Towards a European Strategy for Energy Security?

Member States Diversity and EU Institutional Capacity

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Abbreviations

BTC Baku-Tbilisi-Ceyhan pipeline

CFSP Common Foreign and Security Policy

DG TREN Directorate-General for Energy and Transport

ECSC European Coal and Steel Community

ECT Energy Charter Treaty

EEC European Economic Community

EESS European Energy Security Strategy

EGRF European Gas Regulatory Forum

EMP Euro-Mediterranean Partnership

ENP European Neighbourhood Policy

EP European Parliament

EURATOM European Atomic Energy Community

GDP Gross domestic product

GECF Gas Exporting Countries Forum

IEA International Energy Agency

IEM Internal Energy Market

LNG Liquefied Natural Gas

MS EU member states

OECD Organisation for Economic Co-operation and Development

R/P Reserves-to-production

SCO Shanghai Cooperation Organization (members: China, Russia,

Kazakhstan, Uzbekistan, Tajikistan and Kyrgyzstan)

S/D Supply/Demand Index

TOE Tons of Oil Equivalent

Preface

When I say I work with energy security in the European Union, people often start talking about Russia as if it were the same thing. And in a way they are right. A reminiscence of power and geopolitics, of a rhetoric belonging to the old times in a European imaginary falsely believing to be beyond history, and with the will to use accessible energy trump cards, Russia incorporates most reasons for why we are going to hear a lot about energy security in coming years. It does not seem that any clear idea about what the EU can do to mitigate worries has reached ordinary citizens, or the EU itself for that matter. My main motivation to write this thesis was the fascination for how the EU would or could secure its energy supplies if propelled back to history¹.

Outcries over soaring energy prices have followed me to my self-imposed exile, where the last months far from the daily stress at Blindern have permitted me to concentrate on how this felt insecurity can and will be dealt with in the future. My love, my *colocataires*, Bordeaux's Institut d'études politiques and culinary delights, my family and friends, and my insightful and flexible supervisor Professor Dag Harald Claes (Autumn 2007, Spring 2008), have contributed to make the work tenable and progress possible. I owe them many thanks. Word count: 27524 words.

Bordeaux, May 2008

Erik Helgerud

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¹ Cf. the dystopic title of Robert Kagan's coming book, The Return of History and the end of dreams.

"Where is the growth in energy demand coming from? Unstable countries. Where is the growth in energy supply coming from? Unstable countries. All this makes for a somewhat uncomfortable and unpredictable future."

Robert E. Ebel²

"Europe needs to act now, together, to deliver sustainable, secure and competitive energy. In doing so the EU would return to its roots."

European Commission³

² Ebel (2002). Robert E Ebel is a former Chairman at the Center for Strategic & International Studies Energy Program.

³ An Energy Policy for Europe (COM(2007) 1 final:3).

Chapter 1

Introduction: Energy Security in a Changing and Unstable World

The first EU Green Paper devoted entirely to energy security states that the long term strategic goal must be to ensure "for the well-being of [EU] citizens and the proper functioning of the economy, the uninterrupted physical availability of energy products on the market, at a price which is affordable for all consumers" (COM(2000) 769 final:2). Several factors make Europe worry about how to realise this goal in the future.

The pessimistic world outlook is that the "threat to the world's energy security is real and growing" (IEA 2006:2). Resource poverty, poorly diversified imports, and a difficult relationship to its most important supplier of energy make Europe particularly vulnerable. The risk exposure motivates some, but not all, EU actors to work for the development of a strong, flexible and consistent European Energy Security Strategy. This study is about how the configuration of member states' preferences and the EU's institutional capacity can contribute to such a development.

1.1 Defining Energy Security

Barton et al. (2004:5) define 'energy security' as

a condition in which a nation and all, or most, of its citizens and businesses have access to sufficient energy resources at reasonable prices for the foreseeable future free from serious risk of major disruption of service.

The meaning of the words sufficient, reasonable, foreseeable, serious and major in this definition is not obvious. What is seen as reasonable prices for example, vary over time and among consumers, as exemplified by different conceptions of 'acceptable' crude oil and petrol prices from the 1960s till today, and between the USA and Europe. Too high energy prices are generally feared because they cause "unemployment, inflation, foreign

trade deficit and economic recession" (Austvik 2003:225). Conversely, political leaders in consumer countries normally have a more nuanced view of preferred energy prices than a simple "the lower the better" (Claes 2001:343), since too low energy prices may lead to increased consumption, fewer incentives to save energy, and as a consequence higher import dependence. In this study, unmet demand is simply treated as lack of security, although it is possible to discuss what 'sufficient' energy supply is⁴.

A key component and fundamental commodity in the basic structural framework of any modern society, energy is a high security issue. The different categories of end-consumers – industrial (50%), transportation (27%), residential (15%), and commercial (8%), percentages of world total energy consumption in brackets (EIA 2007:175) – all depend on stable flows of energy to produce food and merchandises, transport goods and persons, heat houses and run the computer on which these words are written. Supply disruptions can be caused by anything from operational failures due to mismanagement or extreme weather, to long-term, economical, infrastructural, or political problems (Stern 2002:6). The main focus in this study is the latter, long-term risk category.

1.2 EU Energy Policy: Adapting to Expected Unstability

The EU faces several threats to future energy supply security. It is heavily and increasingly dependent on imported energy. Gas import is expected to increase from 57% to 84% by 2030, import of oil from 82% to 93% (COM(2007) 1 final). A high (and increasing) share comes from politically unstable countries operating outside the regulated international free-trade regime, some of whom seem disposed to use energy as a political weapon (Sieminski 2005:22). Russia, the largest supplier to the EU, is considered a particular source of worry. The much talked about interruption of gas

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⁴ Luciani (2004:3) remarks that household consumption of oil and gas always can be curbed to some extent in emergency situations, and hence that a percentage of standard consumption would be a more accurate measure of 'secure supplies'. This is true, but has very impractical consequences, and remains therefore a footnote of no significance for the further discussion.

supplies to Moldova and Ukraine in January 2006 is but one of several examples of "a systematic policy of coercive bilateralism that includes diplomatic pressure, trade embargoes, transport blockades and early renegotiation of gas or oil supply contracts" (Leonard and Popescu 2007:15). In addition, there is frequent talk of a coming – some even use the word "final"⁵ – energy crisis caused by an imminent peak in the production of oil. The idea of a worldwide depletion of fossil fuel resources remains however very controversial (Sieminski 2005:43-5, Brandt 2007). A more consensual observation is that the market is becoming increasingly competitive, explained in part by the continued growth in energy demand (Kalicki and Goldwin 2005:5, Van der Linde et al. 2004).

EU energy policy has so far mainly been a case of negative integration, where the goal has been to increase efficiency and lower prices by removing obstacles to competition. External energy policy has consisted of attempts to extend the market logic beyond EU's borders, as exemplified by the Energy Charter Treaty. The security dimension has remained almost exclusively a member state domain. Several authors point out that recourse to national measures in a situation of supply uncertainty is becoming a less adequate response for an interwoven EU market facing external insecurity (Van der Linde et al. 2004:15, Leonard and Popescu 2007:54). In the worst case, economic nationalism and energy mercantilism could undermine solidarity and the interdependence logic of the integrated market, thereby contributing to internal conflicts and disunity. To mitigate risks, and avoid this situation, the European Commission and several member states recommend energy security policy integration. The European Commission puts it the following way: "Energy policy has assumed a new Community dimension without that fact being reflected in new Community powers" (COM(2000) 769final:3).

⁵ Cf. Mckillop (ed), The Final Energy Crisis, from 2005.

1.3 Research Question

The high degree of diversity among EU member states (MS) is often invoked as an explanation for difficulties in communitarising energy security policy (Matláry 1997:20, Van der Linde et al. 2004:92, Müller-Kraenner 2007:121). The claim is based on a view of European integration, at least in high-politics domain, as a process driven mainly by MS. This position is challenged or supplemented by a large research literature suggesting that supranational institutions matter, and that the EU is something more than a bargaining arena in which member states meet to discuss cooperation. The *relationship* between the impact of the EU's MS and its institutions on the integration process is neither constant over time, nor the same for all issue-areas. It depends on contextual variables like preference patterns, external constraints, the stakes involved, expected gains from cooperation, and formal decision-making power. The goal here is to investigate this relationship with regards to the possibility of developing a European level strategy for energy security. The research question is:

To what extent and how do member states' differences and EU's institutional capacity determine the development of a strong, flexible and consistent energy security strategy in the European Union?

'EESS' – European Energy Security Strategy – will be used throughout the study to designate a strong, flexible and consistent energy security strategy, distinguished from the current European energy security strategy, and as defined in section 2.1.2.

The first factor, *member states' differences*, refers to their energy security situations. Risk exposure or vulnerability, assumed to indicate support for an EESS when high, is measured by factors like energy mix, diversity, degree of import dependence and character of external energy relations. The European Commission's role as initiator despite its limited formal competences in this domain, indicates that the *EU's institutional capacity* to influence strategy development is a complex issue. An important component is certainly the role as arena for intergovernmental bargaining, but the possibility of direct supranational influence should also be kept open.

1.4 Structure and Main Findings

Chapter two establishes and discusses key assumptions and the analytical framework used in the study. It also contains a section that specifies what is meant by a strong, flexible and consistent strategy (the dependent variable). Chapter three is a context chapter, where the two first parts give an overview of past and current experiences, efforts and difficulties in establishing EU policy and energy strategy development. The last part outlines scenarios against which policy-makers in the EU (supposedly, or ideally) take decisions. The scenarios provide arguments for, and give directions to, an EESS. An adequate strategy has to respond to what Van der Linde et al. (2004:82) call "the core environment" – that is, current and future (possible) energy security situations.

Chapters four and five analyse prospects for a strong EESS. The first part of chapter four explores the assumed preference pattern, based on a developed typology of energy security situations in EU member states. Dependence on imported oil and gas is a relatively common feature, but I find clear differences regarding energy mix, diversity, degree of import dependence, and hence risk exposure and assumed strategy preferences. EU's mini-states, the Baltic states, the Czech Republic and Poland are expected to be the strongest supporters of an EESS. Most of them have a high share of oil and gas in their energy mix and a low degree of diversity, they import most of their energy, are highly dependent on and have a difficult relationship with Russia. Most new MS are medium to high risk countries, and large and old MS are overrepresented among low risk countries. States in the latter category have fewer incentives to opt for a strong strategy. Among them are Austria, the Netherlands, Denmark, Sweden, Ireland, France and the UK. In the second part of chapter four, the leadership potential of France, Germany and the UK, the three largest and most important states, is explored through more qualitative and in-depth studies supplementing the mainly quantitative analysis in the chapter's first part. The conclusion is that these three countries have strong and divergent national energy security preferences, and none of them are likely candidates to initiate and lead an EESS process.

Chapter five analyses the EU's institutional capacity of accommodating this diversity. The first part describes this capacity as limited, based on the classification of

EESS development as a case of hard-won positive integration in a high security domain. In part two, the EU is analysed as an arena for intergovernmental bargaining. Its institutional structure provides both general and issue-specific advantages for negotiations about a future EESS: stable and predictable conditions of trust and information, mechanisms to enforce agreements, and a great potential for strategic use of issue-linkage for energy security. Potential benefits from cooperation exist for all MS, but different stakes and pay-off structures may make it difficult to underscore the advantages of cooperation. Russia's divide and rule strategy threatens to play the states against one another. States offered good bilateral deals may be reluctant to support a strong EESS, as they risk losing their seemingly advantageous relationships. Few existing EU competences, unanimity requirements, together with factors described in part 5.1, make strategy development a likely problem-case. The last part of chapter five explores possibilities for supranational institutions to influence the process through entrepreneurship, agenda-setting and direct influence on actors' preferences. This capacity is considered weak now, but its importance may increase with an eventual gradual transfer of competences to the supranational level. Flexibility regarding paradigmatic or world-view changes, as exemplified by the possibility of a return to geopolitics, may be particularly hard to acquire.

The overall conclusion is that a strong EESS is unlikely to develop in coming years, since it demands radical changes in the EU's perception of energy supply threats and preferred tools to accomplish its objectives. Diversity of member states' situations and preferences, and relatively weak institutional capacity are the main obstacles to a strong strategy.

Chapter 2

Methods and Theory

This thesis can be described as an interpretive, theory-based case-study. It contains an element of prediction, as it interprets conditions or foundations for a specified and singular future phenomenon to develop. The goal is not to propose alternatives for how the future European strategy will look like, but to develop causal propositions and theoretically founded criteria for the likelihood of a defined EESS, based on investigations of the current situation.

Section 2.1 lays the foundation for the analysis of context in chapter three (2.1.1) and the main analysis through the delimitation of the dependent variable (2.1.2). In section 2.2 I discuss the overall theoretical orientation and establish assumptions for chapter four (2.2.1) and five (2.2.2). A third section (2.3) contains a note on sources.

2.1 Energy Security Strategy: What is it & What should it be?

Energy security is not a new concern. Despite failed attempts to establish an EU-level strategy in this traditional state domain, the direction for future development is indicated by security-relevant EU energy policies like the Internal Energy Market (IEM). The first two parts of chapter three traces the development leading to the current status for the European energy security strategy, based on the simple, commonsensical claim that context and history matter. Due to the potential nebular effect of a context variable (cf. Andersen 2003:31), I prudently keep it outside the formal causal model. The idea incorporated in the 'path dependence' concept that "particular courses of action, once introduced, can be virtually impossible to reverse" (Pierson 2000:251), suggests that I should study the extent to which current key principles of EU energy policy deviate from the definition given below of what is necessary to qualify the future strategy as strong, flexible and consistent. The path dependence approach is inherently sceptical to

the potential for progress towards an EESS in these deviating cases. The problem is that this scepticism, dangerously close to determinism, makes it unsuitable to study the possibility of actors responding to current and future (expected) changes to their environment (Crouch and Farrell 2002:5). I therefore maintain the need for a context chapter to situate the current debate or 'starting point' for forward-directed strategy development, without proposing hypotheses of strong path dependence. The context chapter helps identify what kind of progress the EU has managed to make so far, and what questions that are expected to be particularly contentious later. Section 2.1.1 outlines an analytical framework for the analysis of current strategic thinking.

In the last part of chapter three I look at some key indicators in scenarios for changes in the EU's energy security situation. Trends for location and capacity of production, consumption, distribution and import dependence, and the general geopolitical climate are treated. EU's policy makers are expected to make decisions based on rational considerations of these scenarios. An important element in the delimitation of the dependent variable, done in section 2.1.2, is that the EESS must be able to respond adequately to these scenarios.

2.1.1 Analysing Strategy

In analysing strategic thinking I will use a framework based on Biscop's (2004:3) definition of 'strategy', and the dimensions used by Berenskoetter (2005) in his comparative analysis of US and EU general security strategies. The framework consists of the following three dimensions: (i) Interest-based energy security *objectives*, (ii) *threats perception*, and (iii) preferred *means* or *tools* to fulfil objectives and counter threats. A wide range of potential means exist: Strategies for diversifying among energy sources, suppliers and supply routes, security margins (spare production capacity and (oil and gas) emergency stocks), level of regulation in the energy market, relations with energy producing countries, cooperation with other importing countries, assuring good management of the global energy market, and the use of technology, research and development.

When dealing with past and current strategic thinking and future trends in chapter three, the EU is conveniently treated as a geographical unit that faces the same situation, although differences described in chapter four show that risks will be unevenly distributed among its MS.

2.1.2 Delimiting the Dependent Variable

These strategy dimensions will in this section be used to delimit the dependent variable – a strong, flexible and consistent energy security strategy. Defining how a strategy should look like is complicated, because it has to react to unknown future changes in Europe's energy situation. The external relations aspect is particularly hard to define, as it implies "a constant process of policy coordination" (Smith 2004:5). Compared to for example economic integration with the clear goal of eliminating trade barriers (ibid.), the objectives of a common foreign policy are less constant and predictable over time. Taking these difficulties into account, I will with the following definition try to lay the foundation for a meaningful and precise response to the research question, and to provide a scale against which the current level of strategy development can be measured.

First, a strong strategy requires energy supply to be recognised by MS and EU institutions as a high security concern for the Community level. The objective of assuring "access to sufficient energy resources at reasonable prices for the foreseeable future" (Barton et al. 2004:5) must apply indiscriminately to citizens and businesses in the entire Union according to a principle of solidarity (Geden et al. 2006:14). Wherever conflicts between national and supranational interests, MS should refrain from pushing national priorities in all aspects relevant to energy security, including defence, external relations, and competition and trade policy.

An adequate assessment of threats is flexible, wide and anticipative enough to avoid unpleasant surprises in coming years. The strategy must prepare for, and be able to respond optimally to, radical changes. Chapter 3.3 on future challenges gives an overview of scenarios for the world's future energy situation, and indicates thereby what kind of radical change a flexible strategy must be able to meet. The Union should be prepared for anything from short-term crisis and supply interruptions to long-term

changes in market situation and relations with producer countries. Any world-views, 'policy paradigm'⁶ or cognitive filter that dominates, limits and guides strategic energy security thinking in the EU, must equally be open for revision.

The logical second step after having defined energy supply as a high security issue for the Union as a whole, is to follow up with the necessary means. At a Brussels conference in 2006 about EU external energy policy, External Relations and European Neighbourhood Policy Commissioner Benita Ferrero-Waldner put it this way:

There is a clear need now for the EU to put its external and internal policy instruments at the service of its energy security. These instruments include our European Neighbourhood Policy, our contractual relations with our main energy partners in central Asia, the Middle East, the Gulf, Africa, South America, USA, China, India and our whole network of bilateral, multilateral and regional agreements, and specific cooperation schemes. (Ferrero-Waldner 2006:14)

Ferrero-Waldner's statement is bound by currently available community powers and instruments. These reflect intergovernmental bargaining and everyday policy-making throughout more than 50 years of integration history, and should not limit envisaged means. Putting external and internal policy instruments at the service of energy security is a start. A strong and consistent strategy may require MS to cede sovereignty by communitarising other relevant policy areas and expand community powers. Sufficient resources must be put at disposal to follow up the objectives, and the strategy gains priority when these objectives and means are in conflict with goals for other policy areas. This is not trivial, since the promotion of energy security, as pointed out by Baran (2007:3), "does not always align neatly with EU's broader policy priorities in third countries, such as encouraging responsible governance and the rule of law, promoting free trade and preventing human rights violations." A regulatory environment that favours investment and maintenance of sufficient and secure infrastructure and power generation capacity must be given priority (Stern 2002:10), meaning also that supply security can be among the tolerated justifications for market intervention (Scharpf

⁶ "Such paradigms represent the institutionalised principles of policy action. They structure the way in which policy-makers see the world and their role within it" (Andersen 2002b:2).

1999:62). "Simple reliance on the market should be avoided as it might orient a country's energy dependence toward cheaper foreign sources" (Constantin 2005:4), and a coherent diversification policy with a strong involvement in the EU's neighbourhood must be backed by all MS. Examples of tools that may help bring coherence to a complex strategic field are cost-risk analyses, strategic reviews, normative standards and policy targets (cf. Scheepers et al. 2007:19f).

The EU must be able to act as a unitary actor. Not necessarily by replacing bilateral dialogue between EU member states and third countries by Brussels-third country dialogue, but one must "move towards a situation where the proliferation of bilateral contact reinforces rather than undermines common EU objectives" (Leonard and Popescu 2007:59). The current goal of commercial integration of neighbouring energy producers and transit countries in the Energy Charter Treaty (ECT) and its attached Transit Protocol can be maintained. Its lack of success indicates however that expectations and assumptions about the outside world are unrealistic, and that the goal must be supplemented. Geostrategic thinking reveals a need to envisage the use of a wider range of foreign and security policy tools, consciously using Europe's power resources. Baran (2008:155) recommends "more proactive steps toward demanding reciprocity in interactions with Russia", including the possibility of prosecuting Gazprom for its monopoly position. The possibility that the geopolitical future resembles the storyline termed 'Regions and Empires' by Van der Linde et al. (2004:26), implies the need to consider the use of "all the available energy policy tools, such as prevention, deterrence, containment and crisis management, and the active use of foreign and security policies." Institutional change may be needed to make Europe, with its "slow and cumbersome decision-making processes and lack of tactical nous" (Leonard and Popescu 2007:52), capable of using hard power.

