision of the Council for which the Protocol of Kioto is signed.

1999 (14 of December) Decision 21/ 1999/ CE/EURATOM for which a Frame Program for the activities in the sector of the energy (1998—2002) is settled down. Six quinquennial programs were established: ALTENER (renewable energy), CARNOT (solid fuels), ETAP (Studies on the energy), SYNERGY II (security of the supply), SURE (nuclear energy), SAVE II (energy efficiency).

2000 COM (2000) 769 final: Green book about the security of the energy supply.

2000 COM (2000) 297: Communication about the progresses of the realization of the interior market of the electricity.

## **Achievements**

How I have pointed out at the beginning of this paper, in spite of their strategic character, the energy has not enjoyed an unitary treatment in the breast of the European Community. The concerns initially manifested in connection with the coal that propitiated the conclusion of a Treaty ad hoc with the purpose of creating an only market for this product (and for the steel) in fact pursued avoid the German rearm and the possibility of a new conflagration in Europe. However, the fact that the coal is the main autochthonous energy of the Community has permitted that it have enjoyed a level of more advantageous protection of which purely economic reasons and of strict efficiency have advised. Nevertheless, as I have explained, the aid to this sector, maintained by reasons of social character or of regional cohesion, has become a support to a sector in decadence that has not made but prolong their agony or at least their necessary readjusts.

In spite of this, the competitive cost of the mattered coal, joined to the diversity of the suppliers and to the relative stability of their prices, seems to compensate the negative polluting effects to which all their manipulations (extraction, storage, combustion) gives rise to, and does not impede that the Community re-orientates her efforts to the search of clean technologies and products with high added value.

Radically different reasons impelled the communities partners to confront a new project of integration: that of the nuclear energy. In this case the objective was the development of an energy source that was an alternative and a rival of the coal, subjected to strong processes of retraining and allowed to tackle the growing external dependence of the petroleum. However, the difficulties in order to carry out an energy common policy would come from the lack of close links when not the opposition from France.

Again, the energy common policy faced a clear setback difficulty although we should not forget that, as the Commission points out, the Euratom Treaty has propitiated the realisation of important achievements in the field of the investigation and of the technological development, and has contributed to the adoption of sanitary norms, of radioprotection and of control of security to community level.

Face to this dark panorama, the communities authorities have not desisted of their zeal and to the efforts in this field have linked those destined to the achievement of other very next objectives such as the case of the environmental aspects and the supportable development.

Although the necessity of integrating these last objectives was adopted in the European Council of Helsinki in 1999, the concern for the same was allowed to feel breast of the European Community being even object of a previous debate in the Council in which the steps were captured to continue in the execution of the strategy in order to carry out the mentioned integration. So, in their meeting of 11th May 1999, the Council manifested that it was very important to establish priorities always keeping in mind the interior market of the energy. This priorities were the following: the energy efficiency, the renewable sources, the investigation and development and the internalising of the external costs and of the environmental benefits.

With general character, keeping in mind the communities actions relative to other different energy from the coal and the nuclear, we could say that the energy common policy may be considered subdivided into three big stages:

**The first one** would extend from the signature of the respective Treaties for the coal and for the nuclear energy until the first energy crisis of the year 73. In this period the achievements in the rest of the fields have practically non-existent although isolated measures were adopted guided to guarantee the energy supply like the idea of establishing a stock of petroleum of 65 days or the proposals elaborated by the Commission about the orientations for an energy community policy.

**The second one**, much more active, begins with the necessity of acting in the face of the serious consequences that the industry and the communities competitiveness had suffered like consequence of the policy adopted by the OPEC. In this period, which would extend up to 1985, the Community would attack priority actions guided to reduce the energy dependence of the exterior in the case of the petroleum supply. In order to get this the EU proposed a more intensive use of alternative energies like the nuclear or the natural gas.

These efforts were combined with another not less important guided to improve the energy use, as well as to intensify the own resources. The public aid to the coal could be a paradigm of them.

**The last period** that begins in 1986 supposes a change of tendency. The coal is in a frank decline in the breast of the European Union, motivated not only for the problems of scarce competitiveness for which the sector crosses, but also for their high polluting power. As a consequence of the decline of its consumption and of the descent of the prices of the crude oil that took place that year, the community dependence regarding the petroleum was not succeeded in reducing, but rather increased, to the time that the consumption of the natural gas and of the nuclear energy were also larger. The depreciation of the petroleum also carried certain laxity in the concerns strongly felt in the previous period about the energy use and in the search of alternative energy. In this period the environmental policy and the achievement of an energy only market on which the full liberalisation of the exchanges derived were occupying a preferable place.

