



The Planning of Offshore Wind Farms

A comparison of the policy
arrangements of the
Netherlands and the UK

Master Thesis
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Preface

This research was conducted as a master thesis within the course program of the master of Environmental & Infrastructure Planning at the Faculty of Spatial Sciences at the University of Groningen (the Netherlands). Basing on my own experiences and that of my fellow students writing (and finishing in particular) a master thesis can be considered a big achievement in itself. Finding a subject, doing research and writing everything down are only some of the bumps that have to be overcome during this long road of self-discipline.

Because of the many ups and downs one will experience during such a process it is important to get support from your environment. I therefore hereby would like to thank all the people that provided me this moral and practical support during my quest for graduation. A special expression of thanks however I want to address to my two supervisors, Jochem de Vries en Sjoerd Zeelenberg, who not only provided me the necessary feedback on my work, but who in the end also enabled me to finish my thesis within a limited amount of time.

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Abstract

As a result of the quest for sustainable sources of energy offshore wind energy has been recognized as one of the serious alternatives for fossil fuels. However, building wind farms at open sea is a new development facing many uncertainties. Not only in terms of technical constraints, but also in terms of spatial planning. Spatial planning at open sea is a new phenomenon. As a consequence, countries who want to build offshore wind farms have to adopt a spatial policy arrangement to regulate the development of offshore wind energy.

In the Netherlands the planning of offshore wind farms proved to be problematic. Private developers are willingly to develop offshore wind farms, but at the moment only one wind farm is actually being build. Apparently the Dutch policy arrangement has been unable to support effective decision making. In the UK on the other hand the development of offshore wind farms is rather successful. This success can be related to a well designed policy arrangement for the planning of offshore wind farms. The UK was successful in creating a policy arrangement which has a large institutional capacity. As a result it is able to support an effective planning of offshore wind farms. In this research the (creation of) the policy arrangements of the Netherlands and the UK are compared to point out the spatial planning problems related to the development of offshore wind farms.

Chapter 1 – Introduction

This research is conducted as a final stage of the course program of the Master of Environmental & Infrastructure Planning at the faculty of Spatial Sciences at the University of Groningen (The Netherlands). The topic of this Master Thesis is the planning of offshore wind farms. In this research a comparison is made between the different planning approaches in the Netherlands and the UK. This first chapter will be used to illustrate the context in which offshore wind energy developments are taking place and it will introduce the main research questions which form the basis for this research.

§ 1.1 Climate change and renewable energy

As a consequence of climate change, caused by the (strengthened) greenhouse effect people become aware of the fact that CO₂ emissions have to be reduced. Within the international community this awareness was expressed by the establishment of the Kyoto protocol. Aim of this treaty is to accomplish a common approach of industrialized countries to reduce the emission of greenhouse gasses. The participating countries have agreed to reduce especially their CO₂ emissions significantly. In spite of the fact that the two most important CO₂ producing countries (China and the U.S.) refused to commit themselves to the Kyoto protocol, the treaty is of great influence on the (political) debate about renewable energy in Western European countries.

The Kyoto protocol has triggered governments and policy makers to think about future energy supply. But apart from agreements about CO₂ reduction resulting from the Kyoto protocol, also other factors have their influence on the current debate about energy supply. Rising energy costs for instance make clear that there is an end to the fossil fuel supply and that it is necessary to look out for alternative sources of energy. Furthermore because of these high energy prices it is becoming increasingly profitable, even for private investors, to invest in renewable energy.

To implement the goals as set by the Kyoto protocol, different governments have formulated goals towards the production of renewable energy. Aim of this strategy is to create what is often referred to as an 'energy transition', which implies that our society is turned into a sustainable energy society which is less dependent upon fossil fuels. However, to reduce our fossil fuel consumption alternative sources of energy are required. In Western-Europe possibilities for

alternatives such as solar power are limited because of the demographic and metrological circumstances. In the North Sea region however plenty of wind is available. Therefore wind energy is one of the sustainable sources that seem the most promising to become a serious alternative for conventional energy resources.

Since relatively high wind velocities occur in coastal areas, the countries that are situated around the North Sea have a high wind energy potential. In the last decades some of these countries such as Denmark, Germany and the Netherlands have already been exploiting wind energy. With the ratification of the Kyoto protocol a new sense of urgency was created with regard to renewable energy production. This resulted in new opportunities for wind energy as well. These opportunities came forward not only in the form of a supporting governmental policy, but also in the form of an increased interest of private developers to invest in wind energy.

However, in Western European countries possibilities for wind energy production on land are limited. Although most people favor the development of 'clean' wind energy, local resistance against wind farm projects is fierce. Some countries are coping with this Nimby'ism better than others, but for all countries goes that conflicts with other land users make the building of large scaled onshore wind farms complicated. As a consequence of the limited opportunities for wind energy on land wind energy developments are shifted towards open sea. Besides the expected absence of local opposition an other reason why wind at sea looks promising, is the higher yield of offshore wind farms as a result of the bigger wind velocities that occur at open sea. In general at open sea it will be easier to build large wind farms with high energy yields. Because of such large scale opportunities it is interesting for private developers to invest in offshore wind energy.

It goes without saying that the development of offshore wind is facing many uncertainties and potential threats. The offshore wind energy industry is a new one. A lot of innovation has to take place to develop a mature industry. Therefore a lot of research is being done about the building of offshore wind farms. However, the main focus of such research is on the project management of offshore wind farms. In this, technical problems such as the connection to the electricity grid or technical constraints during the building phase are crucial themes (Power, 2006). In this research however the focus is on the consequences of offshore wind farms in terms of spatial planning. Therefore in this research the

planning of offshore wind farms will be regarded from a more societal and 'soft' perspective rather than a technical and project planning perspective.

§ 1.2 Creating a policy arrangement for offshore wind energy

Although the development of renewable energy is high on the political agenda, the development of offshore wind energy in Europe is left to the free market (Power, 2005). Initiatives for the development of offshore wind farms have to come from private investors. Judging on the amount of license application submitted in the different countries private developers are willingly to invest in offshore wind energy. This positive attitude of private investors is a good development from the perspective of a government that wants to promote offshore wind energy, but at the same time this government is confronted with a new problem. Because of the large number of private initiatives a solid decision making system has to be created. This is where spatial planning becomes an issue. Apart from the technical constraints and difficulties that are mostly for the risk of the private developers themselves, also more general and common interests that are often beyond the scope of a single wind farm have to be considered. This consideration of different interests from a more societal point of view is central in spatial planning.

The impact the development of offshore wind farms can have in terms of spatial planning problems is large. In the Netherlands for instance the target is to produce 6000 megawatt (MW) of energy by offshore wind farms in the next decades. Based on today's state of technique it is to be expected that to produce 6000 MW of offshore wind energy 400 to 1000 km² will be required. (IDON, 2005). To build offshore wind farms at such a large scale, from a spatial planning perspective it is important to make a careful decision about the location of these farms. At sea as well as on land there has to be dealt with spatial conflicts. Especially at the North Sea, which is known as one of the most crowded seas of the world, complex conflicts occur. However, planning policy frameworks addressing spatial issues at the North Sea are very limited in most North Sea countries.

In order to come to a careful consideration of the different interests at stake and to ensure optimal decision making, a decision making system has to be adopted. A legal system by which the licensing of offshore wind farms is taking place for instance is needed to regulate the development of offshore wind farms. But creating a decision making system involves more than the formulation of new laws only. However, for this research it is important to consider the legal context.

The Seabed of the North Sea consists of two main zones. First of all there is the 'twelve-mile zone', which reaches twelve sea miles off the shore. The twelve-mile zone is part of the country it is adjacent to. The second zone is the zone outside the twelve-mile zone. This zone is called the Exclusive Economic Zone (EEZ). The EEZ was established in 1996 by the ratification of the UNCLOS treaty. In this treaty the different countries around the North Sea agreed to 'divide' the North Sea between the different countries. Hereby the countries were allowed to use their part of the North Sea for the building of offshore wind farms. The legal system that applies in the EEZ has to be created by the country that 'uses' it. The legal systems that most countries established in their twelve-mile zone and EEZ are rather limited compared to the situation on land.



The policy arrangement the different countries adopted to deal with the development of offshore wind farms differs from country to country. At the same time the success these countries have in developing offshore wind farms varies too. Starting point for this research is the current situation in the Netherlands. In the Netherlands the planning of offshore wind farms is not without difficulties. Compared to countries such as Denmark and the United Kingdom in the Netherlands the development of offshore wind farms is rather disappointing. This situation is not due to a lack of interest from private parties to invest, on the contrary. At the moment the Dutch Government is overwhelmed with license applications of wind farm developers. The policy arrangement the Dutch adopted however seems to be unable to support effective decision making. This is a problem from the perspective of the wind energy industry, because investors have to wait very long before they get any certainty, but this is also a problem from the perspective of other interest groups since it remains uncertain whether external interests will be considered appropriately.

§ 1.3 Research approach

In this research the Dutch policy arrangement for the planning of offshore wind farms will be analyzed. Aim of this analysis is to point out what are the reasons why the development of offshore wind farms stagnates in the Netherlands. To put the Dutch context in perspective the Dutch policy arrangement will be compared to the arrangement of the United Kingdom (UK), which is one of the countries that are successful in developing offshore wind energy. While in the Netherlands the role of the government in offshore wind farm planning is limited to a fairly passive system of licensing, in the UK the policy arrangement for offshore wind farms seems to be more 'sophisticated'.

Aim of this research therefore is to compare the policy arrangements that in the Netherlands and the UK are created to deal with the planning of offshore wind farms. To do this both the Dutch and the British policy arrangement will be analyzed. By analyzing the policy arrangements of both countries the different elements of these arrangements can be pointed out. By doing this the Dutch policy arrangement can be viewed from an other perspective. By comparing the Dutch arrangement to the one that applies in the UK some recommendations might be formulated to improve the Dutch policy arrangement. In general, this research will hopefully provide some insights about spatial planning issues related to the development of offshore wind farms.

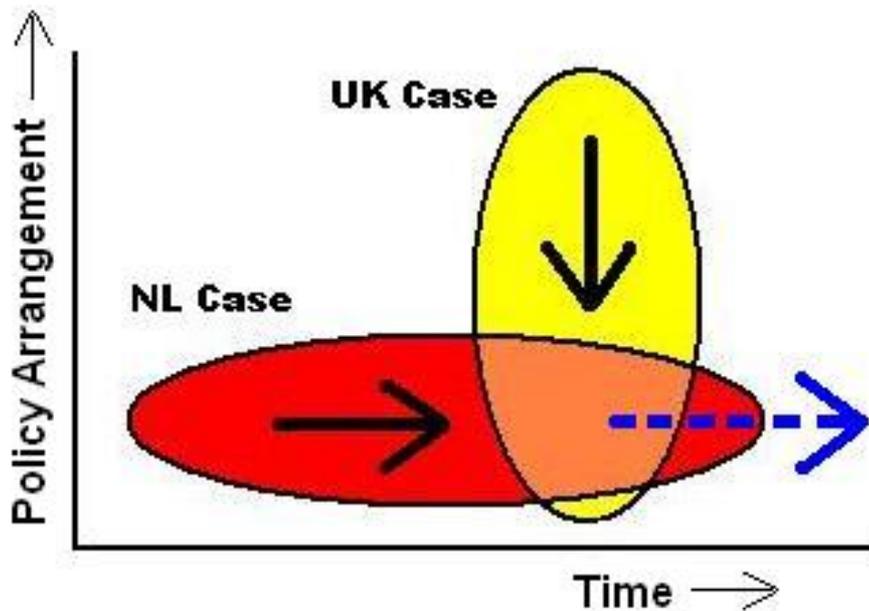
§ 1.4 Two Case studies: the Netherlands and the UK

The basis of this research is formed by two case studies. The first case study involves the Dutch policy arrangement with regard to offshore wind farms. In the second case study the British policy arrangement will be addressed. In both case studies the policy arrangement that regulates the development of offshore wind farms as a whole is the object of study. The empirical data for the case studies is gathered by general publications such as websites, policy documents, interviews and attendance at expert meetings and symposia.

Policy documents and websites were used to generate the information to create a global picture from the policy arrangements in the Netherlands and the UK. This information was enriched by the information gathered at expert meetings. To fill the knowledge gaps in both countries and to test the assumptions made with regard to both policy arrangements, e-mail interviews took place to get additional information. Finally, the information about the policy arrangements of both countries was analyzed with the use of the theoretical frame of reference as elaborated on in the next paragraph.

In both case studies the policy arrangements are analyzed to point out the different elements of the arrangements. Because of the fact that (the failure of) the Dutch situation is the starting point for this research, in the Dutch case study the road that led to the current situation will be emphasized. As a result, the Dutch case study will at some points consist of a chronological overview of important events over time. In the British case study on the other hand more emphasis will be on the different elements of the policy arrangement rather than on the chronological evolution of these elements. However, in order to compare the Dutch and the British policy arrangement the aspect of time will be addressed in the British case and the elements of the policy arrangement will be analyzed in the Dutch context as well of course. The different approach of the two case studies is reflected in figure 2.

Figure 2: Approach of the different cases



§ 1.5 Theoretical framework

To analyze the policy arrangements of the Netherlands and the UK with regard to the planning of offshore wind farms an appropriate frame of reference is needed. A policy arrangement is a complex constellation of policies, actors and cultures. Because of this complexity it is important to have a clear theoretical framework to base the analysis on. In this research the theoretical concept of 'policy arrangements' as described by Van Tatenhove (Van Tatenhove et al., 2000) is used to analyze the policy arrangement of both countries. With the use of this theoretical framework it will be possible to point out which institutions (actors, organizations, 'planning tools' etc.) are involved in offshore wind farms planning. It will also explain how these institutions interact and how they influence the policy arrangement.

Although it is likely that planning policies that are used in the UK will be inspiring for Dutch planners, just transferring them to the Dutch context will most certainly be impossible. To get a clear understanding about what are the (im)possibilities of such a policy transfer some aspects of institutional transfer will be addressed in this research as well.

Following the research approach as described above, research questions can be formulated. The two main question are:

- *How is the Dutch policy arrangement constructed, to what extent is this arrangement failing and what are the possible reasons for such failure?*
- *How is the British policy arrangement constructed, to what extent is this arrangement more successful than the Dutch arrangement, what are the possible reasons for such success and what lessons can be learned from the British policy arrangement?*

These two main questions can be subdivided in more detailed research questions. In the next chapter the theoretical basis for this research will be constructed in more detail. Hereby the two research questions as formulated above will be worked out, which will lay the basis for the case studies.

Chapter 2 – Policy arrangements and their transferability

To analyse and compare the Dutch and British approach towards offshore wind farm planning a suitable frame of reference is necessary. Therefore in this chapter the theoretical basis for the analysis of the findings from the two case studies will be constructed. The perspective as presented in this chapter will form the basis for the analysis of the institutional organisation behind the Dutch and British policy arrangement which will be elaborated on in the next chapters.

§ 2.1 Institutional capacity building

As mentioned in Chapter One the development of offshore wind farms is a rather new phenomenon. As a consequence, the policy arrangement by which spatial issues related to this development are regulated, is under construction too. Until recently planning and building offshore wind farms was a technical exercise only. Even today the offshore wind industry is far from mature and as a consequence the focus of the offshore wind energy sector is on technical project planning issues mainly. However, since the development of offshore wind farms is about to take place on a large scale today, the impact this development has on the environment (in the broadest sense of the word) increases as well. To regulate this development a system of regulation has to be created, both to prohibit unwanted external effects, such as environmental damage, as to facilitate an effective development of offshore wind energy. Therefore constructing a robust policy arrangement is essential.

Creating such a policy arrangement first of all involves creating a policy arena, or in other words; people with a (potential) stake in offshore wind farm planning have to be brought together. Next to this the rules and regulations by which the planning will take place have to be defined. Both for the definition of the policy arena as for the creation of the rules by which processes in the arena will be managed a legal framework is necessary. However, creating a policy arrangement involves more than formulating formal rules and regulations only. To come to effective and legitimate spatial planning the policy arrangement has to be more sophisticated. Therefore also informal rules that decide about for instance who is involved in which stage of the planning process are required to give the policy arrangement the 'body' it needs to come to good decision making.