Summarised, the implementation of a strong, flexible and consistent strategy implies potential sacrifices for MS along the following dimensions (see table 2.1): Restrained national sovereignty, commitment to economic interventionism where necessary, fundamental economic self-interest subordinated the common good, acceptance of costs for institutional change (cf. Héritier 1999:15). A clearly defined EESS could be materialised as a ratified strategy document, but the form is only

indicative, and not of substantial importance here. Another possibility is to follow the Polish proposal of establishing a European Energy Security Treaty comprising an equivalent to the NATO article 5, or in the words of the then Polish Prime Minister Marcinkiewicz (2006) a "guarantee clause based on the "musketeer principle": "All for one – one for all"."

Table 2.1 Dimensions of a weak vs. a strong strategy

	Weak Strategy	Strong Strategy
Threats perception	Moderate potential risks.	High potential risks, high stakes. A fundamental security issue.
General objective	Secure, competitive and sustainable energy for all EU members.	When conflicting interests, secure energy gains priority over the two other objectives.
Internal economic means	Achievement of IEM. A somewhat regulated free market ensures efficiency and supply. Domestic production of renewables promoted.	Achievement of an IEM with more market control. Long-term energy security gains priority over short-term profit. Domestic production, notably of renewables and nuclear energy, encouraged. Security standard legislation.
External relations means	Interdependence and economic- juridical integration and cooperation. Extension of market logic (ECT).	Use of new and wider competences and means under CFSP. Geostrategic alliance-building. Coherent diversification strategies, and integration of the neighbourhood.
Accessible community tools	Nation states maintain control over traditional domains.	New EU competences and institutional change to increase capacity to act as unitary actor.

2.2 Analytical Framework and Key Assumptions

A precise understanding of what the study is a case of is required for a relevant theoretical guidance to understand processes and actors' behaviour (Andersen 2003:61). A stepwise answer can be given: (i) EESS development implies policy coordination through and by the EU's supranational institutions, and is hence a case of *European integration*. Integration in the EU is explained by different mechanisms and as incited by different actors depending on which of the two grand theories one turns to. Neofunctionalists claim that supranational EU institutions have been important driving

forces in the integration process, and that once initiated in one field, integration has a tendency to 'spill over' into other policy domains. Intergovernmentalists see retained MS control over decisive decisions as evidence that the EU remains essentially a project of cooperation between rationally calculating states who opt for integration when it corresponds to their (particularly economic) interests (Moravcsik 1998:3). The cooperation goes deeper than in traditional intergovernmental organisations only in policy areas where the potential for realising common interests is great and where vital interests are not at stake. The label 'grand' evokes the attempts of these two theories to understand what drives the entire integration process, but for the purpose of this study their applicability on integration in the particular issue area energy security matters more. (ii) The second point, that the EESS requires *positive integration*, opens up for a more nuanced understanding of the conditions required for integration. The distinction between positive and negative integration is central in the works of Fritz Scharpf, who applies it to economic integration:

negative integration refers to the removal of tariffs, quantitative restrictions, and other barriers to trade or obstacles to free and undistorted competition. Positive integration (...) refers to the reconstruction of a system of economic regulation at the level of the larger economic unit (Scharpf 1999:45, emphasis removed).

EESS integration is here considered 'positive' in that it implies the establishment or construction of new and committing policies with agreement on objectives, threats perceptions, and means. Scharpf (1999:66) underlines the need to avoid "a-priori assumptions about the relative importance of specific classes of actors." His core insight is that power and influence of key actors, decision making procedures and difficulties of achieving integration vary with these two categories. (iii) The classification of energy security as a high-politics and core nation-state domain has along the same vein implications for decision-making procedures, distribution of decision-making power, and actors' behaviour. The expectation is that states are less willing to cede decision-making power in a domain of high importance for national security and where national traditions are strong.

The explanatory power of neo-functionalism versus intergovernmentalism hence depend on the policy-domain in question, and the answer I have given to what EESS development is a case of provides reasons for using an approach that is closer to intergovernmentalism. It also leads to expectations about a relatively weak role for supranational institutions in the process of establishing an EESS. Neo-functionalism has according to Andersen (2000b) some merits in explaining energy market integration, where the Commission has had autonomous influence on the process. But compared to the EESS, the IEM is a quite different case of mainly negative integration in a low-politics domain. The still weak energy security policy can be cited in support of the intergovernmentalist view that nothing happens as long as self-interested states prefer the status quo.

Writing within a liberal intergovernmentalist approach, Andrew Moravcsik (1998) describes the European integration process as a tripartite causal sequence of national preference formation, interstate bargaining, and institutional choice. This thesis uses a resembling structure. It is based on key assumptions of states as the most important actors, seen as rational, utility-maximising, unitary and concerned with security and economic prosperity. Common criticism against such assumptions focuses on the increased complexity in world politics characterised by new dominant actors and interaction patterns, as well as elements of a less conflictual agenda of interdependence and integration (White 2001:32f). But the advantage is that they allow relatively parsimonious, quantitative treatment of 27 EU member states. The simplifying assumptions regarding the formation of national preferences used in chapter four are also made to deal analytically with the complexity of a large number of states. Quantitative aspects of the internal and external energy security situations are assumed to influence strategy preferences in ways specified in section 2.2.1 below. A part of a state's energy security situation, external pressure can influence both preference formation and cooperation climate, thus complicating Moravcsik's sequential pattern. The analytical short-cut from situational characteristics to preferences allows me to develop typologies and preference patterns for a large number of actors. The second part of chapter four studies strategy preferences of the most powerful EU-countries France, Germany and the UK more closely, based on the idea that "calculating statecraft by highly strategic key governments" previously has been, and also probably is in the

case of energy security, an integration-promoting factor (Wallace 1999:155). The first parts of chapter five correspond to the second and third stages described by Moravcsik (1998:20), where states

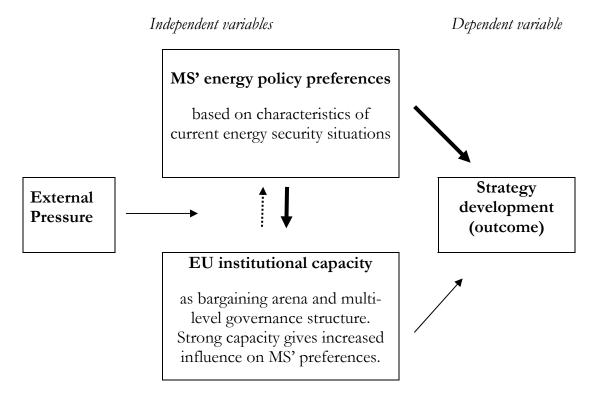
develop strategies and bargain with one another to reach substantive agreements that realize those national preferences more efficiently than do unilateral actions. Finally, they choose whether to delegate and pool sovereignty in international institutions that secure the substantive agreements they have made.

In the analytical framework described so far, the prospects for agreement depend on the configuration of preferences, potential gains from cooperation, and properties of the institutionalised EU bargaining context. The interests of other domestic actors, like business and interests groups, are thought canalised through national governments to some extent. Remaining divergences in the national preference formation process are not captured by the framework used here, as it would require considerably more detailed studies.

The stringent and mainly liberal intergovernmentalist framework is somewhat relaxed in the last part of chapter five, in order to explore possible EESS-inciting mechanisms not accounted for by this approach. Moravcsik (1997:545) treats state preferences as analytically prior to strategic interaction, thus excluding the possibility that supranational institutions and the interaction itself influence preferences. The second part of chapter five opens up for these possibilities by including new actors and by introducing a different conceptual understanding of the EU, namely as a multi-level governance structure. Mechanisms from other theoretical branches like neofunctionalism, institutionalism or constructivism provide explanations for how either supranational institutions or simply regular interaction in negotiation processes can influence state preferences and bargaining outcomes. Here, not only interests, but also ideas and norms are considered to drive the integration process. The multi-level governance concept increases the flexibility of this discussion, as it focuses on the complexity of non-hierarchical networks involving actors at sub-national, national, or supranational level (White 2001:22). The concept of EU 'institutional capacity' of contributing to actor's agreement encompasses the two-sidedness of the EU, being simultaneously a bargaining arena and a multi-level governance structure with supranational features.

Summarised, prospects for a strong EESS to develop is considered to depend on (i) the configuration of state preferences, (ii) state leadership, (iii) external pressure and constraints, (iv) expected gains from cooperation, and (v) the ability and willingness of supranational institutions to influence the process (cf. Scharpf 1999:43). Figure 2.1 presents the interplay between member states' preferences and EU institutional capacity, and their influence on strategy development, with external pressure as an intervening variable. Assumptions and theoretical framework for these two categories of independent variables are discussed more in detail in the sub-sections of this chapter. The difference in arrow thickness in figure 2.1 reflects the liberal intergovernmentalist claim that European politics have mainly domestic sources (Graziano and Vink 2006:3), and the difficulties of achieving 'positive integration' in a domain concerning a scarce material good essential to national security (Moravcsik 1997:517, Scharpf 1999:50). The broken line reflects the fact that energy security still is a weakly communitarised domain in Europe, and the expectation that supranational influence on state preferences is contingent on powers transferred from MS in the first place.

Figure 2.1 Basic causal model



2.2.1 Preference Patterns

As noted above, efficient analytical use of 27 modern states' preferences requires simplifications. Chapter four makes assumptions about preferences based on characteristics of energy security situations in EU member states, and on states' basic motives for action. To Moravcsik (1998:9) "the explanation weighs in on the side of economic interests rather than security externalities as fundamental sources of state preferences". He is here at odds with classical realists, who see security and survival as fundamental motives of states. However, energy security is so linked with economic prosperity that this debate is of little importance here. Rational preferences regarding an EESS are assumed to be based on analyses of risk exposure (vulnerability), according to the following reasoning for six selected factors.

A state's energy mix contains information about domestic resources, priorities regarding the depletion rate of these resources, and efforts to reduce import dependence through the use of nuclear or renewable energy⁷. This information is however not directly accessible through statistics showing final consumption by energy source, but requires careful, qualitatively supplemented reading of such data. A first, simple measure on vulnerability is high shares of the strategic resources oil and gas, which due to Europe's relative energy poverty for most states must be covered by imports. The assumption is that (i) high oil and gas shares in the national energy mix make states more likely supporters of a strong strategy, (ii) unless covered by substantial domestic production. (iii) High import dependence is assumed to have the same effect. 'All other things being equal' must be added, because the effect on strategy preferences is qualified by the degree of diversity and the character of relations with main exporting countries. (iv) Lack of diversity - a fundamental energy security principle (Yergin 2005:52) - operationalised as a relatively low number of oil and gas producers that provide a large share of a country's imports, is assumed to strengthen strategy support. When dealing with origin of imports, Russia is given a particular status. The reasons are structural (e.g., since accompanied by transport vulnerability) and geopolitical (Russian power, world-view, and energy sector

⁷ Since nuclear and renewable energy also contribute to reduced greenhouse gas emissions, it is difficult to know to what extent security motives lie behind decisions to increase the use of such energy.

organisation. (v) A high share of Russian oil and gas imports is hence assumed to incite states to seek EU-level strategy development. (vi) Bad relations to Russia are, when combined with a high degree of dependence on the country, assumed to strengthen strategy support. A typology developed by Leonard and Popescu (2007) is used to operationalise this factor. A Supply/Demand Index developed by Scheepers et al. (2007) measures the degree of energy security on a scale from 0 to 100, covering final energy demand (industrial, residential, tertiary and transport use are distinguished), capacity and reliability in energy conversion and transport, and primary energy sources supply (types and origin)⁸. The index is used as a supplement to the measures treated so far, and low numbers are assumed to imply strategy support. Additional factors treated and assumed to incite strategy support are a low degree of LNG imports, a high number of transit countries before reaching the destination, low energy intensity, and low implicit tax rate on energy.

Like any simplifications, these key assumptions necessarily overlook aspects of the greater complexity, and hence reduce validity. The following points indicate alternative effects that may reduce the 'construct validity' (cf. Yin 2003:34). First, a strong EU strategy is not the only possible answer to national worries about vulnerability. Whether the EU-solution is favoured depend on additional factors not treated here, like a state's power position in the system and its preferred degree of supranationalism. Second, a low oil and gas share in consumption is not necessarily a sign of felt security. It may instead be the result of years of conscious national diversification policies, to which a European level supplement is favoured. It would be erroneous to give the impression that energy security suddenly and recently appeared as an issue in the mind of policy-makers. Third, the factors may have opposite effects. External pressure can for example either incite strategy development by provoking fear of the exerted pressure or by clarifying advantages of cooperation facing a competitor or enemy. But it can also prevent strategy development by playing MS against one another, offering advantages only to some, basically large states (divide and rule). Actors

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⁸ Cf. Figure S.1 The Supply/Demand Index Model Structure (Scheepers et al. 2007:8).

considering energy security stakes to be very high may by the same logic choose to opt for a strong national, rather than European, strategy. This corresponds to the realist conception of the survival motive as "the ground of action in a world where the security of states is not assured" (Waltz 1979:92). A fourth and general remark is that the chosen indicators inevitable overlook the effect of some significant nation-specific legal, cultural, or economic characteristics.

The leadership potential of the three large powers France, Germany and the United Kingdom will be treated separately, since for an eventual agreed upon strategy to be viable it must accommodate – to some extent – the interests of large states:

Supranational agents able to act effectively (...) either themselves acquire some of the attributes and capabilities of states (...), or they soon reveal their inability to act in important ways except with the support, or at least the acquiescence, of the principal states concerned with the matters at hand. (Waltz 1979:88)

Realist factors like the distribution of capabilities, influencing the possibilities of reaching agreement in the strategic interaction of the second stage (Moravcsik 1997:545), are not included in the basic causal model in figure 2.1 above. This is a practically motivated choice, although theoretical support exists to say that power and position do not play a dominant role in determining the 'national interests' (Keohane 1986:182). The analysis of leadership nevertheless captures the essential idea that some states still matter more than others.

There are three main categories of preference patterns: naturally harmonious, zero-sum (deadlocked), and mixed preferences (see Moravcsik 1997:520f). Robert Keohane (1988:380) underlines the distinctiveness of a situation in which cooperation, corresponding to the latter category, may take place: Cooperation "requires that the actions of separate individuals or organizations – which are not in pre-existent harmony – be brought into conformity with one another through a process of policy coordination" (Keohane 1984:51). The pattern of energy security preferences in the EU cannot be described as harmonious, as this automatically would have led to the realisation of others' goals (Keohane 1988:380). Chapter four shows that this is

obviously not the case. The possibility that a heterogeneous preference pattern and weak institutional capacity not will produce any strategy outcome (deadlock) would have remained open if no elements of a strategy existed. Chapter three shows that this is not the case either, although the development so far fails to meet the requirements of a strong, flexible and consistent strategy.

2.2.2 Institutional Capacity

By 'institutional capacity' I mean an institution's capacity of initiating and running a process of realising the potential gains from cooperation on a particular issue. The last two words distinguish this understanding from more general use of the term. Thus applied, the institutional capacity depends on the issue on which cooperation is sought realised and institutional characteristics, which for the EU can be divided into an intergovernmental and a multi-level governance or supranational dimension. Chapter five explores the EU's institutional capacity of accommodating the diverse energy security strategy preferences of its MS through intergovernmental bargaining and supranational influence.

The distinction between 'positive' and 'negative' integration used in the first part of chapter five to classify and understand particular difficulties in developing an energy security strategy for the EU:

While negative integration could be advanced by the Commission and the Court, as it were behind the back of politically legitimized actors, measures of positive integration generally require explicit approval by the Council of Ministers and, increasingly, by the European Parliament. As a consequence, the problem-solving capacity of positive integration is limited by the need to achieve action consensus among a wide range of divergent national and group interests. (Scharpf 1999:71)

The limited role for the Commission and the European Court of Justice, and the strict voting rules in the Council is a situation EESS development shares with other high politics areas like the Common Foreign and Security Policy (CFSP). Relevant insights for this study are hence provided by studies of difficulties of developing a CFSP, and how progress nevertheless has been made in a field where "national sovereignty and national interests are considered to be most difficult to curb" (Sjursen 2004:5). Where realists see states' general unwillingness to engage in cooperation on security issues in a hostile

world where trust may be dangerous, others focus on how institutions, external forces or pressure, or leadership can trigger cooperation (Smith 2004).

In the first part of the analysis of institutional capacity I maintain the intergovernmentalist view of the EU, when dealing with high politics issues, as principally an arena for intergovernmental bargaining. Mechanisms from bargaining theory are applied to strategic energy security issues in order to explore the potential for reaching decisions when MS meet at the EU level. Since a necessary condition for any outcome is a payoff structure with a certain mutuality of interests (Scharpf 1999:74, Axelrod and Keohane 1985:228), I begin with a discussion about potential gains from cooperation. Bargaining theory is then used to see how institutions can reduce uncertainty, alter transaction costs, provide possibilities for strategic issue-linkage, and make enforcement more likely by creating a "condition under which reciprocity can operate" (Keohane 1988:386). This literature helps identify general and case-specific advantages and disadvantages with the EU policy-making structure.

The EU is undoubtedly something more than an arena where actors repeatedly meet, negotiate, go back home, meet again etc. And although characteristics of the studied policy-area indicate a relatively weak role for supranational institutions in the multi-level system of governance, it is worth exploring. Understood as "an ongoing process, an unfinished polity" that is continuously responding to internal and global changes (Héritier 1999:7), the EU has possibilities of circumventing the traditional intergovernmental route to decisions. Creative escape routes ('subterfuge'), informal strategies, political improvisation and entrepreneurship are according to Héritier (ibid.) made possible by the diversity of goals and the fragmented EU institutional structure. Approaches focusing on cognition, learning processes, and norms are briefly discussed.

2.3 Sources

Green Papers, directives, strategy documents, speeches and press releases issued by European institutions or key personnel in the EU from the last decade are important primary sources for the section about current strategic thinking. But they should not be considered representative for the Union as a whole, since they largely represent the view of one actor – the European Commission. Approving statements given by MS in the European Council, and assumed Commission considerations for what MS may accept, are on the other hand arguments to see them as at least *indicative*. In-depth studies of strategic thinking in MS would have increased the validity, but the required resources make such studies unfeasible for this master's thesis.

Projections for the World's and Europe's energy future are based on reference scenarios from the IEA World Energy Outlook (IEA 2006) and the EU-commissioned World Energy Technology Outlook – 2050 (WETO-H₂ 2006), and secondary sources. Energy statistics used in chapter four are from BP, the Directorate-General for Energy and Transport (DG TREN), Eurostat and the IEA. The section on great power leadership is supplemented with government sources from France, Germany and the United Kingdom. Secondary sources are used throughout the study, and they are particularly useful where real opinions for some political or diplomatic reason are hidden behind obscure language in official documents.

Secondary energy security analyses of particular importance are the Clingendael Study on Energy Supply Security and Geopolitics written for DG TREN (Van der Linde et al. 2004), A Power Audit of EU-Russia Relations prepared for the European Council on Foreign Relations (Leonard and Popescu 2007), and EU Standards for Energy Security of Supply. Updates on the Crisis Capability Index and the Supply/Demand Index Quantification for EU-27 (Scheepers et al. 2007). From these three sources I use a geopolitical scenario, a typology on EU member states' relations with Russia, and an index termed Supply/Demand Index respectively.

Academic writing about energy security in the EU reflects the level of attention given to the subject. Currently high on the agenda, recent commentaries and papers flourish. Much relevant material appears on the internet in the form of news articles or working papers, often written by competent writers and academics. Selective and critical use is especially important when citing such sources, true also for academic papers that have not been subject to review processes like in scientific journals. The following

context chapter traces the development towards the current situation, in which dark clouds have appeared on the European sky.

Chapter 3

Energy Security in the EU: Past, Current & Future Situation

The goal of this context-chapter is, in the two first sections to present the current status of energy security strategic thinking as a continuum dating back the Schuman-plan from 1950. The brief description of the different development phases is followed by an analysis of current strategic thinking in the EU. The third section provides an overview of scenarios for the future world energy situation, where the idea is to indicate what European decision-makers will prepare for, following the rational actor assumption that expectations of the future is likely to guide today's behaviour.

