Miami–Florida European Union Center of Excellence

European Energy Security: From Economic Regulation to a Global Diplomatic Strategy

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Vol. 5, No. 8
March 2008

Published with the support of the EU Commission.

EUMA
**European Union Miami Analysis (EUMA), Special Series,** is a service of analytical essays on current, trend setting issues and developing news about the European Union.

These papers are produced by the Jean Monnet Chair, in cooperation with the Miami-Florida European Union Center of Excellence (a partnership of the University of Miami and Florida International University) as an outreach service for the academic, business and diplomatic communities.

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EUROPEAN ENERGY SECURITY

From Economic Regulation to Global Diplomatic Strategy

Rémi Piet

Introduction

The European Union (EU) is facing a growing dependence on politically risky countries in its energy imports following the decrease of Norwegian reserves. According to the European Commission, in 2030, the EU will import 90% of its oil (70% today) and 70% of its natural gas (40% today) to produce its electricity. On 22 November 2007, the European Commission presented the European Strategic Energy Technology Plan (SET-Plan). The main goal of the SET-Plan is to accelerate the development and implementation of low carbon technologies as they will play a vital role in the European Union reaching its energy and climate change targets. Those technologies might also help the European Union in limiting its dependency on Russia, North Africa and the Persian Gulf countries in regards to its energy imports.

In March 2006, the European Commission published “A European Strategy for Sustainable, Competitive and Secure Energy”, also commonly called the “Green Paper” which outlined three fundamental objectives. First, the European Union wants to ensure sustainability by developing competitive renewable sources of energy. Second, the objective of the Union is to optimize competitiveness in the energy sector by stimulating investments and new technology development in clean energy production and efficiency. Finally, the Union defined as a priority the reinforcement of the security of its supplies by “tackling the EU’s dependence on imported energy by diversifying the energy mix, expanding energy sources and managing shortages more effectively”\(^1\)

In this paper, I will analyze the European Union policies and strategies for ensuring energy security. In doing so, I will delineate the historical reasons that delayed the development of a common strategy and the institutional framework in which the policies are decided. Then I will present the main proposals made by the European Commission as well as the latest actions and decisions taken. Finally, I will analyze the impact this strategy will have on Europe’s relationship with its neighbors and the main oil and gas producing countries in the world.

\(^1\) European Commission Green Paper, 2006.
I. Historical and institutional background

Janne Haaland Matlary\(^2\) explains that, although two of the three founding treaties of the European integration process dealt with energy (the European Coal and Steel Community, the ECSC, and the EURATOM treaty), the Commission attempts to move towards common policies in this sector were blocked by national monopolies and divergent national interest until the mid 1980s. Energy policies were rarely tackled by the European Union as it was difficult to find consensus between the different countries. Energy policy is a policy area in which there exist very clear national and structural interests. A country which is a large oil importer will have radically different national interests than an oil exporting country.

Since energy, necessary for a country’s industrial base, is can be considered as a strategic good, its procurement has been regarded as vital for a country’s security. The immediate consequence is the fact that there has been little of a ‘free market’ for energy supplies. Policy cooperation within the European Union has therefore been limited\(^3\). Stephen George offers us a historical perspective of the energy policies promoted by the European Union\(^4\). According to him, the European Community lacked the overall competence for energy policy, despite the existence of the ECSC and EURATOM. The objective of the ECSC was to create a common coal and steel policy but no coal policy emerged and EURATOM was not successful in its goal to develop the basis of a common approach to nuclear energy. More importantly, the Treaty of Rome which created the European Community did not mention energy policy specifically. Therefore, although the decisions on competition norms were supposed to be applied to the energy sector, this ‘omission’ did not allow the European Community to assume a full responsibility on energy issues. As Stephen Padgett would sum it up, “the strategic economic importance of the energy sector meant that policy autonomy was guarded jealously by national governments”\(^5\).

Following the emphasis in the 1980s on privatization in previously public sectors, views about energy policy changed in Europe. From 1988, the European Community had a mandate to develop an internal energy market as part of the general single market mandate and improve a sector marked by monopolies of imports, exports, sales and transmission\(^6\). However there was no mandate to develop a common energy policy in terms of supply security. An interesting difference is the fact that the Single European Act has brought a procedural gap between the two issues. While member states can veto most proposals in energy, and particularly in energy supply policy, proposals about the internal energy market are decided by majority voting.