When a policy arrangement is not designed well enough to deliver good plans, disagreements about the content of plans will most likely come forward in the

from of appeals and lawsuits. However, both from the perspective of the legitimacy of decision making as from its effectiveness it would be favourable when different stakeholders support the decisions made during a planning process (Woltjer, 2002). Therefore creating commitment among all actors is essential in a decision making process. Creating commitment requires careful planning procedures which safeguarded the consideration of all (potential) interests at stake. It might take longer before actual planning decisions are taken, but this time can be saved by avoiding frustrating and lengthy legal procedures. So creating commitment will not only be in favour of stakeholders that thereby gain access to the planning process, but also for the government and investors who are ensured of a smooth decision making process.

To create a policy arrangement that is capable of delivering plans that are ensured of an overall commitment, it is important to give all actors with a stake in a certain project a suitable place in the decision making process. To create such a participatory form of planning, additional (informal) rules which are not captured in formal laws and regulations need to be formulated. The different actors have to accept the involvement of other actors even when the position of such actors is not described legally.

The ability of a policy arrangement to come to effective and legitimate decision making can be referred to as its '*institutional capacity*' (Healey, 1998). According to Healey (Healey, 1997; Healey, 1998) creating a policy arrangement involves the creation of a rich social network of actors that together form the '*institutional capital*' that is needed to come to good decision making. In this view creating a good policy arrangement involves the building of institutional capacity. Building institutional capacity therefore implies that a sophisticated policy arrangement is created in which all actors together can come to effective and legitimate decision making.

§ 2.2 Institutional dimensions of policy arrangements

Since the policy arrangement of offshore wind farm planning is still under construction, the concept of institutional capacity building provides a good starting point for the analysis of the policy arrangements of the Netherlands and the UK. By looking at the way how planning institutions are arranged the policy arrangements of both countries can be analyzed. In order to look at planning institutions in more detail the concept of '*policy arrangements*' provides a useful perspective. Arts, Van Tatenhove & Leroy (Van Tatenhove et.al, 2000) use the

term 'policy arrangements' as the leading principle to analyze the concept of institutionalisation. They put that institutionalisation is "... a process of structuration and stabilisation by which policy arrangements are produced, reproduced or transformed..." (Van Tatenhove et. al, 2000 p.53). As a result of this they put that policy arrangements are the temporary stabilisation of this process at a certain policy level and at a certain policy domain, for instance offshore wind farm planning.

Arts, Van Tatenhove & Leroy distinguish two aspects of policy arrangements; substance and organisation. The former refers to the content of policy, such as common ideas within the policy domain, goals, constraints etc., whereas the latter refers to the procedures, division of power, organisation of actors etc. The aspect of organisation can even be subdivided into three dimensions: agents, rules and resources. The first dimension consists of the actors, individuals and organisations, that participate in a certain policy domain. The authors have formulated the concept of a '*policy coalition*' to refer to this dimension. A second concept is that of '*power and resources*' which refers to an other dimension of the organisation of policy arrangements i.e. the power that actors have to influence the policy within a certain policy arrangement. As a third concept they introduce the '*rules of the game*', which refers to the last dimension of organisation; the rules that are applicable within a policy arrangement. Finally they use the concept of '*policy discourse*' to refer to the substance of planning i.e. both formal and informal plans, ideas, concepts etc. that together form a policy domain. This conceptualisation of policy arrangements can be summarized by the scheme on the next page.

activities, is one of the parties that wants to build offshore wind farms. Apparently, in their view the local damage that is caused by offshore wind farms is subordinate to the benefit of the reduction of greenhouse gasses. However this broadening of policy coalitions is not limited to horizontal integration of policy coalitions, but also occurs between different political levels (vertical integration) (Van Tatenhove et.al, 2000).

§ 2.2.2 *Resources and power*

The influence policy coalitions have, depends on the (potential) power they possess. This means that not only their ability to force actual changes in policy matters, but also the access they have to the resources to do so. There are many different kinds of resources. Setting the political agenda, influencing public debate and defining policy goals are a few. Therefore, power does not only refer to the actual influence actors and policy coalitions have, but also to the potential they have to do this (Van Tatenhove et.al, 2000).

Of course, most important aspect of power is the (unequal) distribution of it among different actors. The unequal distribution of power can be viewed from two different perspectives. First as a *structural* difference between actors, depending on the (limited) access actors have to the resources. And secondly as a *relational* difference, caused by the dependency certain actors have to other actors, for instance within a policy coalition. When these relational differences are institutionalized, and thereby harder to challenge for depended actors, the position of the independent actors will be experienced as dominant (Van Tatenhove et.al, 2000).

Within the policy arrangement of offshore wind farm planning knowledge is an important resource. Healey argues that the institutional capacity of a policy arrangement consists of its social, political and intellectual capital (Healey, 1998). In this 'social capital' refers to the network of actors that forms the policy arrangement. 'Political capital' is the power that is generated by the policy arrangement to make decisions. Political capital therefore can be interpreted as the extent to which social capital is allocated in a way that facilitates good decision making. 'Intellectual capital' on the other hand refers to the knowledge that flows around through the social networks. Having access to information is an important condition for actors to commit themselves to a planning process. As such, the allocation of knowledge is an important aspect of a policy arrangement. While offshore wind energy is a new phenomenon gaining knowledge is an important goal within its policy arrangement anyway. Therefore the allocation of

knowledge is of special importance in offshore wind farm planning. As a consequence knowledge will be a crucial resource within the policy arrangement.

§ 2.2.3 Rules of the game

The concept 'rules of the game' refers to both formal and informal rules. In this, formal rules consist of legal rules such as laws and the division of responsibilities between actors. Informal rules on the other hand are less clear but of no less importance. Informal rules consist of, for instance, ethical norms, ways to gain legitimacy, general behaviour of actors etc. Thereby informal rules are often deeply rooted in the political culture. As a result the rules of the game are part of the policy discourse as well (Van Tatenhove et.al, 2000).

Together formal and informal rules determine the rules of the game and thereby the procedures through which policy is formulated. In today's post-modern planning practice the rules of the game are less fixed than in the traditional state centred model. This gives opponent actors a chance to challenge these rules in order to increase their influence. This leads to so called '*rule-altering politics*' in contrast to the traditional '*rule-directed politics*' of the nation state model. In practice however a combination of rule-altering and rule-directed politics occurs, but what becomes clear is that these rules are not fixed. Instead, the rules of the game are subject of debate itself (Van Tatenhove et.al, 2000).

§ 2.2.4 Policy discourses

Policy discourses are dominant interpretive schemes ranging from formal policy concepts, such as legally binding plan documents, to popular story lines, such as common buzzwords (Van Tatenhove et al, 2000). Together these reflect what assumptions are crucial within a policy domain, what kind of ideas are dominant, what judgments will be made and which actors should be involved. As a result of this, the policy discourse also 'prescribes' how democratic controllability and the legitimacy of decisions making is operated. Most of the time a policy domain is dominated by one policy discourse. This discourse of course is constantly being challenged by competing discourses. Thereby successful policy discourses are open to new policy coalitions and have a flexible attitude towards the rules of the game (Van Tatenhove et al, 2000).

The definition of policy discourses as formulated by Art, Van Tatenhove & Leroy leaves room for different interpretations of this dimension of policy arrangements. Especially the interaction between 'soft' informal rules of the

game and policy discourses makes it hard to distinguish the dimensions of 'rules of the game' from the dimension of 'policy discourses'. As stated above, opinions and agreements about how a planning process should be designed, can be an important part of a policy discourse. However, when one makes a clear distinction between the substance and organisation of a policy arrangement, it is harder to look at social rules and agreements as a part of a policy discourse. In this research therefore the term policy discourse will mainly refer to substantive issues with regard to offshore wind farm planning. Organizational issues on the other hand will be regarded from the perspective of the rules of the game as much as possible.

It goes without saying that the four dimensions as elaborated on above are not clear-cut. In fact they are somewhat arbitrarily and in practice they are complexly related. Consequently, one can not just make adjustments to some of these dimensions without regarding the others. The composition of policy coalitions for instance depends on the political culture and the existing legal system. Thereby these dimensions are interwoven and partly overlapping. However, the idea that institutional arrangements can be divided in the four dimensions as distinguished by Arts, Van Tatenhove & Leroy however, is supported by other authors who use similar dimensions to conceptualize planning institutions.

Kaufman & Escuin for instance describe three dimensions of planning: process issues, substantive issues and work setting issues (Kaufman & Escuin, 2000). Booth on the other hand distinguishes three 'cultural factors' that influence land use planning; attitudes towards property rights, role and relationship between central and local government and the nature of the legal system in relation to its uses in ordering decision making (Booth, 2005). What becomes clear from this is that the distinction between the four institutional dimensions as described here might be somewhat arbitrary, but the main idea is supported by other researches that share the same point of departure in their analysis. Although they use different definitions and emphasize other aspects, there are some clear parallels. However, the four dimensions as described by Arts, Van Tatenhove & Leroy provide a useful frame of reference to analyze the planning practices with regard to offshore wind farm planning.

§ 2.3 The policy arrangement of offshore wind farm planning

The concept of policy arrangements as presented above provides a useful framework to analyse the current state of affairs with regard to the planning of

offshore wind farms in the Netherlands and the UK. However the *policy arrangements* of offshore wind farm planning are far from 'fixed'. Before the planning of offshore wind farms became an issue, there did not seem to be any policy arrangements at open sea. In fact 'live and let live' was the adage, which is in line with most international maritime treaties. As a consequence, it was possible to develop activities at sea as long as these did not bother other users, i.e. these activities should not endanger -for instance- shipping or limit the possibilities of future users. Both formal and informal rules of the game were very limited and the most important interaction between different actors was that they left each other in peace as much as possible. But to manage the development of offshore wind farms at the North Sea a policy arrangement had to be created. However, this proved to be a complicated operation.

Since offshore wind farms are a rather new phenomenon, policy is being constructed by trial and error. The involved governments and organisations are confronted with problems they face for the first time. They are forced to make important choices, but they are constantly struggling to give the right answers to the new questions that arise. As a consequence the policy arrangement of offshore wind farm planning is still 'under construction'.

The actors involved are more or less clear. First of all there is the government (national and local). Secondly there are private investors who want to develop offshore wind farms and finally -of course- there are pressure groups (supporting and opposing). The *policy coalitions* these actors form and the *policy discourse* they support however are not very straight forward and easy to predict. Environmental protection organisations for instance find themselves confronted with the dilemma to protect the local nature on the one hand, while at the other hand they are aware of the fact that in order to combat global warming the erection of offshore wind farms is unavoidable. This observation supports the assumption that the policy arrangement of offshore wind farm planning will be less developed and fixed than one could expect from a policy field that has a long history of experience.

This inexperience certainly has a large impact on the *rules of the game* of offshore wind farm planning. After all, a new game is hard to learn especially when it is not completed yet and the players have to develop their own rules of the game. Laws and regulations -at least to a large extent- have to be constructed from scratch. But besides such *formal rules* also *informal rules* are subject of debate. 'How should stakeholders be involved?' and 'What planning procedures should

be used to institutionalize such involvement?’ are examples of important questions with regard to the formulation of the informal rules of the game.

As such, this struggle of actors to establish, test and refine both the formal and informal rules of the new ‘game’ of offshore wind farm planning is the crux in the analysis of the policy arrangement. Therefore the dimension of the *rules of the game* will be used as the concept on the basis of which the planning practices of the Netherlands and the UK will be analyzed. Using this concept of the rules of the game, supported by the other aspects and dimensions of policy arrangements, planning failures and good practices can be pointed out.

§ 2.4 Institutional transferability

Since in this research the policy arrangements with regard to offshore wind farm planning in the Netherlands and the UK are compared, it is important to address some remarks to such a comparison. It is tempting to look at planning examples of a certain country as a solution for the problems that are experienced in an other country. However, such a transfer is not without any risks. As has become clear from the definition of the different dimensions of policy arrangements the elements of such arrangements are complexly interwoven. Therefore one can not easily apply a policy instrument in a different environment without a good consideration of both institutional contexts. In order to compare or, in a further stage, transfer certain policy instruments requires a careful analysis of the institutional context.

§ 2.4.1 Reasons for policy transfers

In order to solve the problems planners are facing, planning institutions are constantly under construction. New problems ask for new approaches to tackle them. In this, policy makers are often being inspired by policy makers from other fields. These other fields might imply other policy domains at the same political level, but also comparable policy fields at different political levels (Dolowitz & Marsh, 1996). Because of the internationalisation and globalisation of today’s planning practice policy makers are more and more looking across the borders of their own country to see how foreign colleagues deal with common problems. In principle this is a logical and positive phenomenon. After all, a lot of the problems planners are faced with are not unique. Looking at how others deal with them can prevent planners from making mistakes others have made before

them. Besides, looking at how others operate can prevent planners from reinventing the wheel.

Dolowitz & Marsh distinguish three different kinds of policy transfer; voluntary transfer, direct coercive transfer and indirect coercive transfer (Dolowitz & Marsh, 1996). Dissatisfaction about the current policy arrangement is often the reason for a voluntary transfer of a (foreign) policy concept. This dissatisfaction most of the time results from the perception of policy failure by either the government or the public. However, such a perception about a certain policy arrangement remains subjective and will differ among opposing policy coalitions. Policy transfer therefore will most likely make winners and losers. Therefore the decision to transfer a certain policy instrument is a political choice (Dolowitz & Marsh, 1996; De Jong & Mamadouh, 2002).

It is also possible, on the other hand, that external factors trigger a certain policy arrangement to start a policy transfer. Such a coercive transfer can be direct or indirect. Supra-national institutions, such as the European Union (EU), can cause a direct coercive transfer when they enforce member states to use certain administrative and legal guidelines (Dolowitz & Marsh, 1996). An example of this is the EU-guideline to apply a Strategic Environmental Assessment for large building projects that put future environmental interests at risk.

Indirect coercive policy transfer, on the other hand, can occur when a country applies a policy as a result of which other countries (get the feeling that they) are put behind. With regard to offshore wind farm planning this might be relevant. The different countries around the North Sea seem to feel a certain urgency to develop a policy to manage the increasing interest of private developers to build offshore wind farms. Especially when neighbouring countries set up a policy to deal with the planning of offshore wind farms other countries are triggered to reflect on their own policy. When doing this, they will notice which elements are missing in their own policy. Or as Dolowitz & Marsh put it, political actors might get the feeling they are falling behind their neighbours which causes a feeling of insecurity of being the odd-man-out (Dolowitz & Marsh, 1996).

There is a wide variety in the different actors that are involved in policy transfer. Dolowitz & Marsh distinguish six main categories: elected officials, political parties, civil servants, pressure groups, policy experts and supra-national institutions (Dolowitz & Marsh, 1996). What ever actor will set a policy transfer in motion, the aim of it will always be to change the policy discourse in the advantage of the policy coalition they are part of. Actors perceive the policy

transfer as a solution for their problems (De Jong & Mamadouh, 2002). However, whether or not a policy transfer will actually take place remains a political decision.

§ 2.4.2 Degrees in policy transfer

Dolowitz & Marsh consider four degrees of policy transfer: copying, emulation, hybridization & synthesis and inspiration (Dolowitz & Marsh, 1996). Copying occurs when policy elements are taken from an other country without making any adjustments to the circumstances of the receiving country. Emulation is a less rigorous variant of policy transfer. It implies that policy elements are not copied regardless of the differing circumstances, but that adjustments are made to make it fit in the own context. When hybridization or synthesis occurs policy elements of two or more different countries are combined to provide a tailor-made policy for the receiving country. Finally, the less far-reaching variant of policy transfer is that of inspiration. Inspiration takes place by looking at how other countries operate and thereby draw lessons that can be used to improve the own situation (Dolowitz & Marsh, 1996; De Jong & De Vries, 2002). This last kind of policy transfer is often referred to as 'lesson drawing' or 'policy learning'. In contrast to coercive forms of policy transfer this voluntary kind of policy transfer also includes negative policy examples, since countries can also learn from failures and mistakes made by others (De Jong & Mamadouh, 2002).