3.1 Back to the Roots?

The community energy policy dimension went from essential to weak in the first 30-40 years of the history of European integration, as the relative importance of oil grew to the detriment of coal and nuclear energy, without being replaced by a coherent and comprehensive policy to ensure supply. From 1988 the internal energy market and European Energy Charter (1991) represented a new phase, in which energy gradually returned to the EU agenda as mainly, albeit not exclusively, deregulatory efforts destined to enhance efficiency and competition.

3.1.1 From Coal and Nuclear to...

Both energy and security were central to European integration from the start, but have nevertheless proved among the hardest to communitarise. The two key war industry commodities coal and steel were brought under a common High Authority with the establishment of the European Coal and Steel Community (ECSC) in 1952, and a parallel structure was set up for nuclear power five years later (EURATOM). The idea was to integrate, and thereby restrain, the potential for re-releasing the destructive war machine that had ravaged Europe in the hands of power-pursuant nation-states in the

most murderous part of what Eric Hobsbawm (1994) has termed "the age of extremes". Industrial coordination should secure supply, and security goals were to be attained by integrating the partner countries' energy industry. This was clearly stated by French foreign minister Robert Schuman on what is now "Europe day" in the EU: "The solidarity in production thus established will make it plain that any war between France and Germany becomes not merely unthinkable, but *materially impossible*" (Schuman [1950] 2007, emphasis added).

The 1960s saw a decline in the relative importance of the two above-mentioned energy resources coal and nuclear power, and hence also the ECSC and EURATOM. Attention was turned to the wider economic and political integration, and by 1969 cheap oil had become the dominant energy resource in Europe (Matláry 1997:16). The increase in risk exposure that followed this shift in energy mix from domestic coal to imported oil spurred the directive from 1968 that obliged EEC member states to hold specified petroleum products for at least 65 average days of consumption (68/414/EEC), adjusted upwards to 90 days in December 1972 (72/425/EEC). This provision was later to be covered additionally by agreements reached in the IEA9, established in 1974, reflecting greater concerns for supply interruptions and oil prices under and after the turbulent 1973 oil crisis. Concretely, the IEA emergency agreement

enables coordinated and collective action by requiring IEA countries to hold oil stocks equivalent to at least 90 days of net oil imports and to release stocks, restrain demand, switch to other fuels, increase domestic production and, if necessary, share available oil in a timely and coordinated manner in the event of a significant oil supply disruption. (IEA 2007)

Concerns over supply continued to mark Europe throughout the 1970s and the first half of the 1980s, without this leading to new common policies (Andersen 2000a).

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⁹ The overlap in membership with the EU does not include Cyprus, the Baltic states, Slovenia, Bulgaria and Romania, who as non OECD-countries are excluded from the IEA. Poland, not yet a member, will probably join sometimes in 2008 according to the agency's website.

3.1.2 ...the Internal Energy Market

To protect domestic energy resources and ensure the supply of energy, state monopolies have traditionally produced, transmitted and distributed energy (Matláry 1997:7). Strong national energy policies continue to limit EU-level activity in the sector up until this day, although a shift occurred from 1988 onwards. A gradual and limited, but not insignificant, inclusion of the energy dimension in the internal market concept was the most important of the three new perspectives introduced in this period. The two others were an increasing awareness of environmental challenges, and the development of the external dimension of EU energy relations with the European Energy Charter and the Charter Treaty in 1991 (Andersen 2000a). The development pattern resembles that of the common foreign and security policy in the 1990s: Clear advances were made, but vital decisions on questions like energy mix and diversity of supply origins continue to be excluded from the cooperation or require unanimity in the Council, reflecting MS' reluctance to cede sovereignty.

The first initiatives to set up the internal energy market (IEM) did nevertheless imply a significant break-up of state monopolies and a transfer of regulatory power to the supranational level in the EU. This negative integration was relatively slow, and the inclusion of flexible solutions to make room for different national energy policy models appeared in some cases necessary to arrive at commonly accepted solutions (Eising 2002:86). Large differences in energy sector organisations, often reflecting national policy styles, hampered the process - the British wanted "a laissez-faire market, the Germans a geordneter Markt and the French more dirigisme" (Matláry 1997:46). Agreedupon decisions came in the continuation of the internal market programme, in turn influenced by the market-oriented ideology driving OECD-area reforms under the labels of Thatcherism or New Public Management. Increased competition was expected to improve efficiency, reduce prices and thereby increase the external competitiveness of the EU economy. The development benefited from the transfer of supranational powers in the Single European Act and Maastricht Treaty, and the general spirit of relance that characterised most of the period when Jacques Delors was president of the Commission (Bitsch 2004:219).

A first phase of the liberalisation efforts consisted of a price transparency directive, and directives on transit rights, in place within 1992. With the exception of (mostly German and Dutch) opposition to the gas transit directive, and a dropped investment transparency directive, this first phase was relatively uncontroversial (Andersen 2000a). The higher ambition level in the second phase provoked stronger opposition. The new objectives were to unbundle vertically integrated companies, abolish monopoly provider arrangements for generation and transmission, ensure nondiscriminatory procedures for granting licenses in the upstream hydrocarbons sector, and give large commercial electricity and gas buyers the right to choose supplier freely (ibid.). All these directives were passed during the 1990s, and by July 2007 the latter rights had been extended to households as well. Further directives have aimed at strengthen competition, promote investment in energy infrastructure, regulate access to gas transmission networks, and improve energy efficiency (EP 2006). However, as noted by Jamasb and Pollitt (2005:1), relative progress in liberalisation is not the same as achieving a fully integrated European energy market. The Commission therefore continues to ameliorate existing directives and propose measures to increase transparency, independence of national regulators, cross-border trade and coordination of networks operation (COM 2007 draft).

Representing an extension to the logic of the internal market, the Energy Charter Treaty initiative was taken against a situation very different from the current. Energy production in the disintegrated Soviet Union fell dramatically in the years before and after 1990, the Commonwealth of Independent States (CIS) faced huge infrastructure problems and Russia was still far from the resolute, self-confident power we see today. The objective of the Charter was "the transfer of Western technology to the East, providing hard currency and economic security thereby encouraging development of democratic institutions" (Axelrod 1996:497). A strengthened European-CIS energy relationship should create a stable framework in the form of an international market regime for economical and democratic development both in the former East and Central European satellites and in the CIS, thereby securing EU energy supplies (ibid., Andersen 2000a). The Charter Treaty contains rules of investment, transparency and energy transit, and is based on key principles of international trade such as 'most favoured nation' and

removal of barriers to open and competitive markets (Axelrod 1996:498). The initiative exemplifies the European strategy of dealing peacefully with its Eastern neighbours through economic and political interdependence (Leonard and Popescu 2007:25). But despite initial support from then President Yeltsin, sceptics argued that the Charter was a ploy with the intention of exploiting Russia, and the most important signatory country has still not ratified (Axelrod 1996:498). Today, the Charter is "a much-diluted measure", and the initial wide objective has been largely replaced by the promotion of Europe's long term interests (Van der Linde et al. 2004:16).

Current EU energy security legislation comprises the above-mentioned requirement of holding emergency oil stocks, last amended in 1998 (COM/98/0221 final). The possibility of convoking the Gas Coordination Group was established by the security of natural gas directive, which also requires, notably, MS to define security standards for their power networks (2004/67/EC). A directive on security of electricity supply and infrastructure investment from January 2006 poses similar requirements for the electricity sector. MS shall facilitate investment, define roles, establish regulatory authorities, place requirements on transmission system operators to maintain adequate reserve capacity, and lay down criteria for curtailing supply in emergency situations (2005/89/EC).

3.2 Status: EU Energy Security Strategy

Daniel Yergin (2005:53) describes the 1990s after the resolution of the Gulf crisis as "a decade of overconfidence about energy security". This corresponds with the European situation, in which national policies long have lived in the shadow of the US (Bromley 2005). The concept of 'energy supply' was mentioned in the Maastricht Treaty (art. 130s), treated by the Commission in a 1990 working paper (SEC(90)1248 final), in a Green Paper from 1995 (COM(94) 659 final/2) followed by a White Paper the same year (COM(95) 682 final:3), in which the basic principles of reconciling "competitiveness, security of supplies and protection of the environment", still guiding EU energy policy, were set down. New Green Papers were issued in 2000 (COM(2000) 769 final) and 2006 (COM(2006) 105 final). The Commission has in other words made

attempts for quite a few years already, but impetuses from European Heads of State to concretize the work have come in recent years only. A more coherent Energy Policy for Europe (EPE) was called for by the Hampton Court European Council in October 2005, and incited by the Russian-Ukrainian gas crisis in January 2006 again, and clearer this time, in the European Council of March 2006. Heads of State and Government then invited the Commission and the Council to prepare for a prioritised Action Plan to be adopted in 2007, and expressed support for the Commission's intention to present a Strategic Energy Review on a regular basis (European Council 2006a:16, European Council 2006b:10). A joint statement entitled "An External Policy to Serve Europe's Energy Interests" was issued by the Commission and SG/HR Javier Solana in 2006, and the first Strategic Review came in January 2007 (COM(2007) 1 final). The European Security Strategy (ESS) from 2003 represented a parallel advance in general community strategic thinking, and it also briefly addressed energy issues (European Council 2003). These documents can be seen as indicative, but not necessarily fully representative, of the current level of energy security strategy development. Unless followed by Community level commitments, legislation and action they are little but wishes or empty statements. But since they form the current framework for Community debates about energy security, I will in the following analyse the more recent of them using analytical dimensions outlined in chapter two.

Objectives. Summarised in the most recent Green Paper (COM(2006) 105 final:18), the security objectives are to reduce demand, diversify energy sources and routes of supply, assure sufficient investment and capacity to deal with emergencies, improve conditions for European companies abroad, improve solidarity and network interconnections, and – the basic objective – make "sure that all citizens and business have access to energy." The Green Paper – entitled A European Strategy for Sustainable, Competitive and Secure Energy – gives the impression that of these three main objectives, sustainability and competitiveness are accorded more weight than security. Given the strong emphasis on competitiveness in the Lisbon strategy from 2000 and the dominance of the IEM in EU energy policy so far, it is hardly surprising that creation of jobs and economic growth, for which affordable energy is essential, are highlighted objectives also in a Green Paper on energy (COM(2006) 105 final:7). A well-functioning

market with a competitive European energy industry is an objective in itself, but it is also presented as a way of assuring adequate investments and reducing import dependence. Some means to improve sustainability, like the promotion of domestic renewables production, concord with security of supply objectives¹⁰. When expressing the ambitions to lead in developing new and cleaner technology as basically motivated by the sustainability objective, this may be a tactical choice, adapted to a sought image of an EU determined "to lead the global fight against climate change" through "a new industrial revolution" (COM(2007) 1 final:4f). The security benefits are clearly mentioned, particularly in the Strategic Energy Review (COM(2007) 1 final:14), but presented almost as positive externalities.

Threats perception. Rising global demand and prices, although potentially contributing to trigger technological innovation, imply higher risks (COM(2006) 105 final:3). A growing risk of supply failure, notably due to the inability and unwillingness of major producers to step up investment, is also noted (COM(2007) 1 final:4). Increasing import dependence and lack of diversity is though to create vulnerability, and particularly mentioned is "dependence on imports from unstable regions and suppliers", producers using energy as a political lever, and actors not playing by the market rules (European Commission/SG/HR 2006:1). Bilateral deals, as opposed to a well-functioning world market, imply higher risks (ibid.:3), and the EU worries about the lack of mechanisms to ensure solidarity between MS (COM(2007) 1 final:4).

Means. First, market forces should ensure low prices and provide incentives to invest in infrastructure and technology, in turn contributing to the intermediary goals of less, cleaner, and more efficient use of energy. Ultimately, these will serve the objectives of higher sustainability and reduced import dependence. Second, propositions to improve network interconnections include a European grid code, a European energy regulator and a European Centre for Energy Networks (COM(2006) 105 final:6). Third, regular Strategic Energy Reviews should assure flexible adaptation to changing

¹⁰ The two objectives are closely intertwined: Energy accounts for 80% of all greenhouse gas emission in the EU (COM(2007) 1 final:3). On a world basis, CO2-emissions from energy use are projected to grow 40 to 110% over the period 2000-2030 (IPCC 2007:3-4).

situations, and offer "a clear framework for national decisions on the energy mix. It should analyse all the advantages and drawbacks of different sources of energy" (ibid.:9). In this respect, renewable energy is the only highly recommended source, nuclear power is indirectly recommended as "the largest source of largely carbon free energy in Europe", whereas domestic coal and lignite are "only sustainable if accompanied by commercialised carbon sequestration and clean coal technologies" (ibid.). Fourth, emergency oil stocks should be better coordinated, and the possibility of legislation for a gas equivalent is evoked. Fifth, the Energy Charter and insistence on Russian ratification continues to play an important role. The EU "should press for a better respect of existing WTO rules and principles" in a pan European energy Community, in which Community investment should be promoted through Trans-European Energy Networks (ibid.:17). The Network of Energy Security Correspondents, launched in May 2007, is a new tool to monitor and exchange information about external risks to EU security of supply. The still dominant approach of extending the market logic has also been supplemented with a more geo-strategic, regional approach in which LNG terminals and new, "major international" energy corridors, notably from the Caspian region and Central Asia, are key elements (Commission/SG/HR 2006:3). This emphasis reflects the ambition of 'speaking with one voice' to counterbalance Russian transit and supply dominance, and it is clearly motivated by the failure of the Energy Charter initiative (Mañé-Estrada 2006).

Several factors distinguish the strategic thinking described here from being strong, flexible and consistent. First, the Commission/SG/HR (2006:3) paper states that Europe's external energy policy

must be coherent (backed up by all Union policies, the Member States and industry), strategic (fully recognising the geo-political dimensions of energy-related security issues) and focused (geared towards initiatives where Union-level action can have a clear impact in furthering its interests).

The statement is however moderated by the next sentence, specifying that it "must also be consistent with the EU's broader foreign policy objectives such as conflict prevention and resolution, non-proliferation and promoting human rights." (ibid.) This witness a lack of priority ordering or the consideration that energy security is a second-order objective. Second, the paper explicitly states that the "legitimate right of individual

Member States to pursue their own external relations for ensuring security of energy supplies and to choose their internal energy mix is not in question" (ibid.:1). Here, the lack of real Community powers in the field is simply restated, and it relativizes the capability of using "the full range of EU internal and external policies" (ibid.). Third, no pay-off is envisaged between energy driven growth and external dependence. More generally, the Commission simply assumes that no conflicts exist between the three main objectives. Geden and Noetzel (2007:2) call this a "questionable assumption", and Keppler (2007:5) qualifies it "an insoluble equation" Failure to discuss thoroughly contentious pay-offs between main objectives indicates a lack of consistency. Geden et al. (2006:2) state that "the mere agreement on the principle" of speaking with one voice illustrates the MS' "awareness of the necessity of a common approach", although no transfer of competences has followed. This conclusion is of course very weak, and illustrates the difficulty of being explicit about the reality of the current state of strategy development.

If the Treaty of Lisbon is ratified by the end of 2008 as scheduled, it will be the first to contain a separate chapter on energy, stating in article 176 A that

Union policy on energy shall aim, in a spirit of solidarity between Member States, to: (a) ensure the functioning of the energy market; (b) ensure security of energy supply in the Union; and (c) promote energy efficiency and energy saving and the development of new and renewable forms of energy; and (d) promote the interconnection of energy networks.

3.3 Future Insecurity: What to Prepare for?

The objective in this section is not to predict how EU energy policy will develop, like in EurEnDel (2004), but to briefly outline what energy security situation the EU may face in the future, and what horizon European policy-makers will look at when reaching decisions. A strong, flexible and consistent strategy should, as defined in chapter two, prepare for and be able to respond optimally to even radical changes. A strategy that

¹¹ Eine "fragwürdige[...] Annahme" and "une équation insoluble" respectively.

refuses to consider the possibility, even if it is small, of resource scarcity, a large-scale return of geopolitics, and even energy wars, is a weak strategy. I will therefore concentrate on the security threats evoked in scenarios treated here, without opining on whether they are more or less probable than benign scenarios. This means for example that among the two visions of the energy future presented in the IEA's World Energy Outlook from 2006 – 'under-invested, vulnerable and dirty', or 'clean, clever and competitive' – the former is most relevant for this study. The intention in the following paragraphs is to present security relevant trends from renowned reference scenarios and expert forecasts. Direct comparison is sometimes made difficult by differences in time-horizons, and the projections are intended to complement, not compete with each other, although they diverge on important points.

European and world energy consumption. According to the IEA (2006), global demand for primary energy is expected to increase by just over 50 percent within 2030, with developing countries, especially China, accounting for 70% of that increase. WETO-H₂ (2006) expects world energy consumption to double within 2050 and European energy demand to rise more moderately, around 25%, in the same period. According to the IEA (2006), fossil fuels will remain the dominant energy source, with rising shares of coal and natural gas. Oil production continues to rise, but its share will diminish. The share of non-hydro renewables except biomass grows quickly, while nuclear power falls. WETO-H₂ (2006) expectations differ with respect to nuclear power, which is expected to increase its share.

Resource base. Production peaks for oil and gas is a contested issue¹². WETO-H₂ predicts a plateau, rather than a peak, for conventional oil production after 2030, but with continued growth in non-conventional oil. The IEA (2005:5) denies that peak oil is a cause for concern. Without entering the debate, the mere possibility of future geological constraints merits the EU's attention. Especially because of the potential effect of general resource scarcity on the geopolitical climate.

¹² See Hirsch (2007:10-2) for an overview of estimates for when the oil peak will occur. The estimates range from already to never.

Resource distribution and import dependence. The world's energy resources will be even more unequally distributed in the future than today, and the implication for Europe is a continued increase in the degree of import dependence (COM(2006) 105 final). Oil imports will go up from 82 to 93 percent, gas imports from 57 to 84 percent by 2030 (COM(2007) 1 final). The IEA (2006:5) expects non-OPEC production of conventional oil and natural gas liquids to peak within a decade. North Sea oil and gas production will fall, due to its relatively low reserves-to-production ratios. R/P-ratios¹³ for oil at the end of 2006 were 9,3 for Denmark, 6,5 for the UK and 8,4 for Norway - compared to 22,3 for Russia, and 72,5 for OPEC (BP 2007:6). Corresponding ratios for some selected gas producers were 7,4 for Denmark, 21,8 for the Netherlands, 33 for Norway, 53,3 for Algeria and 77,8 for Russia (BP 2007:22). R/P-ratios for the European coal producers are generally a lot higher. Based on reserves estimates and depletion rates, Reymond (2007:4175) thus predicts that Russia and Qatar will dominate gas export in 20 years, further restraining possibilities of diversifying the origin of gas imports. OPEC's increasing market share will produce the same effect in the oil market (Sieminski 2005:35). The result will hence be increased dependence on Russia and OPEC, who will increase their market dominance and hence their ability to impose higher prices (IEA 2006:3). Writing about the insecurity attached to R/P-ratios, Stern (2002:8) recalls the lack of historical merit of interpreting them as "the number of years before reserves 'run out". Still, they remain among the few important indicators of the expected development of the import dependence situation for the EU.

Production Capacity. Spare capacity in some important producer countries – Saudi Arabia, notably – has so far mitigated the consequences of temporary disruption of oil supply. The capacity has however dropped to almost zero in recent years (Correljé and Van der Linde 2006:534). According to the IEA (2006:4), the "ability and willingness of major oil and gas producers to step up investment in order to meet rising global demand are particularly uncertain." Under-investment will create tight markets and higher prices.

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 $^{^{13}}$ "Reserves-to-production (R/P) ratio—If the reserves remaining at the end of any year are divided by the production in that year, the result is the length of time that those remaining reserves would last if production were to continue at that rate." (BP 2007:6).