The Commission therefore used its competition powers to promote an internal energy market and to float proposals for a common energy policy. Changes in national policies and links to environmental policies also shifted the attention of interest groups to the EU level. Through the European Commission, the European Union is able to propose energy strategies and policies to its members and the nomination of a Vice President of the Commission with the title of Union Minister for Foreign Affairs, following the Treaty of Lisbon, will offer more visibility and strengthen negotiation power with the energy supplying countries\(^7\).


\(^{\text{7}}\) Euractiv. "Géopolitique Des Approvisionnements Énergétiques De l’UE."

http://www.euractiv.com/fr/industrie/geopolitique-approvisionnements-energetiques-ue/article-142797
II. Energy strategy and policies proposed by the Commission.

An important step forward in the growth of the role of the European Union in the definition of a global energy strategy was reached in September 2002. On September 11, the European Commissioner Loyola de Palacio proposed a common management of the European strategic energy reserves which was then accepted. For the first time, the Commission was granted an active role in energy reserves coordination and supply policies. Since this date, its responsibilities in this sector have multiplied.

In November 2007, during the EU-Africa-Middle East Conference in Sharm El Sheikh, Andris Piebalgs, the current Energy Commissioner for the European Union, gave a speech describing how the European Union planned to tackle the global energy security and climate change challenges.

Europe's emerging energy policy aims at developing a number of measures to achieve three sets of objectives: sustainability, competitiveness and security of supply. The internal energy market is central to all three. In September 2007, the Commission published the third “liberalization package”: a series of measures that aim to address current failings of the market. The three main areas of the proposal are:

- Requiring the ownership unbundling of transmission from supply and generation activities or the transfer of the assets to an independently run transmission operator;
- Creating of a European Agency for the Cooperation of Energy Regulators and
- Harmonizing the powers and the level of independence of national energy regulators on the basis of the highest common denominator presently existing in the EU.

The European Commission is also working to increase energy efficiency, which is the most challenging, but also the most rewarding, of all the energy policy aspects. The goal set is to have 20% savings in its energy consumption by 2020. From 2008, the European Commission will start rolling out a whole series of initiatives on energy efficiency; from minimum product standards, to better labeling, to improved building standards, to more efficient transport systems. The potential of efficiency improvement is very important, not just in terms of reducing greenhouse gas emissions, but equally in improving competitiveness. For the same reasons and taking into account EU's advanced position for regulatory approach and technologies in this area, energy efficiency and savings are also high on the agenda in the EU energy cooperation with international partners.

In order to satisfy the Kyoto agreements, in 2008 the Commission will table a revision of the Emissions Trading Scheme, taking it beyond 2012 and evolving it so that it is fit to provide the 20% greenhouse gas cuts for which the EU leaders have committed themselves by 2020. The interesting tool used by the European Commission regarding member states is that this objective will include binding national targets for emissions in sectors not covered by the emissions trading scheme.

To be effective this policy will also be translated into legislations. The European Commission plans to issue directives on renewable energies: the "umbrella renewable legislation". It will ensure that the European countries meet the 20% share of the EU's energy mix from renewable sources by 2020 from the current 8.5%. The legislation will include binding national targets, including the 10% of biofuels share in the transport fuel consumption.

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8 Arnaud Leparmentier, Les Quinze s'interrogent sur leurs stocks stratégiques de pétrole, Le Monde, Sept 5, 2002
9 Andris Piebalgs Tackling the global energy security and climate change challenges, Speech at the EU-Africa-Middle East Conference, Sharm El Sheikh, 1 November 2007 Reference: SPEECH/07/786
10 Andris Piebalgs, EU – Russia energy cooperation, International Energy Week, Moscow, 23 October 2007
The European Commission strategy is synthesized in the European Strategic Energy Technology Initiative (SET-Plan), a set of objectives which proposes incentives to be able to meet with the European target. The objective is to introduce a favorable regulatory framework for the development of CO$_2$ capture and storage technologies and encourage innovations in different areas such as a new generation of energy efficient equipment, carbon sequestration technologies and new materials that bring down the cost of wind and photovoltaic energy. The SET-Plan has four main objectives: define a new joint strategic plan, ensure a more effective implementation, increase resources and improve their use, and finally develop a new and reinforced approach to international cooperation.