§ 2.4.3 The transferred policy institutions

To research institutional transferability it is important to determine what are the policy institutions that are being transferred. As became clear from the definition of the different institutional dimensions by Arts, Van Tatenhove & Leroy there is a wide variety of policy institutions that can be subject of a transfer. De Jong & Mamadouh refer to transferred institutions as 'institutional transplants'. As examples of these institutional transplants they name: institutions, policies, programmes, procedures, ideologies, justifications, attitudes and ideas (De Jong & Mamadouh, 2002). Dolowitz & Marsh on the other hand distinguish seven 'objects of policy transfer': policy goals, structure & content; policy instruments & administrative techniques; institutions; ideology; ideas; attitudes & concepts; and negative lessons (Dolowitz & Marsh, 1996). This, again, proves there is a wide variety in the nature of institutions. To deal with this a general distinction can be made between *formal* and *informal* institutions. At this, formal institutions determine who is allowed or obliged (not) to do what. As such, formal rules are the legal rules of the game, by Arts, Van Tatenhove & Leroy referred to as the

'formal rules of the game'. Informal institutions on the other hand are social policy practices and agreements based on values and norms that depend on cultural differences (De Jong & Mamadouh, 2002). Within the concept of the 'rules of the game' these are referred to as the informal rules.

It is exactly this tension between formal and informal rules that is crucial in institutional transferability. Because when a policy is being transferred one has to consider both the formal and informal institutions that are concerned with it. In practice however policy makers often try to incorporate a foreign policy by solely transferring legal aspects of it to their own context. These policy makers than implicitly hope to transfer the cultural practices as well. However, there is a high risk that such a transfer will end up in a disappointment because in reality such a chance will not occur. Therefore a transfer of formal institutions regardless of the informal context is likely to become an empty legal shell (De Jong & Mamadouh, 2002). Therefore to become successful, an institutional transfer has also got to include informal institutions. This is however also the most complex and elusive form of institutional transfer. Because of this, transferring informal institutions most of the time is the bottleneck of institutional transferability (De Jong, 2004). When policy makers attempt to adopt informal institutions, such as ideas and attitudes, these institutions often stay rather isolated from the ones that prevail. And when such a transfer does occur it most of the time does so in the form of new legislative frameworks. So most public policy actors seem to focus on the transfer of administrative techniques rather than a change in policy direction (Dolowitz & Marsh, 1996). However, the opposite is also possible. In that case informal institutions like ideas and strategies are copied, but a legal framework to support them is lacking.

Because of the many pitfalls institutional transfer is a complex operation (De Jong & De Vries, 2002; De Jong, 2004). However there is also some hope. Kaufman & Escuin for instance agree about the fact that there are many differences between countries, but they also find agreement among planners about the basic planning ideology (Kaufman & Escuin, 2000). They use the analogy of a step ladder to explain the differences between countries; at the bottom rung of the ladder is the dominant planning ideology, at the second rung is the countries legal system and at the top of the ladder are the cultural and governance factors. Because the basic planning ideology of planners in different countries is largely the same, this could overcome differences in the policy arrangement and governance culture. Therefore this more or less common planning ideology might facilitate institutional transfer.

In relation to the different degrees of policy transfer De Jong & Mamadouh conclude that “Institutional transplanted (...) relies on policy actors pulling in and revising elements taken from foreign systems, turning imitation to emulation and emulation to innovation” (De Jong & Mamadouh, 2002 p.26). Although institutional transfer remains a complex and risky operation it is possible to define some conditions for a successful institutional transfer.

§ 2.4.4 Conditions for a successful institutional transfer

All countries have different legal traditions and therefore it is hard to adopt foreign procedures and measurements. When the differences are too large such a transfer can be ineffective or even counterproductive (De Jong & Mamadouh, 2002). Some countries are more likely to successfully exchange policy institutions than others. This is due to the fact that similarities between the legal traditions of countries differ. Within Western Europe different ‘groups’ of countries can be distinguished. Such a group of countries which historically share their legal tradition, is called a ‘family of nations’ (Newman & Tornley, 1996). Because of the similar legal traditions of countries that are part of the same family of nations a policy transfer is expected to be more successful when it occurs within such a family. However, that fact that countries are part of the same family is no guarantee for success, because there still might be a large institutional gap to bridge (De Jong & De Vries, 2002). Differences between countries as a result of their cultural and historical differences are not restricted to the legal tradition of countries, but will also affect the administrative values and norms. These values and norms are reflected in the way a country looks at for instance how legitimacy of a policy should be gained, how actors should be involved, what should be the attitude towards private investors etc. Such factors are very determinative for the possibility to adapt foreign policy institutions (Booth, 2005).

De Jong & Mamadouh distinguish two perspectives on institutional transferability; ‘*pulling in*’ and ‘*goodness of fit*’. The aim of the first perspective is to warn actors involved in institutional transfer not to transfer policy institutions without leaving room to adapt these institutions to the local circumstances. Deriving from this perspective the authors determine three conditions to come to a successful policy transfer (De Jong & Mamadouh, 2002):

- Institutional transfer will be more successful when adoption to local circumstances occurs than when institutions are directly copied

- Voluntary adoption to domestic circumstances is more likely to occur when the transfer is not imposed by external forces
- Considering multiple models and using parts of it is expected to be more successful than the use of one model as a definite example

The second perspective, 'goodness of fit' warns against the neglect of the existing context in a country. Deriving from this perspective De Jong & Mamadouh come up with three other conditions that describe the importance of contextual similarities (De Jong & Mamadouh, 2002):

- Institutional transfer is more likely to be successful within a family of nations than cross-family transfer
- Institutions with a more generic character are more easily transferred than specific institutions
- Regime transformations that create a certain sense of urgency facilitate the transfer process

This last supposition is supported by other writings (Dolowitz & Marsh, 1996; De Jong, 2004) that also point out the importance of a 'window of opportunity' in changing a policy. To build up a policy coalition strong enough to push through such policy changes is another aspect that can facilitate policy transfer. Therefore a strong policy coalition together with a window of opportunity are essential conditions that help institutional transfer to become a success (De Jong, 2004).

§ 2.5 Research questions

With the use of the theoretical framework as presented in this chapter the main research question as formulated in chapter One can be subdivided in more detailed research questions. These research questions will form the basis for the case studies which will be addressed in the next chapters.

§ 2.5.1 Policy arrangements

The concept of policy arrangements will be used as the leading principle by which the analysis of the case studies will take place. As elaborated on above there are four dimensions of policy arrangements. Therefore the research questions with regard to the policy arrangements are formulated on the basis of these different dimensions too.

Policy Coalitions:

- *Which actors can be distinguished and what is their position within the policy arrangement?*

Policy Discourses:

- *What policy discourses affect the policy arrangement of offshore wind farm planning and what do these policy discourses imply?*
- *Which policy coalitions support these policy discourses and to what extent are these discourses being challenged by opposing policy coalitions?*

Resources and Power:

- *What is being done to gain knowledge about the development of offshore wind farms?*
- *In what way is this knowledge used within the policy arrangement; what is the relation between this knowledge and the intellectual capital of the policy arrangement?*
- *What have been crucial events that 'shaped' the policy arrangement and what was the role of the different policy coalitions in this?*

Rules of the Game:

- *Which formal rules (legal framework) are used to regulate the development of offshore wind farms?*
- *Which informal rules apply within the policy arrangement?*
- *What kind of interaction is there between the formal and informal rules; do they support each other and what kind of dependency is there between the formal and informal rules?*
- *Where do the rules of the game come from; which actors (or policy coalitions) have played a key role in setting these rules?*
- *In what way have the knowledge and the experience that was gained within the policy arrangement affected the formulation of the rules of the game?*

Again, it goes without saying that the different dimensions of policy arrangements are complexly related to each other. Therefore these research questions are partly overlapping too. The 'crucial events' as mentioned under resources and power for instance are closely related to the question what the role of different actors was in formulating the rules of the game. In fact the dimension of 'power & resources' can be seen as a characteristic of the different policy coalitions, as such the dimensions of 'policy coalitions' and 'resources & power' are closely related. At the same time the 'output' of these two dimensions will consist of formal and informal rules of the game. Therefore this dimension as

well is very dependent on the other dimensions. Nonetheless, the research questions as formulated above provide a good starting point to analyse the policy arrangements of both countries.

§ 2.5.2 Policy transfer

By analysing the policy arrangements of the Netherlands and the UK parts of these policy arrangements can be pointed out as potential ‘policy transplants’. Analyzing the policy arrangements will help to distinguish the positive elements of a policy arrangement which might be subject of a policy transfer. At the same time analyzing the policy arrangements will give insight about the complex relation between the different dimensions of a policy arrangement and therefore about the constraints of a policy transfer. With regard to the possibility of a policy transfer the following research questions can be formulated.

- *To what extent can certain elements of both policy arrangements be related to the success and failure with regard to offshore wind farm development?*
- *How do these elements interact within the policy arrangement; what is the relation with other dimensions and to what extent can certain parts of the policy arrangement be ‘isolated’?*
- *What are the necessary preconditions for a successful policy transfer and what would be the probable success of transferring certain parts of a policy arrangement from the one country to the other?*

Together these research questions will provide the back-bone for the case studies of the Netherlands and the UK which will be addressed in chapter 3 and 4.

Chapter 3 – Offshore wind farm planning in the Netherlands

In order to comply with the international agreements about the reduction of greenhouse gasses as laid down in the Kyoto Protocol, the Dutch government has set goals towards the production of renewable energy. In 2020 10% of the total energy production should consist of renewable energy. The share of electricity from renewable sources should be 9% in 2010 (this share was 4,5% in 2004). In order to meet such ambitious goals 7500 megawatt (MW) of extra wind energy capacity has to be realized by the time of 2020. On land approximately 1500 MW extra wind energy capacity can be realized. Therefore the remaining 6000 MW have to be produced offshore (SenterNovem, 2006).

However, the planning of offshore wind farms in the Netherlands seems to have reached a worrisome impasse. In spite of the ambitious goals set by the Dutch government and the willingness of private developers to invest, the development of offshore wind farms in the Netherlands stagnates. At the time of writing nine different applicants are waiting for their 65 license application to be judged about by the government. These 65 different wind farm proposals together represent a capacity of about 50.000 MW, whereas there is subsidy available for approximately 500 MW only. The government has to decide which farms are allowed to be build, but she has almost no legal back-up to base such judgment on. In fact, 'first come, first serve' is the leading principle at the moment.

This brief overview typifies the current state of affairs of the Dutch offshore wind energy development. As stated earlier offshore wind farms are a new phenomenon and as a consequence its policy arrangement is rapidly changing. Therefore a brief overview of the history of the development of offshore wind farms in the Netherlands will give insight in the experience the Netherlands have so far. It will also explain how the current impasse originated and thereby in what way the Dutch policy arrangement is failing.

§ 3.1 Legal context of the Dutch North Sea

The Dutch part of the North Sea consists of three zones. The first zone is the area within a distance of one kilometer off the shore. This first kilometer is administratively part of Provinces and Municipalities and it therefore is the only part of the North Sea where zoning plans of (local) governments are applicable. As a result, local governments have to judge about building applications related

to offshore wind farms, such as onshore electricity connections. By refusing building permits for such works local governments can thwart the development of an offshore wind farm. The other two zones are the twelve-mile zone and the EEZ. Because of the expectation that the building of near shore wind farms would be complicated because of the expected resistance of local governments and environmental protection groups, in the Netherlands it was decided to build offshore wind farms in the EEZ only (accept for a pilot project). The competent authority in the twelve-mile zone and the EEZ is the ministry of Transport, Public Works & Water Management ('Verkeer & Waterstaat'; *V&W*).

At the time the Dutch EEZ was established, a legal framework was lacking. Therefore formal rules had to be formulated in order to make a start with the creation of the new policy arrangement. For mining activities the already existing Mining Act ('Mijnbouwwet') is used. The legal basis for the planning of offshore wind farms is formed by the State Waterworks Management Act ('Wet beheer rijkswaterstaatwerken'; *Wbr*). The *Wbr* was originally meant to manage license applications with regard to onshore waterworks such as dikes and canals. However, when the Dutch government was confronted with the phenomenon of building in the North Sea, she had to create a legal basis to manage this. Therefore the Dutch part of the North Sea as a whole was called a 'water work'. In 2000, after the *Wbr* was adapted to the building of offshore objects, it was declared applicable in the twelve-mile zone and the EEZ. In line with international maritime agreements, the *Wbr* allows the government only to judge about a license application with regard to issues of safety and efficient use. Thereby a *Wbr* permit must be granted when the applicant can prove he will not endanger or limit other (future) users of the sea. As a result, the government plays a reactive role when she could only judge about license applications on the basis of the *Wbr*. Later on also a part of the Electricity Act (to be able to give the developer a feed-in subsidy) and a part of the Environmental Management Act (to create an EIA obligation) were declared applicable as well (Roggenkamp & Van Beuge, 2005).

§ 3.2 Creating a policy arrangement

Although the *Wbr* provided a legal basis for the planning of offshore wind farms at the North Sea, the rest of the policy arrangement was still to be constructed. Although the *Wbr* was pointed out to be the act on the basis of which the planning of offshore wind farms should take place, there were no further rules of the game. Especially the informal rules were not formulated yet. Actors had to

establish them by doing and learning. In the years after the Wbr was declared applicable at the North Sea the actors involved had to experiment with the planning of offshore wind farms. However, at the time of writing, the development of offshore wind farms in the Netherlands is going on for about ten years, but the policy arrangement is still under construction and all actors are in search of the right attitude to adopt. In order to understand the current state of affairs of the policy arrangement of offshore wind farm planning in the Netherlands, it is important to know what experiences have been gained in the past few years. Therefore a more or less chronological overview of these experiences will be provided below.

§ 3.3 Pilot project Near Shore Wind Farm Egmond aan Zee

Because a policy arrangement with only formal rules would be likely to become an empty shell, it was important to gain experience with the planning of offshore wind farms. Because these experiences would lay the basis for a further completion of the policy arrangement, it would be sensible to evaluate and learn from such experiences. In order to gain experience and to learn from it effectively, the Dutch Government decided to build a pilot offshore wind farm as a first step towards a more large scaled development of offshore wind energy. By building such a pilot farm first, actors would gain experience with the development of offshore wind farms. This experience could then be used to establish the informal rules of the game and thereby help to further develop the policy arrangement. Therefore this pilot project is an essential part of the analysis of the policy arrangement. In fact, this pilot project formed the basis for the policy arrangement. For that reason the planning process of the pilot project will be discussed here.

Since 1996 the Dutch ministry of Economic Affairs ('Economische Zaken'; *EZ*) has set the development of offshore wind farms on its agenda. As a consequence of the wish to increase the production of renewable energy *EZ* decided that offshore wind farms had to be developed in the Dutch part of the North Sea. As far as the pilot project is concerned, it was decided to build this somewhere near the Dutch coast within the twelve-mile zone.

§ 3.3.1 Key Planning decision NSW

For the development of this pilot project the Dutch national government chose to use a so called Key Planning Decision ('Planologische Kernbeslissing'; *pkb*). This

pkb is a powerful instrument, which is meant to deal with complicated planning projects of national interest. With the use of a pkb the Dutch cabinet normally takes over the authority from local governments and seizes the right to decide about projects itself. Within the pkb procedure of the *Near Shore Wind Farm (pkb NSW)* the ministry of V&W (in consultation with the other relevant ministries) was pointed out to be the competent authority. With the use of a pkb procedure the government could set additional guidelines, which would not have been possible on the basis of the Wbr. Moreover, by using a pkb, stakeholder involvement could be improved.