Geopolitical climate. A common forecast is that the market is becoming increasingly competitive (Kalicki and Goldwin 2005:5), and that the "threat to the world's energy security is real and growing" (IEA 2006:2). In their Study on Energy Supply Security and Geopolitics Van der Linde et al. (2004) at the Clingendael International Energy Programme (CIEP) present two storylines for the future geopolitical energy security context. The Markets and Institutions storyline describes a continued and intensified globalisation process creating a well-functioning world energy market with a multilaterally regulated investment climate. In geopolitical terms this is very much business-as-usual, it fits well with the logic underpinning the IEM and the Energy Charter Treaty, and is described as the "best case" for the EU (ibid.:23). The second scenario, Regions and Empires, describes a divided world in which states and regions compete for markets and resources¹⁴. A bad investment climate may create supply gaps. The degree of trust is low, bilateral trade-relations dominate, oil trade is politicized, and it becomes increasingly difficult to manage markets and strategic stocks, and exchange information. European, US and Asian spheres of influence are probable. Strategic and security oriented state behaviour in a world without strong international institutions makes for more instability, social tensions, and conflicts over resources. Although power balance may provide temporal stability, the world experiences higher risks of a breakdown of the international order, possibly implying "the objective of autarky, political boycotts, failed states and occurrence of terrorism and war, resulting in absolute or relative scarcity of oil and gas supply" (ibid.:84). The US strategy is according to Van der Linde et al. (2004:88) already adapting to a Regions and Empires world. The authors hesitate "to declare the inevitable arrival of a new paradigm shift" (ibid.:89), but describes the scenario as a more likely path of development than the Markets and Institutions pattern preferred by the EU (ibid.:24).

Two important observations can be made: Even projections not considering geopolitical changes predict a more insecure world energy situation, and some of the scenarios that take the geopolitical dimension into account, imply a clear need for a

¹⁴ For a similar scenario, see the chapter "Fossil fuel wars" in EurEnDel (2004:71-4).

strong EU strategy able to adapt to radical changes. How member states' differences and EU's institutional capacity determine the development of an EESS will be explored in the next two chapters.

Chapter 4

Member States Diversity

The first part of this chapter studies and develops a typology of strategy preferences in all 27 EU member states. In the second part I look more closely at preferences in France, Germany and the United Kingdom, to explore the potential for leadership in the process of establishing an EESS.

4.1 Energy Security Situations & Strategy Preferences

A state's traditional energy security framework consists of (i) its energy mix, diversity situation and degree of import dependence, (ii) the economical and administrative organisation of the national energy sector, and (iii) relations with energy producing and other energy consuming nations. The separation is far from rigid, but analytically convenient. Of these, the first point can and will be treated using quantitative indicators (4.1.1). The second is treated briefly because it requires the use of qualitative indicators, inconvenient when studying 27 states. The third is feasible thanks to a secondary study written by Leonard and Popescu (2007) of external energy relations with Russia, the single most important provider of energy to the EU.

4.1.1 Diversity

"Safety and certainty in oil lie in variety and variety alone" (Winston Churchill 1913, quoted in Yergin 2005:52).

Several MS find themselves in situations of an uncomfortable lack of energy diversity. This section is a descriptive analysis of the current state, grouped according to three types of energy diversity: by type, origin and transport routes. Despite some relatively common denominators, summarised as oil and gas import dependence on Russia, the diverse situations of diversity paradoxically seem to render difficult the development of

an EU-level diversification strategy. In Brussels' absence, separate strategies and bilateral relations remain at the core.

4.1.1.1 Energy Mix and Import Dependence

A country's energy mix is interesting in a security perspective because it says something about the availability of domestic resources, priorities regarding the depletion rate of these resources, and efforts to reduce import dependence. The European Commission (COM(2006) 105 final:9) recognises that each "Member State and energy company chooses its own energy mix", while reminding that "choices made by one Member State inevitably have an impact on the energy security of its neighbours and of the Community as a whole, as well as on competitiveness and the environment." High reliance on natural gas in one country can for example increase neighbouring states' vulnerability. And nuclear opt-outs can, if replaced by fossil fuel consumption, increase overall CO2-emissions (ibid.). Figure 4.1 shows the diversity of energy mix in 21 EU member states 15, and EU-27, grouped according to the oil share of total consumption.

First, one notices the influence of geology – the domestically available resources: Oil and gas in Denmark and the UK, gas in the Netherlands, Coal in Poland and the Czech Republic, and renewable energy (with hydro electricity occupying a significant share) in water-rich countries like Sweden and Austria. Mere availability is of course not enough, as domestic production also depends on relative production costs, preferred depletion rates and environmental concerns. Second, the influence of the geographical and geopolitical context in a country's energy mix is a lot more complex to trace. Geographical surroundings may create economically favourable conditions for inter-state trade; the geopolitical climate directs choices of imports origin and energy types. Third, environmental concerns may also incite increased use of renewable energy, and changes toward more – or away from – nuclear energy. Nuclear energy can be used to reduce external dependence as in the example of France, but opinions about its desirability remain extremely diverse among and within EU member states (cf. Geden et al.2006:5).

¹⁵ The BP Statistical Review of World Energy (2007) operates with these 21 states, leaving out the smallest in the Union.

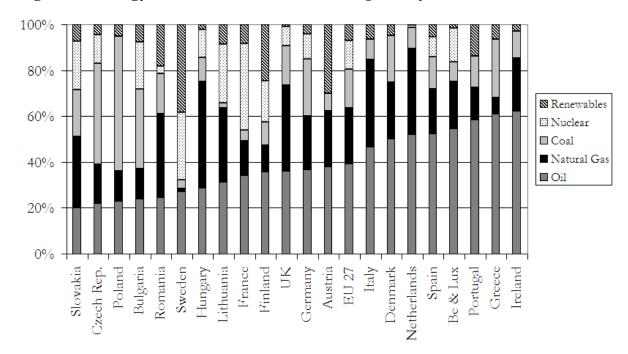


Figure 4.1 Energy mix in the EU. Final consumption by source, 2005¹⁶

Sources: BP (2007:41), Eurostat (energy statistics – supply, transformation, consumption).

Environmental arguments are used on both sides of the nuclear debate, and increasingly so with regards to CO2-emissions by nuclear energy proponents (EurActiv 2007b). The 2006 Green Paper may be interpreted as expressing a careful and implicit support of nuclear energy by evoking "consequences (...) in terms of the EU's dependence on imported fossil fuels and CO2 emissions" (COM(2006) 105 final:9). Recent statements give further reasons to conclude that the Commission favours the use of nuclear energy (EUobserver.com 2007a).

A more questionable factor of influence on MS' energy mix, is as indicated in figure 4.2 the role of EU-level solidarity pressure to consider the Union's total import dependence when making national decisions on energy mix. The role of the EU-level will be analysed in chapter 5.

¹⁶ Renewables = hydropower, solar heat, biomass, geothermal, wastes.

Figure 4.2 Factors influencing member states' (MS) energy mix

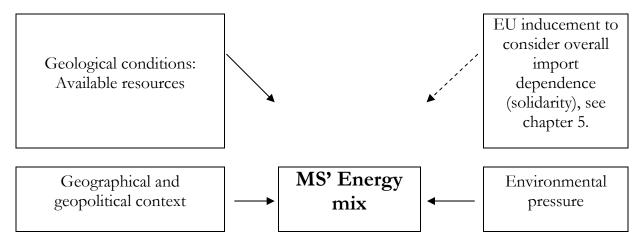
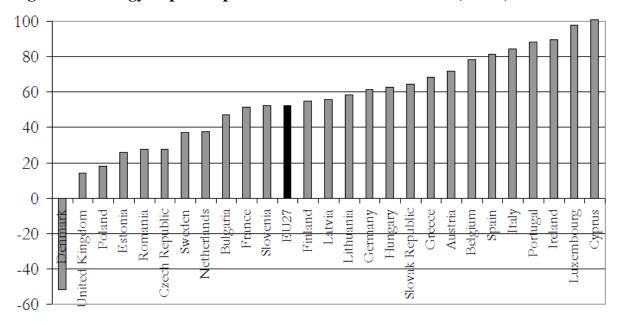


Figure 4.3 Energy import dependence for EU member states, in %, 2005¹⁷



Source: DG TREN, Pocketbook. Energy & Transport in Figures 2007.

Large domestic energy resources are as mentioned normally reflected in a country's energy mix. Lack of such resources necessitates imports – meaning dependence, but not automatically vulnerability (Reymond 2007:4174). The degree of vulnerability depends on the overall diversity situation, but strong import dependence,

¹⁷ Data for Malta is not available.

here calculated as the share of net imports in gross consumption¹⁸, is clearly a source of worry. Negative numbers indicate net export, which as shown in figure 4.3 is the case of the oil and gas producer Denmark only. Total EU import dependence has in recent years increased due to increased consumption, and falling domestic production of solid fuels (hard coal and lignite), oil and gas (Eurostat 2007:9).

Concerns over import dependence vary with types of energy, and the chart lacks this relevant distinction. Due to the vital importance of oil and gas in modern societies, and the fact that they for certain areas of utilisation are difficult to replace, at least in the short run, external dependence on these resources is generally the greatest concern of policy-makers and public opinion.

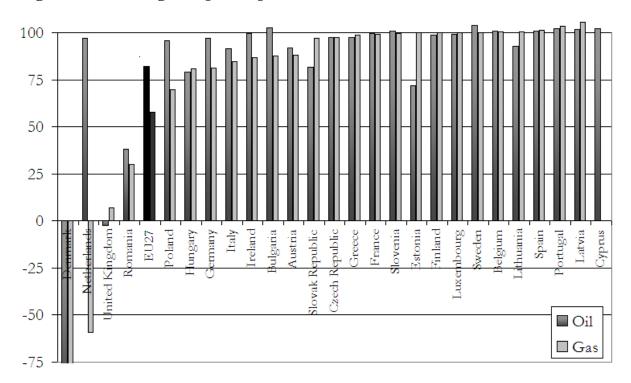


Figure 4.4 Oil and gas import dependence for EU member states, in %, 200519

Source: DG TREN, Pocketbook. Energy & Transport in Figures 2007.

¹⁸ Or more precisely: Import Dependence = Net Imports / (Bunkers + Gross Inland Consumption).

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¹⁹ Denmark, a net exporter of both oil and gas, transcends the scale with the values -104,8 for oil and – 113,9 for gas.

Use of solid fuels, nuclear energy and renewables are generally thought to improve security, as they are often produced domestically, thereby reducing demand for imports, and since they are generally better diversified and easier to replace. In the Supply/Demand Index developed by Scheepers et al. (2007:33) nuclear energy has the lowest risk value even when the production relies fully on imported uranium, since uranium is less concentrated on a world basis.

The point to make is that concrete dependence on the relatively scarce and geographically concentrated energy resources oil and gas merits special attention. As shown in figure 4.4 – with the exception of very few, mainly north-sea, countries – import dependence rates for oil and gas are higher than for all energy sources taken together. With 22 out of 26 states having dependence rates of well above 50 % for both oil and gas, it is very close to being a common feature. The consequence might be vulnerability, depending in turn on factors treated later in this chapter.

4.1.1.2 Origin of Imports

When provenance is taken into account as well, the impression of a shared situation of import dependence is somewhat modified. One way to measure diversity of supply is to look at the number of producers from which a state's imports originate. Figure 4.5 shows the number of producing countries providing five percent or more of total oil and gas imports. Large supply diversity generally means a good distribution of imports from a high number of countries. The number of countries relying on very few producers is the most striking feature of figure 4.5: seven countries rely on only one oil supplier, and as many as ten on only one gas supplier. Countries are in general more dependent on gas than oil producers due to practical and structural reasons. Less easily transported than oil, natural gas crosses borders in pipelines or as liquefied natural gas (LNG). The traditional pattern of localised gas markets has however changed with the increased use of LNG in recent years, making natural gas more global (Sieminski 2005:40). The share of LNG in total natural gas exchanges is expected to continue its increase (Reymond 2007:4172), and this development contributes to reduce the degree of structural dependence – on both sides of the pipelines, for better and for worse.

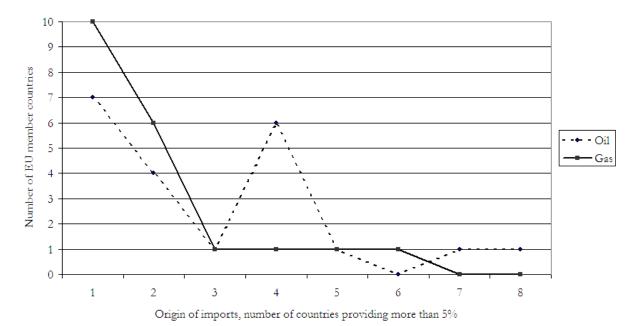


Figure 4.5 Diversity of imports origin, number of large providers, 2005²⁰

Source: Eurostat (energy statistics – imports (by country of origin))

Figure 4.6 is based on the same data as figure 4.5. It identifies single MS and introduces a population variable as a measure of state size. The mean number of oil and gas suppliers provides a unified measure of diversity of imports origin, while slightly reducing N due to missing data. Two general conclusions can be drawn from the figure: Small and new MS import their oil and gas from fewer producers than large and old member states²¹. The apparent anomaly of the United Kingdom is a result of own production and its geographical location. The UK is separated from the continent and relatively close to Norway, which supplies more than 70 % of both oil and gas imports.

-

²⁰ Countries providing more than 5 % of EU member states' oil and gas imports are counted. Numbers for 21 and 20 EU member states were available for oil and gas respectively. Some data is lacking, some countries do not import oil and/or gas, and are hence not included. Only non-EU producer countries are counted.

²¹ The correlation coefficient between the number of oil and gas providers and population (as measured in figure 4.6) is 0,46. Between the number of oil and gas providers and new/old member state it is 0,42.

18 National population in % of EU population ▲ DE 16 14 ▲ FR UK 12 10 ▲ ES 8 6 ■ RO 4 2 0 0 2 3 4 5 6 7

Figure 4.6 Number of oil and gas providers vs. population, 2005²²

Origin of imports, number of countries providing more than 5%, mean $\,$

Source: Eurostat (energy statistics – imports (by country of origin))

Table 4.1 Cases of oil and gas import dependence from outside the EU, 2005

	Exporting country	Number of import dependent (>25%) EU countries	Number of import dependent (>75%) EU countries		
Oil	Russia	14	6		
	(OPEC)	(9)	(-)		
	Norway	3	2		
	Kazakhstan, Libya, Iran, Saudi Arabia	1 for each	-		
Gas	Russia	15	9		
	Algeria	4	-		
	Norway	3	1		
	Nigeria	1	-		

Source: Eurostat (energy statistics – imports (by country of origin))

²² N=17.Countries with (for reasons specified above) lacking data for gas and/or oil imports are excluded. The x-axis is calculated as the mean number of oil and gas suppliers providing more than 5% of a country's imports. Squares designate new MS, triangles old (from EU-15).

It is quite easy to summarise the origin of large oil and gas import shares from outside the EU: *Russia*. For oil, OPEC – not an exporting country, but a powerful and to some extent coordinated bloc – should with its nine cases be included as well²³. When "import dependence" is set to mean that at least 25% of total imports are supplied by one producer country, Russia is the provenance country in about two thirds of all cases. For cases of strong import dependence (more than 75%), Russia is involved in all but three cases. Of course, such numbers can only be randomly set, and do not necessarily imply the lack of alternatives, or that the exporter has a strong hold on the importer. Whether import dependence means vulnerability depends, among other factors, on power and trade relations, infrastructural dependence, and state perceptions. The obvious difference between being "dependent on" Russia or Norway, the latter being a small-state with close formal and informal ties to the EU, should be a sufficiently clear illustration²⁴.

Geographical proximity normally explains from where European countries get their imports: Norway exports to the northern part of Europe (Ireland, Belgium, Germany and the UK get more than 25 % of oil and/or gas imports from Norway), Algeria (Spain, Italy, Portugal, Slovenia) and Libya (Italy) to their Mediterranean neighbours, and Russia mainly to East- and Central-Europe (see the chapter on external relations for more details on imports from Russia). A source of comfort for vulnerable states is that import dependence, particularly for gas, often goes along with export dependence. Russia, Norway and Algeria all export almost all of their gas to Europe (Reymond 2007:4175). Highly energy export dependent economies like those of Algeria²⁵, and to a lesser extent Russia (Larsson 2006:33), see their freedom of action

²³ OPEC is included here because of its capacity to coordinate political and economic action. An alternative to measuring dependence on single countries is to use regions, like the Middle East, North Africa and the Former Soviet Union. The advantage of single countries is their decision-making capacity as unitary actors, however questionable such an assumption might be. That capacity has often been weak within OPEC, and even more so for other regional groupings of states.

 $^{^{24}}$ Norwegian oil and gas is in Scheepers et al. (2007:33) even considered "imports from the EU", as opposed to "imports outside of the EU".

²⁵ The Algerian energy sector accounts for 60% of budget revenues, 30% of GDP, and more than 95% of export earnings (CIA 2008).

restrained. Russia also lacks the infrastructural flexibility necessary to chose freely to whom it sells energy (Larsson 2006:7), while Algerian LNG more easily can be sent elsewhere. The export dependence might however be a short-term comfort, as expected increases in global demand means sellers market. It is also a "relative monopsony because there is no common energy policy" in the EU (ibid.).

4.1.1.3 Transport Routes

Dependence on established infrastructure, or 'transit dependence' (Stern 2002:14), entails risks unless diversified and properly secured. The risks include political control of infrastructure, market dominance, internal political or social instability (e.g., coups d'état, strikes), inter-state conflicts, terrorism, technical disruptions and mismanagement. The potential risk of transport routes increases, ceteris paribus, with the number of transit countries. Even if the east-enlargement of 2004 and 2007 for that reason reduced overall transport risks for the EU (Stern 2002:14), the Eastern countries depend on fewer gas transport lines than the older MS in the West (Weisser 2007:2). The conflict-ridden relationships between Russia and some of the import transit countries for gas to Europe, like Ukraine and Georgia, increase the insecurity of depending too much on Russian supply (Reymond 2007:4175). With more than 80% of Russian gas exports to Europe going through Ukraine in 2004, it is by far the most important transit country (Stern 2006:2), and several incidents between Russian and Ukraine have sparked debate about transit dependence in Europe, most recently in March 2008. Prime Minister Yulia Tymoshenko then specified that Ukraine stood by its transit obligations despite the payment conflict with Russia (Le Monde 2008). For EU countries with difficult relationships to Russia, the situation is even more critical. This is especially true for countries at the end of pipelines that do not pass other EU states ('energy islands'), like the Baltic countries (see section 4.1.3 on external relations below).

Under politically neutral conditions, price should be the only determinant of preferred transport patterns. In Europe, the price-factor surely is important in explaining why almost all main provenance countries of large quantities of oil and gas are situated in the European neighbourhood. But to achieve greater diversity of origin and transport

routes, price and convenience sometimes must be sacrificed. In general, the priority is more likely to be given to security concerns when a state *feels* vulnerable, corresponding to what Skinner (2006:6) calls the psychological dimension of supply security, and when its economical situation permits to pay the higher price for more tranquillity.

Since 1999 a Transit Protocol has been attempted attached to the Energy Charter Treaty²⁶, with the intention of creating a non-discriminatory and open Eurasian energy market, and prohibit the abuse of dominant market positions in infrastructure ownership (Energy Charter Secretariat 2003). The political control of the energy transport sector exercised in Russia is seen by the EU as the greatest source of worry in this respect. And unless the EU succeeds in making its neighbours adhere to these principles, the current situation is likely to prevail. The sheer number of companies in the Russian energy sector²⁷, some of which are privately owned, might give the false impression of ownership diversity. But in reality, the complex first impression covers a simple reality of state-dominance in oil and gas pipelines ownership, with Transneft and Gazprom (through Gazexport) as the dominant actors for oil and gas transport respectively (Larsson 2006:71). The Russian state is also involved in energy transport outside Russian borders, but often only indirectly or partly – through co-ownership. An important diversification aim for the EU is to find import alternatives free from Russian dominance. A successful project of symbolic importance in this respect is the Baku-Tbilisi-Ceyhan (BTC) crude oil pipeline that recently has reduced Russian influence over the oil economy of the Caspian sea region (Müller-Kraenner 2007:140). It connects Baku with the Turkish port of Ceyhan, avoiding Russia, Iran and Armenia (see figure 4.7). Similar, not yet realised projects in the gas sector are the Baku-Tbilisi-Erzurum pipeline into Turkey, and the Nabucco pipeline from Turkey over the Balkans and into the EU (Larsson 2007:13). Already undermined by Austrian, Italian and Hungarian separate deals with Gazprom in 2007 (Cohen 2007), the latter project became even harder to realise when Russian deals with Turkmenistan and Kazakhstan in late 2007 drained its

²⁶ As of February 2008 the protocol is still to be finalised.