1. **Joint Strategic Planning**

Defining a joint strategic plan will enable a better orientation of efforts and would be the seed to bring together European researchers and industries. In early 2008, the Commission will create a Steering Group on Strategic Energy Technologies to ensure the execution of the SET-Plan, reinforcing the coherence between national, European and international efforts. The Group, chaired by the Commission, will be composed of high level government representatives from Member States.

In the first half of 2009, to review progress the Commission will organize a European Energy Technology Summit that will bring together all stakeholders in the entire innovation system, from industry to customers, as well as representatives of the European institutions, the financial community and international partners.

Finally, to support the definition of energy technology objectives, as well as to build consensus around the SET-Plan program, the Commission will establish open-access information and knowledge management system on energy technologies.

2. **Improvement of the implementation of the European Union Energy Strategy**

In 2008, six new European Industrial Initiatives will be launched by the European Commission. Those projects will target sectors which working at Community level will add much value such as technologies for which the barriers, the scale of the investment and risk involved can be better tackled collectively. Here is the list of initiatives:

- **European Wind Initiative**: focus on large turbines and large systems validation and demonstration (relevant to on and off-shore applications).
- **Solar Europe Initiative**: focus on large-scale demonstration for photovoltaic and concentrated solar power.
- **Bio-energy Europe Initiative**: focus on 'next generation' biofuels within the context of an overall bio-energy use strategy.
- **European CO2 capture, transport and storage initiative**: focus on the whole system requirements, including efficiency, safety and public acceptance, to prove the viability of zero emission fossil fuel power plants at industrial scale.
- **European electricity grid initiative**: focus on the development of the smart electricity system, including storage, and on the creation of a European Centre to implement a research program for the European transmission network.

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12 Ibid.

13 European Union press release, November 23rd 2007
• **Sustainable nuclear fission initiative**: focus on the development of Generation-IV technologies.

Several initiatives that are already being implemented, or are well advanced in their preparation, serve as illustrative examples: the European fusion research program and its flagship 'ITER'; the Single European Sky air traffic management research program (SESAR); the proposed Joint Technology Initiative on Fuel Cells and Hydrogen; and the proposed 'Clean Sky' Joint Technology Initiative on the environmental impacts of aviation.

The Commission also proposes to create a European Energy Research Alliance that would monitor cooperation around the SET-Plan priorities. The European Institute of Technology would provide an appropriate vehicle to realize this ambition, through a Knowledge and Innovation Community on energy and climate change. The Commission proposes to initiate in 2008 an action on European energy infrastructure networks and systems transition planning. It would contribute to optimizing and harmonizing the development of low carbon integrated energy systems across the EU and its neighboring countries.

3. **Resources Management**

The implementation of the SET-Plan will help overcome the fragmentation of the European research and innovation base, leading to a better overall balance between cooperation and competition and encouraging more focus and coordination between different funding schemes and sources to optimize investment.

The Commission identified two main challenges:

- mobilizing additional financial resources, for research and related infrastructures, industrial-scale demonstration and market replication projects;
- ensuring education and training to deliver the quantity and quality of human resources required to take full advantage of the technology opportunities that the European energy policy will create.\(^\text{14}\)

Moreover, the European Strategic Technology Plan should also include, at the end of 2008, propositions to finance low carbon technologies addressing resource needs and sources. The objective is to propose a comprehensive study that shall examine all potential avenues to leverage private investment, including private equity and venture capital.

4. **International cooperation**

The European Union energy strategy is suffering from a lack of international cooperation. The measures proposed in the SET-Plan (e.g. the Steering Group, European Industrial Initiatives and the European Energy Research Alliance) should bring about a reinforced international cooperation strategy. The Commission is also emphasizing the importance of speaking with one voice within international realm in order to achieve a more coherent and stronger partnership effect. However, the European energy security will only be achieved through the development of new international partnerships that this paper will present in the next section.