The choice to use the formal instrument of a pkb in this project was also determinative for the informal rules of the policy arrangement. First of all with the use of a pkb the national government took the direction in this project and thereby she put herself in a position that made it possible to steer the planning process directly. Because of the guidelines she could set with regard to the project and its developer, the government was able to shape the project. Although this had some negative effects on the flexibility of the project, it did result in rather large planning certainty for all actors. Besides this, by using a pkb, stakeholder involvement became the cornerstone of the planning process. As a result of such active stakeholder involvement the commitment of different (critical) actors to the project improved. Thereby these informal rules (active stakeholder involvement and careful consideration of different interests) became the leading principles of the policy arrangement.

§ 3.3.2 Site selection & EIA

Most important aspects of the pkb NSW were that it determined that the government would point out the best suitable location for the pilot project and that the developer of this wind farm would be selected by means of a *tender*. To determine the best suitable location an *Environmental Impact Assessment (EIA)* was carried out. This EIA is referred to as the *location EIA* to distinguish it from the 'normal' *project EIA* that was carried out within the framework of the Wbr application later on in the planning process. In the location EIA not only environmental interests were considered. Technical and financial interests were determinative as well. The location EIA was not legally compulsory, but it was used to ensure a strategic consideration of the different interests. Although the Netherlands have not yet implemented the EU-guideline to carry out a *Strategic Environmental Assessment (SEA)* for large planning projects, this location EIA can be seen as the Dutch version of such a SEA. The location EIA played an important role within the planning process of the wind farm, because it

safeguarded an intensive consultation of local governments and interest groups. Because of this consultation an integrated approach was possible. This also improved the commitment of the different actors to the project (Gerdes et al., 2006). In terms of the rules of the game, the formal concept of a location EIA - though not legally necessary- helped shaping the policy arrangement; the formal rules were extended, which resulted in a more solid formal basis. As a consequence of the location EIA actors got committed to the project and a positive dominant policy discourse was the result. As final result of the location EIA it was decided to build the near shore wind farm near the city of Egmond aan Zee. From then on this wind farm was referred to as the *Offshore Wind Farm Egmond aan Zee (OWEZ)*.

§ 3.3.3 Tender procedure

The next step of the pkb procedure was to select the developer who would thereby gain the unique right to start the Wbr procedure for the OWEZ. This selection procedure was legally fixed by the so called *policy guidelines NSW* ('Beleidsregels NSW') that became available in October 2001. These policy guidelines made it possible to add additional guidelines for the tender procedure. After all, on the basis of the Wbr the government could only determine guidelines with regard to safety and efficacy issues. With the use of the policy guidelines NSW it was possible to make additional demands on the developer and the project. These additional guidelines enabled experts with different backgrounds to judge about the applicants. This again, supported a systematic consideration of the different interests. Finally NoordzeeWind, a joint venture of Shell and NUON, was chosen to develop the OWEZ. Part of the deal was that NoordzeeWind agreed to build an information centre to inform the public about the OWEZ.

As was the case with the location EIA, the tender procedure enabled the national government to have a big say in the project, both with respect to the constraints of the project as well as its developer. Besides this leading role of the government the tender also assured intensive consultation of actors. Therefore the pkb procedure has proved to have a large influence on the rules of the game within the policy arrangement of the pilot project. The national government had a leading position which seems to have had a positive influence on the policy arrangement. Because of this leading position certainty for all actors was created. Not only because the government directed the project, but also because many 'checks and balances' were build in. These checks and balances, especially the location EIA and the tender procedure, led to an intensive consultation of actors,

as a consequence of which commitment was created. The leading role of the government together with the commitment of the different actors was important to gain trust and to create a positive policy discourse. Because of the weak formal back-up of the policy arrangement gaining trust and commitment was crucial to realize the project. The pkb was an effective instrument to create such a right project environment.

§ 3.3.4 Location EIA

Because NoordzeeWind 'won' the tender, it gained the right to start the application procedure. Next to the regulations within the framework of the Wbr, also a part of the Environmental Management Act ('Wet milieubeheer'; *Wm*) was effective. On the basis of the *Wm* an EIA had to be carried out. In contrast to the location EIA that was carried out to select the location, this EIA focused on the best spatial configuration of the wind farm. In this EIA as well experts were consulted to decide about the best configuration of the farm. By doing this, efficient use of space, visual disturbance, ship collision risk and bird deaths were considered (Gerdes et al., 2006). This consultation led to a few adjustments to the original plan and the compensation of nature losses.

§ 3.3.5 Monitoring and Evaluation Programme

An other important agreement that was made between NoordzeeWind and the Dutch government was that a *Monitoring and Evaluation Program (MEP)* would be carried out. Aim of the MEP was to gather information about the planning of offshore wind farms in order to gain knowledge and improve future decision making (Gerdes et al., 2006). The MEP would not only fill knowledge gaps with regard to environmental issues but it would also provide information about the project management of offshore wind farms. Gaining knowledge is an important issue within the policy arrangement of offshore wind farm planning. Especially for nature protection organizations it is important that research is being done about the adverse effects of offshore wind farms. Because knowledge about the relation between nature and offshore wind farms is limited, these organizations are hesitant towards the development of offshore wind farms. This uncertainty among nature protection organizations can easily turn into resistance against the development of wind farms. In order to commit such ambivalent actors to the project, the MEP was an important part of the checks and balances that safeguarded a careful consideration of their interests. From the perspective of nature protection organizations the formal instrument of the MEP improved the

policy arrangement in such a way that most of the organizations were positive about the building of the OWEZ.

In exchange to the obligation to carry out the MEP, NoordzeeWind got a governmental subsidy of €27 million. However, this subsidy was not linked one-to-one to the MEP, it also enabled NoordzeeWind to build the information centre and to create compensating nature reserves. Finally, NoordzeeWind was supported financially by the means of a feed-in subsidy and a fiscal incentive. This fiscal incentive implies that a maximum of 44% of the investment costs can be deducted from the taxable profits. Depending on the energy prizes this could add up to a few million euros. The feed-in tariffs are €9,7 cents per kWh, fixed for ten years and for a maximum period of ten years as well. This feed-in tariff comes on top of the normal energy price NoordzeeWind gets from the electricity buyer. By providing financial support for investors, the Dutch government can promote the development of offshore wind farms. The expectation is that in the (near) future such financial support will not be necessary anymore because investment costs will decrease whereas energy costs will increase (Brinkhorst, 2005). At the time of writing the OWEZ is being build. It is expected to come in operation in the end of 2006.

Concludingly one could state that the leading role of the Dutch government in the pilot project of the OWEZ worked out well. With the use of a pkb procedure the weak formal basis of the policy arrangement was strengthened. As a result of the pkb procedure it was possible to use a tender and to carry out the location EIA and the MEP. With the use of these instruments many checks and balances were introduced. As a result of these checks and balances it was possible for the Dutch government to determine the constraints of the project. From the perspective of the pressure groups these checks and balances were important to ensure that their interests were considered. Even for the (potential) developers of the wind farms the way the policy arrangement was shaped, was favorable. For the investors it was clear what were the rules of the game and thereby they could anticipate on the attitudes of the different policy coalitions. Overall it can be said that although the policy arrangement was rather weak at the start of the pilot project, it managed to create trust and certainty. This led to a positive policy discourse and thereby to a relatively effective planning procedure.

§ 3.4 Other developments

Already at the start of the planning procedure of the OWEZ it was decided that the OWEZ would be the only wind farm within the twelve-mile zone. It was also agreed that the use of a pkb procedure would be limited to the pilot project. In that sense it was known from the beginning that the experiences from the pilot project could not be transferred to the new situation without a careful consideration of the differences in the contexts of the pilot project and future projects. However, one of the aims of the pilot project of the OWEZ was to gain experience that could be used as input for the improvement of the policy arrangement. The experiences gained in the pilot project could have been used to strengthen the policy arrangement by formulating the informal rules of the game as a result of which the formal rules could have drawn up. But in practice it proved to be hard to use the experience gained in the pilot project for the improvement of the policy arrangement. In fact, these two activities seem to have taken place parallel to each other. Thereby important lessons from the pilot project were overlooked. For the analysis of the policy arrangement it is important to address the events that were taken place apart from the pilot project.

§ 3.4.1 Q7 WP

In the short period between the establishment of the Dutch EEZ and the creation of a legal framework a private developer build a transmission mast in the EEZ. By surprise it turned out that such building activities were allowed in the EEZ because there were no laws that prohibited it. As a reaction to this the Dutch government created an interim law by declaring a part of the Wbr applicable in the EEZ already. On the basis of this temporary legislation a private investor called E-connection applied for a building license for an offshore wind farm. Because the government had no means by which she could refuse such a request the Dutch government had to take the application into consideration. E-connection originally submitted seven license applications. However, the developer was prepared to withdraw all but one of the applications. This remaining application was granted a permit in February 2002. The wind farm was called Q7 WP after the coordinates of the farm. Because of financial problems E-connection has handed over the Wbr license to Econcern. Until today however it is unclear whether Q7 WP will actually be build (Gerdes et al., 2006).

§ 3.4.2 *Wbr policy guidelines*

The 'incident' with the Q7 WP wind farm clearly indicates the drawbacks of a reactive policy on the basis of the Wbr. The government can only judge about a license application in terms of safety and efficient use of space. Applying constraints such as an energetically optimal location are not possible within the framework of the Wbr. So a permit has to be granted to every applicant that proves to operate within the limited constraints of the Wbr. There are no legal means to limit the number of applications or to compare the different applicants, in fact the '*first come, first serve*' principle applies. Shortly after E-connection got the permit for Q7 WP in May 2002, new policy guidelines came into effect. These policy guidelines supported the Wbr with regard to the planning of offshore wind farms. Part of the guidelines was a *moratorium* on the application of offshore wind farms. During this moratorium it was impossible to apply for a Wbr license. Aim of this time-out was to construct a solid legal framework. At the time the moratorium was proclaimed, the expectation was that a concession policy would be realized, by the means of which preferential areas for offshore wind farms would be put out to a tender. It was agreed that the moratorium would end before 2005.

§ 3.4.3 *Proposed legal adjustments: planning permit*

In April 2004 adjustments of the Wbr and the Mining Act were sent to the *Raad van State (RvS)* ('Board of State'; important board in the Dutch legislature which advises about new laws). These adjustments implied that Wbr licenses would not be granted by the '*first come, first serve*' principle, but by means of a tender procedure. In that way a procedure similar to that of the pilot project could be used to select the developer of a wind farm. However, in the pilot project this was done within the framework of the pkb and the policy guidelines NSW. In order to enable the future policy arrangement to select the developer of a wind farm too, other formal rules had to be created. Therefore it was suggested there should be a preliminary phase in which applicants could gain a *Planning Permit* ('*plantoestemming*'). This planning permit would give an applicant the right to start the Wbr procedure. With the introduction of the planning permit, it would be possible to select the best developer. As was the case in the pilot project, several different developers would compete to get a planning permit. In this way different developers would be challenged to come up with the best project proposal (Roggenkamp & Van Beuge, 2005).

In contrast to the pilot project, the location of a wind farm would not be pointed out by the government. Therefore a strategic consideration of possible locations would not take place. Although the location EIA, as carried out in the pilot project, was made possible by the pkb procedure, a similar kind of procedure could have been possible if preferential areas for the development of offshore wind farms would have been pointed out. But in spite of earlier expectations that in the future situation such preferential areas would be used, the new bill did not include preferential areas. There have been maps of the North Sea that did contain preferential areas for offshore wind farms, but none of them became official documents. In the new bill in principle the whole EEZ would be available for offshore wind farms except for excluded areas such as shipping lanes. Finally, in the bill it was defined that when license applications would (partly) overlap, the 'winning' applicant would be selected by a random draw.

In the policy arrangement of the pilot project, the location EIA was one of the formal instruments that formed the basis for the positive policy discourse. When in the new situation such an instrument would be lacking, this could have a large impact on the new policy arrangement. In the pilot project, the location EIA safeguarded a strategic consideration of especially environmental interests. When such a consideration would not be adopted in the new policy arrangement, this could lead for environmental protection organizations to chance their attitude. This could subsequently result in the situation that the overall commitment to the development of offshore wind energy would perish. But with the use of the concept of a planning permit, as suggested in the bill, it would still be possible to select the best developer. In that way also environmental interests could be addressed, though not in such a strategic way as was the case in the location EIA.

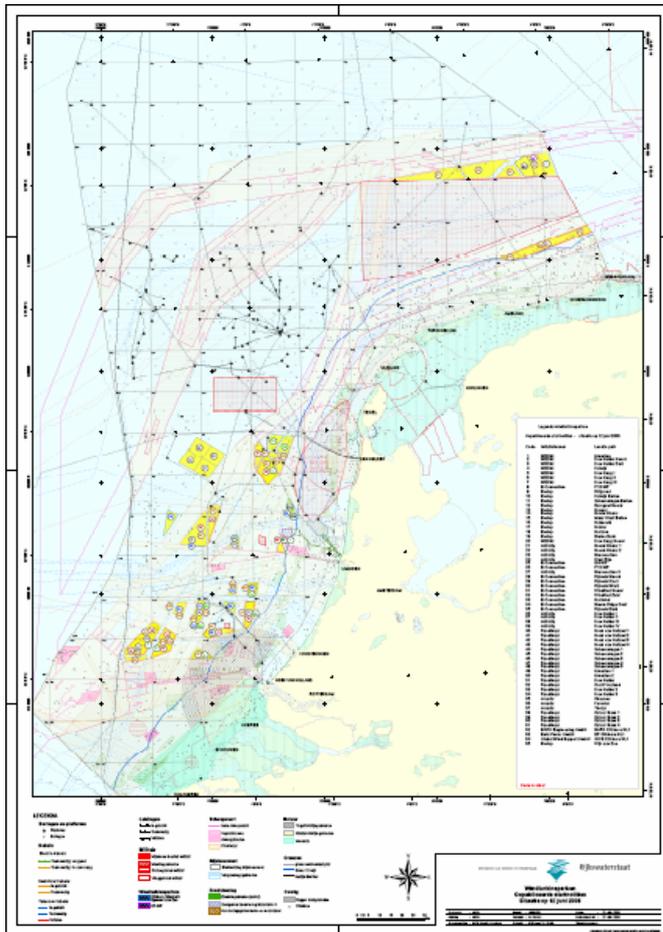
The *Raad van State (RvS)* had some critical comments on the suggested legal changes. The RvS judged that the concept of a planning permit was not defined properly. Especially the fact that fate would decide about overlapping applications raised some questions. Also the increase of decision moments and the way applicants would be selected caused resistance from the RvS. The overall conclusion of the RvS was that the bill could not be sent to the Dutch Parliament without adjustments. It was advised by the RvS that the suggested regime would be compared with that of similar countries around the North Sea first. (Roggenkamp & Van Beuge, 2005).

§ 3.5 Back to square one

However, instead of making adjustments to the bill, the Dutch Cabinet withdrew it in total. In the end of 2004 (shortly before the ending of the moratorium) new *Wbr policy guidelines* for the planning of offshore wind farms were published. This decision of the Dutch government to not re-establish the formal rules of the game, but to go on with the Wbr only, was of great influence for the policy arrangement. In fact the informal rules that were established in the pilot project and that proved to be able to create a positive policy discourse, were abandoned by this decision. 'First come, first serve' became the leading principle and in case of overlapping applications, the government could not select the best developer. The applicants only have to address safety and efficacy issues and the government can not put supplementary demands on the developer or the project proposal. Although the obligation to carry out a project EIA is still applicable, (strategic) environmental interest are not considered thoroughly as was the case in the pilot project. As a result the new policy arrangement is likely to fail when it comes to creating commitment and establishing a positive policy discourse.