²⁷ As an illustration, Gazprom has about 175 affiliated companies (Müller-Kraenner 2007:65).

main potential supply source (IHT 2008a). Bulgarian and Serbian support for Nabucco's rival project, the joint Russian-Italian gas pipeline project South Stream, has recently been characterised as a Russian victory in the 'pipeline war' with the EU (IHT 2008b).

A project accused of reducing European security is the not yet constructed Nord Stream pipeline (see figure 4.7), intended to export Russian gas to Germany directly. Simplified, critics argue that one exporter controlling a diverse network has the power of choosing to whom it wishes to send gas, whereas the political weapon of cutting supply is deprived of this nuance when large parts of Europe is supplied through one or few transit corridors. The fear is hence that Russia's leverage on Poland, Ukraine and Belarus will increase, as the projected pipeline permits Russia to re-direct gas flows with smaller consequences for the rest of Europe than before (Larsson 2007:6).

RUSSIA

Caspian

Sea

AZERBAIJAN

TURKEY

Pipeline

Horasan

ARMENIA

IRAN

POLAND

Figure 4.7 Maps of the BTC and (planned) Nord Stream pipelines

Sources: news.bbc.co.uk, nord-stream.com

The power asymmetry between Russia and the rest of Europe in the energy sector explains the apparent contradiction with the idea that insecurity increases with higher numbers of transit countries. Transport diversity leads to more security only when different suppliers send oil and gas to an all-European network through a diversified transport network. Bilateral projects like Nord Stream reduces transit dependence for one state (Germany), and risks driving wedges into EU solidarity by excluding others (Larsson 2007:7).

Today, Europe imports about 85% of its gas by pipeline (Borchert and Forster 2007). The pipelines are exposed to potential sabotage for up to several thousand kilometres, and controlled by sovereign states. LNG is, as mentioned earlier, one way of rendering the same energy resource more flexible, and thereby more secure. In a global, LNG-dominated gas market, market power will be dispersed, and the potential for infrastructure leverage reduced. That is, unless the Gas Exporting Countries Forum (GECF) from 2001, or a similar structure, is turned into a cartel capable of firm collective action.²⁸ Figure 4.8 gives an indication of the growth of LNG plants in Europe, mainly centred on the Mediterranean countries and North West Europe.

Zeebrugge Milford Haven Montoir Le Verdon Rovigo Ferrol Bilbao Fos sur Mer La, Spèzia Marmara Brindisi Barcelona Liverno Sagunto ar Ferdinando Trinidad Sines Izmir Cartagena Gioia ₹aur Huelva▲ Venezuela Arzew Skikda Lebarron Nigeria Egypt Marsa El Brega Angola Existing Liquefaction Plant Existing Regasification Plant Middle East LNG Regasification Projec Plant Projects/Expansions

Figure 4.8 European LNG import terminals, 2004

Source: Ramsay, IEA (2004).

Regarding Algerian gas, concerns about possible terrorist attacks have frequently been voiced and the country's reputation was stained by the civil war in the 1990s. Supply nevertheless remained stable with very few exceptions throughout the

²⁸ The possibilities of forming a cartel has been discussed in the forum (BBC News 2007a), but Sieminski (2005:43) doubts that it will be capable of strong, concerted action because of the capital intensive character of the gas industry.

tumultuous decade, notably due to the isolated geographical situation of the energy industry installations (Van der Linde et al. 2004:197). Today, Algeria is viewed as a lot more secure supplier (Shearer 2005:230).

4.1.2 National Models of Energy Sector Organisation

The Internal Energy Market has reduced differences in energy sector organisation through integration and standardisation. This development may contribute to a more homogenous foundation from which a strong strategy can evolve, as the history of European integration contains several examples of "the use of economic cooperation to reduce political conflicts among EU member states" (Smith 2004:7). Reduction does however not mean elimination of differences and political conflict issues, and the nature of the IEM homogenisation is not necessarily conducive to a strong strategy.

Of clear remaining differences, one first notes large and systematic variation in levels of energy efficiency (energy consumption to GDP, see figure 4.9), where new MS (darker columns) have less energy intense economies (high numbers). An important instrument to cut demand and promote energy efficiency has in many countries been heavy taxation (Andersen 2000a). Different tax level is not the only explanation for the correlation between low energy efficiency and low taxes (measured as energy tax revenues to energy consumption, see figure 4.10), but it certainly has had an effect. With the exception of Malta and Cyprus, new MS (darker columns) also have lower tax levels than old MS. This clear difference remains despite community requirements for minimum levels of taxation on energy products and electricity as set out in a Council directive from October 2003 (2003/96/EC).

Demmark Ireland Austria Germany France Cluxembourg Ireland Germany Prance Cluxembourg Ireland Sweden Belgium EU 27 Spain Greece Portugal Finland Cyprus Malta Slovenia Slovakia Lithuania Estonia Extraina Bulgaria Bulgaria Bulgaria Bulgaria Bulgaria Bulgaria Bulgaria Bulgaria Bulgaria Poland Cyprus Slovakia Irelanda Slovakia Irelanda Subaria Bulgaria Bulgaria Bulgaria Bulgaria Pulgaria Pul

Figure 4.9 Energy intensity of the economy, 2005²⁹

Source: Eurostat (energy statistics - structural indicators in energy - annual data).

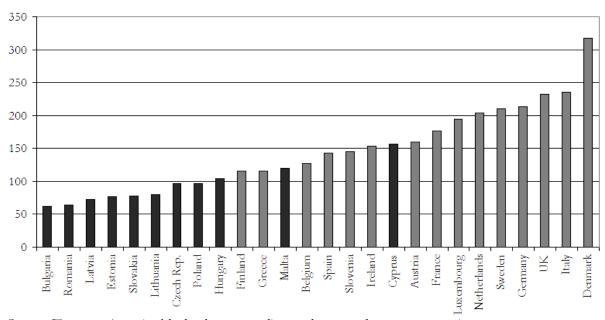


Figure 4.10 Implicit tax rate on energy, 200530

Source: Eurostat (sustainable development - climate change and energy – energy).

²⁹ Gross inland consumption of energy divided by GDP – kgoe (kilogram of oil equivalent) per 1000 Euro. EU-15 in grey, the newest 12 member states in black.

³⁰ The indicator is the ratio, in Euro per TOE, between energy tax revenues and final energy consumption.

An important question is what kind of market arrangements that incites or facilitates investment in security, which is distinguished from investment tout court by being oriented towards security and not profit. Entering the complex discussion about the consequences of energy sector liberalisation on security of supply would lead too far, but it should be remembered that economical motives, not security concerns, are behind liberalisation. This is not to neglect its potential benefits in canalising capital to assure stability in the entire chain from producer to consumer, energy efficiency promoting effects, and the increased flexibility in supply source choice (Austvik 2003:204). But liberalisation also means a transfer of responsibility for secure energy from governments to the industry. Today, responsibility is shared between companies and consumers on the one hand, who together must assure that investment and contracts satisfy their own short-term supply, and governments overseeing the national energy mix and supply/demand balance on the other hand (Scheepers et al. 2007:20). As pointed out by the European Gas Regulatory Forum (EGRF 2002), leaving all to the industry would mean fragmented - hence no overall - responsibility. Market principles should be supplemented by security criteria, operational responsibilities and emergency procedures requiring "a robust governance framework and non-market based regulatory safeguards" (EGRF 2002:28). A directive on security of electricity supply and infrastructure investment from January 2006 requires MS to adopt similar measures for the electricity sector. The responsibility for rendering the industry responsible hence remains with national governments. The question is whether European market integration necessitates community measures? Or posed differently, whether the national level can provide appropriate long-term security? It is at least clear that as long as the full consequences of liberalisation on security of supply remain unknown (Austvik 2003:226), any serious security strategy must deal with the relationship between security objectives and economical objectives like those driving the liberalisation process.

Investments in storage capacity and extra transportation capacity enabling countries to switch import entry points in cases of supply cuts are examples of measures that make no economic sense in perfect markets, but perfect sense in insecure markets (Stern 2002:22). Unused capacity is costly, and retrospectively, when unused, it is

nothing but an economic burden. Liberalised markets run the risk of considering such security costs as 'stranded assets' (Stern 2002:23).

The most important community security mechanism that accepts high costs to mitigate high risks, is the requirement last amended in 1998 that MS hold emergency oil stocks equivalent of 90 days of consumption (COM/98/0221 final). The current mean for all concerned fuel categories in the nineteen MS in which the directive apply, is 118 days. The eight countries – all new members – with a transitional period hold on average stocks for 81 days of consumption³¹. No emergency stock provision exists for gas, coal or uranium³². In cases of gas supply interruptions, there is the possibility of convoking the Gas Coordination Group that was established by the security of natural gas directive (2004/67/EC). The existing procedure only contains the possibility of coordinating action, and no common emergency mechanism (Scheepers et al. 2007:23). Some countries have supplementary legislation. Spanish legislation requires for example gas suppliers to hold strategic gas stocks equivalent of 35 days' supply, and puts limits (maximum 60%) on the degree of dependence on one source (Stern 2002:30).

4.1.3 External Relations and Pressure

External energy relations at the EU-level have the form of a series of bilateral "dialogues", either grouped under or independent from frameworks like the Euro-Mediterranean Partnership (EMP), the partly overlapping European Neighbourhood Policy (ENP), and the Baku-initiative. Of these relations, some are clearly less problematic and conflictual than others as certain countries are not interested in or incapable of, exercising influence over EU countries. Relations with such countries are generally business-based, relatively unmarked by particular historical-political relations, and do hence not divide EU-countries into friends and foes. The main focus in this section will be on Russia, which due to its power position is able and – it appears –

³¹ Source: The European Commission, numbers updated December 2007.

³² Emergency stocks requirements for coal existed until the 1980s, while attempts to establish community-level minimum standards for enriched uranium so far have failed (Scheepers et al. 2007:23).

willing to use energy as leverage. In addition, EU-countries can for a number of historical and political reasons, be divided into quite distinctive groups according to the character of their relations with the great Eastern neighbour. All this merits special attention, as Russia exercises considerable external pressure on EU countries, in turn influencing prospects for creating the very strategy for which Russia makes up an important argument.

The EEA-agreement requires Norway to implement most community legislation, and regular contact on energy matters is assured through the annual meetings of the EU-Norway Energy Dialogue. The relationship with the small-state Norway is probably the best example of a non-conflictual energy partnership. North-African energy exporters like Algeria and Libya are worth mentioning due to their particular relevance for EU countries bordering the Mediterranean. They are part of the EMP/ENP – with Algeria participating in the Barcelona-process from the start in 1995 and Libya holding observer status only. Traces of former colonial ties can be seen in the major role of the Italian energy giant Eni in Libya and the traditional French dominance of the EU's Algeria policy (Roberts 2002:126). Weak EU-level dialogues³³ provide greater room for MS' own strategies, creating what may be interpreted as competition for influence where each state cares for itself (FMES 2007). Although the immediate goal often will be trade benefits and business access, privileged partnerships between member states and third countries may affect European unity negatively, with consequences in the case of stronger global competition for access to energy in the future. Stronger competition implies the risk of being surpassed by other regional or global powers, and indications on increasing geostrategic attention in the region are US diplomatic and commercial activity in the country and Algeria's rapprochement with Russia (FMES 2007). Especially the latter development, from which can be mentioned the signing of a Memorandum of Understanding between Gazprom and the Algerian state energy company Sonatrach, has provoked fear in Europe of gas price cooperation between two of the Union's tree main suppliers (Katz 2006). Possible long-term threats to the stability of North-African energy

³³ The Barcelona-process has been described as a "Mischung von pflichtschuldiger Mittelausschüttung und offensichtlicher Ratlosigkeit über 50 Seiten" (Informationsdienst für Politik 2006)

supply are terrorism, political instability and regime change. These factors can have dramatic consequences.

The Russian energy omnipresence in EU's eastern and northern neighbourhood - including the arctic region (cf. Yenikeyeff and Krysiek 2007) – makes it unnecessary to treat in detail relations with each of the eastern energy producers and transit countries that participate in the ENP. Russia, not itself an ENP-member, has from 2000 taken part in regular energy dialogues with its most important trading block partner. A fundamental asymmetry remains however in the EU-Russian energy relationship, despite continued dialogue and participation in the process leading to the still not ratified Energy Charter Treaty. The factual side of this asymmetry was illustrated in the treatment of import and transit dependence above. But it also has its roots in diplomatic traditions, and the European divisions "have been deliberately exacerbated by a Russian strategy of 'divide and rule" (Leonard and Popescu 2007:13). It is self-reinforcing and works effectively, as the lack of a real community alternative make MS "Europeanise' their disputes with Russia while they bilateralise their 'sweet deals" (ibid.:16). The Russian strategy combines traditional diplomacy with politicised state-control of business, creating what Stroupe (2006:224) calls a 'resources-based corporate state'. It seems that Russia deliberately seeks to make Europe more dependent by expanding control of Eurasian energy infrastructure, forming strategic alliances bilaterally or through forums like the Shanghai Cooperation Organization (SCO)34, and locking in demand by signing long-term contracts with consumer countries (Cohen 2007:3). The Nord Stream project is indicative of the prevailing bilateralism in the EU (Larsson 2007:7). The division resulting from the Russian strategy transcends however the one between old and new MS:

It divides the EU into big and small states, energy dependent and energy independent states, friends of Russia and adversaries, and into states that under-react and over-react to the new Russian challenge. Many observers argue that enlargement has damaged the relationship with

³⁴ At a meeting in Bishkek in August 2007, to which the Iranian President was invited as a guest of honour, Kazakhstan and Russia proposed to establish an energy club on the basis of the Russian-dominated energy transport network dating from the Soviet-era (BBC News 2007b).

Russia — by importing a hostile bloc into the heart of the EU. In fact, EU divisions on Russia are more complex and surprising than a simple cleavage between old and new member states. (Leonard and Popescu 2007:26)

Using data gathered by an all-European team of researchers, Leonard and Popescu (2007:chapter 2) classify MS' relations to Russia into five categories: (i) Trojan Horses (Cyprus and Greece) are seen as defenders of Russian interests in the EU, forming an interesting parallel to the UK's role as the traditional defender of US interests. In decisions requiring unanimity even a small-state like Cyprus can be of great importance. (ii) Russia has typical great power relations, characterised by mutual respect, with its Strategic Partners in Europe (France, Germany, Italy and Spain). Although variations exist over time and with changes in state leaders, a high degree of continuity seems to exist. (iii) Friendly Pragmatists (Austria, Belgium, Bulgaria, Finland, Hungary, Luxembourg, Malta, Portugal, Slovakia and Slovenia) are status quo maintaining small or medium sized states who put business interests first, and hence generally have little reason to be in conflict with Russia. Bulgaria, Hungary and Slovakia form a sub-group of states with particularly close relations to Moscow. (iv) The Frosty Pragmatists (Czech Republic, Denmark, Estonia, Ireland, Latvia, the Netherlands, Romania, Sweden and the UK) more eagerly criticise the democracy and human rights situation in Russia, although business interests normally dominate the relations. Strong criticism has resulted in tensions and occasional disputes. The most significant example is the deterioration of the UK-Russian relationship since 2003, which turned into a serious diplomatic quarrel in the aftermath of the death of Alexander Litvinenko in November 2006. (v) The New Cold Warriors (Lithuania and Poland) are the strongest proponents of a more Russiacritical EU policy. The harsh, warlike rhetoric reflecting prolonged bad historical relationship is exemplified by the Polish proposal to establish a European Energy Security Treaty with a mutual defence clause. The point of view of the former Polish Minister of Foreign Affairs Anna Fotyga (2006:3) is that projects like Nord Stream undermine "the principle of interdependence between Poland, the Baltic States and Russia", and are therefore "the greatest danger to [Poland's] security".

Table 4.2 Share of Russian imports in oil and gas imports, 2005

% of oil imports from Russia						
Slovakia	100					
Lithuania	99,5					
Hungary	98,6					
Poland	97,5					
Bulgaria	89,5					
EU 12	88,1					
Finland	80,6					
Czech Republic	71,1					
Romania	55,9					
Belgium	42					
Sweden	35,5					
Germany	34, 0					
Greece	32,3					
EU 27	29,9					
Austria	28,1					
Netherlands	27,4					
EU 15	23,6					
Italy	20,6					
Spain	14,4					
France	11,4					
United Kingdom	9,7					

% of gas imports from Russia						
Bulgaria	100					
Estonia	100					
Latvia	100					
Lithuania	100					
Romania	100					
Slovakia	100					
Finland	100					
Greece	83,6					
EU 12	82,6					
Czech Republic	76,1					
Hungary	73,4					
Austria	70					
Poland	65,9					
Slovenia	59,8					
Germany	41,7					
EU 27	33,6					
Italy	31,8					
EU 15	25,6					
France	19,5					
Belgium	5,1					

Source: Eurostat (energy statistics – imports (by country of origin))

In order better to understand the impact of external relations and pressure on strategy development the characterisation in Leonard and Popescu (2007) should be combined with different measures on risks related to dependence on Russia. As mentioned earlier, new and small MS generally depend on fewer suppliers of oil and gas, and as shown in table 4.2 East- and Central-European countries depend for (largely) practical reasons more on Russian oil and gas than other MS. The table shows the share of Russian oil and gas in their total imports, with the most dependent in the higher part of the table. Interestingly, none of the old MS who are critical of Russia (Frosty Pragmatists or New Cold Warriors) even come close to a fifty percent share of Russian imports, whereas all new MS in these categories have very high shares of Russian imports in one or both energy categories. One would thus expect the Czech Republic,

Romania, the Baltic states and Poland to be among the most ardent defenders of a strong external dimension of the EU's energy security strategy. Although Larsson (2007:8) oversimplifies when he says that the new EU members are the most vulnerable, he thus captures an essential feature of the complex and difficult EU-Russian relationship.

4.1.4 Typology and Preference Pattern

Table 4.3 combines key factors treated above, in order better to discern types of energy security situations, and make assumptions about preferences. Great scientific resources are needed to explore in depth 27 modern states' policy preferences in this relatively complex field, and even then preferences are rarely clear-cut in pluralist democracies. Lacking time, language skills, and detailed knowledge of European political cultures, I will use mainly quantitative factors to make *assumptions* about preferences. These assumptions can of course be questioned, but preferences are nevertheless a necessary link when exploring the impact of state features on strategy development.

The pluses and minuses in table 4.3 are hence something more than a summary of where MS stand in relation to the EU mean. A high share of the key strategic resources oil and gas, high energy dependence, low degree of diversity, and high dependence on Russia – all indicated by pluses when exceeding the EU mean – are risk heightening factors. Since states are naturally inclined to seek protection when they feel vulnerable, these factors are assumed, all other things being equal, to increase support for a strong, flexible and consistent energy security strategy. Some nuances are necessarily lost, as exemplified by the complex causality expected for the effect of approaches to and relations with Russia. Bad relations are assumed to strengthen support for an EU strategy, but only when coupled with strong dependence. It is in other words a case of statistical interaction, where the effect of dependence on Russia depends on the character of the relationship or vice versa.

Table 4.3 Assumed preferences regarding EU strategy development³⁵

	Oil and gas share of energy consumption (+ indicates > EU mean)	Energy import dependence (+ indicates > EU mean)	Mean number of oil and gas providers (+ indicates < EU mean)	S/D Index: High numbers= low risks (Scheepers et al. 2007:41).	Share of Russian oil and gas imports (+ indicates high share) ³⁶	Relations with Russia following Leonard and Popescu (2007) ³⁷	Domestic oil and/or gas production covering at least 50 % of demand
Cyprus		+		25		i	
Luxembourg	+	+		28		iii	
Malta				30		iii	
Latvia		+	+	40		iv	
Greece	+	+	-	44	+	i	
Lithuania	+	+		45	+	v	
Portugal	+	+	-	47		iii	
Italy	+	+	-	50	-	ii	
Spain	+	+	-	51	-	ii	
Slovakia	-	+	+	51	+	iii	
Slovenia		-		52		iii	
Finland	-	+		53	+	iii	
Estonia		-		55		iv	
Hungary	+	+	+	55	+	iii	
Belgium	+	+	-	57		iii	
Austria	-	+	-	57		iii	
Bulgaria	-	-	+	59	+	 111	
Poland	-	-	+	60	+	v	
Germany	-	+	-	63	+	ii	
Czech Rep.	-	-	+	64	+	iv	
France	-	-	-	64	-	ii	
Netherlands	+	-		69	-	iv	-
Romania	-	-	+	70	+	iv	-
Sweden	-	-		70		iv	
Ireland	+	+		75		iv	
UK	+	-	+	80	-	iv	-
Denmark	+	-		82		Iv	_

³⁵ Generally, pluses indicate assumed support for an EU-level energy security strategy, minuses indicate assumed opposition. Fields are blank when data is lacking or ambiguous. Lack of data mainly concern Cyprus, Malta, Estonia and Slovenia, for which no strong conclusions can be drawn.