\(^{14}\) European Commission, *Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, A European Strategic Energy Technology Plan (Set-Plan), “Towards a Low Carbon Future”, November 22\textsuperscript{nd}, 2007*
III. The European energy strategy through the development of new international partnerships

Following the oil shocks of the 1970s, the European Union has enjoyed inexpensive and easily available energy supplies which resulted in leaving the European Union dependent on fossil fuels, and reduced the interest for innovation and investment in new energy technologies. For the same reasons, the definition of regional agreement with Russia, the Middle East and other key suppliers have been delayed. As we have seen, the European Commission through its SET-Plan strategy is actively working to bridge this technology gap. Likewise, European diplomats are actively building a network of sustainable suppliers and ensuring the definition of a global distribution agreement at the international scene.

The conclusions of the March 2007 European Council\textsuperscript{15} show that the European Union has decided to develop a common external energy policy and to design key cooperation agreements prioritizing supply security and alternative energy developments. Towards this objective, the European Union issued a European Council Action Plan on Energy that shall be reviewed annually by the European Council. Moreover the European Commission has been invited by the Council to put forward an updated Strategic Energy Review in early 2009.

This Action Plan is composed by the development of a network of correspondents and the definition of regional strategies\textsuperscript{16}:

1. Network of Energy Security correspondents (NESCO)

In May 2007 the European Commission established the Network of Energy Security Correspondent (NESCO) which consists of representatives of the European Commission, Council Secretariat and EU Member States\textsuperscript{17}. The objective of this initiative is to create a forum in which EU countries will be able to share assessments of external factors impacting Europe's energy supply and to exchange information on issues of importance to the EU’s external energy policy. Although this new European network (NESCO) has just been created, it has already proven to be effective in its mission to warn European Union members on the threats existing in regards to European energy security. Together with the Gas coordination group\textsuperscript{18} and Oil supply group\textsuperscript{19}, the NESCO can play a major role in the definition of the European Union energy policies, particularly with regard to incidents or disputes which could threaten the flow of hydrocarbon supplies to the EU. One of the main advantages of NESCO is, indeed, its early warning role in possible crisis situations.

\textsuperscript{15} Council of the European Union, \textit{Presidency Conclusion, May 2007}
\textsuperscript{16} European Commission, Developing External Energy Policy for the EU
\textsuperscript{17} European Energy Forum, Network of Energy Security Correspondents (NESCO)
\textsuperscript{18} European Commission, Security of Supply of Natural Gas,
\textsuperscript{19} European Commission, Q&A on Management of Oil Reserves,
2. Partnership with the Black Sea Region

In the Black Sea and Caspian Sea Region, the “Baku Initiative” energy policy dialogue can be expected to entice the countries of the region to face the challenges in cooperation with the European Union and ensure new energy supplies from Central Asia to the European Union. The Black Sea region is a strategic partner for the European Union as it is both a production and transit a region for EU energy supplies. The European Commission therefore developed a new regional cooperation initiative, the Black Sea Synergy, in April 2007, which provides further support for continuing a dialogue on energy security with the EU’s energy partners in the region. In this document, the European Union confirms its “specific interest in developing a sustainable and ecological oil dimension to its co-operation in the region, especially given the growing quantities of oil transiting the Black Sea, which have led to increasing safety and environmental concerns”.

3. Partnership with the Central Asia region

The development of an enhanced cooperation with the Caspian Sea region will allow the European Union to secure its supplies from Central Asia. In June 2007, the European Union therefore developed a specific regional strategy to diversify its energy trade partners and supply routes, on one hand, and also to outline Central Asia as a priority area for further co-operation. This new orientation compiled in a common declaration – “The EU and Central Asia: Strategy for a New Partnership” – reconfirmed the commitment to continue a regular energy dialogue at regional and bilateral levels. In this context, legal and regulatory harmonization in the energy sector continues to be promoted, including through the Baku Initiative.