As soon as the moratorium ended in the beginning of 2005, the ministry of V&W was overwhelmed with license applications for the building of offshore wind farms. In total 57 different applications were submitted. Because V&W was not able to judge about such a great amount of applications, a second moratorium was called in June 2005. During the following months a lot of discussion took place about the way offshore wind farm licensing should be dealt with. There seemed to be a rather broad consensus to reconsider the 'rules of the game' in order to break the impasse (SDN, 2005b). However, in the opinion of V&W it would be incorrect to change these rules during the 'game'. Others suggested that this opinion was based on the fear of the ministry that they would be confronted with financial claims from frustrated applicants that would not be able to gain a Wbr permit. In February 2006 the second moratorium ended. As a result new applications could be submitted. At the time of writing nine developers have submitted 65 license applications. In the beginning of 2006 the first applications were taken in consideration.

Figure 4: Map of the Dutch wind farm proposals (the yellow areas) (Noordezeeloket, 2006)



The struggle of the Dutch government to formulating its offshore wind farm policy seems to be closely related to the general policy discourse towards offshore wind energy. This policy discourse can be characterized as unstable and whimsical. One of the reasons for this uncertain attitude of the Dutch government might be the successfully lobby of the nuclear power industry (Marx, 2006). Although nuclear power has played a rather small role in the energy history of the Netherlands, the development of nuclear power is gaining support. Especially for the rightwing political parties (who have been in administration for the last

decade) nuclear power does not seem to be a taboo. Since nuclear power and wind energy are competitors to become the future alternative, the nuclear power lobby will criticize wind energy where it can.

A Dutch television program about the problems with offshore wind farm Horns Rev in Denmark also affected the policy discourse. Since offshore wind energy depends on new techniques, technical problems do occur. In the case of Horns Rev these problems let to a delay in the exploitation of the wind farm. The doubts about the desirability of offshore wind energy that were raised by the television program also affected the political debate. It was even argued that the money that was reserved for the development of offshore wind farms should be invested elsewhere. In the end it turned out that a majority of the Dutch Parliament was not prepared to take offshore wind energy of the political agenda, but the discussion is illustrative for the Dutch policy discourse.

§ 3.6 Conclusions

As argued above, the choice to limit the formal rules of the game to the Wbr only, has had a large impact on the policy arrangement of Dutch offshore wind farm planning. Almost all actors involved in offshore wind farm planning have a rather ambivalent attitude. Therefore policy coalitions can change their attitude easily when the rules of the games are changed. In order to make the development of offshore wind energy a success, a positive policy discourse has to be created. Trust is a necessary condition to acquire a situation in which policy coalitions are supporting a positive policy discourse.

§ 3.6.1 Policy coalitions and the rules of the game

Because offshore wind energy is such a new phenomenon the policy coalitions are rather fragile. When the circumstances change, actors who were formerly constructive and supporting can suddenly change their attitude and a trench warfare might be the result. This seems to be (come) the matter with regard to the planning of offshore wind farms in the Netherlands at the moment. To substantiate this proposition in the next part of this chapter the consequences of the current rules of the game will be pointed out from the perspective of the different policy coalitions.

From the point of view of the developers of offshore wind farms, the current rules of the game force them to submit a lot of applications, especially when their competitors are doing the same. Because the building permits are granted on the basis of the First Come First Serve (FCFS) principle, just having a good proposal will not be sufficient to gain a building permit. In fact, only time is a decisive factor. When others have a worse project proposal, but they manage to submit it earlier, they will have more chance to get the license. So in order to prevent themselves from ending up with empty hands, every investor will lay down a claim for a part of the Dutch EEZ although they will most certainly not be able to actually develop all the proposed wind farms.

This situation is far from ideal for the investors themselves too. After all, they have to submit multiple different license applications and thereby spend a lot of money on all the procedures. Besides, these rules of the game decrease rather than increase the certainty for the investors that they in the end will be able to actually develop a wind farm. For the applicants it would be favorable if the number of applications was limited. For them, as for any other actor, it would be better to have only a few applications that are ensured of getting commitment

than to have many that will experience fierce resistance. However, the current formal rules of the game are not aimed at obtaining such commitment. So only tenacious investors who have the time, money and energy to play along the rules as set by the Dutch government will remain, while others who were willingly to invest, leave disillusioned. The investors that do remain are faced with a complex dilemma. For all investors it would be better to concentrate on one or two proposals. So when every applicant would reduce their number of applications everyone would have a fair chance to gain a permit. However, as long as the rules are like this no investor would like to be the first to reduce the number of applications. Thereby the impasse will endure.

From the perspective of local governments and pressure groups the current situation is far from optimal as well. Local governments and pressure groups are important actors within the policy arrangements of offshore wind farm planning. They can respectively refuse building licenses, oppose to the Wbr license or criticize the EIA. When they stick to their guns such opposition will most probably end up in court. As stated earlier environmental protection organizations are faced with a complicated dilemma. Of course they are aware that offshore wind energy could be a positive development with regard to the reduction of green house gasses, but at the same time these organizations want to protect local nature. Most environmental protection organizations are of the opinion that the erection of offshore wind farms is unavoidable. Greenpeace actually was one of the investors that participated in the tender for the OWEZ. Others, mostly local operating organizations, are less enthusiastic when it comes to offshore wind farms. However, in general one can say that environmental protection organizations are critical, but willingly to cooperate as long as a careful consideration of adverse effects takes place.

Looking at the policy arrangement of the pilot project the rules of the game created a situation in which actors with ambivalent feelings towards offshore wind farms were able to commit themselves to the project. However, as a result of the current rules of the game a lot of wind farm projects are proposed. Without doubt, some of these proposals will be better from the perspective of pressure groups than others. However the formal rules of the game do not facilitate an objective comparison of the different proposals. Therefore the only way pressure groups can influence the decision making process is by opposing to wind farm proposals. Such opposition will most certainly end up in court and will probably delay the development of offshore wind farms. For all actors this will lead to inefficient and frustrating procedures.

Finally, from the perspective of the (national) government the current situation with respect to the planning of offshore wind farms is not very effective and efficient as well. By withdrawing rather than adapting the suggested adjustments to the Mining Act and the Wbr, the government seems to have put speed above carefulness (Roggenkamp & Van Beuge, 2005). Apparently the Dutch government had misjudged the situation especially with regard to the number of applications that would be submitted. Thereby the government has failed to direct the development of offshore wind farms in an efficient way. But next to the fact that the Dutch government failed to fulfill her responsibility to manage and direct such developments, she also harmed herself by creating the current 'wild west' situation. After all, the ministry of EZ has a subsidy available for about 500 MW only. This means that only two or three wind farms can be subsidized, but EZ has no legal instruments to select these projects. The developer of the first wind farm that will get a Wbr license will probably also apply for the feed-in subsidy. If this will be the case, the fastest applicants will have the best chance to get the subsidy. However, other applicants that want to apply for a subsidy probably will be of the opinion that they have the same rights to get governmental support than the ones that came before them.

An other problem the Dutch government is facing is the fact that they have to consider 65 applications and 65 EIA's. This will be a tough job, both in terms of money and in terms of the consideration itself. It will be hard to judge about the different EIA's because there is no real frame of reference. Therefore every EIA has to deal with the same uncertainties. And as a result the government has to judge about the way these uncertainties and risks are being addressed in every single EIA.

An other result from the current rules of the game is the fact that it is hard to phase the development of offshore wind farms. One of the reasons why the subsidy is limited is the fact that it would be better to phase the development of offshore wind energy. During such a phased development experiences from former projects can be used to improve the (decision making of) future projects. In that way the amount of subsidy could be minimized as well, because of the improved project management. In fact, it is not unthinkable that when investors would have more development certainty, they would need less or no governmental subsidy at all.

Concludingly one could state that the policy arrangement of offshore wind farm planning in the Netherlands is fragile. The formal rules of the game are limited to

the Wbr. Such a legal basis is not strong enough to create a policy arrangement that is able to deal with the planning of offshore wind farms effectively and efficiently. This weak legal basis proved impossible to embed important informal rules, such a careful consideration of different interests in order to get actors committed to the development of offshore wind farms. As a consequence of the failing policy arrangement a wild west situation is created. In this situation applicants are forced to submit unrealistically many license applications and as a result pressure groups are forced to go to court to influence the decision making. Finally, the Dutch government is saddled with loads of license applications which have to be considered whereas she is unable to select the developers on the basis of the quality of the proposals.

§ 3.6.1 Possibilities for the Dutch policy arrangement

By considering the experiences from the pilot project more closely, the current policy arrangement could have been improved. The policy arrangement of the pilot project contained vital informal rules that were facilitated by formal rules derived from the pkb procedure. Thereby the policy arrangement managed to create supporting policy coalitions and a positive policy discourse. During the pilot project the institutional capacity of the policy arrangement was large enough to enable efficient and effective decision making.

However, the informal rules that lay the basis for this institutional capacity, such as a careful consideration of environmental consequences, a broad involvement of different actors and a sophisticated gathering of knowledge, are not safeguarded in the current policy arrangement. The most important reason for this is the fact that it was decided to use a different set of formal rules of the game. By replacing the legal framework (using the Wbr only instead of a pkb procedure) the Dutch government 'left' the policy arrangement in that sense that she would not take the initiative for the development of wind farms anymore. The remaining actors had to organize themselves, which resulted in a chaotic situation in which every actor is driven by his own interest mainly. The institutional capacity that was created during the pilot project as a result of a sophisticated and well organized policy arrangement could not be preserved in the new situation.

Although the legal context from the pilot project could not have been copied to the new situation, one could have established other formal rules that would have protected the institutional capacity of the policy arrangement. The concept of a planning permit in combination with a preliminary planning phase as suggested,

could have provided such formal rules for the new policy arrangement. Although some informal rules, such as the strategic consideration of environmental interests, would not have been backed-up by these formal rules, the suggested legal framework probably would have created a better policy arrangement. But in spite of the valuable lessons that could have been learned from the pilot project, the Dutch government decided to do it all differently. Although one of the explicit goals of the pilot project was to improve future decision making, the planning process of the pilot project seems to have taken place rather isolated. Thereby lessons that could have been learned from the experiences gained in the pilot project seem to have been overlooked. As a consequence informal rules that proved decisive in the policy arrangement of the pilot project were not included in the current policy arrangement. The absence of these informal rules resulted in the current impasse.

Chapter 4 – Offshore wind farm planning in the UK

From the perspective of the Dutch policy arrangement the British approach towards offshore wind farm planning is very interesting to look at. The context of the UK is similar to the Dutch in that sense that both countries have a large wind energy potential at their disposal, both countries are situated around the North Sea and both countries are forced to invest in renewable energy. As a result, both countries look at offshore wind farms as a serious solution to meet future energy needs. However, while the development of offshore wind farms seems to stagnate in the Netherlands, in the UK this development is flourishing. Therefore it is interesting to examine to what extent the policy arrangement of the UK is different from the one that applies in the Netherlands. The differences might shine a new light on the failing Dutch policy arrangement. In this chapter the development of offshore wind farms in the UK and its underlying policy arrangement will be discussed.

§ 4.1 Wind energy development in the UK

The British goals towards renewable energy production are ambitious. In The Energy White Paper *'Our Energy Future: Creating a Low Carbon Economy'* the Department of Trade and Industry (DTI) aims at reducing CO₂ production by 60%. As a consequence, about 30% to 40% of the electricity production should come up of renewable sources (Kellett, 2003). Because the UK is one of the countries with the largest wind energy potential in Western-Europe a large part of this renewable energy has to be produced by (offshore) wind farms. Until a few years ago the country's experience with wind energy was very limited. However, because of the increased urgency to look for alternative sources of energy, it became clear for the British government that the UK had to exploit its large wind energy potential.

As a result of this, onshore wind farms were erected rapidly. This rapid penetration of wind energy in the UK in some cases led to fierce resistance of local residents (Strachan & Lal, 2004). As a result, onshore wind energy development faced a lot of opposition in the UK. Apparently the policy arrangement as it was applicable was not able to create the right environment to effectively develop onshore wind farms in the UK. Especially the fierce resistance of local citizens made the different actors realize that planning wind farms is a complicated business.

Surprisingly the UK manages *offshore* wind energy developments reasonably well. While countries like Germany and the Netherlands are struggling with the planning of offshore wind farms, in the UK the first offshore wind farms are actually producing electricity already. And the future plans of the UK look promising as well. It is hard to tell to what extent the negative experiences gained with onshore wind farm planning have influenced the planning of offshore wind farms. But the policy arrangement of offshore wind farm planning seems to be constructed better than the one that applied on land. The actors involved in the British policy arrangement knew what kind of difficulties they could face with regard to the planning of offshore wind farms. More attention therefore seems to have been paid to the construction of the policy arrangement.

§ 4.2 Renewable energy policy discourse in the UK

The most important precondition for a successful policy arrangement is the existence of a positive dominant policy discourse. Since the UK is successful in the planning of offshore wind farms apparently such a positive policy discourse applies in the UK. From that perspective it is interesting to look at what this policy discourse involves, how it is established and how it affected the policy arrangement.

In general, the British government seems to have taken the development of renewable energy very serious. In the UK the wish to invest in renewable energy is not limited to the formulation of plans and targets. Although the British government did formulate some ambitious goals in the energy white paper, she also introduced a powerful policy instrument to realise these goals. This instrument, which forms the basis for the positive British policy discourse towards renewable energy, is the *Renewables Obligation (RO)*.

The RO came into force in April 2002 as part of the Utilities Act. The RO implies that British energy suppliers are obliged to derive a minimum share of their electricity from renewable sources. As a result, energy suppliers had to derive 3% of their energy production from renewables in 2003, increasing to 10% in 2010 and 15% in 2015. It was also decided that this obligation would be guaranteed until at least 2027. As a consequence of this obligation offshore wind energy developers are ensured that there will be a market for offshore wind energy for at least the next twenty years.

An other aspect of the British policy arrangement that is characteristic for the British policy discourse is the fact that in the UK the EEZ is called the '*Renewable Energy Zone*' (REZ). Of course, the development of marine renewables was the most important reason to establish the EEZ, but this is also the case in other North Sea countries that created an EEZ. However, the choice of the UK to refer to the EEZ as the Renewable Energy Zone is illustrative for the positive dominant policy discourse that occurs in the UK with regard to the development of (offshore) renewables.

Not only the development of renewable energy in general, but also the development of offshore wind energy in specific is ensured of a broad commitment in the UK. The basis for this commitment is formed by a positive general policy discourse with regard to renewable energy on the one hand and an active consultation of different actors on the other hand. Together these two 'ingredients' of the British policy arrangement led to large commitment and thereby to investment certainty for offshore wind energy in the UK. As a result of this investment certainty, developers are willingly to invest in offshore wind energy. In fact, the projects that are in planning today will be realized without any governmental subsidies. Only for earlier projects, that started before the RO came into force, the British government provided a starting subsidy of maximally 10 million pounds per consented project.

The consultation procedures that were carried out with regard to the development of offshore wind farms played a key role in establishing the informal rules of the game of the policy arrangement. Later on in this chapter these consultation procedures will be discussed. However, in order to do this it is important to point out and elaborate on some important actors within the British policy arrangement. Therefore some crucial actors will be discussed below.

§ 4.3 British Wind Energy Association

An important contextual difference between the Dutch and the British policy arrangement is the existence of the *British Wind Energy Association (BWEA)*. The BWEA is an association of developers that want to invest in wind energy in the UK. For the policy arrangement such an association is crucial because the wind farm developers are more or less united in one body. As a result of this, it will be easier to look at wind farm developers as one policy coalition. Of course, in the UK as well as in the Netherlands developers can act independently from their competitors, but the existence of a uniting body makes it easier to treat the

developers as a policy coalition. Therefore it will be easier to formulate rules of the game and to commit independent developers to these rules. However, the role of the BWEA is not limited to the creation of a union. In fact, the BWEA does not only serve the interests of the developers, but she is promoting (offshore) wind energy in general. The BWEA is the driving force behind the pro (offshore) wind energy lobby in the UK. Therefore the BWEA also contributed to the positive policy discourse for offshore wind energy in the UK.

Figure 5: Badge, for sale at the BWEA website (BWEA, 2006)

However, the BWEA does not only promote the development of offshore wind energy, she also plays an important role when it comes to the formulation of the informal rules of the game within the policy arrangement. The BWEA recognized that in order to make the development of offshore wind energy a success, commitment had to be created among all actors involved in offshore wind farm planning.