³⁶ Specifically, "+" = above EU 27 mean for both oil and gas. "-" = not above EU 27 mean for neither oil nor gas. No sign = above EU 27 for exactly one of the two or missing data.

³⁷ Cf. section 4.1.3. The categories (i) Trojan Horses, (ii) Strategic Partners, and (iii) Friendly Pragmatists imply warm relations, in contrast to (iv) Frosty Pragmatists and (v) New Cold Warriors. No specific order is intended.

The Supply/Demand Index developed by Scheepers et al. (2007) is a measure on energy security covering final energy demand (industrial, residential, tertiary and transport use are distinguished), capacity and reliability in energy conversion and transport, and primary energy sources supply (types and origin)³⁸. Ranging from 0 to 100, with high numbers indicating a high degree of security of supply, it includes several of the factors reported in table 4.3. The assumption is again that insecurity (low numbers) incites states to support a strong EU strategy. Lacking the nuances of the single factors and the qualitative typology on relations with Russia, its advantage is in presenting one single, and rich, measure. By using subjectively determined weights, the positive effects of domestic oil and gas production on the security situation balance the often correspondingly high shares of these energy types in domestic consumption. The model hence reduces the need to specify that a high share of oil and gas in total consumption is assumed to incite strategy support only when the consumed oil and gas is - to a great extent - imported, and more so when imported from few high risk countries. As mentioned above, the risk implied by a lack of diversity of origin is different from one producer country to another. Imports from outside the EU does for that reason not include Norway in the model, and this explains why Ireland for example gets a high score despite its strong import dependence on oil and gas. A long term argument for not using high share imports from EU countries (including Norway) as a variable assumed to decrease support for strategy development, is the relatively low R/P-ratios for domestic EU production. Policy-makers are not necessarily sufficiently far-sighted to make this argument valid, although long-term rationality is assumed for practical reasons in this study.

The first group (1) of the revealed preference pattern consists of the mini-states Cyprus, Luxembourg and Malta. They have the lowest scores on the S/D Index (according to which table 4.3 is sorted), and are assumed to support strategy development. The notable exception is Cyprus, described as a defender of Russian interests in the EU. The small and medium-sized new member-states Slovakia, Slovenia,

³⁸ Cf. Figure S.1 The Supply/Demand Index Model Structure (Scheepers et al. 2007:8).

Hungary and Bulgaria in the second group (2) have relatively low scores on the S/D Index, and an overweight of pluses on single factors. They are expected to support a strategy, but their geographically central location and their good relations to Russia reduce risks to some extent. A third group (3) consists of most³⁹ of the remaining new MS. The Baltic states, Poland and the Czech Republic can be considered the core supporters of strong strategy development. They are all uncomfortable with their dependence on Russia, and the Baltic states have the additional motivation implied by lower S/D Index scores and the risk of isolation as end-receivers situated on an energy "island". The largest of the high risk states, Poland has publicly voiced concerns and presented policy proposals based on fears of isolation, showing that it seeks the protection of a coordinated EU. The relatively high S/D score is caused mainly by its domestic coal production. Poland probably is the state that comes closest to preferring the approach towards Russia termed 'soft containment' by Leonard and Popescu (2007). This is the policy approach of "countries that see Russia as a shadow of the former Soviet Union", support anti-Russian alliance formation, and want to exclude Russia from the G8 and the European energy sector (ibid.:51). This approach is compatible with, but no prerequisite for, preferences for a strong strategy as defined in chapter two. The expectance of ardent strategy support in Poland is however mitigated by promises made by the new leadership in place since November 2007 to improve relations with the EU and Russia, notably by lifting the Polish veto from 2006 against a new EU-Russia partnership agreement (EUobserver.com 2007b, 2008). The new Minister of Foreign Affairs, Radosław Sikorski describes the new government as "a little more trusting. We don't see ourselves as a besieged fortress", but he maintains the Polish stance on the Nord Stream pipeline (EUobserver.com 2007b). This reminds us that state preferences and diplomatic relations are contingent on political winds and changing leaders.

The fourth group (4) consists of old MS with medium risks: Greece, Finland, Portugal and Belgium. They are highly import dependent, but with a more than average diversity of origin. Greece and Finland depend on Russia, but both – and especially

³⁹ Romania is because of its domestic fossil fuels production a case a part, although some Russian imports and a frosty relationship make strategy support possible.

Greece – entertain good relations with Moscow. Like the other medium risk group treated above, it is difficult to draw conclusions about strategy preferences for these countries. Austria, the Netherlands, Denmark, Sweden and Ireland form a first low-risk group (5). Ireland because it only imports from Norway and the UK, the other three largely due to domestic production of hydropower in Austria and Sweden, oil and gas in Denmark, and natural gas in the Netherlands. The remaining states are the five largest in the EU. Of these, Spain and Italy have almost identical profiles: oil and gas import dependent, medium score on the S/D Index, source diversity, and good relations to Russia. For reasons given below, the medium to low risk countries France, Germany and the UK will be treated separately.

With some exceptions, like Luxembourg and Romania, the pattern separates old (medium to low risk) from new (medium to high risk) MS. This tendency is also supported by some of the factors not included in table 4.3, like transit dependence, share of LNG, energy intensity, implicit energy tax level and size of strategic oil reserves. This discussion has focused on differences, with the risk of neglecting three relatively common traits. I therefore recall that many MS are net consumers of energy, have an energy mix heavily dominated by fossil fuels, and depend on poorly diversified imports with respect to origin and transport routes.

4.2 Leadership: France, Germany and the UK

These countries have according to the S/D Index scores relatively few incentives to support the development of a strategy. But their economic and political weight in the EU is a good reason to explore their preferences in a more in-depth, qualitative way. Germany has the largest economy and population in the EU, and France and the UK are the largest military powers. Greater resources mean that these three countries can bear costs of achieving and maintaining collective action better than other EU states. The common characterisation of the role of Franco-German cooperation following the 1963 Élysée Treaty as the "motor of European integration", is a further reason to explore the potential for leadership. In initiating and sustaining energy security strategy development, one dominant leader may not be indispensable, but it surely helps. Waltz' (1979:88)

reminder that "at least the acquiescence" of the principal states is needed, is another way of underlining the crucial role of large state preferences.

4.2.1 The United Kingdom

The quantitative indicators of table 4.3 give reason to assume reluctance towards strategy development in the energy-atypical UK. Significant domestic oil and gas production makes it the less import dependent and lowest risk country after Denmark. No dependence on Russian imports means freedom to voice criticism without fearing consequences for the energy supply.

Declining domestic production implies however that a stronger external security dimension is needed. The UK became a net oil importer in 2006 (BP 2007), and a 2007 government White Paper estimates that 80% of total gas demand and 75% of coal demand will be met by imports by 2020 (DTI 2007:106). The national security strategy presented in March 2008 relies on a market-based approach to energy security. Bilaterally and through the EU, the UK works to ensure non-discriminatory rules and effective regulation in the international energy market. New policies to improve energy efficiency and encourage investment in renewables and nuclear energy are the preferred domestic counter-measures to deal with increased import dependence (Cabinet Office 2008:51). A greater EU role is not a proposed solution to UK worries about increased global competition over resources. This is not surprising, as the UK is largely unaffected by the great sources of worry affecting other parts of Europe. It has own resources, and future gas imports will be mainly low risk supply, either by pipeline from Norway or LNG (DTI 2007:116). The relative lack of dependence on Russia, one of the basic premises for a common EU policy, will remain a distinguishing feature even with some Russian gas imports to the UK in the future (Ives 2006:3). The preferred role for the EU is to improve the functioning of the internal market, and non-market based solutions like the proposed strategic gas stocks are seen with scepticism (DTI 2007:120).

To conclude, the UK is no obvious initiator or leader of a strategy process. Low risk and conflicting foreign policy priorities give little reason to expect support today, but an estimated decrease in the S/D Index score from 79,6 to 67,4 in 2020 because of

increased import dependence may change preferences (Scheepers et al. 2007:13). Strong transatlantic ties, traditional scepticism towards deeper European integration, and strong faith in market solutions, are further reasons that British leadership is little likely today.

4.2.2 France

The first oil crisis made energy poor and vulnerable France opt for nuclear energy to acquire more price stability and independence (Meritet 2007:4767). Today, a high degree of diversity, the highest share of nuclear energy (37,5% in 2005) among EU countries, good relations to and a low degree of dependence on Russia, make France an unlikely leadership candidate. Its national energy model has been characterised by strong state intervention and the dominance of state-owned energy giants. Through the government-supported fusion with Suez, Gaz de France should according to a continuation of this logic become a national champion operating on the European stage (EurActiv 2007a). The 'public service' concept and the particular national energy model explain much of the opposition to the liberalisation of the IEM (Meritet 2007:4770). The adaptation costs have in other words been high in energy-atypical France. External energy relations are preferably conducted bilaterally, and the stakes involved are relatively low due to diverse import origins and a high share of LNG.

The role of the public service in the energy sector is to guarantee strategic independence and promote the nation's economic competitiveness, as defined in a law from 2005 regarding the national energy policy (LOI nº 2005-781:Art. 1). The state should work actively to improve efficiency and reduce energy demand, diversify among sources, and hold strategic oil and gas stocks (ibid.:Art. 2 and 6). The European approach consists of a positive attitude towards existing EU security policies, support for better coordination in order to improve the economic competitiveness and improved energy intensity in Europe, as well as policy-propositions promoting nuclear energy and the notion of 'public service' (ibid.:Annex I, B). The stakes are defined as so high that "no technology and no instrument of public policy should be necessarily ruled out" (DGEMP 2006), but the strength of the national strategy reduces the need for a European one. It further means that support for an EESS depends on the concurrence with objectives of the French economic energy-patriotism. Since successful leadership

must be based on solidarity and common interests, strong and deviant French preferences makes it an unlikely candidate, although it is willing to play a major role in European foreign and security policy issues.

4.2.3 Germany

Despite significant domestic coal resources (lignite), nuclear energy, and very advanced renewable technology, Germany is an import-dependent country with 34 and 41,7% of oil and gas imports respectively, coming from Russia. The "Atomausstieg" decision taken in 2000 implies increased dependence, unless compensated for by reduced demand and growth in renewables. Although the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety claims that nuclear energy does not increase energy security⁴⁰, central politicians like former and incumbent Economy Ministers Wolfgang Clement und Michael Glos disagree with the official government position in what is still an ongoing debate (Tagesschau 2008, Ngo-online 2006). French President Nicolas Sarkozy has also incited Germany to make nuclear energy a central element in securing future supply (Euobserver.com 2007a).

The priority accorded installation security and environmental concerns over supply security when deciding to phase out nuclear production, may be interpreted as an indication that Germany estimates the risk of import dependence to be relatively low. The good relationship with Russia clearly contributes to this perception, and the soft German energy security strategy must be seen in this light. Its stated goals are diversification, increased use of renewables, more efficient use of energy, and dialogue with producer and transit countries (BMVg 2006:23). Behind the word 'dialogue', the German approach towards Russia is an external relations variant of the Jean Monnet method of small-step European integration. On the axe where Poland represents the 'soft containment' approach, Leonard and Popescu (2007:52) use Germany as an example of the other extreme, termed 'creeping integration'. The idea is to get Russia involved in the EU's political and economic activities, and create "gleichberechtigte

⁴⁰ "Verlängerte Laufzeiten von Atomkraftwerken oder gar neue Atomkraftwerke schaffen keine Versorgungssicherheit" (BMU 2007:6).

Interdependenz weniger zwischen Russland und Deutschland, eher zwischen Russland und der EU" (Steinmeier 2006). The sought long-term goal is captured in what Foreign Minister Frank-Walter Steinmeier calls "Wandel durch Verflechtung" – change through interdependence (Leonard and Popescu 2007:52). Economical and political "Annäherung"⁴¹ – rapprochement – is meant to counter mercantilist tendencies in the energy sector (Steinmeier 2006).

According to Posen (2007), the strength of the German economy, and a record of initiatives regarding sustainable energy use, makes Germany particularly well-suited to take on a leadership role that implies bearing costs of developing and implementing new technologies. German preferences for the relationship with Russia, very much in line with the current EU approach, makes it a likely leadership candidate also for external energy strategy development. These are however preferences for what I have defined as a weak strategy. And one might ask if the 'dialogue' and 'integration' labels are not merely hiding preferences for leaving bilateral relations in the hand of nation-states. After all, Germany seems to deal well with Russia alone. Ties in politics and business have been close since the end of the cold war – best exemplified by Gerhard Schröder, who went from being Chancellor to head of the shareholders' committee of Nord Stream AG. And although Angela Merkel has taken a more critical stance, the so-called "Russia first" approach seems to have been maintained (Kempe 2006:27, Leonard and Popescu 2007:32). A strong EESS does hence probably not correspond with current German preferences.

The next chapter explores the EU's institutional capacity of reaching binding agreements. A relatively heterogeneous pattern of state preferences and the lack of obvious leadership candidates among the three most important MS, are difficulties the EU must deal with in order to develop an EESS.

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⁴¹ Cf. "Wandel durch Annäherung", the central principle of the "Ostpolitik" initiated by Willy Brandt in the 1960s (Müller-Kraenner 2007:129).

Chapter 5

Institutional Capacity

Andersen (2000a:2) ascribes the lack of a common EU energy policy until the late 1980s to the differences in interests between member countries, but adds that

it is not possible to explain the elements of common energy policy since the late 1980s in terms of overlapping interests. On the contrary, such a tendency would seem highly unlikely from this down-up perspective since the lack of, or small degree of, overlap is a consistent characteristic of the energy sector.

The diversity of preferences explored in the previous chapter should in other words not lead automatically to a negative conclusion about the prospects for a strong energy security strategy. In this chapter I first analyse the particular difficulties of achieving positive integration for a high security issue traditionally taken care of by nation-states. Then, the EU capacity of 'accommodating diversity'⁴² in intergovernmental bargaining about energy security, presupposing potential gains from cooperation, is explored. The third section discusses possibilities for supranational institutions in the EU multi-level governance structure to influence preferences, behaviour, and, ultimately, the strategy outcome.

5.1 Positive Integration in a Core Nation-State Domain

Two main reasons make energy security a problem-field of European integration. First, energy security is a high security issue and traditional nation-state domain, for which many MS have long established policies. As utility-maximisers, states fear the loss of competences and sovereignty when engaging in interstate cooperation (Héritier 1999:15,

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⁴² cf. Héritier (1999:16).

Sjursen 2004:7). This problem was evident during the liberalisation of the European energy markets, when perceived security implications made for example gas liberalisation more contentious and difficult to achieve than electricity liberalisation (Newbery 2002:920).

Second, energy security strategy development means establishing a new and committing policy that requires agreement on objectives, threats perceptions, and means. This is known as 'positive integration', for which "the need for consensus remains very high" compared to deregulatory - 'negative' - market integration (Scharpf 1997:1). Whereas cases of both negative and positive integration necessitate the support of national governments and parliaments in the initial phase, further negative integration can often occur more easily, helped by less strict decision-making rules and the doctrines of direct effect and supremacy of European law (Scharpf 1997). This is also known as the 'Community method', and it implies a high degree of legalisation and a clear role for supranational institutions (Koenig-Archibugi 2004:139). Cases of positive integration on the other hand, continue to rely on unanimity decisions, with more limited possibilities for supranational institutions to have a positive impact on the decision-making capacity of the EU (Scharpf 1999:69). The tough conditions for EESS building are hence multilateral negotiations in the Council requiring unanimity for all significant deviations from previously laid down strategies and legislative programs. Unanimity implies multiple vetoes, frustration and the risk of deadlock in what Fritz Scharpf calls a jointdecision trap' (Hayes-Renshaw and Wallace 2006:308).

The Common Foreign and Security Policy (CFSP) initially faced the same difficulties, and although still often limited by ponderous decision-making, this policy domain has developed markedly the last 20 years. European foreign policy's original motivation of preventing international problems from disrupting the Community has changed into "a more positive, proactive one (asserting European interests and values beyond its borders)" (Smith 2004:5). Recent energy security policy development also points in the direction of more active assertion of Europe's current and future (anticipated) interests. This is most apparent regarding the external dimension, for which the goal is to turn the EU into a strong and visible actor speaking with "one voice". It is motivated partly by the threats from *the* external trouble factor – Russia – to disrupt the

Community by driving wedges into the cooperation climate. And just as international crisis have sparked debate about the EU's shortcomings, thereby providing opportunities to drive CFSP integration forward, external events were an important motivation for energy policy development in the 1990s (Matláry 1997:22f). And it was the Russian-Ukrainian gas dispute in January 2006 that "catapulted energy security to the forefront of the EU agenda" (Baran 2007:4).

Similar difficulties have in other words not prevented the CFSP from developing. White (2001:166) notes that "given the strength of member states' 'national interests', [the progress] has been remarkable." The observation that energy security has particular difficulties attached to it, compared to for example economic integration, is not intended as a deterministic conclusion. EU debates, Green Books, Energy Reviews and high activity in general are – to the contrary – signs of actors motivated by expected gains from cooperation. And the agenda-setting effect of external incidents indicates that the EU can respond more directly and flexible to changes in its situation than what can be expected when Moravcsik's rather rigid three-step model is applied.

5.2 The EU as an Arena for Intergovernmental Bargaining

Chapter four is based on the assumptions that strategy support is a result of expected security gains from cooperation. States considered likely supporters of a future EESS are hence expected to bargain to realise these gains. It is also necessary to explore potential gains for actors with profiles making them less prone to opt for an EESS, since an absolute condition for Europe to be capable of positive action is a payoff structure with a certain mutuality of interests (Scharpf 1999:74, Axelrod and Keohane 1985:228). Actors must in other words prefer mutual cooperation to mutual defection (Oye 1986:6). Furthermore, characteristics of the institutional bargaining context influence the possibilities of reaching agreements.

5.2.1 Gains from Cooperation

5.2.1.1 Internal Aspects

Van der Linde et al. (2005:141) note that "due to the integration and liberalisation of the EU energy markets, the scope for national policies to ensure adequate levels of security of their own has decreased significantly." An EU policy on energy security is the logical follow-up in integrated markets where supply disruptions are no longer nationally confined problems. Economic nationalism and energy mercantilism as national responses to insecurity undermine solidarity and the interdependence logic of the integrated market, and may contribute to internal conflicts and disunity. A strong strategy will provide a normative and perhaps also juridical buffer that bind states and prevent recourse to national solutions. This is essentially the security argument for the internal energy market. And through for example higher degree of grid interconnections as recommended by Brussels, market interdependence and thereby solidarity can be strengthened (IP/07/1361).

Technological cooperation may have benefits on both the supply side (e.g., nuclear, renewables and LNG technology), and on the demand side (e.g., energy efficient technology). Efficiency and security standards and minimum tax levels are other European-wide measures to harmonise, increase security and solidarity. A consequence of Europe's relative energy poverty is that most other potential gains from cooperation belong to the domain of international relations.

5.2.1.2 The External Dimension

As pointed out above, different preferences and historical relationships give the centralised Russian state an opportunity to use its riches as leverage in a series of asymmetrical bilateral relationships with EU countries. Even the largest EU member states find themselves in situations of asymmetrical interdependence, and regarding Germany and its approach towards Russia, Leonard and Popescu (2007:52) warn that "increasing interdependence between two countries that do not share a common world view can be a recipe for instability rather than integration". Although freedom to act independently may seem attractive to single states with good relations to Russia, especially when consciously sugared with sweet deals implying direct advantages,

concerted action means a stronger position vis-à-vis Russia and other powers. A more unified EU would be able to profit from a favourable power asymmetry. After all, the EU is more powerful than Russia when measured by population size, GDP, military spending, and even degree of import dependence when compared with the higher corresponding Russian export dependence on Europe (Baran 2008:157). The EU arena for intergovernmental bargaining provides MS with opportunities to realise benefits from cooperation, and Russia is an external factor that influences conceptions of potential gains from agreements.