In interregional talks, both partners agreed to a long term partnership based on common interests and reciprocity to ensure the exploitation of the energy resources of Central Asian states through substantial and sustained investments. The Commission continues also to develop bilateral relations with individual countries in the region. One example is the implementation the Memorandum of Understanding on energy with Kazakhstan. The European Union also developed an enhanced cooperation with Turkmenistan and Uzbekistan.

4. Partnership with Russia

The European Union has spent a lot of diplomatic effort trying to lift Poland’s veto over the negotiations for a new treaty to replace the 1997 ‘partnership and co-operation agreement’ (PCA). This is a necessary step in order to design a new cooperation agreement in the field of energy. The priority with respect to Russia, political conditions permitting, is to launch the negotiations on a post-PCA agreement which will include a substantial chapter on energy. At the last EU-

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Russia Summit in Mafra\textsuperscript{24}, it was agreed to establish an early warning mechanism on oil and gas supplies to the EU. Finally, three newly established Thematic Groups have been recently added to the Energy Dialogue between EU and Russia: energy strategies and forecasts; development of energy markets and energy efficiency.

5. European Neighborhood Policy (ENP)

The European Neighborhood Policy (ENP) is composed of regional and bilateral agreements. Energy is, since its inception, a strategic element of the ENP. ENP countries are, as energy producer and transit countries, crucial for the EU’s energy security. In this context the Commission has launched an analysis of all existing frameworks covering energy relations with third countries such as transit countries, regions and bodies in the ENP region in view of assessing the possible need for a legal framework for the EU-ENP energy relations.

As far as regional diplomacy is concerned, the Euro-Mediterranean Partnership (or Barcelona Process) supports regional efforts to develop harmonized legal and regulatory energy frameworks through such initiatives as development of a Euro-Mashrek gas market, the integration of electricity markets in Maghreb and cooperation between energy regulators. One of the main priorities of the ENP in the field of energy is the completion of an electricity and gas ring in the Euro-Mediterranean region. Another key project is the Arab Gas Pipeline that will bring additional gas resources from Egypt and potentially Iraq to the EU. The definition of those projects as strategic priorities has been reaffirmed during the Euro-Med Ministerial meeting that took place on 17 December 2007 in Cyprus\textsuperscript{25}.

The European Union is also carrying out bilateral negotiations such as the implementation of the Memorandum of Understanding of December 2005 on energy with Ukraine\textsuperscript{26}. This Memorandum develops the energy objectives outlined in the EU-Ukraine ENP Action Plan. Energy agreements with Ukraine have also an important emphasis on nuclear plants following the Chernobyl disaster. In September 2007, the joint Commission-IAEA-Ukraine evaluated the nuclear safety of the Ukrainian nuclear power plants and proposed a pledging conference to be organized in order to implement the necessary rehabilitation of the Ukrainian gas transit network\textsuperscript{27}.

Ukraine, as well as another energy partner on the European Union eastern border, Moldova, is currently observer in the Energy Community Treaty\textsuperscript{28} and both countries’ membership is under consideration as a means of promoting legal and regulatory harmonization with the European Union. The European Commission increased its cooperation considerably with Moldova, and the two partners recently agreed on a common energy strategy\textsuperscript{29}. In 2007, joint declarations were signed on energy cooperation between the European Commission and


\textsuperscript{26} Mission of Ukraine to European Communities, \textit{Memorandum of Understanding on Cooperation in the Field of Energy between Ukraine and the European Union} \url{http://www.ukraine-eu.mfa.gov.ua/eu/en/news/detail/1345.htm}

\textsuperscript{27} Uranium Information Center, \textit{Safety of Nuclear Power Reactors, Nuclear Issues Briefing Paper 14} \url{http://www.uic.com.au/nip14.htm}


Morocco\textsuperscript{30} as well as with Jordan\textsuperscript{31} in order to provide a framework for reinforcing energy relations.

In regards to Morocco, the cooperation will focus on strengthening its role as a transit country for gas supplies to the EU as well as an electricity exporter to the EU. Energy cooperation with Jordan focuses on, among other issues, support for Jordan's energy policy, on enhancing energy security in the region to facilitate the future gas transit to the EU, as well as ensuring highest standards of nuclear safety.