The most important example of initiatives that were taken by the BWEA to improve the informal rules of the policy arrangement was the consultation process that resulted in the Best Practice Guidelines for the planning of offshore wind projects. During this intensive round of consultation a broad range of actors was asked to express what in their view would be necessary preconditions to commit themselves to the planning of offshore wind farms. This consultation process was used to formulate the informal rules of the game of the policy arrangement of offshore wind farm planning. Therefore this consultation process was crucial to create social capital for the policy arrangement. This social capital led to the creation trust and confidence among all actors and thereby to an effective and efficient planning strategy. Therefore the consultation process turned out to be in favour of the wind farm developers as well. The Best Practice Guidelines consultation process will be discussed in more detail later on in this chapter.

The wild-west situation that was created in the Netherlands might have been prevented when in the Netherlands an organisation like the BWEA would have existed. One of the problems of the Dutch policy arrangement is that all developers are acting individually. Although this resulted in a situation which is

unfavourable for almost all individual developers no single developer will be prepared to change his attitude. When a unifying organisation such as the BWEA would have drawn up new (informal) rules to break this impasse and commit individual developers to such informal rules, the Dutch wild-west situation could have been prevented.

§ 4.4 The Crown Estate

As is the case in the Netherlands (and other countries around the North Sea), the British part of the North Sea consists of a twelve-mile zone and an EEZ, which in the case of the UK was called the *Renewable Energy Zone (REZ)*. The competent authority in both the twelve-mile zone and the REZ is the *Crown Estate (CE)*. Within the United Kingdom the CE is responsible for the development of many estate projects. Historically the CE 'owns' large parts of the kingdom. It is the duty of the CE to manage and develop estate projects for the benefit of the state.

As a consequence, the CE is also de owner of the seabed in the twelve-mile zone. When a developer wants to build an offshore wind farm on the continental shelf he needs to obtain a *Lease* from the CE in order to gain the right to 'use' the seabed. In this agreement it is decided where, for which period and under which conditions a developer can build a wind farm. So with the instrument of a Lease it is possible to set conditions that applying wind farm developers have to meet in order to get their building proposals consented. Thereby the CE plays a crucial role in the British policy arrangement of offshore wind farm planning.

Although the CE is the owner of the seabed within the twelve-mile zone, the CE does not own the seabed in the REZ. As a consequence the instrument of a Lease can not be applied outside the twelve-mile zone. However, the obligation to obtain a Lease from the CE proved to be an essential part of the British policy arrangement. Therefore legal adjustments have been made to expand this regulatory framework to the REZ. The Energy Act 2004 was used to extent the Lease construction to the REZ. The Energy Act also ensured that other laws and regulations were declared applicable in the REZ. Since it was not possible to make the CE the owner of the seabed in the REZ a Lease construction as it applies in the twelve-mile zone was not possible. Therefore for the REZ an *Outside Territorial Waters Agreement* was introduced. This is basically the same as a Lease, so for reasons of simplification in this document the term 'Lease' is used to refer to both the Lease and the Outside Territorial Waters Agreement.

The Leases are put out to a tender. The tender procedures are called *Rounds*. Developers can only apply for a Lease during these Rounds. Thereby a phased development of offshore wind energy can be assured. The granting of a Lease is entirely on the discretion of CE commissioners. However, in order to get a Lease a developer has to obtain an *Agreement for Lease* first. Such Agreement for Lease can be obtained in a pre-qualification phase. Only developers who manage to obtain an Agreement for Lease are allowed to start the procedures for the necessary statutory consents. So only developers who survive these first two phases will be granted a definite Lease.

In the pre-qualification phase the CE will judge about applicants who want to build an offshore wind farm. In this judgement the following aspects will be considered: site allocation of the wind farm, financial standing of the developer, offshore development expertise and wind turbine expertise. Only when the developer and the project proposal will be judged positive on all of these aspects, the developer will be granted an Agreement for Lease. The pre-qualification phase is an important part of the British policy arrangement. One of the major problems in the Dutch policy arrangement is the inability to compare different proposals in order to select the best project. The British tender system, which is quite similar to the rejected proposal for 'planning permits' in the Netherlands, facilitates such a selection.

Because of the guidelines as described above, within the British policy arrangement it is possible to select projects on the basis of their quality. As a result, in the pre-qualification phase it is possible to exclude projects that are not in line with the dominant policy discourse. Therefore establishing a general policy discourse makes more sense. By ensuring that the policy discourse will be taken serious, the pre-qualification phase provides a starting point to create commitment among the different policy coalitions.

§ 4.5 Consenting procedure

After a developer has obtained an Agreement for Lease he has to obtain the necessary statutory consents. After the developer has obtained these consents he can go back to the CE to get a definite Lease. As far as offshore wind farms are concerned, a developer has two 'routes' by which he can get his wind farm proposal consented. Depending on the context of the project a developer can choose by means of which acts he will obtain the necessary consents. In the overview on the next page the relevant acts are described briefly.

Statutory Framework
<p>Electricity Act 1989 (EA) – Section 36 For offshore wind power generating stations within territorial waters adjacent to England and Wales. The Energy Act 2004 extends the requirement for this consent to the REZ.</p>
<p>Transport and Works Act 1992 Order (TWA) Provides an alternative route to the EA route above (with FEPA) for obtaining certain statutory rights necessary for the development of an offshore wind farm in territorial waters only. It displaces the need for EA and CPA consents.</p>
<p>Food and Environment Protection Act 1985 (Part II) (FEPA) – Section 5 For depositing articles or materials in the sea/tidal waters below MHWS (mean high water springs) around England and Wales including the placement of construction material or disposal of waste dredgings etc. Will be needed irrespective of whether the EA or TWA approach is used.</p>
<p>Coast Protection Act 1949 (CPA) - Section 34 Construction under or over the seashore lying below the level of MHWS. The Energy Act 2004 disapplies the requirement for a CPA consent for projects in English and Welsh territorial waters and the REZ which have a section 36 consent granted after commencement of section 99 of the Energy Act. A CPA consent is not required if the TWA route is followed as navigation matters are dealt with as part of the process.</p>

Table 1: Relevant acts forming the different ‘routes’ for consenting (DTI, 2004)

The first possible route is the so called ‘EA/FEPA/CPA-route’. This consenting route is based on the section 36 of the EA. On land this act is used to deal with the licensing of buildings for the production of energy. The Energy Act 2004 extended the EA to the REZ. Since the EA does not take into account the possible damage that is done to the marine environment a FEPA consent and a CPA consent are required as well. Because the other consenting route is not possible in the REZ, the ‘EA/FEPA/CPA-route’ is the only possible route for consenting offshore wind farms outside the twelve-mile zone.

The second route is the so called ‘TWA/FEPA-route’. This route is based on the TWA, which is similar to the Dutch Wbr act. The TWA deals with the consenting

of structures to be build on the seabed. Since this includes a consideration of locational issues, a CPA consent is not required any more. The FEPA consent however is required in this route too. The 'TWA/FEPA-route' is limited to wind farm proposals on the continental shelf and does not apply in the REZ.

With regard to the consenting process some general remarks have to be made. First of all other consents have to be required next to the ones described above. Such consents are mostly related to onshore construction works. Depending on which kind of buildings are needed normal building consents have to be obtained from local governments on top of the consents as discussed above. Next to that, in all consenting procedures an EIA has to be carried out as well. The EIA has to point out the environmental consequences of the proposed wind farm. The EIA provides a frame of reference for the granting of the different consents.

The legal context as presented here is based on the situation as it is applicable in Wales and England. In Scotland for instance some legal aspects differ from the situation as it was presented here. However, for the planning of offshore wind farms, especially in the REZ, the legal context as discussed here does point out the most relevant aspects of the British legal framework.

To coordinate and streamline the consenting procedure for the planning of offshore wind farms a coordinating body was formed by DTI. This body is called the Offshore Renewables Consents Unit (ORCU). When a wind farm developer is awarded an Agreement for Lease from the CE he can go to ORCU to help him to obtain the required consents. For developers of offshore wind farms such a 'one stop shop' helps them to effectively and efficiently go trough all the necessary procedures.

§ 4.6 Offshore wind experiences in the UK

In the UK as well as in the Netherlands it was decided to first gain experience with offshore wind farm planning before the large scale development of offshore wind farms would take place. In contrast to the Dutch situation, this pilot was not limited to one single farm. During the British pilot phase, that was called '*Round One*', eighteen wind farms were consented. At the time of writing the second phase of offshore wind farm development, '*Round Two*' is taking place already.

Round One of offshore wind farm planning started in 2000 and licence applications could be submitted until April 2001. The first two farms both with a capacity of 60 MW that came in operation were North Hoyle (2003) and Scroby Sands (2004). As was the case with the Dutch pilot project, a constraint for the proposed wind farms of Round One was that these wind farms would be situated within the twelve-mile zone. One of the reasons why this was done was the fact that a legal framework to handle licence application in the EEZ was not finished yet. Additional constraints on the proposed wind farms were that they had to be at least ten kilometres apart, they had to have a minimum capacity of 20 MW and they had to consist of maximal 30 turbines. Next to this, developers were allowed to apply for one wind farm only. There were no restrictions to the location of the proposed wind farms. Apart from some excluded areas, the development of wind farms was allowed within the whole twelve-mile zone.

In Round One one of the constraints for the tender procedure was that wind farm developers were allowed to submit only one proposal each. The rule of the game that only one application per developer was allowed, was important to prevent a wild-west situation like it was created in the Netherlands. By just allowing one wind farm proposal to be taken into consideration, developers were triggered to come up with the best project proposal. As a result of the current Dutch policy arrangement, in the Netherlands developers are claiming as much space as possible. In the British policy arrangement of Round One such a situation was prevented by allowing one proposal only.

As a next step in the development of offshore wind energy in the UK, in 2004 Round Two started. In Round Two the DTI appointed three strategic areas where offshore wind farms were allowed to be build. These strategic areas were subject of a Strategic Environmental Assessment (SEA). In contrast to what happened in Round One in Round Two developers were allowed to submit more than one wind farm proposal. However, in order to manage the expected competing and overlapping applications, it was decided to use more rigid demands for the developer and its proposal in the consenting procedure. Hereby it was possible to select the best proposals. As described before, the decision to award an (agreement for) Lease is entirely on the discretion of the Crown Estate. In that way it is possible to select the awarded proposals on the basis of their quality. This in contrast to the Dutch situation in which only the First Come First Serve principle applies. The submitted proposals of Round Two added up to a total capacity of 26800 MW. From these proposals 'only' 7200 MW was consented. To put this in perspective; the goal of the Dutch government for the development of offshore wind energy in the year 2010 is about 500 MW.

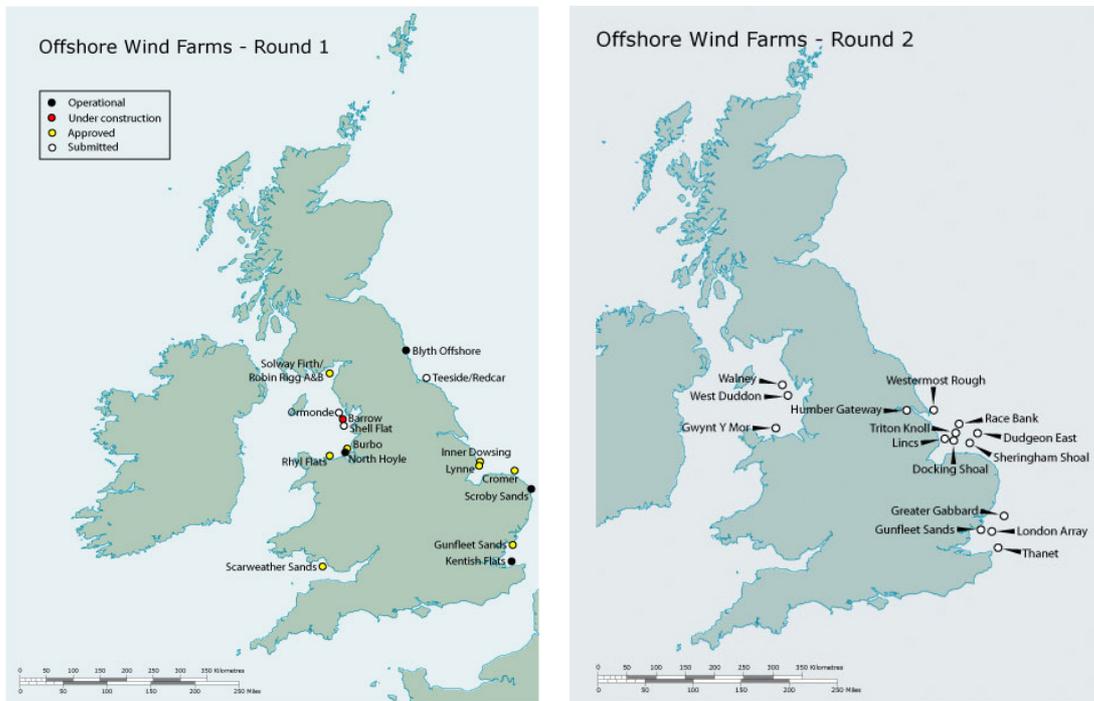


Figure 6 & 7: Round One (left) and Round Two projects (right) (BWEA, 2006)

Table 2: Round One Projects (BWEA, 2006)

Location	Status	Capacity	Developer
North Hoyle	Build Dec. 2003	60 MW	npower renewables
Scroby Sands	Build Dec. 2004	60 MW	E.ON UK Renewables
Kentish Flats	Build Sep. 2005	90 MW	Elsam
Barrow	Construction	90 turbines	Centrica/DONG)
Gunfleet Sands	Approved	30 turbines	GE Energy
Lynn/Inner Dowsing	Approved	60 turbines	Centrica
Cromer	Approved	30 turbines	Norfolk Offshore Wind/EDF
Scarweather Sands	Approved	30 turbines	E.ON UK Renewables/Energi E2
Rhyl Flats	Approved	30 turbines	npower renewables
Burbo Bank	Approved	30 turbines	Seascope Energy
Solway Firth	Approved	60 turbines	E.ON UK Renewables
Shell Flat	Submitted	90 turbines	ScottishPower/Tomen/ Shell/Elsam
Teesside	Submitted	30 turbines	Northern Offshore Wind/EDF
Tunes Plateau	Submitted	30 turbines	RES/B9 Energy
Ormonde	Submitted	30 turbines	Eclipse Energy

Table 3: Round Two Projects (BWEA, 2006)

Location	Max. Capacity (MW)	Developer
Docking Shoal	500	Centrica
Race Bank	500	Centrica
Sheringham	315	Ecoventures/Hydro/SLP
Humber	300	Humber Wind
Triton Knoll	1,2	npower renewables
Lincs	250	Centrica
Westermost Rough	240	Total
Dudgeon East	300	Warwick Energy
Greater Gabbard	500	Airtricity/Fluor
Gunfleet Sands II	64	GE Energy
London Array	1	Energi E2-Farm Energy/Shell/ E.ON UK Renewables
Thanet	300	Warwick Energy
Walney	450	DONG
Gwynt y Mor	750	npower renewables
West Duddon	500	ScottishPower

§ 4.7 Best Practice Guidelines on consultation

In 1999, even before the start of Round One, the BWEA initiated a consultation procedure in which all actors involved in offshore wind farm planning were heard. By doing this the BWEA hoped to establish a general planning practice that would enable an effective planning of offshore wind farms. This consultation process was crucial for the development of the British policy arrangement. In fact it laid the basis for the informal rules of the policy arrangement.