If EU's foreign energy policy were to dominate over, or replace, MS' bilateral energy relations, it would be more difficult for Russia to treat EU member states selectively. It is however important to realise that leverage on Russia is limited even if the EU will be able to act as a unitary actor, and that Russia most likely will maintain its refusal to ratify the Energy Charter Treaty or similar semi-integrative market arrangements. A better way to challenge Russian transport control would therefore be for the EU to extend its legal sphere up to the Russian borders, making Russia abide by EU rules for investment and ownership in the energy sector. An 'integrated neighbourhood' (Leonard and Popescu 2007:4), and a common EU pipeline policy, would together limit Moscow's potential support for projects undermining EU transport diversification initiatives like Nabucco. The most effective way to deal with dependence on Russia might hence, perhaps surprisingly, be to engage in deeper cooperation with Eastern European transit countries, and energy producers in the Mediterranean region and elsewhere. A "burgeoning energy hub" subject to Russian pressure, Turkey merits according to Baran (2007:9) special attention.

Silence met Poland's proposal of establishing a European Energy Security Treaty comprising an equivalent to the NATO article 5. How can the seeming unwillingness to consider such a measure be understood? Above, we have seen that many MS seem to be relatively comfortable with their external dependence on Russia. Appeasement as a response to Russian hostility is more in line with some states world view; others may simply care about themselves first. The rhetoric of confrontation in the Polish proposal may jeopardise privileged bilateral relationships, and this may appear as a too high price to pay for insecure, future potential gains. The potential danger that a non-agreement

jeopardise benefits from general EU cooperation, has the opposite effect, inasmuch as this is conceived to be possible.

5.2.2 The Bargaining Context

An advantage of the permanent EU governance structure, compared to less institutionalised intergovernmental cooperation, is that it provides stable and predictable conditions with a relatively high information level and mechanisms to enforce agreements. Commitments are more often held and actors trust each other more, when the long time horizons – "the shadow of the future" – comprises continued and regular cooperation among the same actors (Axelrod and Keohane 1985:232). Recurrent negotiations tend to have cumulative benefits on integration (Hayes-Renshaw and Wallace 2006:301). Fearon (1998:270) adds that a long shadow of the future also may incite prolonged and hard bargaining, as actors hope to get a better deal. This problem might have critical consequences for the parts of the energy security strategy that outlines immediate responses in crisis situations.

Strategic use of 'issue-linkage' may help avoid blocked negotiations even when no solution exists that is preferred by all states over the status quo (Scharpf 1999:75). Issue-linkage means support for other actors' highly valued issues against support for own chief interests (Axelrod and Keohane 1985:241), profiting from "differences in intensity of preferences" (Farrell and Héritier 2005:279). This can be done either across different policy-fields covered by the EU or within specific fields touching on several policy domains. An advantage with energy security in that respect, is that it links environmental protection, market integration, and foreign and security policy. This gives possibilities of using sustainability targets, security of supply standards and the IEM to improve solidarity and thereby the possibility of agreeing on common security measures (Scheepers et al. 2007:48, IP/07/1361). To the extent that energy security is seen as linked to the CFSP, increased foreign and security policy competences may also prove an important impetus for the EESS.

Formalised and 'iterated' cooperation makes EU member states care about their reputation, as they know it may influence on negotiations later. Policies that go against

other members' vital interests, like Germany's criticised support of the Nord Stream pipeline (Leonard and Popescu 2007:55), may have a high price in terms of popularity and influence. If states succeed in increasing own security through independent initiatives without undermining cooperation, they will be able to free-ride on common security enhancing policies, while placing themselves in an even better position. The best outcome for a single state in such cases is to pursue unilateral measures while benefiting from other states' cooperation, in a situation resembling that of the prisoner's dilemma (cf. Axelrod and Keohane 1985:229). Independent action entails however a risk of isolation and lack of support in other important issues later. Unilateral action can certainly be beneficial. Bargaining repercussions decide whether they are outweighed by costs.

The high number of actors involved in the negotiations has a negative effect: Defectors are harder to detect and punish, and insecurity about the many other actors' preferences increases transaction costs and makes it more difficult to reach decisions (Axelrod and Keohane 1985:235, Scharpf 1999:75). Many actors also means reduced possibilities for intimate bilateral relations to improve prospects for cooperation. Recent enlargements may hence have reduced the EU's overall decision-making capacity (Hayes-Renshaw and Wallace 2006:305), and the old and new MS cleavage in energy security matters identified in chapter four has the same effect.

5.3 Possibilities of Escaping Deadlock

The title of this section refers to Héritier (1999) and does not claim that 'deadlock' is an accurate description of the current situation. The point is that the complex multi-level EU governance structure provides opportunities – although limited by factors outlined above – to avoid deadlocked negotiations. In promoting market integration in the energy sector, the Commission has already taken advantage of institutional rules and issue-linkages to policy areas where supranational institutions play a significant role (Andersen 2000a). Over time cooperation in one area may incite development in related areas, following the logic of spillover. Héritier (1999:11) writes that "some actors, notably the Commission and the European Parliament, seek to enhance their own institutional

position by pushing specific issues, and, inversely to realise a policy goal by stretching the own competences to the limit." Since the goals of these supranational institutions do not necessarily correspond with a strong energy security strategy, their preferences should be looked at before turning to the question about how and whether they can contribute to this development.

According to Scharpf (1999:73) the European Parliament (EP) and the Commission generally favour positive integration, but the support is limited by market ideology, especially in the Directorate-General for Competition. Since a strong strategy implies giving security interests priority over free-market ideology whenever conflicts appear, this limit might be of great significance. Proposed radical changes in foreign policy course are not granted support just because they recommend a more prominent place for the Commission, and elements of euroscepticism in the EP equally indicates that it is too simple just to count on the favourable attitude of supranational institutions. At the current level of strategy development, the Commission has nevertheless demonstrated strong preferences for putting energy security high on the EU agenda, through initiatives and statements of high profiles like CFSP representative Javier Solana and Energy Commissioner Andris Piebalgs. The Commission favours the supply security promoting alternative in the contentious nuclear debate, and is, perhaps less surprisingly, a strong proponent of a single EU voice in external energy relations and climatemotivated initiatives with security benefits.

The green light from the European Council in March 2007 to work towards a strategy implies a potentially greater role for the supranational institutions. But by what means can the Commission advance the development of European level energy security policy? Most importantly by defining challenges and formulating proposals for how to resolve them (Sjursen 2004:20). Information directed at policy-makers and a greater public, in forms ranging from green books to informal brochures, can increase awareness of the stakes, and lend the policy area more weight (Héritier 1999:11). The strategic energy reviews assure a regular preparatory ground for future Commission

initiatives, and may prove an important harmonisation tool.⁴³ A number of different mechanisms have been proposed to explain how the supranational structure influences state preferences: 'Cognitive congruence' (Oye 1986:9) or a 'coordination reflex' (White 2001:166) may result from state interaction at the European level. This may happen by 'elite socialisation' in supranational institutions with strong institutional norms defining 'appropriate behaviour' - that is, "mutual understandings of what is true, reasonable, natural, right, and good" (Olsen 2007:3). Actors receive information about consequences of their policy choices when they participate in EU decision-making, and this 'policy learning' may change their basic preferences (Eising 2002:87). Direct interaction with parts of national administrations, which sometimes develop a sense of loyalty to the supranational level, provides opportunities for the Commission to facilitate agreements by exercising 'supranational entrepreneurship' (Hayes-Renshaw and Wallace 2006:319, Egeberg 2006). The fragmented institutional structure with a myriad of bodies and committees contains many possible escape routes (Héritier 1999:6). Whether the Commission is perceived as a 'promotional broker' or a disinterested, wise technocrat (Hayes-Renshaw and Wallace 2006:191), further impacts on its potential for influence. The Commission has a more natural authority in non-politicised issue areas where scientists and technicians have a prominent role. A central point in neofunctionalism is that integration is accelerated in these areas because "scientific views tend to converge, and facilitate the formation of policy communities", also known as 'epistemic communities' (Farrell and Héritier 2005:276). Lack of formal powers does in other words not necessarily mean lack of informal authority and credibility.

A common European identity may also emerge from continued interaction, help to transcend interest diversity obstacles, and serve as a backing 'substructure' to community policies (White 2001:164). The nature of this identity will most probably lie close to elements already developed, of Europe as a promoter of free, law and market regulated energy trade. One could expect that world-view or 'paradigmatic' changes are hardest to accomplish, as agreement on the use of hard power for example will, if

⁴³ Cf. press release regarding the 2006 Green Paper (IP/06/282).

proved necessary, imply a departure from the current 'soft power' image (Berenskoetter 2005:85f). Such questions are among the most politicised, and the Commission will find it hard to present itself as a neutral technocrat. Current norms for appropriate behaviour are not intuitively compatible with hard power politics to defend energy security interests of the EU as a whole, and besides that, "the Union makes a poor cold warrior" (Leonard and Popescu 2007:52). Step-wise development is more probably than sudden, radical changes. For example with a gradual introduction of security of supply standards that

could help overcome the lack of a common security of supply framework because it creates transparency about national energy balances, exposure to certain risks and the policies that attempt to avert these risks at a national level (Scheepers et al. 2007:15).

Security standards are an alternative to an immediate call for new EU-level competencies, dominant until now (ibid.). Regardless of their probability, such standards are however only a *step* towards an EESS.

The explanatory categories briefly evoked here belong to the multilevel governance approach, new institutionalism, or other alternatives or complements to the rationalist, state-centred research approach that dominates this study. The relatively undeveloped state of the European energy security strategy indicates that they are of little importance, but maintained focus on the issue among MS and in Brussels can be expected to strengthen the supranational element, and thereby also the importance of these approaches. Future research should hence be attentive to the potential explanatory power of these perspectives in the field of energy security.

Chapter 6

Conclusions

Put simply, Europe needs to use its economic and political weight on the world stage in a much greater way than it has done in the past. It needs to define clearly its goals and aspirations regarding its energy partners, both suppliers and consumers, and then speak with one voice to proactively promote these interests. (Piebalgs 2006)

This quote from Energy Commissioner Andris Piebalgs captures essential features of what I have defined as a strong EESS, and it shows willingness among key actors at the European stage to strengthen the current strategy. Uncomfortable dependence on an increasingly insecure energy market motivates these efforts, whose potential for success has been the focus of this study. Until now, most concrete proposals for a European energy policy have addressed the goals of sustainability and competitiveness. A part from security motivated initiatives to improve the IEM, little has happened in the energy security domain.

Clear differences have been found between the EU's 27 member states regarding energy mix, diversity, degree of import dependence, the thereof deduced risk exposure, and with assumed implications for strategy preferences. EU's mini-states, the Baltic states, the Czech Republic and Poland are expected to be the strongest supporters of an EESS. These states share most of the risk characteristics, like a high share of the key strategic resources oil and gas, high energy dependence, low degree of diversity, high dependence on and a difficult relationship with Russia. Large and old MS are overrepresented among lower risk countries, with fewer incentives to opt for a strong strategy. These states have either own oil and gas production or high shares of nuclear or renewable energy – typically combined with type, origin and transport routes diversity. Among these states one find Austria, the Netherlands, Denmark, Sweden and Ireland, France and the UK. Assumptions about strategy preferences are less evident for a large and quite heterogeneous medium risk group. The relatively clear distinction between old

and new members is reinforced by higher transit dependence, lower energy intensity, a lower share of LNG, lower implicit energy tax rates, and smaller strategic oil reserves in new MS.

Potential benefits from cooperation exist for all states, both regarding internal aspects and a common voice in external energy relations. But the gains are less obvious, concrete and directly achievable, and imply higher pay-offs in terms of endangered status-quo advantages for the low risk states. The cost-benefit structure for major energy security problems are not conducive to strategy development, because of difficulties of getting political support for costly security measures to prepare for events of low probability and potentially high impact (Stern 2002:33). In addition, the large state leadership potential is limited: Energy producing UK is too atypical and market oriented, energy patriotic France too independent, and energy dependent Germany too eager to integrate Russia. The short case-studies of these three countries also indicate that issues regarding the IEM, and challenges to the so far dominant integration model in external energy relations, represent two potential ideological conflict sources a future EESS must deal with.

Compared to looser forms of cooperation between states, the EU's institutional structure has some clear bargaining advantages. It provides stable and predictable conditions of trust and information, mechanisms to enforce agreements, and a great potential for strategic use of issue-linkage, due in this case to the many-sidedness of energy security. But few existing EU competences, the high security stakes involved, difficulties of achieving positive integration, and strict decision-making procedures make strategy development a likely problem-case. Still, the European Commission can play an important role as agenda-setter, arena for learning, and framework establisher that contributes to increase cognitive congruence and a stronger we-feeling. An eventual gradual transfer of competences from the MS is expected to increase the Commission's influence on strategy preferences.

Considering the high level of discussions and activity both in Brussels and national capitals, we will probably see new EU initiatives approved in coming years. This study has however shown important obstacles for a strong, flexible and consistent

European Energy Security Strategy to develop from a situation of heterogeneous preferences and weak institutional capacity. The EU as it is known today - its internal rules, values and governing philosophy (Leonard and Popescu 2007:26) - seems little suited to meet a resurgence of geopolitics in a divided world in which states and regions compete for markets and resources. If such a scenario were to become real, future research would deal with its effects on the prospects for cooperation in a tenser climate with even higher stakes, and policy-makers would have to consider radical options far transcending current ideas about what the EU is. Power and capabilities of single EU member states, largely excluded from the discussions here, would probably be given a greater role of researchers in such a situation. This study has concentrated on few actors: the MS (mostly), the Commission (to some extent), and others (hinted at). A large potential for analytical expansion exists by exploring the diverse interests of actors participating in the national preference formation, and interests groups and energy industry actors operating directly at the EU level. Researchers and policy-makers will also have to take into account main actors in global geopolitics like the United States and the three BRIC-countries not treated here⁴⁴. The transatlantic relationship, including the dominant role of the US in energy rich regions like the Middle East, is the most important factor left out. US involvement in European security contributes to make the choice for EU member states more complex than between an EU or a strictly national policy. Finally, successful EESS development will depend on the right momentum with a favourable combination of limited external pressure and worries about current and future insecurity, and a still sufficiently cooperative internal climate.

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⁴⁴ The 'BRIC' countries are Brazil, Russia, India and China.

Literature

- 2003/96/EC. Council directive of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity. OJ L 283, 31.10.2003, 51—70.
- 2004/67/EC. Council Directive of 26 April 2004 concerning measures to safeguard security of natural gas supply. OJ L 127, 29.04.2004, 92—96.
- 2005/89/EC. Directive of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment. OJ L 33, 04.02.2006, 22—27.
- 68/414/EEC. Council Directive of 20 December 1968 imposing an obligation on Member States of the EEC to maintain minimum stocks of crude oil and/or petroleum products. OJ L 308, 23.12.1968, 14—16.
- 72/425/EEC. Council Directive of 19 December 1972 amending the Council Directive of 20 December 1968 imposing an obligation on Member States of the EEC to maintain minimum stocks of crude oil and/or petroleum products. OJ L 291, 28.12.1972, 154.
- Andersen, Svein S. (2000a). 'EU Energy Policy: Interest Interaction and Supranational Authority', *Working Paper* 00/5. Oslo: Arena. URL: arena.uio.no/publications/wp00_5.htm
- Andersen, Svein S. (2000b). 'European Integration and the Changing Paradigm of Energy Policy. The case of natural gas liberalisation', *Working Paper 00/13*. Oslo: Arena. URL: arena.uio.no/publications/wp00_13.htm
- Andersen, Svein S. (2003). Case-studier og generalisering. Forskningsstrategi og design. Bergen: Fagbokforlaget.
- Austvik, Ole Gunnar (2003). Norwegian Natural Gas Liberalization of the European Gas Market. Oslo: Europaprogrammet.
- Axelrod, Regina S. (1996). 'The European Energy Charter Treaty. Reality or illusion?', Energy Policy 24 (6): 497—505.
- Axelrod, Robert and Robert O. Keohane (1985). 'Achieving Cooperation under Anarchy: Strategies and Institutions', *World Politics* 38 (3): 226—54.
- Baran, Zeyno (2007). 'The Common Foreign and Security Policy and the Security of Energy Supplies', Center for Eurasian Policy, Hudson Institute. URL: www.euro parl.europa.eu/meetdocs/2004_2009/documents/dv/studybar/studybaran.pdf

- Baran, Zeyno (2008). 'Developing a Cohesive EU Approach to Energy Security', pp. 155—166 in Cornell, Svante E. and Niklas Nilsson (eds.) Europe's Energy Security: Gazprom's Dominance and Caspian Supply Alternatives, Central Asia Caucasus Institute & Silk Road Studies Program. URL: www.isdp.eu/files/publications/scornell/sc08europesenergy.pdf
- Barton, Barry, Catherine Redgwell, Anita Rønne, and Donald N. Zillman (2004). *Energy Security. Managing Risk in a Dynamic Legal and Regulatory Environment*, New York: Oxford University Press.
- BBC News (2007a). 'Gas producers 'to discuss cartel", 9 April 2007. URL: news.bbc.co.uk/2/hi/middle_east/6538127.stm
- BBC News (2007b). 'Energy dominates Shanghai summit', 17 August 2007. URL: news.bbc.co.uk/2/hi/asia-pacific/6949021.stm
- Berenskoetter, Felix Sebastian (2005). 'Mapping the Mind Gap: A Comparison of US and European Security Strategies', Security Dialogue 36 (1): 71—92.
- Biscop, Sven (2004). 'The European Security Strategy. Implementing a Distinctive Approach to Security', Sécurité & Stratégie Paper 82. Brussels: Royal Institute for International Relations.
- Bitsch, Marie-Thérèse (2004). *Histoire de la construction européenne*. Brussels: Editions Complexe.
- BMU (2007). Atomkraft: Ein teurer Irrweg. Die Mythen der Atomwirtschaft.

 Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit, March 2007. URL: www.bmu. de/files/pdfs/allgemein/application/pdf/broschuere_atomkraft_irrweg.pdf
- BMVg (2006). Weißbuch zur Sicherheitspolitik Deutschlands und zur Zukunft der Bundeswehr 2006, Bundesministerium der Verteidigung. URL: www.bmvg.de/portal/PA_1_0_P3/PortalFiles/C1256EF40036B05B/W26UYEPT431INFODE/WB_2006_dt_mB.pdf?yw_repository=youatweb
- Borchert, Heiko and Karina Forster (2007). 'Energy Infrastructure Security: Time For A Networked Public-Private Governance Approach', *Middle East Economic Survey* XLIX (21).
- BP (2007). BP Statistical Review of World Energy June 2007. London: BP p.l.c. URL: www.bp.com/productlanding.do?categoryId=6848&contentId=7033471
- Brandt, Adam R. (2007). 'Testing Hubbert', Energy Policy 35: 3074—3088.
- Bromley, Simon (2005). 'The United States and the Control of World Oil', *Government and Opposition* 40(2): 225—255.

- Cabinet Office (2008). The National Security Strategy of the United Kingdom. Security in an interdependent world. URL: interactive.cabinetoffice.gov.uk/ documents/security/national_security_strategy.pdf
- CIA (2008). CIA World Factbook, Algeria. URL: www.cia.gov/library/publications/the-world-factbook/geos/ag.html
- Claes, Dag Harald (2001). The Politics of Oil-Producer Cooperation. Boulder CO: Westview Press.
- Cohen, Ariel (2007). 'Europe's Strategic Dependence on Russian Energy', Backgrounder 2083, 5 November 2007, The Heritage Foundation.
- COM(94) 659 final/2. Green Paper. For a European Union Energy Policy. Brussels 23 February 1995.
- COM(95) 682 final. White Paper. An Energy Policy for the European Union. Brussels 13 December 1995.
- COM(2000) 769 final. Green Paper. Towards a European strategy for the security of energy supply. Brussels 29 November 2000.
- COM/98/0221 final. Proposal for a Council Directive amending Directive 68/414/EEC 'imposing an obligation on Member States of the EEC to maintain minimum stocks of crude oil and/or petroleum products'. Official Journal C 160, 27/05/1998 P. 0018
- COM(2006) 105 final. Green Paper. A European Strategy for Sustainable, Competitive and Secure Energy. Brussels 8 March 2006.
- COM(2007) 1 final. Communication from the Commission to the European Council and the European Parliament. An Energy Policy for Europe. Brussels 10 January 2007.
- COM 2007 draft. Explanatory memorandum of the 3rd energy package. Brussels: European Commission. URL: ec.europa.eu/energy/electricity/package_2007/doc/2007_09_19_explanatory_memorandum_en.pdf
- Constantin, Christian (2005). 'China's Conception of Energy Security: Sources and International Impacts', *UBC Working Paper* 43, March 2005.
- Correljé, Aad and Coby Van der Linde (2006). 'Energy supply security and geopolitics: A European perspective', *Energy Policy* 34: 532—543.
- Crouch, Colin and Henry Farrell (2002). 'Breaking the Path of Institutional Development? Alternatives to the New Determinism', MPIfG Discussion Paper, February 2002.