A new convulsion of the petroleum prices of the in the spring of 1999 revealed again something: the enormous energy dependence of the European Union and the *structural weakness* of her energy supply that have summed her in the growing rate of energy dependence, the main character of the petroleum in order to determine the price of the energy and the lack of tangible results as a consequence of the setting in progress of the consumption control policy.

In the face of this distressing panorama is not of missing that the Community reactivated her efforts for the adoption of a common strategy that guarantee the energy supply of the European Union. These efforts allowed the elaboration of the Green Book titled: „Toward an European strategy of security of the energy supply“ recently presented by the Commission.

## Pending tasks

The future of the energy common policy needs the achievement of a larger security in the supply. This has been defined for the own Commission like the possibility of guaranteeing the continuous satisfaction of the basic necessities of energy by means of, on one hand, internal enough resources and exploited in conditions economically acceptable or stored like strategic reservations and, on the other hand, the use of external accessible, diversified and stable sources. All that supposes maintain the quality of the service to the users and the continuity of the supplies, as well as the physical and economic security. This security pursues to reduce the risks that the dependence of the exterior behaves. It does not mean to reach the energy autonomy or the self-supplying, but the diversification of its balanced allotment between the several products and regions.

The security of the supply requires the existence of reservations, the capacity of the countries in order to offer the appropriate amounts, a good disposition of third countries in order to permit the traffic, the maintenance and development of the routes of necessary transport and an international frame that assures the stability of the prices and of the exchanges.

These objectives should keep in mind their compatibility with the demands derived of a wider European Union in a short term of time (after the incorporations of new States) and with the advances in the liberalisation of the sector and of the interior market, as well as the environmental impact.

On the other hand, any measure that has been adopted is being supposed to keep in mind that the energy panorama is unwrapped in a frame of uncertainty as a consequence of the concurrence of physical, economic, social and ecological risks.

**The physical risks** are derived of the exhaustion of the sources of energy or of the abandonment of their exploitation when the conditions of market do not make it profitable, but also of the temporary non supplying, consequence of geopolitical crisis, social or of natural catastrophes.

**The economic risks** are inherent to the volatility of the prices of the energy in the international markets. The case of the petroleum is a clear example of this.

These risks could cause, in turn, another **social** ones, consequence of the reaction of the sectors especially affected (as the farmers or the transports).

But it is also necessary to consider the possibility of the accidental risks (black tide, nuclear accident, flights of methane), or habitual ones (polluting emissions).

In the case of the EU, the context is characterised by a demand of energy in increase, both in the current communities partners, and in the candidates countries, an elevation of the consumption of energy coming from traditional sources (petroleum, natural gas, nuclear energy), an increment of the external dependence since the energy imports are larger, and the suppression of regulating traditional elements such as the direct administration of the public services by some of the governments and other external important circumstances (Protocol of Kioto).

In this context, the Community designs her energy long term strategy with actions that seek to act both from the side of the offer and from the demand. In the **offer** side, giving priority to the fight against the climatic change and developing new and renewable energy and encouraging the production of certain minimal amounts of electricity starting from renewable resources, regulating the use of the strategic reservations, facilitating the access to new operators, guaranteeing the separation between electricity producers and electricity managers of the nets of transport and carrying out structures of interconnection of European interest.

In the **demand** side, proposing an authentic change of the consumers' habits, making that the prices of the energy reflect their real costs with the purpose of avoiding the consumption increase as a consequence of the descent of the prices of some fuel, recommending the employment of fiscal instruments to reorientate the demand toward a more controlled and respectful with the environment consumption and articulating an active policy of energy saving, especially in the sector of the construction and of the transport, and promoting the diversification on behalf of not pollutants energy and the diffusion of the technologies of low consumption.

Also, it is necessary to harmonise the energy taxation since the discrepancies between the different countries can cause distort in the competition between them, generate transfers of revenue toward the OPEC countries who insisted on maintaining their high prices, elevate the fiscal competition between the communities partners with the rising loss of autonomy in collecting taxes and hinder the gone into effect from the pollution taxes.

In the face of this panorama, which is it the future for the different sources of energy in the breast of the EU?

For the nuclear energy is uncertain since it is supposed to face to problems like the administration and the storage of the radioactive residuals, the economic profitability of the power stations of new generation, the security of the reactors in the East European Countries (future communities partners) and the concern for the heating of the planet.