The consultation process took two years. Therefore experiences from early Round One projects were part of the consultation process. To ensure an objective guidance of the consultation process, an external commission was installed to direct and coordinate it. In the consultation process all actors involved in offshore wind farm planning were asked to give their view on the planning process. By doing this all interests were considered and planning barriers were located. As a result of this consultation process, it was decided to draw up the *Best Practice Guidelines*. In this document recommendations were made about the way actors should be involved in future planning processes. It was the explicit

goal of the Best Practice Guidelines to provide informal rules of the game that would go further than the legally necessary procedures (BWEA, 2002). In this comprehensive but detailed document general guidelines for the consultation of actors in future offshore wind farm projects were formulated. It was a powerful document, not only because it was established with great care for all the interests involved, but especially because its final draft was supported by a long list of actors of all kinds. With the use of the consultation process and the establishment of the Best Practice Guidelines, great consensus and commitment was created for the development of offshore wind farms.

Actually, these guidelines contain all the informal rules that proved important for the policy arrangement. The Best Practice Guidelines involve a lot of rules and agreements about how actors should be consulted in future planning processes. By doing this it was described in full detail which steps should be taken in the planning process of every single wind farm project. To give an expression: these guidelines for instance contain a detailed description about how and within how many days (potential) stakeholders have to be invited for public hearings.

Together these guidelines safeguarded a careful consideration of the different interests in future offshore wind projects. The Best Practice Guidelines are a reflection of the well organized social capital of the British policy arrangement. The consultation process therefore was important to create institutional capacity for the policy arrangement. Most interesting aspect of this consultation process however is the leading role the BWEA. The BWEA recognized the importance of an extensive set of informal rules of the game in addition to legal requirements. The fact that it was a private organization like the BWEA that initiated this process can be seen as typical for the British governance culture, in which state and market are more closely related to each other than in for instance the Netherlands. The role the BWEA played in the policy arrangement therefore proves the 'mature' relation between a government and private investors that might be a necessary precondition to enable the development of offshore wind farms in a market-led way.

§ 4.8 The COWRIE research program

At the start of the development of offshore wind farms knowledge about offshore wind energy, especially with regard to its consequences for the environment, was limited. To fill such knowledge gaps the CE established a fund

to enable research about the relation between offshore wind energy and the environment. Every wind farm developer who wanted to obtain an Agreement for Lease from the CE had to deposit a contribution to the fund. This fund was called Collaborative Offshore Wind Farm research into the Environment (COWRIE). The COWRIE research program is taken place independently from governmental research programmes.

A steering group which is formed by a range of key actors has to decide about the allocation of the research budget of COWRIE, thereby the steering group decides about the research that has to be done. Thanks to COWRIE research is being done about the effects of offshore wind farms on the marine environment. But the role COWRIE plays within the policy arrangement is not limited to the allocation of research budgets. COWRIE is an important source of knowledge in general (Cowrie, 2006). In Round One the COWRIE steering group played an important role in the formulation of the guidelines that were set as constraints for the tender procedure. The steering group also ensured that research that had to be done was clustered as much as possible to ensure that costs would be minimized and research outcomes would be as useful as possible. The outcomes of the different project EIAs of Round One for instance were gathered by COWRIE so the data could be used for general research. In doing this, the COWRIE steering group was responsible for the strategic consideration and management of environmental issues. This situation was not only favourable from the perspective of the developers, who were prevented from making unnecessary costs, but also from the perspective of environmental protection groups, who were ensured that environmental research included cumulative impacts as well. Although a Strategic Environmental Assessment was not part of Round One, one could conclude that a strategic consideration of environmental interests was safeguarded by COWRIE.

The COWRIE research programme still exists and in order to obtain an Agreement for Lease developers have to contribute to the research fund in Round Two as well. However, because of the large scale of the wind farm developments of Round Two the research budget has increased as well. As a result, the total amount of money COWRIE has at his disposal now adds-up to few million pounds. For that reason it was decided to separate COWRIE from the CE and house it in a new foundation. The board of this foundation is formed by representatives of the DTI, the CE and the BWEA. The steering group still exists of a large group of experts representing the different interests.

The existence of COWRIE is an important aspect of the British policy arrangement. First of all it is characteristic for the British planning approach, which puts a lot of responsibility on the different policy coalitions to manage and regulate their own planning process. In this case the BWEA, that was already recognized as a key actor in the British policy arrangement above, interpreted this responsibility by supporting objective research on environmental issues. Like it is the case with the Best Practice Guidelines consultation process the existence of COWRIE is a good example of the interaction between state, market and public interest in the UK. The COWRIE research program too shows the advantages and possibilities that a mature relationship between state and private investors can have for a policy arrangement.

As argued before, knowledge is an important resource in the policy arrangements of offshore wind farm planning. Since the development of offshore wind energy is facing many uncertainties, especially with regard to its environmental consequences, creating knowledge about such consequences is a necessary precondition to get commitment for the development of offshore wind farms. The knowledge that was (and is) gained by COWRIE provides the intellectual capital that is necessary to create institutional capacity for the policy arrangement.

The COWRIE research program provides a basis for the policy discourse, but it also helps formulating formal and informal rules of the game. It is an important part of the checks and balances that are crucial to create commitment to the development of offshore wind farms. Especially for ambivalent actors, such as environmental protection groups, formal and informal rules of the game that safeguard the consideration of their interests are determinative for the success of the policy arrangement.

Compared to the Dutch policy arrangement COWRIE fulfils more or less the same role as the Monitoring and Evaluation Plan (MEP) did in the Netherlands. However, whereas the MEP was limited to the pilot phase only, the work of COWRIE is carried out in present and (probably) future situations too. Thereby long term commitment is created to the development of offshore wind energy.

§ 4.9 Future Offshore & Strategic Environmental Assessment

In the period between Round One and Round Two a consultation process took place. This consultation process was initiated by the DTI and its aim was to set

out guidelines for future offshore wind farm developments. The document in which the overall conclusions of that consultation process were presented was called "Future Offshore". Like is was the case in the consultation process initiated by the BWEA that resulted in the Best Practice Guidelines, in the consultation process of Future Offshore relevant actors were asked to give their view on offshore wind energy. Future Offshore laid the basis for Round Two of offshore wind farm development.

Most important conclusion of Future Offshore was that future rounds of offshore wind farm development would be directed by indicating strategic areas. To reduce the risk of environmental damage it was decided that vulnerable areas, such as coastal zones, would be excluded from these strategic areas. On top of that it was decided that in every future round the appointed strategic areas would be subject of a Strategic Environmental Assessment (SEA). The SEA was an important instrument to address the wish of environmental protection groups to take into account cumulative impacts of offshore wind farms.

As a result of the introduction of a SEA the formal rules of the game of the policy arrangement were expanded to support some essential informal rules. Besides a better legal basis for the consideration of (cumulative) environmental impacts, the SEA also facilitates the decision making process in general. The SEA provides a framework that can be used to judge about project EIAs that have to be carried out for single wind farms. The SEA also provides a suitable frame of reference to judge about site allocation of individual wind farms. Or in other words; a lot of work is done beforehand. This makes it easier to judge about individual plans, it enables a strategic approach, and a lot of research has to be done only once. In the end, this will lead to faster, cheaper and fairer decision making.

§ 4.10 Research Advisory Group

In order to co-ordinate the research programme the British government recently formed a Research and Advisory Group (RAG). It is the aim of the RAG to co-ordinate environmental research that is being carried out on the initiative of the government. The research programme of the RAG is taken place parallel to the research programme of COWRIE. Within the RAG different liaison groups are formed. Every group takes care of their part of the research programme. By establishing liaison groups the British government also institutionalized some specific groups of actors. For the policy arrangement this means that policy coalitions are defined and organised further.

There is a *Strategic Environmental Assessment Steering Group* which directs the work of the environmental assessment programme. Secondly there is a *Fishing Liaison with Offshore Wind Group*, which provides a platform concerning fishery issues. The *Offshore Renewables Energy Environmental Forum* on the other hand provides a forum for government, industry and NGOs to discuss environmental issues with regard to offshore wind energy. Finally, the *Nautical and Offshore Renewables Energy Liaison Forum* provides a forum to discuss issues related to navigation safety.

The main advantage of these liaison groups is that policy coalitions are well organized. For the British government it will be easier to consult relevant actors on a specific topic. The creation of the liaison groups is characteristic for the British policy arrangement in which a lot of attention is paid to a good organisation of the different actors. This good organisation improves the social capital of the policy arrangement and thereby supports its institutional capacity.

§ 4.11 Conclusions

§ 4.11.1 The British Policy Discourse

Concludingly one could say that the British policy arrangement of offshore wind farm planning is constructed rather well. In contrast to the Dutch policy arrangement the British policy arrangement is further developed. The first aspect of this well developed policy arrangement is the positive dominant policy discourse. In the UK there is no doubt about the desirability of offshore wind energy. Thanks to clear statements of the British government and a successful lobby of the BWEA the general commitment for offshore wind energy is without doubt. Most important resource that is used by the British government to translate this policy discourse into action is the Renewables Obligation.

§ 4.11.2 Rules of the Game of the British policy arrangement

To create commitment and to streamline the decision making process the different actors are consulted actively. Such consultation might be initiated by the government, like it was the case with Future Offshore, but it might as well be initiated by the market. Especially the BWEA has given a broad meaning to its responsibility within the policy arrangement. The establishment of the Best Practice Guidelines is the best example of this. This consultation process, which

resulted in a large set of (in)formal rules of the game improved the institutional capacity of the policy arrangement.

One of the most important aspects of the policy arrangement is the Lease that has to be obtained from the Crown Estate. By putting such Leases out to a tender in the different 'Rounds' developers have to compete to gain the right to build a wind farm. Besides the fact that the tender procedure triggers developers to come up with the best project proposal, by means of the Lease demands can be made on the project proposal and its developer. Thereby constraints can be formulated with regard to future offshore wind developments. In that way the policy discourse, which decides when, where and under which conditions the development of offshore wind farms should take place, can be implemented. Thereby (opposing) policy coalitions will feel the need to take place in the policy making process in order to challenge the policy discourse. As long as this policy making process is shaped well by the formal and informal rules of the game, the policy arrangement is expected to be successful.

§ 4.11.3 Use of Knowledge

An other part of the British policy arrangement that proved decisive, is the existence of a well structured research programme. The COWRIE research programme and the SEA are important to safeguard a careful consideration of environmental interests. By co-ordinating the research that has to be done, research can be done effectively and efficiently. In the end this will save time and money and will lead to more useful results compared to fragmented research carried out by every single wind farm developer. Because consultation of different actors is an important part of the research programmes the commitment to offshore wind farms increases. The knowledge that is created by COWRIE improves the intellectual capital of the policy arrangement. This intellectual capital together with a rich social network creates a large institutional capacity. Because of this large institutional capacity the British policy arrangement is able to realise an overall commitment to the development of offshore wind farms. Within a policy arrangement it is important to gain trust and confidence, especially towards ambivalent actors. A well organized research program like COWRIE therefore is crucial.

§ 4.11.4 Reasons for the success of the British policy arrangement

The existence of the BWEA and COWRIE are interesting characteristics of the British policy arrangement. In general in the UK the relationships between the government and private developers is different than it is in other European countries like the Netherlands. The examples of the BWEA and COWRIE show the mature relationship between the different actors in the British policy arrangement. Although the British government did provide a solid legal framework by the means of the (agreement for) Lease of the Crown Estate, the further completion of the policy arrangement was to a large extent the virtue of the different actors themselves. The BWEA in that respect was one of the most important actors that helped improving the policy arrangement.

This observation might also explain the failure of the Dutch policy arrangement. In all European countries that are developing offshore wind farms the initiative for this development is left to private investors. To deal with the development of offshore wind farms in such a market-led way requires a policy arrangement that is capable of creating a suitable interaction between the government, private investors and pressure groups. The larger experience the UK has at this point might be one of the reasons why the British policy arrangement is better constructed and thereby more successful than the Dutch policy arrangement.

Chapter 5 – Analysis and conclusions

The development of offshore wind farms in the UK is more successful than it is in the Netherlands. This success can be related to a more effective policy arrangement. In the UK the policy arrangement by which spatial issues are considered is more sophisticated than the arrangement that applies in the Netherlands. The British policy arrangement is able to support effective decision making. In the UK earlier experiences gained with offshore wind farm planning were used to improve the policy arrangement whereas in the Netherlands the policy arrangement can be characterized as unstable and uncertain. In this chapter the differences and similarities between the Dutch and British planning approach will be analysed.

§ 5.1 General policy discourses towards renewable energy

The general policy discourses with regard to renewable energy in the Netherlands and the UK have some clear similarities, however also some important differences can be pointed out. The policy discourses are similar in that sense that in both countries awareness has come forward that in order to create a sustainable energy future the development of renewable energy has to be promoted. An other similarity is the fact that in both countries the initiative for the development of renewable energy, especially offshore wind energy, has to come from private investors.

In the Netherlands as well as in the UK neo-liberal trends such as privatisation and liberalisation have been leading political ideologies during the last decades. From the perspective of the ‘family of nations’ one could expect this neo-liberalism to be of larger influence on the British policy arrangement, but given the current political constellation in the Netherlands, these principles are of no less importance here. As a consequence cultural differences, which certainly do occur, might be smaller than one could expect on the first sight. The fact that offshore wind farm planning is such a new phenomenon and the fact that as a result of this the policy arrangements are still ‘under construction’ leaves relatively much room for chance and adoption from neighbouring countries. Together the political similarities and the room there is to make adaptations to the policy arrangement make that a comparison between the Dutch and British planning approach towards offshore wind farms is a fruitful exercise.

There are however also some clear differences between the UK and the Netherlands with regard to their renewable energy policies. These differences can be divided in two groups; discourse differences and instrumental differences. In this discourse differences are differences related to the general policy discourse towards renewable energy and wind energy in particular, whereas instrumental differences are related to the different policy instruments that are used to promote renewable energy.

§ 5.2 Offshore wind energy policy discourses

In the UK the dominant policy discourse towards renewable energy is positive. The basis for this discourse is formed by the positive attitude of the British government. There is no doubt about the position of the (central) government when it comes to renewable energy. The clear statement of the UK government that the development of renewable energy has to be promoted and supported, creates certainty for private investors. In the Netherlands the support of the government for renewable energy is less unconditionally than it is in the UK. Especially with regard to offshore wind energy policy goals have been vague and unstable during the last decade.

It is hard to grasp what are the decisive factors in creating a (positive) policy discourse towards renewable energy. In the Netherlands the uncertainty seems to be related to an effective nuclear power lobby. As a consequence wind energy has to 'compete' with nuclear energy to become a future alternative. This competition has led to doubt about the need for investment in offshore wind energy. The fact that offshore wind energy is still in its pioneer phase makes it hard to present it as a reliable future source of energy. This doubt has effected the Dutch policy arrangement and lays the basis for the uncertainty that characterises the Dutch planning approach.

In the UK on the other hand the commitment to renewable energy seems to be larger. Not only the overall commitment to renewable energy is larger, but especially support for offshore wind energy is large. This positive attitude towards offshore wind energy is closely related to the successful pro-wind energy lobby. Within this lobby the British Wind Energy Agency (BWEA) is of crucial importance. The BWEA has played an important role within the policy arrangement. Not only managed the BWEA to create overall commitment to the development of offshore wind farms, but she also influenced the planning practice.

§ 5.3 Policy support instruments

The differences between the Netherlands and the UK with regard to their policy discourses are reflected in the instrumental differences. In the UK the most important policy instrument to promote renewable energy is the Renewables Obligation (R.O.). In the Netherlands on the other hand the promotion of offshore wind energy is created by a feed-in subsidy. The R.O. has some clear advantages compared to the instrument of feed-in subsidies. First of all it is cheap, because it just tells energy suppliers that they have to derive a certain share of their energy from renewable sources. Secondly, it creates long term certainty for investors because they are ensured of a market for their energy. A feed-in subsidy on the other hand costs a lot of money, especially in the beginning. Besides the costs also the uncertainty is larger, since the available amount of feed-in subsidy will constantly be subject of political debates.