- DGEMP (2006). French memorandum for revitalising european energy policy with a view to sustainable development, Ministère de l'Économie, des Finances et de l'Industrie, 24 January 2006. URL: www.industrie.gouv.fr/cgi-bin/industrie/frame23e_loc.pl?bandeau=/energie/anglais/be_us.htm&gauche=/energie/anglais/me_us.htm&droite=/energie/anglais/memorandum-anglais.htm
- DG TREN (2007). Pocketbook. Energy & Transport in Figures 2007. European Commission. Directorate-General for Energy and Transport. In co-operation with Eurostat. URL: ec.europa.eu/dgs/energy_transport/figures/pocketbook/doc/2007/2007_energy_en.pdf
- DTI (2007). Meeting the Energy Challenge: A White Paper on Energy. The Stationery Office, (UK) Department for Trade and Industry. URL: www.berr.gov.uk/files/file39387.pdf
- Egeberg, Morten (2006). 'Europe's Executive Branch of Government in the Melting Pot: an Overview', cpt. 1 in Morten Egeberg (ed.) *Multilevel Union Administration*. *The Transformation of Executive Politics in Europe*. Basingstoke: Palgrave Macmillan.
- EGRF (2002). 'A long-term vision of a fully operational single market for gas in Europe a strategy paper (draft)', *Joint Working Group of the European Gas Regulatory Forum*. URL: ec.europa.eu/energy/library/strategy-paper-draft-28-01-2002.pdf
- EIA (2007). International Energy Outlook 2007, Washington DC: Energy Information Administration, U.S. Department of Energy. URL: www.eia.doe.gov/oiaf/ieo/index.html
- Eising, Rainer (2002). Policy Learning in Embedded Negotiations: Explaining EU Electricity Liberalization', *International Organization* 56 (1): 85—120.
- Energy Charter Secretariat (2003). Draft Treaty. Energy Charter Protocol on Transit. URL: www.encharter.org/fileadmin/user_upload/document/CC251.pdf
- EP (2006). European Parliament Fact Sheets 4.12.0. Energy policy, M. Györffi 09/2006. URL: europarl.europa.eu/facts/4_12_0_en.htm
- Euobserver.com (2007a). 'EU makes the case for nuclear energy', 2 October 2007. URL: euobserver.com/?aid=24886
- EUobserver.com (2007b). Poland vows new era in relations with EU and Russia', 23 November 2007. URL: euobserver.com/?aid=25201
- EUobserver.com (2008). 'Poland ready to lift opposition to EU-Russia pact', 7 March 2008. URL: euobserver.com/9/25797
- EurActiv (2007a). 'Suez-GDF merger seen as challenge to EU', 4 September 2007. URL: www.euractiv.com/en/energy/suez-gdf-merger-seen-challenge-eu/article-166426

- EurActiv (2007b). 'Mix énergétique: le nucléaire gagne du terrain', 29 November 2007. URL: http://www.euractiv.fr/energie/article/mix-energetique-nucleaire-gagneterrain-00535
- EurEnDel (2004). Technology and Social Visions for Europe's Energy Future, a Europe-wide Delphi Study. Final Report, November 2004. URL: www.izt.de/pdfs/eurendel/results/eurendel_final.pdf
- European Commission/SG/HR (2006). An External Policy to Serve Europe's Energy Interests. URL: www.consilium.europa.eu/uedocs/cmsUpload/st09971.en06.pdf
- European Council (2003). A Secure Europe in a Better World: European Security Strategy. Brussels, 12 December 2003.
- European Council (2006a). *Presidency Conclusions*, Brussels 23/24 March 2006. URL: consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/89013.pdf
- European Council (2006b). *Presidency Conclusions*, Brussels 15/16 June 2006. URL: consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/90111.pdf
- Eurostat (2007). Energy. Yearly statistics 2005. 2007 edition. Luxembourg: Office for Official Publications of the European Communities.
- Farrell, Henry and Adrienne Héritier (2005). 'A rationalist-institutionalist explanation of endogenous regional integration', *Journal of European Public Policy* 12(2): 273—290.
- Fearon, James D. (1998). 'Bargaining, Enforcement, and International Cooperation', *International Organization* 52 (2): 269—305.
- Ferrero-Waldner, Benita (2006). 'Opening address', in European Commission (2006)

 Towards an EU External Energy Policy, Brussels Conference 20th and 21st November 2006. Conference brochure. URL: ec.europa.eu/external_relations/
 energy/energy_conference_2006/final_brochure.pdf
- Fotyga, Anna (2006). EU Foreign Policy 2006-2010. Key points of the Speech by the Polish Foreign Minister Anna Fotyga, at the Conference of the European Union Institute for Security Studies and European Centre Natolin: 'Europe as a Global Power'. Warsaw-Natolin 19 May 2006. URL: www.natolin.pl/pdf/FN/FN_2_2006_fotyga.pdf
- FMES (2007). 'L'Algérie et l'approvisionnement énergétique de l'Europe : une guerre diplomatique sur fond d'enjeux économiques' (article in Liberté 19 July 2007), Fondation Méditerranéenne d'Etudes Stratégiques. URL: www.fmes-france.net/article.php3?id_article=699
- Geden, Oliver, Clémence Marcelis and Andreas Maurer (2006). 'Perspectives for the European Union's External Energy Policy: Discourse, Ideas and Interests in Germany, the UK, Poland and France', *Working Paper FG* 1, 2006/17, SWP Berlin.

- Geden, Oliver and Timo Noetzel (2007). 'Europas Energiestrategie. Die deutsche Ratspräsidentschaft auf dem Weg zu einer gemeinsamen Energiepolitik?', *SWP-Aktuell* 5, January 2007. URL: www.swp-berlin.org/de/common/get_document.php?asset_id=3681
- Graziano, Paolo and Maarten Vink (2006). 'Challenges of a New Research Agenda', cpt 1 in Paolo Graziano and Maarten Vink (eds.): *Europeanization: New Research Agendas*. Basingstoke: Palgrave Macmillan.
- Hayes-Renshaw, Fiona and Helen Wallace (2006). *The Council of Ministers*, second edition. Houndmills: Palgrave Macmillan.
- Héritier, Adrienne (1999). *Policy-Making and Diversity in Europe. Escape from Deadlock*. Cambridge: Cambridge University Press.
- Hirsch, Robert L. (2007). *Peaking of World Oil Production:* Recent Forecasts. US Department of Energy/National Energy Technology Laboratory, 5 February 2007. URL: www.netl.doe.gov/energy-analyses/pubs/Peaking%20of%20World%20Oil %20Production%20-%20Recent%20Forecasts%20-%20NETL%20Re.pdf
- Hobsbawm, Eric (1994). Age of Extremes. The short twentieth century 1914 1991. London: Penguin Group.
- IEA (2005). Resources to Reserves. Oil & Gas Technologies for the Energy Markets of the Future. Paris: OECD/IEA. URL: www.iea.org/textbase/nppdf/free/2005/oil_gas.pdf
- IEA (2006). World Energy Outlook 2006. Summary and Conclusions. Paris: IEA. URL: www.iea.org/Textbase/npsum/WEO2006SUM.pdf
- IEA (2007). About the International Energy Agency. URL: www.iea.org/about/docs/iea2007.pdf.
- IHT (2008a). 'Bulgaria and Russia sign pipeline deal', *International Herald Tribune* 18 January 2008. URL: www.iht.com/articles/ap/2008/01/18/europe/EU-GEN-Bulgaria-Putin.php
- IHT (2008b). 'Deal with Serbia gives Russia victory in 'pipeline war' with EU', *International Herald Tribune* 25 January 2008. URL: www.iht.com/articles/2008/01/25/business/pipe.php
- Informationsdienst für Politik (2006). 'Partner im Ausnahmezustand', 31 May 2006.

 URL: www.polixea-portal.de/index.php/Main/Artikel/Dossier/1/kapitel/
 127078/Dossierid/121817/n1/Themen/n2/AussenSicherheit/id/126705/nam
 e/Partner+im+Ausnahmezustand
- IP/06/282. Fuelling our future: the European Commission sets out its vision for an Energy Strategy for Europe, Press release, Brussels 8 March 2006.
- IP/07/1361. Energising Europe: A real market with secure supply, Press release, Brussels 19 September 2007.

- IPCC (2007). Climate change 2007: Mitigation. Contribution of Working group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [B. Metz, O. R. Davidson, P. R. Bosch, R. Dave, L. A. Meyer (eds)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Ives, Wayne (2006). 'Keeping the home fires burning? The Energy Plan for Europe and Britain's energy security', *Open Europe* 21 July 2006. URL: openeurope.org.uk/research/energy.pdf
- Jamasb, Tooraj and Michael Pollitt (2005). 'Electricity Market Reform in the European Union: Review of Progress toward Liberalization & Integration', *Working Paper* 05-003, Center for Energy and Environmental Policy Research, MiT. URL: ideas.repec.org/p/mee/wpaper/0503.html
- Kagan, Robert (2002). 'Power and Weakness', *Policy Review* 113. www.hoover.org/publications/policyreview/3460246.html
- Kalicki, Jan H. and David L. Goldwyn (2005). 'Introduction', in Jan H. Kalicki and David L. Goldwyn (eds.): *Energy & Security Toward a new Foreign Policy Strategy*, Baltimore: The Johns Hopkins University Press.
- Katz, Mark N. (2006). 'Analysis: Russia, Algeria and gas to Europe', *United Press International/Middle East Times*, 28 November 2006. URL: www.algeria-watch.org/en/articles/2006/russia_algeria.htm
- Kempe, Iris (2006). 'The German Impact on the European Neighbourhood Policy', Foreign Policy in Dialogue 7(19):26—33.
- Keohane, Robert O. (1984). After Hegemony: Cooperation and Discord in the World Political Economy. Princeton: Princeton University Press.
- Keohane, Robert O. (1986). 'Theory of World Politics: Structural Realism and Beoynd', cpt. 7 in Robert O. Keohane (ed.): *Neorealism and its Critics*. New York: Columbia University Press.
- Keohane, Robert O. (1988). 'International Institutions: Two Approaches', *International Studies Quarterly* 32(4):379—96.
- Keppler, Jan Horst (2007). 'La sécurité des approvisionnements énergétiques en Europe : principes et mesures', *Note de l'Ifri*. URL: www.ifri.org/files/Energie/Securite_Keppler.pdf
- Koenig-Archibugi, Mathias (2004). 'Explaining Government Preferences for Institutional Change in EU Foreign and Security Policy', *International Organization* 58 (Winter 2004): 137—174.
- Larsson, Robert L. (2006). Russia's Energy Policy: Security Dimensions and Russia's Reliability as an Energy Supplier. FOI, Swedish Defence Research Agency. URL: www2.foi.se/rapp/foir1934.pdf

- Larsson, Robert L. (2007). Nord Stream, Sweden and Baltic Sea Security. FOI, Swedish Defence Research Agency. URL: www2.foi.se/rapp/foir2251.pdf
- Le Monde (2008). 'Nouvel épisode de la guerre du gaz entre Gazprom et l'Ukraine', 5 March 2008.
- Leonard, Mark and Nicu Popescu (2007). 'A Power Audit of EU-Russia Relations', ECFR Policy Paper: European Council on Foreign Relations. URL: ecfr.3cdn.net/456050fa3e8ce10341 9zm6i2293.pdf
- LOI nº 2005-781 du 13 juillet 2005 de programme fixant les orientations de la politique énergétique. Journal Officiel de la République Française, Text 2 of 138, 14 July 2005.
- Luciani, Giacomo (2004). 'Security of Supply for Natural Gas Markets. What is it and What is it not?', FEEM Working Paper 119.04. URL: papers.ssrn.com/sol3/papers.cfm?abstract_id=600501.
- Mañé-Estrada, Aurèlia (2006). 'European energy security: Towards the creation of the *geo-energy* space', *Energy Policy* 34: 3773—3786.
- Marcinkiewicz, Kazimierz (2006). 'Europe's energy musketeers must stand together', Financial Times 9 February 2006, URL: us.ft.com/ftgateway/superpage.ft?news_id=fto020920061603036734&page=1
- Matláry, Janne Haaland (1997). Energy Policy in the European Union. Basingstoke: Macmillan Press Ltd.
- McKillop, Andrew (2005 ed). The Final Energy Crisis. London: Pluto Press.
- Meritet, Sophie (2007). 'French perspectives in the emerging European Union energy policy', *Energy Policy* 35:4767—4771.
- Moravcsik, Andrew (1997). 'Taking Preferences Seriously: A Liberal Theory of International Politics', *International Organization* 51 (4):513—53.
- Moravcsik, Andrew (1998). The Choice for Europe: Social Purpose and State Power from Messina to Maastricht. Ithaca: Cornell University Press.
- Müller-Kraenner, Sascha (2007). Energiesicherheit. Die neue Vermessung der Welt. München: Verlag Antje Kunstmann.
- Newbery, David M. (2002). 'European Deregulation. Problems of liberalising the electricity industry', *European Economic Review* 46 (2002):919—927.
- Ngo-online (2006). Wirtschaftsminister Glos für längere Laufzeiten der Atomkraftwerke', 3 January 2006. URL: ngo-online.de/ganze_nachricht.php? Nr=12594

- Olsen, Johan P. (2007). 'Understanding Institutions and Logics of Appropriateness: Introductory Essay', *Working Paper* 07/13. Oslo: Arena. URL: arena.uio.no/publications/wp07_13.pdf
- Oye, Kenneth A. (1986). 'Explaining Cooperation under Anarchy: Hypotheses and Strategies', cpt. 1 in Kenneth A. Oye (red.) *Cooperation under Anarchy*. Princeton: Princeton University Press.
- Piebalgs, Andris (2006). A Common Energy Policy for Europe. EU Energy Policy and Law Conference, Brussels 9 March 2006. URL: europa.eu/rapid/pressReleases Action.do?reference=SPEECH/06/161&format=HTML&aged=0&language=EN&guiLanguage=en
- Pierson, Paul (2000). 'Increasing Returns, Path Dependence, and the Study of Politics', *The American Political Science Review* 94(2): 251—267.
- Posen, Adam S. (2007). 'German Leadership and the Pursuit of Energy Security in a Global Economy', English version of article published in Jürgen Petermann (ed.) *Sichere Energie im 21. Jahrhundert.* Hamburg: Hoffmann und Campe Verlag GmbH. URL: iie.com/publications/papers/paper.cfm?ResearchID= 757
- Ramsay, William C. (2004). Energy Transit in Eurasia. Challenges and Perspectives: A 'Missing Link' in the External Dimension of Security of Supply in Open Markets?, Energy Charter Conference 19-20 September 2004. URL: iea.org/textbase/speech/2004/ramsay/transit.pdf
- Reymond, Mathias (2007). 'European key issues concerning natural gas: Dependence and vulnerability', *Energy Policy* 35: 4169—4176.
- Roberts, Hugh (2002). 'Dancing in the Dark: The European Union and the Algerian Drama', *Democratization* 9 (1): 106—134.
- Scharpf, Fritz (1997). 'Balancing Positive and Negative Integration: The Regulatory Options for Europe', MPIfG Working Paper', August 1997.
- Scharpf, Fritz (1999). Governing in Europe: Effective and Democratic? New York: Oxford University Press.
- Scheepers, Martin, Ad Seebregts, Jacques de Jong and Hans Maters (2007). EU Standards for Energy Security of Supply. Updates on the Crisis Capability Index and the Supply/Demand Index Quantification for EU-27. Petten: ECN/Clingendael International Energy Programme. URL: www.ecn.nl/docs/library/report/2007/e07004.pdf
- Schuman, Robert ([1950] 2007). *Declaration of 9 May 1950*. URL: europa.eu/abc/symbols/9-may/decl_en.htm
- SEC(90)1248. Working Paper of the Commission on Security of Supply, the Internal Energy Market and Energy Policy. Brussels, 14 September 1990.

- Shearer, Gordon (2005). 'North Africa and the Mediterranean', cpt. 9 in Jan H. Kalicki und David L. Goldwyn (eds.): *Energy & Security Toward a new Foreign Policy Strategy*. Baltimore: The Johns Hopkins University Press.
- Sieminski, Adam E. (2005). 'World Energy Futures', cpt. 1 in Jan H. Kalicki and David L. Goldwyn (eds.): Energy & Security Toward a new Foreign Policy Strategy. Baltimore: The Johns Hopkins University Press.
- Sjursen, Helene (2004). 'Towards a post-national foreign and security policy?' Working Paper 04/12. Oslo: Arena. URL: arena.uio.no/publications/wp04_12.pdf
- Skinner, Robert (2006). 'Strategies for Greater Energy Security and Resource Security', Background notes, Oxford Institute for Energy Studies. URL: www.oxfordenergy.org/presentations/BANFF_June_06-1.pdf
- Smith, Michael E. (2004). Europe's Foreign and Security Policy: The Institutionalization of Cooperation. Cambridge: Cambridge University Press.
- Steinmeier, Frank-Walter (2006). "Internationale Aspekte der Energiepolitik" Rede von Bundesaußenminister Steinmeier beim zweiten Energiegipfel der Bundesregierung, 9 October 2006. URL: www.auswaertiges-amt.de/diplo/de/Infoservice/Presse/Reden/2006/061009-Energiegipfel.html
- Stern, Jonathan (2002). Security of European natural gas supplies. The impact of import dependence and liberalization. Sustainable Development Programme, Royal Institute of International Affairs.
- Stern, Jonathan (2006). *The Russian-Ukrainian gas crisis of January 2006*, Oxford Institute for Energy Studies. URL: www.oxfordenergy.org/pdfs/comment_0106.pdf
- Stroupe, W. Joseph (2006). Russian Rubicon. Impending Checkmate of the West. eBook available at www.geostrategymap.com
- Tagesschau (2008). 'Clement: "Der Atomausstieg war ein Fehler", 7 February 2008. URL: www.tagesschau.de/inland/clement28.html
- Van der Linde, Coby, Mehdi Parvizi Amineh, Aad Correljé and Dick de Jong (2004). Study on Energy Supply Security and Geopolitics. The Hague: Repro- van de Kamp B.V. Final Report by the Clingendael International Energy Programme (CIEP) for DG Energy and Transport.
- Wallace, Helen (1999). 'Piecing the Integration Jigsaw Together', *Journal of European Public Policy* 6(1): 155—159.
- Waltz, Kenneth (1979). Theory of International Politics. New York: McGraw-Hill.
- Weisser, Hellmuth (2007). 'The security of gas supply—a critical issue for Europe?', Energy Policy 35:1—5.

- WETO H₂ (2006). World Energy Technology Outlook 2050. European Commission, Directorate-General for Research. URL: ec.europa.eu/research/energy/pdf/weto-h2_en.pdf
- White, Brian (2001). Understanding European Foreign Policy. Basingstoke: Palgrave.
- Yenikeyeff, Shamil Midkhatovich and Timothy Fenton Krysiek (2007). The Battle for the Next Energy Frontier: The Russian Polar Expedition and the Future of Arctic Hydrocarbons. Oxford Institute for Energy Studies. URL: www.oxfordenergy.org/pdfs/comment_0807-3.pdf
- Yergin, Daniel (2005). 'Energy Security and Markets', cpt. 2 in Jan H. Kalicki and David L. Goldwyn (eds.): *Energy & Security Toward a new Foreign Policy Strategy*. Baltimore: The Johns Hopkins University Press.
- Yin, Robert K. (2003). Case Study Research: Design and Methods. Third Edition. London: Sage. Applied Social Research Methods Series, vol. 5.