Finally, discussions are under way to enhance energy relations between the EU and two major energy suppliers in the region: Algeria\textsuperscript{32} and Egypt\textsuperscript{33}. While the negotiations with Egypt on an energy partnership are in their final stages, the EU and Algeria reached an agreement on territorial restrictions and alternative clauses in gas supply contracts in July 2007. This represents a further step in deepening the strategic energy relations between Algeria and the EU.

6. Partnership developments with Middle East countries

Taking into consideration the importance of the Middle East in terms of its gas and oil reserves as well as its significant renewable energy potential, the European Commission continues to develop energy relations with the countries in the region. This was one of the objectives of the EU-Africa-Middle East Energy Conference held on 1 November 2007 in Sharm El Sheikh\textsuperscript{34}. This conference, hosted by the European Commission and Egypt brought together the major energy players in the region in order to discuss cooperation in enhancing regional energy security, addressing climate change and improving access to energy services. Conference participants agreed to develop technical cooperation in order to address the issue of clean energy technologies, such as solar and wind technologies.

7. Cooperation with other key energy partners

Energy plays an ever more central role in the bilateral relations between the EU and third countries. The newly established EU-Brazil strategic partnership, launched at the first EU-Brazil Summit in July 2007 includes, \textit{inter alia}, commitments to cooperate on renewable energy, with a special focus on biofuels, low carbon energy technologies, and increasing energy efficiency. The commitment to work together closely, including at the global level, was also confirmed at the


\textsuperscript{33} The European Commission's Delegation to Egypt, \textit{Egypt and the EU to Boost Energy Cooperation with Africa and Middle East}\n\url{http://www.delegy.ec.europa.eu/en/News/523.asp}

International Conference on Biofuels organized by the European Commission on 5 July 2007 in Brussels.

The relations between the European Union and China also tackle energy security which is considered by both powers as a key issue. The energy cooperation between both powers is managed within the recently created EU-China Clean Energy Centre in Beijing. A practical example of the participation of the European Union is the support offered by the European Commission to the construction of a clean-coal-technology power plant.

Another key energy partner for EU is Norway. Norway has a specific importance for the European Union. First of all, it is the world's third largest exporter of oil and gas, enjoying stable economic and political institutions. Moreover, Norway is also the EU's second most important supplier of gas. Norway and the European Union therefore agreed to coordinate their energy policies and develop common objectives through the implementation of research and technological development funds in order to solve environmental issues, such as carbon capture and storage.

Finally, both the European Union and the United States are facing the same interests in energy security as they are the world’s largest energy consumers. In order to cooperate in tackling those issues, they agreed in developing energy relations in areas such as biofuels, energy efficiency, energy technology and global energy security through the EU-US strategic energy cooperation designed during the 2006 EU-US Summit in Vienna. Another agreement to work on the development of compatible standards for biofuels also gathers the European Union, the United States and Brazil.

Conclusion

While it was usually considered to be reserved to the national domain, the topic of energy has arisen to the center of intense diplomatic activity in the last few years. This evolution is in compatibility with the original spirit of the European integration process which placed the question of energy at the center of two of its three founding treaties (ECSC and EURATOM).

Energy policies have an economic component but are also representing a crucial strategic topic. As the European Union is so dependent on its foreign suppliers, importing close to 80% of its needs, it is urgent that the 27 countries continue to develop a common strategy to ensure the sustainability and the security of this essential supply. The European Commission is playing a very important role in implementing this strategy by both encouraging the development of alternative energy production within the European Union through research programs on Nuclear Energy and incentives on technology development to allow a competitive production of renewable energies and on the other hand by developing enhanced cooperation with European economic partners and energy suppliers around the world.

The signing of the Treaty of Lisbon, giving more power to a common foreign affairs approach through the designation of a Vice President of the Commission with the title of Union Minister for Foreign Affairs, and reinforcing the possibilities to develop new legislation in the topic of energy will help the European Union in implementing a sustainable energy strategy.

35 Bioethanol – Alcosuisse, Oil and Climate - A Century of Oil
36 Chatham House, Interdependencies on Energy and Climate Security for China and Europe
http://www.eu-china-energy-climate.net
37 Council of the European Union, EU-US Summit - Vienna, 21 June 2006,
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