However, the R.O. has some disadvantages as well. While a feed-in subsidy supports the production of energy, the R.O. creates a demand for renewable energy only. A feed-in subsidy supports individual developers directly. In the UK however, there has been created a market for renewable energy, but the development of offshore wind farms itself is not supported financially. In the UK the money to build a wind farm therefore has to be brought together without the help of the government. As a consequence, for a small or inexperienced investor it is hard to develop an offshore wind farm in the UK. The development of offshore wind farms therefore is limited to the 'big boys' mainly. These developers are focused on building large scaled wind farms. This situation can have large implications for the policy arrangement. For small scaled projects it will be easier to get commitment from (opposing) actors. The fact that the development of offshore wind farms in the UK is dominated by large scaled projects therefore is a potential threat for the creation of planning support (Toke, 2005a).

Although the R.O. creates more certainty and thereby a better investment climate, there is no lack of interest of developers to build wind farms in the Dutch North Sea. Apparently developers are willing to invest in offshore wind energy anyway. So in spite of the advantages of the R.O. there do not seem to be any good reasons why the Netherlands should introduce a similar support instrument. Besides the drawbacks of a demand driven policy instrument, there is an other reason why a system of feed-in subsidies is favourable. With the use

of a feed-in subsidy it is relatively easy to introduce a tender system for offshore wind farms. The available subsidy could be put out to a tender. The use of a tender creates an opportunity to set additional conditions for developers. In that way a feed-in subsidy can be used to address quality issues as well as quantity issues.

§ 5.4 Rules of the Game

Most important (formal) legal aspect of the policy arrangement for offshore wind farm planning is the way building licenses have to be obtained. The application procedures differ a lot between the Netherlands and the UK. In the UK the basis for the application procedure is formed by a tender system, whereas in the Netherlands the First Come First Serve (FCFS) principle applies. The fact that a building license can only be obtained by means of a tender is a crucial formal rule of the game within the British policy arrangement. With the use of a tender a developer can be selected on the basis of the quality of his proposal. When the FCFS principle applies a developer just has to be granted a licence when he proves to meet general constraints. Such constraints, mainly safety and environmental issues, are also part of the British tender procedure, but this tender procedure leaves room for the formulation of additional guidelines.

Without the possibility to select a developer on the basis of the quality of his wind farm proposal it is hard to 'plan' the development of offshore wind farms. The aim of the consultation of different actors during a planning process is to formulate a planning strategy that is supported by all actors that have a stake in offshore wind energy. By formulating such a strategy actors who participate in the consultation procedure are ensured that their interests are addressed. Aim of such a consultation is to identify the concerns of different actors in an early stage. In that way, hopefully, formal appeals and law suits can be avoided. In the British policy arrangement actors are triggered to participate in the decision making process in an early stage. Thereby the interest of private developers to build offshore wind farms can be brought in accordance with the planning strategy. At the same time opponent actors can deliver input to the decision making process. This creates trust and certainty for all actors, which supports effective decision making.

In the UK the tender procedure is the link between the (informal) consultation procedure and the (formal) allocation of building permits. Or in other words; because of the existence of a tender procedure it makes sense for the involved

actors to participate in the decision making process as early as possible to influence the policy discourse. In the Netherlands on the other hand the planning approach is far more pragmatic. Although there have been some positive experiences with the use of a tender system in the first pilot project, today the FCFS principle applies. Most important consequence of the FCFS system is that developers are faced with a large uncertainty. There is no planning strategy and thereby the supply and demand for offshore wind farm development are not matched, resulting in the situation that every investor claims as much development space as possible. An other consequence of the FCFS system is that a possible planning strategy is not linked with the actual planning practice since the FCFS system does not enable a strategic judgement of applied wind farm proposals. Unlike the British situation in the Netherlands actors therefore are not triggered to constructively join the decision making process in an early stage.

In order to obtain the right to develop one or more wind farms in the Dutch EEZ, for developers time is their worst enemy. The developers who are able to claim a part of the EEZ first will be able to build a wind farm. To have as large a chance as possible to obtain a building permit they submit multiple wind farm proposals. In practice most of the developers will not be able to actually develop that many wind farms, but that is non of their concerns at that time. This wild-west situation has led to a huge amount of license applications. Of course it would be favourable when all developers who want to develop a wind farm would just submit only one -serious- proposal, but as long as speed is more important than the quality of the proposal, no individual applicant will be prepared to reduce his amount of applications.

For the Dutch policy arrangement this impasse has serious implications. Actors involved in the planning of offshore wind farms are faced with a lot of wind farm proposals, but since the application procedure is chaotic and unstructured it is almost impossible to formulate a common and overall supported planning strategy. As a consequence it is hard for individual (opposing) actors to influence the decision making with regard to offshore wind farms. As a result of this, opposing actors are forced to use legal instruments to influence decision making. In the end the FCFS system therefore leads to inefficient, ineffective and frustrating decision making.

What is particularly interesting about the Dutch planning approach is the fact that lessons from the past were not used to improve the policy arrangement. As a matter of fact in the OWEZ pilot project a more sophisticated approach was used. Active actor consultation was part of the planning process. To implement the

decision making as came forward from this process a tender was used to select the developer. However, policy instruments that supported this careful planning process were replaced by the FCFS system. Looking back it seems fair to conclude that the decision of the Dutch government to rigorously introduce the FSFS system instead of a more sophisticated policy arrangement based on the early experiences of the pilot project, was one of the biggest mistakes made by the Dutch government.

In the UK a more effective and efficient policy arrangement occurs. The most important instruments that shape this policy arrangement are the tender procedure and the SEA. However the real difference between the Dutch and British planning approach is more complicated than the existence (or absence) of these formal policy instruments. From the perspective of institutional capacity building one could say that the institutional capacity of the British policy arrangement is larger than it is in the Netherlands. Of course formal instruments such as a tender and a SEA do affect this institutional capacity, but most important aspect is the general attitude towards the planning of offshore wind farms.

In the UK a lot of attention is paid to the formulation of a common strategy and a good decision making process. Both on the strategic (national) level and on the local project level common understanding about what should be done occurs. The best practice guidelines on consultation as initiated by the BWEA are a crucial set of rules that safeguard a careful consideration of the different interests in the planning process of every single wind farm. These guidelines are supported by all actors who are involved in offshore wind farm planning. Such a common statement is important to gain trust and certainty among all actors. The consultation process that led to the formulation of the best practice guidelines can be seen as the fundament of the rich social capital of the British policy arrangement.

Since she took the initiative to formulate the best practice guidelines the BWEA is an important actor within the British policy arrangement. The BWEA recognized the importance of establishing a common planning approach which is based on informal rules that go further than the formal legal rules only. But besides the initiative for the best practice guidelines the BWEA is first of all a union of wind farm developers. The fact that it was this union of wind developers who took the initiative to draw-up informal rules of the game, seems to be in line with the British planning culture in which state and market are close to each other.

But also on a more strategic level the policy discourse towards offshore wind energy is ensured of a broad commitment. The British policy discourse implies that strategic areas will be pointed out in which offshore wind farm are allowed to be build. This strategy, again, was formulated after an intensive consultation round, resulting the formulation of a long-term strategy. An other aspect of the strategic approach is the phased development that is formed by the different 'Rounds' in which the development takes place. Main advantage of this approach is that experiences gained in earlier rounds can be used to improve the policy arrangement for future developments. At the same time it prevents a chaotic situation as occurs in the Netherlands.

In the UK much attention has been paid to a well structured policy arrangement. The policy arrangement has a rich social capital. This social capital is formed during intensive consultation rounds. As a result of this consultation informal rules of the game have been formulated that support effective and efficient decision making. But within the British policy arrangement not only agreement about the rules of the game occurs, but also a planning strategy is formulated. However, agreement about the rules and content of the planning approach would be rather meaningless if there would not be any formal instruments by which these commonly supported ideas can be brought into practice. This is why the existence of a tender system is important. One could say that the tender procedure is the link between the carefully created social capital of the policy arrangement and the actual planning practice.

§ 5.5 Allocation and use of knowledge

As explained in Chapter Two, besides the social capital also the intellectual capital is crucial within a policy arrangement. Especially since offshore wind farm planning is a new phenomenon it is important to gain knowledge about the (consequences) of this development. As far as this refers to knowledge with regard to project planning issues it is mainly the responsibility for a project developer himself, but on more common issues such as the consequences for the environment, research is essential for the functioning of the policy arrangement. Therefore the way knowledge is gained and 'used' in the planning process is a crucial aspect of the policy arrangement.

In the UK as well as in the Netherlands research projects were introduced to support good decision making about offshore wind farms. However, at this point again, in the UK this has been done more profound and well organized than it

was in the Netherlands. Especially the COWRIE research program is an important part of the British policy arrangement. One of the aims of COWRIE is to do research on the long term effects of offshore wind farms for the environment. An other interesting aspect of COWRIE is that it is financed by the individual developers who obtain a building licence. In that way research funds are combined, which enables coordinated and strategic research.

Again it is interesting to observe that in the Netherlands during the pilot project OWEZ environmental research was paid more attention to than it is in the current situation. The Monitoring and Evaluation Program (MEP) and the location EIA that were carried during the pilot project, were successful in gaining knowledge about the effects of offshore wind farms for the environment. However it was decided to limit the use of these instruments to the pilot project only.

In the British policy arrangement there is an important relation between COWRIE and the formal EIA obligation. The EIA (and the SEA) form the link between the intellectual capital and the actual planning outcomes. The knowledge gained by COWRIE is used to set guidelines for the EIA procedures for individual wind farms. Therefore the EIA is the formal instruments that makes sure that environmental concerns are determinative for the final decision about a licence application. In the Netherlands carrying out an EIA is a formal requirement to obtain a license too, but there is no strategic frame of reference it has to meet. Therefore the consideration of environmental interests in the Netherlands is more pragmatic than it is in the UK.

The Strategic Environmental Assessment (SEA) is an other aspect of the British policy arrangement. With the use of an SEA strategic areas for the development of offshore wind farms are pointed out. Thereby a more strategic planning approach is possible, but it also makes the EIA procedures for individual projects more efficient. The SEA provides the strategic frame of reference that is lacking in the Netherlands. In the SEA procedure a lot of research is carried out beforehand, therefore individual project EIAs can be carried out more efficiently.

In the UK the SEA forms an important link between strategic policy goals, environmental knowledge and planning strategy. An SEA provides the starting point for the different phases of the development of offshore wind farms. Therefore in the SEA policy goals and constraints are translated in a planning strategy. The SEA procedure ensures a careful consideration of the different interests which are at stake and it ensures the use of knowledge gained earlier.

Therefore one could say the SEA is the formal instrument that brings together the social capital, the intellectual capital and actual planning practice.

§ 5.6 Transferability of policy concepts

The obvious next question is “To what extent can the British planning practices be transferred to and applied in the Netherlands?”. In the Netherlands the development of offshore wind farms has not been very smooth. Before the current impasse was created however some serious attempts have been made to create a sophisticated policy arrangement. Unfortunately these attempts failed, but the exact reasons for this failure are hard to point out. Apparently the Dutch government favoured speed above carefulness. At the moment the Dutch government is reserved to make adjustments to the policy arrangement because of possible lawsuits of developers who have already started the application procedures. Changing the rules of the game during the game is not an option in the opinion of the Dutch government. This is an important statement from the perspective of transferability. Transferring a policy is a form of policy change. When the policy institutions are reluctant to change a policy, the chances for a successful policy transfer are small.

However, in the Netherlands there seems to be interest to introduce a tender system (Brinkhorst, 2005) and a SEA (Commissie Mer, 2006; Brinkhorst 2006). If these instruments are introduced in the Netherlands it is hard to tell to what extent the Dutch version of these instruments will be similar to the British. With respect to the tender this will probably be linked to the feed-in subsidy. However, when such a subsidy tender is not related to the building license it will be hard to address spatial planning issues in this tender. In the UK the different planning procedures are integrated. When this would be the case in the Netherlands as well (as proposed in the rejected act) it will be easier to use financial policy instruments to address spatial planning issues.

It is likely that in the Netherlands as well some sort of Strategic Environmental Assessment will be introduced. Because of EU-guidelines such a strategic consideration of environmental aspects is almost inescapable. However, at this point as well, the way this will be filled-out in the Netherlands might be totally different from the way it is done in the UK. In the UK the SEA is closely related to COWRIE. Since in the Netherlands such a research program is lacking, the role of an SEA will be different as well. The actors involved in offshore wind farm

planning however agree about the need for a better coordinated and well organized research program (SDN, 2005b).

However, what becomes clear from the comparison of the Dutch and British policy arrangement is the fact that the most important difference is in the institutional capacity of the policy arrangements. In the UK the policy arrangement is well organised, which creates a good social capital. At the same time knowledge is gained coordinated and well structured, resulting in a rich intellectual capital. These are the real differences with the Dutch situation, not the formal policy instruments. Of course the tender procedure and the SEA set the conditions for creating institutional capacity, but it would be an illusion to think that just introducing these instruments in the Netherlands would solve all the Dutch problems.

The instability of the policy towards offshore wind energy of the Dutch government has led to great uncertainty. At the same time the reactive legal system that applies today is unable to regain the trust and stability that is necessarily to rebuild the Dutch institutional capacity. On the contrary; the FCFS system has led to a wild-west situation in which actors are forced to fight for their own interest. Until now this situation has made losers only; the development of offshore wind farms is delayed, environmental consequences are not considered in an optimal way and both the Dutch government and individual developers are confronted with costly procedures. It is striking however to consider that in the pilot project of OWEZ the planning procedure was effective and satisfying. Best solution to improve the Dutch policy arrangement therefore seems to be to turn back the time and reconsider the positive lessons of this first offshore wind project.

Final Remarks

The aim of this research was to put the planning practices with regard to the planning of offshore wind farms of the Netherlands and the UK in a perspective by the means of which the different planning approaches could be analysed and compared. In the former chapter the conclusions of that analysis have been written down. Although this resulted in some interesting findings also some short comments can be given on this research, both with regard to the research methodology as to the theoretical framework that was used.

First of all the concept of policy arrangements as formulated by Arts, Van Tatenhove & Leroy proved to be a useful frame of reference, but -as is the case with all theoretical frameworks- it has some limitations too. The division of policy arrangements in the four dimensions for instance creates structure for the analysis, but it might also result in an arbitrary classification of empirical findings. Planning culture for instance is a very important aspect of a policy arrangement, but it is hard to classify it in terms of the four dimensions. On the one hand planning culture is a crucial part of a policy discourse. At the same time however it also expresses a complex set of formal and informal rules of the game and finally it also 'decides' about the allocation of power within and between different policy coalitions.

An other 'problem' of the concept of policy arrangements is to define what is part of a policy arrangement and what are considered to be external factors. The definition of a policy arrangement is rather easy when it is limited to a single event or project, but it becomes harder when a policy arrangement is defined on a more strategic and abstract level. In offshore wind farm planning for instance the role of the public opinion is a good example of a part of the policy arrangement that is hard to place within the framework of a policy arrangement. On the one hand 'the public opinion' could be regarded as a given external factor, which as such can be seen as an important resource of power. On the other hand the public opinion could be regarded as an internal part of the policy arrangement which consists of different policy coalitions that challenge each other.

An other aspect of this research which is important mentioning, is the role of time. Most of the empirical data for this research was gathered in the end of 2005 and the beginning of 2006. Especially the case study of the Netherlands shows that the policy arrangements of offshore wind farm planning can change rapidly. Because the policy arrangements are not fully 'grown' yet such change can be unexpected and drastically. Thereby a change in legislature for instance could lead for the policy arrangement to turn hundred-and-eighty degrees in theory. It is important to realize however that even when such a big change would occur other parts of the policy arrangement will not necessary follow such a change.

Finally some remarks have to be made with regard to the methodology that was used for this research. Unfortunately no face-to-face interviews were used to gather the empirical data. Nonetheless the information that was gathered with regard to the Dutch situation can be considered more or less complete because of the many other sources of information that were available. For the case study of the UK on the other hand, the quality of the empirical findings would have been higher when more actors could have been interviewed. Nevertheless, a lot of information could be gathered in other ways and thereby a sufficient picture of the British situation could be created as well.

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