In relation to the coal, given their high polluting power and the lack of competitiveness that characterises their markets in the European countries, its future is supposed to take into account the development of techniques that reduce their environmental negative impact, since they are not technical reasons that advise the maintenance of this sector, but strict approaches of security of supply.

For the petroleum, it is necessary to point out that to their advantages in term of being able to heating and the comfort of use face the burden inconveniences derived from the volatility of their prices and from the havoc that the great dependence of their consumption can cause in the economies of the European Union. The efforts should obtain its progressive substitution by sources of renewable energy and their more rational and efficient use, as well as to the forecast of a mechanism reinforced of strategic reservations and of new routes' import.

It is not of missing that due to the derived character of the electricity, the natural gas assumes a growing weight and has passed of being considered an inevitable by-product of the petroleum

exploitation to an energy element with wide perspectives of future. In spite of that, it has some characteristic that makes it a weak alternative, since its price depends on the price of the petroleum, the great concentration of the producing countries -which can give rise to restrictive practices of the competition-, its transport demands some very expensive infrastructures and the external supply of the European Union is scarcely diversified.

The market of the electricity is affected for the fact that this energy is derived. Also, the energetic exchanges between community partners are still very reduced (it makes necessary an use much more efficient of the existent interconnections) and the creation of new infrastructures collides sometimes with the local opposition in some places (Pyrenees, Alps).

The future passes, necessarily, by the support to the alternative energy. However, it is necessary to keep in mind that the economic system has been organised in function of the conventional energy, that in the case of the alternative energy big initial investments are required so that the production of this kind of energy is much more expensive and the competing with all the public aids to the conventional energy is added to it. So fiscal incentives are needed in order to encourage the use of those of alternative character. Also, until now, the progresses in this field has been absorbed by the increase of the consumption.

Nevertheless, the Commission has fixed an objective: duplicate the quota of the renewable energy in the global consumption of the energy which supposes pass of the 6% in 1997 to the 12% in 2010.

#### Symbols:

ECSC: European Coal and Steel Community.

EEC: European Economic Community.

EU: European Union.

SEA: Single European Act.

Euratom: European Atomic Energy Community.

OPEC: Organisation of the Petroleum Exporting Countries.

TEU: Treaty on European Union.

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## **Abstract**

The energy is a strategic element since it constitutes the motor of the trade, well in form of electricity that makes possible the operation of the companies, or as a basic matter in order to permit that the different means of transport make the products arrive at the different markets.

Due to this strategic character it is necessary to reconcile the demands derived of the free competition with the security of supply and with certain social objectives.

The energy also has important repercussions as regards environment since it is not indifferent, in order to its preservation, the use of the diverse energy sources because of its several polluting power and due to the not renewable character of some of them.

This paper seeks to make an historical research about the main events and documents in this subject, stopping in the recently one elaborated by the Commission: Towards an European strategy of security of the energy (29th November 2000). I shall try to analyse the more important problems of the energy policy and the pending tasks, especially to get a larger security in the supply, finding alternative, renewable and non-pollutants energies.

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## **Strategia energetyczna w Unii Europejskiej**

SŁOWA KLUCZOWE: strategia energetyczna, Unia Europejska, środowisko przyrodnicze

### **Streszczenie**

Energia jest elementem strategicznym, jako że stanowi podstawę handlu, zarówno w postaci energii elektrycznej, która pozwala na funkcjonowanie zakładów przemysłowych, jak również w pierwotnej formie w tym sensie, że pozwala na pracę różnych środków transportu, które powodują dostarczenie produktów na rynki zbytu. Ze względu na ten strategiczny charakter niezbędne jest uzgodnienie wielkości zapotrzebowania wynikającego z funkcjonowania wolnego rynku z bezpieczeństwem dostaw oraz z pewnymi celami społecznymi. Energia ma również duży wpływ na środowisko przyrodnicze. Użytkowanie poszczególnych źródeł energii ma różny wpływ na środowisko ze względu na ich niejednakowy stopień zanieczyszczania i z tego powodu, że niektóre z nich nie są źródłami odnawialnymi. Artykuł przedstawia historyczne zestawienie faktów i dokumentów dotyczących tych zagadnień, kończąc na opracowanym przez Komisję dokumencie: „Ku europejskiej strategii bezpieczeństwa europejskiego” (29 listopada 2000). Przedstawiono analizę istotniejszych problemów polityki energetycznej oraz bieżących zadań, zwracając szczególną uwagę na zwiększenie bezpieczeństwa dostaw, wprowadzanie odnawialnych źródeł energii, które nie zanieczyszczają środowiska.